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A LEXICAL TRAIL OF HYDROMETEORS
A Corpus-Based Study of Atmospheric Water Terminology in Ancient Egyptian

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Despite the attention devoted to proofreading and verification, this thesis contains numerous citations, dates, events, and references, among which some inaccuracies may inadvertently remain. I extend my sincere apologies in advance for any such oversights.

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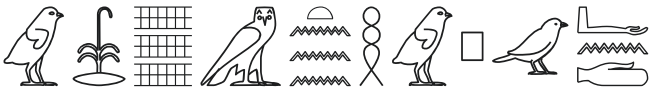

ʿnd pw ḥw.t m sp3.wt rsw

Rain is rare in the southern regions.

(Stele of Dafenneh, x + 13)[1]

This terse testimonial captures a crucial climatic reality of meridional areas of Egypt, where the dearth of rain is a critical issue that profoundly shapes local life. The infrequency of rainfall is not just a meteorological fact, it is a climatic feature that has endured for millennia and it dictates the very rhythms of existence. To understand the lexical dimension inherent to weather dynamics, in this study we will explore how this issue was conceptualized through a lexical analysis of the field of hydrometeors[2]: the multiple forms of atmospheric waters.

In the realm of human experience, few forces have proven as vital and symbolically charged as those of hydrometeors. This term encompasses all liquid and solid water particles in the atmosphere, including not only rain, snow, and hail, but also dew, frost, fog, and mist. As such, it provides a more permeable and inclusive background for analysing the ancient Egyptian terminology

[1] F. Ll. Griffith, A. S. Murray, and W. M. Flinders Petrie, *Tanis. Part II. Nebesheh and Defenneh*, 2 vols, Memoir of the Egypt Exploration Fund 4 (London: Trübner, 1885), pl. XLII; Georges Posener, 'L'or de Pount', in *Ägypten Und Kusch: Fritz Hintze Zum 60. Geburtstag*, ed. Erika Endesfelder et al., Schriften Zur Geschichte and Kultur Des Alten Orients 13 (Berlin: Akademie Verlag, 1977), 162–63.

The three textual passages cited in this preface will be subjected to an in-depth discussion and analysis in the body of the study. In this preliminary context, these explorations will situate these excerpts within their broader linguistic, cultural, and historical contexts, elucidating their significance for understanding the ancient Egyptian conceptualization of hydrometeors (atmospheric waters) and their attendant symbolism.

[2] Concerning the term "hydrometeor", see M.K. Yau and R.R. Rogers, *A Short Course in Cloud Physics* (Elsevier Science, 1996), 1; Storm Dunlop, *A Dictionary of Weather* (OUP Oxford, 2008), under hydrometeor. Hydrometeors are specifically defined as actual liquid and solid water particles in the atmosphere, such as rain, snow, hail, dew, frost, fog, and mist. Instead, "storm" is categorized as a distinct phenomenon within the broader semantic field of atmospheric events. Igor Aleksandrovič Mel'čuk et al., *Dictionnaire explicatif et combinatoire du français contemporain*, 4 vols (Presses de l'Université de Montréal, 1984), vol. IV p.284-285; 290-291.

than the narrower concept of "precipitation"[3]. Our research aims to provide a detailed understanding of how the ancient Egyptians perceived, categorized, and expressed different forms of this vocabulary.

In diverse cultures, atmospheric phenomena have invariably captivated the collective imagination. From the life-giving rains to the destructive fury of storms, atmospheric events have shaped the rhythms of societies, informed religious beliefs, and left enduring traces in languages and cultures worldwide[4].

Human societies have been shaped by the rhythms of the sky. The ebb and flow of the seasons, the cadenced choreography of the sun and the moon, the protean drapery of clouds—these celestial phenomena have left a permanent mark on the collective consciousness of cultures across the globe. This intimate connection between sky and earth, between meteorology and mythology, has been a defining feature of human experience since the dawn of civilization.

Across many traditional cultures, weather patterns have been seen as manifestations of divine will or cosmic order, influencing religious beliefs and societal practices. The Inuit of the Arctic, for instance, believed that the aurora borealis was caused by the spirits of the dead playing ball with a walrus skull[5]. In ancient Mesoamerica, the rain god Tlaloc was a central figure in the pantheon, associated with fertility, agriculture, and the cycles of life and death[6]. The interpretation of atmospheric phenomena as signs or omens was also widespread, from the astrological traditions of Babylon to the divination practices of the Azande[7].

But beyond their symbolic and religious significance, meteorological conditions also played a critical role in shaping the material realities of human societies. The timing and intensity of rainfall

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[3] The term "precipitation" refers more narrowly to moisture that falls from clouds and reaches the ground; see Igor Aleksandrovič Mel'čuk, Nadia Arbatchewsky-Jumarie, and André Clas, *Dictionnaire explicatif et combinatoire du français contemporain* (Montréal, Québec, Canada, Canada: Presses de l'Université de Montréal, 1984), s.v. Phénomène atmosphérique; perturbation; précipitation.

[4] S. Strauss and B.S. Orlove, 'Up in the Air: The Anthropology of Weather and Climate', in *Weather, Climate, Culture* (New York: Bloomsbury Publishing Plc, 2003), 3–17.

[5] Vernon L. Scarborough and David R. Wilcox, *The Mesoamerican Ballgame* (University of Arizona Press, 1993); Birgitte Sonne, *Worldviews of the Greenlanders : An Inuit Arctic Perspective* (Fairbanks, AK: University of Alaska Press, 2017), 125.

[6] Johanna Broda de Casas, 'Las Fiestas Aztecas de Los Dioses de La Lluvia', *Revista Española de Antropología Americana* 6 (1971): 247.

[7] Edward Evan Evans-Pritchard and Eva Gillies, *Witchcraft, Oracles, and Magic Among the Azande* (Oxford University Press, 1976), 153.

could mean the difference between prosperity and famine[8]. In his seminal ethnographic work[9], E. E. Evans-Pritchard emphasizes the profound reliance of the Nuer people on rainfall patterns. He elaborates that the timing and quantity of the rains dictate the rhythms of Nuer life, from their pastoral migrations to their social and ritual activities. The success of their cattle herding, which forms the backbone of their subsistence economy, hinges on the availability of water and pasture, both of which are directly dependent on the rains.

Similarly, in ancient China, the concept of the "Mandate of Heaven" linked the legitimacy of rulership to the ruler's ability to maintain cosmic balance and ensure favourable weather for agriculture[10].The meteorological dimension is, therefore, a critical factor in shaping societies, religious beliefs, and material realities.

While the Nile's floods were of fundamental importance to Egyptian life, this research is particularly interested in how the ancient Egyptians conceptualized hydrometeors. It will explore how these notions were encoded in their language, and the importance of celestial water as complementary or opposed to river water.

Ancient Egypt presents a prominent case of the interaction between climate, culture, and language. Nestled along the Nile Valley, Egyptian society flourished in a landscape of blatant contrasts, where the bounty of the great river stood against the desiccated expanse of the desert. In this arid environment, where the episodic occurrence of rain took on profound significance in both practical and ideological terms[11].

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[8] E.E. Evans-Pritchard, *The Nuer: A Description of the Modes of Livelihood and Political Institutions of a Nilotic People*, Anthropology Online (Oxford University Press, 1940), 88.

[9] Evans-Pritchard, 69.

[10] Herrlee G. Creel, *The Origins of Statecraft in China: Volume One: The Western Chou Empire*, vol. 1 (Chicago: University of Chicago Press, 1970), 81–100; David W. Pankenier, 'The Cosmo-Political Background of Heaven's Mandate', *Early China* 20 (1995): 121–76.

[11] Julien Guey, 'Encore La" Pluie Miraculeuse"', *Revue de Philologie, de Littérature et d'Histoire Anciennes* 22 (1948): 16; Georges Posener, 'À Propos de La "Pluie Miraculeuse"', *Revue de Philologie, de Littérature et d'histoire Anciennes* 25 (1951): 162–68; Serge Sauneron, 'Un Thème Littéraire de l'antiquité Classique: Le Nil et La Pluie', *Bulletin de l'Institut Français d'Archéologie Orientale* 51 (1952): 41–48.

The climate of Egypt has maintained remarkable consistency since the Old Kingdom period (2686-2181 BCE)[12], marked by a stark contrast between the fertile Nile Valley and the surrounding desert. This consistency allows for a more accurate analysis of the evolution of meteorological concepts. Archaeological and palaeoclimatological records attest the presence of rainfall in the region, at least from the early dynastic period, as evidenced by the existence of sophisticated drainage systems and water-management techniques[13]. From the wooden house models of southern Egypt with their waterspouts[14] to the ceremonial stone gargoyles adorning temples[15], the architectural remnants of this civilization bear witness to a climate not dissimilar to that of the present day, where precipitation, though scarce, left an "indelible" mark.

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[12] Present-day measurements tend to validate this pattern. This enduring environmental stability has significantly influenced agricultural development and societal organization in the Nile Valley. Refer to Barbara Bell, 'Climate and the History of Egypt: The Middle Kingdom', *American Journal of Archaeology* 79, no. 3 (1975): 223–69; Karola Zibelius-Chen, *Die Ägyptische Expansion Nach Nubien: Eine Darlegung Der Grundfaktoren.*, Beihefte Zum Tübinger Atlas Des Vorderen Orients, Reihe B (Geisteswissenschaften) 78 (Wiesbaden: Reichert, 1988), 2; Albrecht Endruweit, *Städtischer Wohnbau in Ägypten: klimagerechte Lehmarchitektur in Amarna* (Berlin: Zugl.: Göttingen, Univ., Diss., 1988, 1994), 165; Fouad N. Ibrahim and Barbara Ibrahim, *Ägypten: Eine Geographische Landeskunde*, Wissenschaftliche Länderkunden 42 (Darmstadt: Wissenschaftliche Buchgesellschaft, 1996), 36; Heidi Köpp-Junk, 'Wasserspeier in Tuna El-Gebel: Dachentwässerungstechniken an ‚Tempelgräbern' Ptolemäisch-Römischer Zeit', in *Die Petosiris-Nekropole von Tuna El-Gebel, Band 2*, ed. Katja Lembke and Jenny H. Schlehofer, Identität Und Alterität: Ägypten Im Zeitalter Der Fremdherrschaften 1 (Baden-Baden: Ergon, 2023), 422.

[13] Heidi Köpp-Junk, 'Wasserwirtschaft Im Niltal: Abwassertechnik Für Regen Und Gebrauchtwasser Im Pharaonischen Ägypten'', in *Cura Aquarum in Greece: Proceedings of the 16th International Conference on the History of Watermanagement and Hydraulic Engineering in the Mediterranean Region, Athens, Greece, 29-30 March 2015*, ed. Kai Wellbrock, 1. Auflage, Schriften Der Deutschen Wasserhistorischen Gesellschaft, 27 part 2 (Siegburg, Clausthal-Zellerfeld: DWhG ; Papierflieger Verlag, 2017), 3; Heidi Köpp-Junk, 'Rain, Rain, Go Away: Dealing with Wastewater and Rain in Ancient Egypt', *The Ancient Near East Today* 8, no. 2 (2020): 11; Heidi Köpp-Junk, 'Dewatering Systems in Ancient Egyptian Temples and the Question of Reuse.', *Ägypten Und Levante* 31 (2021): 217.

[14] Aneta Skalec, 'Rain Gutters in Ancient Egyptian Private Houses: Papyrological and Archaeological Evidence', *The Journal of Egyptian Archaeology* 109, no. 1–2 (1 June 2023): 5–8.

[15] Christophe Thiers, 'Fragments de Lion-Gargouilles d'Ermant', in *Documents de Théologies Thébaines Tardives (D3T 1)*, ed. Christophe Thiers (Montpellier: Université Paul Valéry, Institut d'Egyptologie François Daumas, 2009), 147–65; Bettina Ventker, *Der Starke Auf Dem Dach: Funktion Und Bedeutung Der Löwengestaltigen Wasserspeier Im Alten Ägypten*, Studien Zur Spätägyptischen Religion 6 (Wiesbaden: Harrassowitz, 2012); Skalec, 'Rain Gutters', 4–5.

Amidst this environmental backdrop, the ancient Egyptians developed a riveting vocabulary for the various manifestations of moisture from the sky. This lexicon captures not only the practical realities of their landscape but also the profound symbolic resonance of these phenomena within their cultural worldview.

Despite the clear importance of atmospheric water, the study of meteorological terminology, particularly concerning atmospheric waters in Egyptology, has been relatively under-explored. This research addresses this gap by focusing on a systematic analysis of the meteorological lexicon, with a specific emphasis on the terminology of hydrometeors, exploring its lexical attestations and expressions in the Egyptian language and script.

Our research could be particularly timely and germane due to a growing scholarly interest in the meteorology of ancient times and its lexical impact, a trend noted in recent studies of Greek, Latin, Etruscan, and Assyro-Babylonian sources[16]. This renewed focus, linked to current collective challenges, provides a decisive stimulus for expanding research in this area and re-evaluating the conceptualizations of natural phenomena in ancient cultures.

Building upon this motivation, our study will trace the "trail" of three terms through the Egyptian lexicon, uncovering its various forms, contexts, and associations, and will delve into their graphemic realizations, syntactic trends, collocational patterns, and rhetorical usages within different contexts, aiming to situate these terms within a coherent semantic field and map their conceptual associations. Additionally, comparative evidence from other languages will be considered to shed light on their etymologies and cultural background. This broader structure will confidently allow us to capture the fluid boundaries and conceptual associations between different forms of atmospheric water as reflected in the textual record.

Our study will employ a rigorous, corpus-based approach, ensuring that all proposed relationships and meanings are grounded in actual textual attestations and not solely on researcher intuition. The study will also consider the hieroglyphic determinatives and logograms associated with atmospheric terms, examining their role in conveying meaning and revealing cultural associations. It will not only consider these lexemes but also delve into their various lexical units, acknowledging that

[16] Christophe Cusset, *La météorologie dans l'Antiquité : entre science et croyance. Actes du colloque international interdisciplinaire de Toulouse, 2-3-4 mai 2002*, Mémoires 25 (Saint-Étienne: Publ. de l'université de Saint-Étienne, 2003); Nancy T. de Grummond, 'Thunder versus Lightning in Etruria', *Etruscan Studies* 19, no. 2 (2016): 183–207; Erlend Gehlken, *Weather Omens of Enūma Anu Enlil : Thunderstorms, Wind and Rain (Tablets 44-49)*, Cuneiform Monographs 43 (Leiden Boston: Brill, 2012); Tommaso Scarpelli, *Das Wetter in Der Mesopotamischen Kulturgeschichte Des II. Und I. Jahrtausends v. Chr*, Leipziger Altorientalistische Studien 18 (Harrassowitz Verlag, 2024).

each term may possess multiple distinct senses within different contexts. This in-depth examination will explore their semantic relationships within the broader network of meteorological terms, uncovering their associations with related concepts like "sky", "flow", and "water".

An essential aspect of this research involves a careful consideration of the contextual usage of these terms across various text genres, including religious, administrative, and literary sources to reveal any patterns in their use. The research will examine the diachronic evolution of the meanings and usages of these terms to reveal how these concepts developed over time. Special attention will be given to the sign  (N4)[17], depicting the sky with falling water, frequently linked to the semantic field of atmospheric waters and to their metaphorical and symbolic associations.

Our research will try to conduct an in-depth examination of this lexical field, with a particular focus on three key terms: *ḥw.t* "rain", *ỉgp* "cloud", and *ỉʒd.t* "dew, moisture"[18]. These terms have been selected as representative of the broader semantic field of hydrometeors due to their discernible attestation in various contexts and their significance in both practical and symbolic dimensions of ancient Egyptian life.

Examining these terms, the research aims to provide a detailed understanding of how the ancient Egyptians perceived, categorized, and expressed different forms of atmospheric water. The study will trace the "trail" of each term through the Egyptian lexicon, uncovering its various forms, contexts, and associations, and will delve into their graphemic realizations, syntactic trends, collocational patterns, and rhetorical usages within different contexts, aiming to situate these terms within a coherent semantic field and map their conceptual associations. Additionally, comparative evidence from other languages will be considered to shed light on their etymologies and cultural background.

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[17] Alan H. Gardiner, *Egyptian Grammar Being an Introduction to the Study of Hieroglyphs*, 3rd, rev. ed. (Oxford: Oxford University Press, 1957), 485; Jean Winand, Alessandro Stella, and Laurence Neven, *Lexique Du Moyen Égyptien: Avec Une Introduction Grammaticale et Une Liste Des Mots Présentés Selon Le Classificateur Sémantique*, Aegyptiaca Leodiensia 8 (Liège: Presses universitaires de Liège, 2013), 155.

[18] This study will focus on three key terms, due to their relatively high frequency and semantic richness within the corpus of texts examined. However, it is important to note that these terms represent only a starting point for a broader investigation into the lexical field of hydrometeors in ancient Egyptian. Many other related terms and expressions will be explored and analysed throughout the course of this research, to build a comprehensive understanding of how the ancient Egyptians conceptualized and linguistically encoded the various manifestations of atmospheric water.

The lexical field of hydrometeors, encompassing terms for rain, dew, mist and cloud, extends beyond merely practical concerns to encompass symbolic and mythological reverberations. For example, Ankhtifi's inscriptions describes a time of crisis, in particular the following passage illustrates how atmospheric conditions were linked with periods of hardship.

p.t ỉgp tȝ m ṯȝw [s nb mt] n ḥḳr ḥr ṯs pn n ʿpp
When the sky was overcast and the land in the wind [and every man dead] of hunger on this sand bank of Apep.
(Ankhtifi 10, IV, 8-10)[19]

Additionally, a Coffin Text[20] spell describes a storm as the emanation (dew) of the god Shu, highlighting the diverse array of meanings associated with atmospheric water terminology:

ỉd.t.ỉ pw nšn ỉḫḫw
The storm of twilight is my emanation (dew).
(CT II, 30 a-f)

Such examples underscore the diverse array of meanings associated with atmospheric water terminology. However, despite the evocative power of such attestations, the lexicography of ancient Egyptian meteorological terminology seems to remain underdeveloped. While previous studies have touched on this semantic domain, there has yet to be a systematic analysis that integrates linguistic, philological, and cultural perspectives.

Applying the principles of a methodology rooted in lexical and cognitive semantics, this study will seek to elucidate the existing complex of meaning that underlies the atmospheric water lexicon in Egyptian. Combining linguistic rigour with cultural sensitivity, we will try to provide a nuanced and holistic account of how, in a landscape defined by the rhythms of the Nile, the ancient Egyptians perceived, experienced, and encoded the fleeting yet potent presence of atmospheric waters, which were simultaneously life-giving and secretive, mundane and divine. To help structure our investigation

[19] Jacques Vandier, Youssef Khafaga, and J. Vandier-d'Abbadie, *Mo'alla: La Tombe d'Ankhtifi et La Tombe de Sébekhotep*, Bibliothèque d'étude 18 (Le Caire: Institut français d'archéologie orientale, 1950), 220-225;232-234.

[20] Adriaan de Buck, *The Egyptian Coffin Texts*, I–VII vols, Oriental Institute Publications 34 (Chicago: University of Chicago Press, 1935).

and guide the reader through our results, we will divide the study into five main chapters, each focusing on a key stage of the research:

Chapter 1: Methodology and Corpus Selection

In this foundational chapter, we will lay out the theoretical background and methodological approaches that will underpin our analysis. Building on the "Lexical Trail" approach developed by J. Winand and S. Polis[21], we will establish and adapt a systematic procedure for examining the graphemic, morphological, syntagmatic, and semantic dimensions of our chosen lexemes. This methodology will allow us to trace the "path" of each term through the Egyptian lexicon, uncovering its various forms, contexts, and associations. We will also discuss the criteria for selecting our corpus, prioritizing texts that span different time periods, genres, and registers to ensure a representative sample. Corpus analysis confirms that *ỉʒd.t* (113 attestations), *ḥw.t* (31 attestations), and *ỉgp* (30 attestations) are the most robustly documented hydrometeorological lexemes with liable stable semantic profiles.

Other atmospheric vocabulary, more related to perturbations than atmospheric waters per se —including *šnỉ.t* "hail/storm" (24 attestations), *qrỉ* "storm" (29 attestations), and *nšn.ỉ* "rage/storm" (86 attestations)— despite comparable frequencies, are excluded as primary case studies because their semantic profiles are fundamentally related to the concept of "storm as perturbation". This is particularly evident through determinative alternation, which blurs the boundaries between pure meteorological phenomena and concepts of violence and disorder. Besides, from a scientific perspective, "storms" are categorized as distinct from hydrometeors (liquid or solid water particles). Therefore, this excluded vocabulary seems to represent a distinct analytical domain requiring specialized treatment, which falls outside this study's core objective of mapping atmospheric water terminology. This methodology prioritizes analytical depth on a few stable lexemes over comprehensive coverage of all related terms. Nevertheless, these perturbation terms are contextually integrated where relevant to acknowledge their crucial role in the broader semantic field.

[21] Stéphane Polis and Jean Winand, 'Structuring the Lexicon', in *Proceedings of the Tenth International Congress of Egyptologists: University of the Aegean, Rhodes. 22-29 May 2008*, ed. P. Kousoulis and N. Lazaridis, 2 (Leuven: Peeters, 2015), 1506.

Chapter 2,3,4: Case Studies of *ḥw.t, ỉgp,* and *ỉʒd.t*

In this section, we will dive into the heart of the analysis: detailed case studies of three key terms in the semantic field of hydrometeors. The core of the study will consist of detailed investigations into the formation, attestation and development of each term. Studying their graphemic realizations, collocational patterns, derivative and compound forms, and rhetorical usages in context, we aim to situate these terms within a coherent semantic field and map their conceptual associations. Throughout the analysis, we will pay close attention to the diachronic development of the lexeme, tracking shifts in its form and meaning over time.

Chapter 5: Synthesis and Conclusions

In the final chapter, we will bring together the threads of our analysis to weave a coherent picture of the ancient Egyptian conceptualization of hydrometeors. Drawing on the understandings from each case study, we will propose a semantic map of the relationships between *ḥw.t, ỉgp, ỉʒd.t*, and other related terms, situating them within the broader network of Egyptian meteorological vocabulary. We will also consider how this semantic field intersects with other domains of Egyptian thought, such as cosmology, religion, and medicine. This chapter will also explore the symbolic and metaphorical associations of these terms across different contexts to understand the cultural significance of hydrometeors within the Egyptian worldview.

1. CORPUS AND METHODOLOGY

Introduction: Outline and Motivation

The apparent scarcity of lexemes related to atmospheric waters in the ancient Egyptian language corpus is quite evident. Despite the undeniable importance of rain, dew, and other forms of atmospheric waters in the natural world and human life, these phenomena seem curiously underrepresented in the surviving textual record of this long-lived civilization. This chapter aims to outline and provide motivations for the analysis of the vocabulary of this semantic field.

To deal with this question, we will undertake a multifaceted analysis of the available evidence.

First, to provide important context, we will examine how atmospheric phenomena are generally expressed and analysed in linguistics. This will introduce key concepts and outlines that can inform our understanding of the Egyptian case.

With this foundation in place, we will then look specifically at the state of research on natural phenomena lexemes in Egyptology. We'll review the work Egyptologists have done so far in studying this semantic field and identify areas where a linguistic approach could provide new comprehensions.

We'll start by compiling a representative corpus of relevant Egyptian texts, carefully establishing criteria for lexeme selection. Analysing the occurrences of hydrometeor vocabulary across genres and time periods will allow patterns of distribution and usage to emerge.

Our analysis will be grounded in a robust theoretical basis drawing on from lexical semantics, cognitive linguistics, and comparative Afro-Asiatic philology. These perspectives will guide our methodology as we investigate the morphological structure, graphemic representation, and contextual meanings of key precipitation lexemes.

1.1.1. Expressions of Atmospheric Phenomena in Linguistics

The phenomenon of weather, specifically the process of hydrometeors, is a ubiquitous topic that carries a profound impact on every facet of existence[22]. As R. Barthes suggests "asking about the weather" serves a double purpose in communication: it acts as a social lubricant, to accelerate relations between people, while simultaneously focusing on thoughtful existential subjects. In this regard, R. Jakobson identifies this language function as phatic, which maintains communication, similar to expressions like "hello", "isn't it?" or "right". Ultimately, this underscores the emotive quality inherent in speech. Its significance has made it an enthralling subject of exploration in diverse domains of knowledge. Linguistic studies on weather expressions have recently been conducted to investigate how meteorological events are conceptualized and classified across different languages[23]. These studies have focused on linguistic typology[24], which is based on language-specific structures and patterns.

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[22] Refer to Roland Barthes, *La Préparation Du Roman. Cours Au Collège de France (1978-1979 et 1979-1980)*, Sciences Humaines 1 (Paris: Éditions du Seuil, 2015), 119–40; 138; R. Jakobson, H. Birus, and S. Donat, *Poesie Der Grammatik Und Grammatik Der Poesie: Sämtliche Gedichtanalysen. Kommentierte Deutsche Ausgabe. Band 1: Poetologische Schriften Und Analysen Zur Lyrik Vom Mittelalter Bis Zur Aufklärung. Band 2: Analysen Zur Lyrik von Der Romantik Bis Zur Moderne* (De Gruyter, 2008), 168.

[23] Pål Kristian Eriksen, Seppo Kittilä, and Leena Kolehmainen, 'The Linguistics of Weather: Cross-Linguistic Patterns of Meteorological Expressions', *Studies in Language. International Journal Sponsored by the Foundation "Foundations of Language"* 34, no. 3 (2010): 565–601; Amina Mettouchi and Mauro Tosco, 'The Case of Meteorological Predications in Afroasiatic', in *Impersonal Configurations and Theticity*, ed. Andrej Malchukov and Anna Siewierska, ix, 641 vols, Studies in Language Companion Series 124 (Amsterdam, Netherlands: John Benjamins Publishing Company, 2011), 307–22; Pål Kristian Eriksen, Seppo Kittilä, and Leena Kolehmainen, 'Weather and Language', *Language & Linguistics Compass* 6, no. 6 (2012): 383–402; Pål Kristian Eriksen, Seppo Kittilä, and Leena Kolehmainen, 'The World Is Raining: Meteorological Predicates and Their Subjects in a Typological Perspective', in *Subjects in Constructions–Canonical and Non-Canonical*, ed. Marja-Liisa Helasvuo and Thuomas Huumo, Constructional Approaches to Language 16 (Amsterdam: John Benjamins, 2015), 205–28; Beth Levin and Bonnie Krejci, 'Talking about the Weather: Two Construals of Precipitation Events in English', *Glossa: A Journal of General Linguistics* 4, no. 1 (13 June 2019).

[24] Linguistic typology is a branch of linguistics that investigates the ways in which languages differ from one another and the patterns that emerge across languages. It involves the comparison of languages in order to identify similarities and differences in their structures, vocabulary, and other features, see Bernard Comrie, *Language universals and linguistic typology: syntax and morphology* (Chicago, IL: University of Chicago press, 1989), chap. 2.

The team of Professor P. K. Eriksen has suggested a far-reaching background of the language of weather based on cross-linguistic studies on argument structure patterns of weather expressions[25]. A proposed typology of meteorological constructions is based on the primary element responsible for weather expressions coding[26]. The typology identifies three types: predicate, argument, and argument-predicate. In the predicate type, the meteorological event is expressed by a predicate, while the argument serves another function. In the argument type, an argument expresses weather, while any predicate is semantically marginal. In the argument-predicate type, both a predicate and an argument are involved. Correspondingly, subtypes of each type are identified based on the syntactic valency and parts of speech of the elements affected.

Typology	Predicate type 1	Argument type 2	Argument-Predicate type 3
Examples	It/the sky (place of origin of the event) is raining.	The rain is falling.	*The rain is raining.

Table 1:Typology of meteorological constructions.

Mainly focused on Romance languages[27], the studies of B. Levin and B. Krejci found the availability of two construals shedding new light in a different way on the expression of precipitation events. Precipitation events can be linguistically read as events in two ways: as substance emission events or as directed motion events. Each construal involves a contrasting event structure and, thus, is associated with its own pattern of syntactic behaviour. In the case of precipitation interpreted as a

[25] In the linguistic sense, an argument is an expression that completes the meaning of a predicate, e.g., Mark sees Mary. "Marc" and "Mary" are the arguments of the verb to see. The predicate (typically a verb) describes the event and defines the frame of the participants (agent and patient), while the arguments specify the nature of the participants involved.

[26] Eriksen, Kittilä, and Kolehmainen, 'The Linguistics of Weather: Cross-Linguistic Patterns of Meteorological Expressions'.

[27] Levin and Krejci, 'Talking about the Weather'.

substance emission event, the verb that expresses it exhibits the characteristics of an unergative[28]. On the other hand, when precipitation or substance emission is construed as a directed motion event, the verb used to express it exhibits the characteristics of an unaccusative[29].

Unergative verbs, in the context of precipitation, would describe the event as a substance emission. The source does not provide specific examples related to rain but, outside of the text, a typical unergative verb in English related to rain is "to rain". This verb focuses on the action of raining as an event itself, with the rain as the subject, but not necessarily undergoing a change of state or location. For instance, "It is raining" uses "raining" as an unergative verb, with the focus on the emission of rain.

Unaccusative verbs, in contrast, depict precipitation as a directed motion event. An example, outside of the text, in English, is "to fall" in the sentence "the rain is falling". The verb "falling" focuses on the movement of the rain downwards, indicating a change of location.

By now, with all evidence, we can infer that one of the challenges in studying weather expressions is that they often have special linguistic properties, and languages show considerable variation in the morphosyntactic expression of such events. An additional illustrative case occurring in the Afro-Asiatic languages studied by A. Mettouchi, impersonal weather predications exhibit structures that express either agent defocusing or lack of canonical subject properties[30].

The findings suggest that the concept of impersonality is not primarily linked to the central association of the subject or agent. Furthermore, the presence of theticity, which involves presenting a proposition as a new topic, may have a role to play in impersonal constructions beyond those involving meteorological predicates.

Nonetheless, we have to consider that these studies have not referred to any empirical knowledge of meteorology but instead relied on the event types of weather expressions that are assumed to have already been linguistically encoded[31].

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[28] Unaccusative and unergative verbs are two categories of intransitive verbs in linguistics. The Unaccusative Hypothesis proposes that the distinction depends on the position of the single argument in the syntactic structure. Unaccusative verbs lack a subject but have an external argument, while unergative verbs have a subject but no internal argument. This dichotomy also reflects differences in the semantic properties of the verbs and the constructions in which they appear. Unaccusative verbs typically express a dynamic or telic change of state or location, while unergative verbs tend to describe an agentive activity. See David M Perlmutter, 'Impersonal Passives and the Unaccusative Hypothesis', 1978, 157–90.

[29] See *supra*.

[30] Mettouchi and Tosco, 'The Case of Meteorological Predications in Afroasiatic'.

[31] Eriksen, Kittilä, and Kolehmainen, 'The World Is Raining'.

More recently, toward a new typology of meteorological events in Sinitic languages, the researchers S. Dong, C. R. Huang, and H. Ren have proposed two possible approaches to classify meteorological expressions. The first approach takes linguistic categories as the starting point, expanding the former studies on argument structure patterns of weather expressions[32]. This analysis suggests that different languages have different patterns of argument structure for weather expressions, indicating differences in the way weather events are conceptualized and classified. The second approach, from the same team, links the commonsense linguistic concept of kinesis with theories of kinetics to bond the knowledge systems of language and meteorology[33].

This study highlights the significance of two crucial factors, namely the mass of weather substances and the speed of weather processes, in relation to kinesis in Sinitic languages. These factors play a significant role in both language variations and changes. More specifically, weather events characterized by larger weather substances and faster weather processes tend to prefer action verbs with high transitivity. Moreover, the founding reveals the importance of empirical knowledge of meteorology in the classification of meteorological events and it points out that fog, dew, and frost all correlate with precipitation in terms of directionality. We found this innovative line hugely valuable and as we will describe later for the analysis of some peculiar lexemes.

These investigations indicate a correlation between language and meteorology, whereby the depiction of weather events in language is influenced by our perception of the physical world. Through an analysis of the linguistic mechanisms employed to describe meteorological events in diverse languages, we can gain valuable understanding into how distinct cultures conceptualize and interpret weather phenomena.

Having established the linguistic context for analysing expressions of atmospheric phenomena, let us now turn to the domain of Egyptology. The following section will explore how Egyptologists have

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[32] Kinesis refers to the motion or activity of an entity. In the context of meteorology, kinesis describes the movement and behaviour of weather substances like rain, snow, or clouds. The speed, direction, and other characteristics of this motion are key factors in understanding and classifying weather events from a linguistic perspective. The concept of kinesis provides a useful link between the commonsense language used to describe weather (e.g. "pouring rain", "swirling clouds") and the scientific theories of kinetics, which mathematically model the motion of particles. By analysing weather expressions in Sinitic languages through the lens of kinesis, researchers aim to bridge the knowledge systems of linguistics and meteorology. Refer to Sicong Dong, Chu-Ren Huang, and He Ren, 'Towards a New Typology of Meteorological Events: A Study Based on Synchronic and Diachronic Data', *Lingua* 247 (1 November 2020): 102894.

[33] Chu-Ren Huang et al., 'From Language to Meteorology: Kinesis in Weather Events and Weather Verbs across Sinitic Languages', *Humanities and Social Sciences Communications* 8, no. 1 (4 January 2021): 4.

approached the study of lexemes related to natural phenomena and the comprehensions gained thus far.

1.1.2. Analysis of Natural Phenomena Lexemes in Egyptology

Within the discipline of Egyptology, linguistics comprises several studies that pertain to natural phenomena, their semantic domains, and taxonomies. The contributions of M. Franci, A. Loprieno, and H. Rotsch in this area are significant, these researches cover the semantic field of water and its interconnections with the Egyptian lexicon. They explore the link between water and medicine, with a peculiar attention to its ritualistic value.

Specific on the meteorological lexicon are A. Rosati's[34] studies: the importance of 'Lessico meteorologico' lies in its significant contribution toward understanding the ancient Egyptian worldview and the role of weather in their worldly and unworldly lives. The paper elucidates the underlying significance of weather in ancient Egyptian culture, and how the Ancient Egyptians perceived and interpreted it. Additionally, it offers insights into the language and idiomatic expressions used to describe weather phenomena and how they were associated with religious beliefs and divinatory practices.

We could also find precious information in the article on "rain" by A. Zivie [35] in the 'Lexikon der Ägyptologie', here a list of lexemes pertaining to atmospheric phenomena is presented. Besides this, the scholar encourages further exploration of potential connotative meanings associated with hydrometeors which might be elusive. Other instructive observations into the lexemes and expressions related to rainfalls were found in the account of torrential rains at Thebes by C. Leblanc's[36]. Furthermore, C. Jung's [37] recent research on the occurrences of rain in various texts and contexts contributes to the field's advancement.

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[34] Alessandro Roccati, 'Lessico Meteorologico', in *Studien Zu Sprache Und Religion Ägyptens : Zu Ehren von Wolfhart Westendorf, Überreicht von Seinen Freunden and Schülern*, ed. Friedrich Junge, 1 (Göttingen: F. Junge, 1984), 343–54.

[35] Alain Zivie, 'Regen', in *Lexikon Der Ägyptologie*, ed. Wolfgang Helck and Wolfhart Westendorf (Wiesbaden, Allemagne: Otto Harrassowitz, 1975).

[36] Christian Leblanc, 'Thèbes et Les Pluies Torrentielles: À Propos de Mw m Pt', *Memnonia* 6 (1995): 197–214.

[37] Carmen Jung, 'Rain in Ancient Egypt: A Linguistic Approach', in *Aridity, Change and Conflict in Africa. Proceedings of an International ACACIA Conference Held at Königswinter, Germany, October 1-3, 2003*, ed. Hans-Peter Wotzka et al. (Köln: Heinrich-Barth-Institut, 2007), 331–44.

However, it is in G. Roquet's [38] analysis of the terms "rain" and "thunder" in Egyptian and Coptic where we found some keen insights which prompted our further reflections:

> Les coïncidences de motivation sémantique sont souvent remarquables en ce qu'elles manifestent à travers un contenu verbal un contenu de conscience analogue: le français comme l'égyptien auront observé la pluie et les nuages et les deux ont vu la pluie « battre » le sol ou les plantes qu'elle couche; les deux ont vu « rouler » les nuages gonflés comme des outres. La sémantique comparée sera un domaine de l'analyse du psychisme collectif stratifié dans les langues: chaque mot a été ou est un choix individuel, puis collectif et social devant les choses de l'univers et le milieu de l'homme. Tout n'a pas sombré de ces choix « sensoriels » les plus primes de l'homme, situé au centre des éléments informes qu'il devait nommer: la comparaison au niveau de la sémantique permet de déchirer le voile; un nom ne spécifie, de la chose à nommer, qu'une certaine modalité de la perception de cette chose, mais les convergences perceptives sont fréquentes entre les langues les plus diverses. — Conséquences de ces vues : pour un locuteur français « nuage » est immotivé, « pluie » de même ; mais si je dis qu'un nuage « roule » ou que tombe une pluie « battante », je précise ma perception que je vise à communiquer et l'image est si juste qu'elle est imposée dans la langue au point de devenir patrimoine commun ; on a re-motivé « nuage » et « pluie » qui étaient devenus des mots « opaques » sur le plan étymologique, à travers plusieurs millénaires d'usage et d'usure depuis leur état « motivé » indo-européen. Or le nom de la « pluie » en ancien-égyptien est, si l'on en croit les graphies du type
>
> , consciemment relié au verbe « frapper » (à coups redoublés) : la pluie « bat », « frappe »; ce lien, probablement senti comme transparent par les locuteurs d'Ancien et (peut-être) de Moyen Empire, est —selon toute probabilité— disparu à l'époque où un copte parlait de **ϩωογ ⲙⲡⲉ** (A) ou de **ⲙⲟⲩ ⲛϩⲱⲟⲩ** (B). Pourtant, l'historien de la langue reconnaît dans **ϩⲓⲟⲩⲉ** (SAA2), **ϩⲓⲟⲩⲓ** (BF) « être frappé », etc. l'état évolué de l'ancien verbe *ḫwỉ* « frapper ». Le nom de la pluie en copte est devenu immotivé, d'où les syntagmes redondants du type « eau de pluie » = « pluie » **ⲙⲟⲩ ⲛϩⲱⲟⲩ** (B). De la même façon, le rapport de base

[38] Gérard Roquet, 'Espace et Lexique Du Sacré: Autour Du Nom Du "Ciel" En Vieux-Nubien', *Bulletin de l'Institut Français d'Archéologie Orientale* 73 (1973): 155–76.

> a dérivé (ou de forme de fondation à forme fondée) qui unit tonner et étonner n'est plus senti en français parlé[39].

From this excerpt, we could deduce some essential facts critical for our research: the coincidences of semantic motivation[40] reveal similar conscious experiences across different cultures and languages. The study of semantic parallelisms[41] help us understand how language reflects the collective psyche of a culture, and how words are selected to represent the world around us.

G. Roquet's observations suggest that while some of the most primal sensory choices may have eroded over time, there still exists perceptive convergences in the most diverse languages. The evolution of language over time could lead to a loss of motivation in certain lexemes, resulting in either redundancy or the necessity of additional phrases to convey the intended meaning. Moreover, the link between the fundamental and the derived forms of words may also become obscure in modern spoken languages. This phenomenon may reflect the dynamic nature of language and its tendency to transform over time, indicating that our study of Egyptian language needs to be cautious and account for these changes and adapt accordingly.

While numerous studies have broadened our understanding of natural phenomena in Ancient Egyptian, particularly regarding precipitation, a significant portion of the existing scholarship has historically approached the subject predominantly from religious, ideological, or divinatory perspectives. This includes, for instance, the important contributions found in the unpublished

[39] Roquet, 158–59 n.4.

[40] Semantic motivation is a concept in linguistics that describes how the meaning of a word, phrase, or sentence can be inferred from the structure and use of language, see the recent study by Peter Koch and Daniela Marzo, 'A Two-Dimensional Approach to the Study of Motivation in Lexical Typology and Its First Application to French High-Frequency Vocabulary', *Studies in Language. International Journal Sponsored by the Foundation "Foundations of Language"* 31, no. 2 (1 January 2007): 259–91.

[41] For semantic parallelisms, see Michel Masson, *Matériaux pour l'étude des parallélismes sémantiques* (Paris, France: Presses de la Sorbonne nouvelle, 1999).

doctoral thesis and various articles by E. Jambon[42], whose work touches upon the question of miracles and divine intervention in meteorological events, a topic also explored later in this study.

Despite the substantial contributions made by these scholars, the study of the linguistic and lexical aspects of weather phenomena seems to remain insufficiently explored in Egyptology. Therefore, we estimate the importance of further research, how it is necessary to thoroughly investigate the multifaceted linguistic and lexical dimensions of weather-related vocabulary. We will focus on hydrometeors or atmospheric waters, such as rain, dew, and clouds, to gain a complete understanding of their underlying societal original context[43], and eventually aiming at reconstructing the semantic field and its conceptions. This line of inquiry has far-reaching implications for Egyptology, including the identification and interpretation of unexplored linguistic and lexical nuances and their potential contribution to our broader understanding of ancient Egyptian language, culture and society.

Compiling and Interrogating the Corpus

Examining the corpus of the specific semantic domain of atmospheric waters in an extinct language such as Ancient Egyptian should resemble those of living languages as we try to represent the language's vocabulary. However, it is obviously limited by the available evidence that has survived over time.

As remarked by the linguists B. T. Atkins and M. Rundell[44], the importance of the corpus in the study of historical languages underscores the significance of carefully curating and investigating surviving examples of usage. There may be obvious limitations to the available evidence due to various factors such as the loss of records or biases in the evidence. Nonetheless, as we continue to uncover new evidence and develop new techniques for analysing linguistic data, the role of the corpus in

[42] Emmanuel Jambon, 'Troubles et merveilles de la nature dans l'Egypte pharaonique: les mouvements de la terre' (Université Paris-Sorbonne, 2005); Emmanuel Jambon, 'Les Signes de La Nature Dans l'Égypte Pharaonique', in *La Raison Des Signes : Présages, Rites, Destin Dans Les Sociétés de La Méditerranée Ancienne*, ed. Stella Georgoudi et al. (Brill, 2012); Emmanuel Jambon, 'Calendriers et Prodiges: Remarques Sur La Divination Égyptienne d'après Hérodote II, 82', in *Hérodote et l'Égypte : Regards Croisés Sur Le Livre II de l'Enquête d'Hérodote. Actes de La Journée d'étude Organisée à La Maison de l'Orient et de La Méditerranée, Lyon, Le 10 Mai 2010*, ed. Laurent Coulon et al. (Maison de l'Orient et de la Méditerranée, 2013).

[43] For the epistemological distance and the etic approach, see Carlos Gracia Zamacona, '(In(Ter))Discipline: The Case of Egyptology', *Aula Orientalis* 39 (30 June 2021): 53–75.

[44] B. T. Atkins and Michael Rundell, *The Oxford Guide to Practical Lexicography*, xii, 540 (Oxford, England: Oxford University Press, 2008), 54–55.

historical linguistics will undoubtedly continue to grow in importance. It will reveal the subjacent structures that motivated the meaning of the lexemes of the semantic domain we chose to survey.

1.1.3. Criteria for the Selection, Inclusion, and Exclusion of Lexemes in the Corpus

The present study aims to provide a detailed understanding of how the ancient Egyptians perceived, categorized, and expressed various forms of hydrometeors. The term "hydrometeors" is adopted here due to its more permeable and inclusive background compared to the narrower "precipitation", as it encompasses "all liquid and solid water particles in the atmosphere, including not only rain, snow, and hail, but also dew, frost, fog, and mist". It is important to acknowledge at the outset that a complete examination of every individual lexeme within this broad semantic field falls beyond the scope of the present work. This targeted approach admittedly entails a trade-off between the breadth of coverage and the depth of analysis, a necessary strategy to achieve a meaningful and textured understanding of how the ancient Egyptians linguistically construed this complex domain.

Our selection process is primarily grounded in an emic understanding of ancient Egyptian conceptualization. We prioritize how the Egyptians themselves grouped and understood these phenomena, rather than imposing modern scientific classifications. The corpus spans a precise yet vast chronological period, from the Early Dynastic Period (3085-2675 B.C.E.) to the Third Intermediate Period (1069-664 B.C.E.)[45], to allow for the observation of long-term patterns of usage and semantic development. Data was gathered from a wide-ranging review of scientific literature, including online databases like Thesaurus Linguae Aegyptiae (TLA) and general and specialized dictionaries.

[45] For the specific chronology, see Claire Levasseur and Claire Somaglino, *Atlas de l'Égypte Ancienne*, Collection Atlas Mémoires (Paris: Autrement, 2020).

Still being cognisant of the potential risk of a biased choice[46], we initially selected lexemes identifiable by their definite determinative[47] or semogram[48], though not exclusively[49], which best indicates the category of hydrometeors or atmospheric waters. Thereafter, we chose to include lexemes based on both their deciphered denotative and possible connotative significations. An onomasiological approach [50] was applied to discern near-synonymy, complemented by a

[46] For the emic and etic approach dichotomy, see Carlos Gracia Zamacona, '(In(Ter))Discipline: The Case of Egyptology', *Aula Orientalis* 39 (June 2021): 53–75; Jean Winand, 'Did You Say Synonyms? The Case of Pḥ and Spr in Late Egyptian', in *En Détail - Philologie Und Archäologie Im Diskurs : Festschrift Für Hans-Werner Fischer-Elfert*, ed. Marc Brose et al., 2 vols, Zeitschrift Für Ägyptische Sprache Und Altertumskunde – Beihefte 7 (De Gruyter, 2019), 1239–40. Also, we would like to thank Professor Carlos Gracia Zamacona for sharing the chapter in press : Carlos Gracia Zamacona, 'Modulating Semograms: Some Procedures for Semantic Specification and Re-Categorization in the Pyramid Texts and Other Mortuary Texts', in Signs, Language, and Culture. The Semograms of the Pyramid Texts between Iconicity and Referential Reality, ed. J. Cervelló and M. Orriols, Harvard Egyptological Studies (Leiden Boston: Brill, 2023).

[47] Michel Malaise and Jean Winand, *Grammaire Raisonnée de l'égyptien Classique*, Aegyptiaca Leodiensia 6 (Liège: Centre Informatique de Philosophie et Lettres, Université de Liège, 1999), para. 41.

[48] Stéphane Polis and Serge Rosmorduc, 'The Hieroglyphic Sign Functions: Suggestions for a Revised Taxonomy', in *Fuzzy Boundaries: Festschrift Für Antonio Loprieno*, ed. M. Müller et al., vol. 1, 2 vols (Hamburg: Widmaier, 2015), 149–74.

[49] The lexemes under analysis are identified by the determinative sign for "rainy sky", represented as N4 (). Additionally, other determinatives observed in the context include N35a (), associated with "water", P5 (), and E21 (), which contribute to the semantic and interpretive framework of these terms.

[50] Onomasiology and semasiology are complementary approaches in lexical semantics: onomasiology examines how concepts (signified) are expressed through various words, while semasiology analyses the multiple meanings (signified) of a single word (signifier). For example, onomasiology studies how "rain" can be expressed through terms like "downpour" or "drizzle", while semasiology explores the literal and metaphorical meanings of the word "rain" itself. For the dichotomy between the two linguistic axioms, see Dylan Glynn, 'Semasiology and Onomasiology: Empirical Questions between Meaning, Naming and Context', in *Recontextualizing Language and Linguistics*, ed. Jocelyne Daems et al. (Berlin, München, Boston: De Gruyter Mouton, 2015), 47–80, https://doi.org/doi:10.1515/9783110435597-004; Winand, 'The Case of Pḥ and Spr', 1237–38.

semasiological viewpoint to reveal polysemic patterns[51]. This multi-layered approach aims to apprehend the meanings of selected lexemes and identify an inherent semantic field in the Egyptian language system that may differ from modern conceptions.

For in-depth analysis, the study focuses on three key lexemes: *ḥw.t* "rain", *ỉgp* "cloud", and *ỉʒd.t* "dew, moisture". These terms were chosen as central case studies for the central chapters of the thesis due to their relatively high frequency and semantic richness within the corpus of texts examined. They could be considered representative of the broader semantic field of hydrometeors due to their discernible attestation in various contexts and their significance in both practical and symbolic dimensions. It also seemed coherent to actuate this process prioritizing the three lexemes that were still in existence in the last stages of Egyptian language: Coptic[52]. This could allow us to perceive the development of a single lexeme and it could also help us to better understand the latent interconnections among the observed lexemes.

Lexeme selection employed four quantifiable criteria applied systematically across the hydrometeorological corpus:

[51] Polysemy is a widely observed phenomenon in natural languages and has been a topic of extensive study in linguistics, with different approaches proposing various theories about the representation and organization of multiple senses. Some (Lakoff, Langacker) argue for a network representation where related meanings are connected to a core sense, while others (Allwood, Evans, Goldberg) suggest that multiple senses are context-dependent variations of a single core sense. Additionally, some researchers (Nerlich) propose combining both lexical-semantic and grammatical constructional approaches to better understand polysemy. See George Lakoff, *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind* (University of Chicago press, 2008); Ronald W. Langacker, *Foundations of Cognitive Grammar 2, Descriptive Application* (Stanford Univ. Press, 1991); Jens Allwood, 'Meaning Potentials and Context: Some Consequences for the Analysis of Variation in Meaning', in *Cognitive Approaches to Lexical Semantics*, ed. Hubert Cuyckens et al. (De Gruyter Mouton, 2003), https://doi.org/doi:10.1515/9783110219074.29; Vyvyan Evans, 'The Meaning of Time: Polysemy, the Lexicon and Conceptual Structure', *Journal of Linguistics* 41, no. 1 (2005): 33–75; Adele E. Goldberg, *Constructions: A Construction Grammar Approach to Argument Structure*, Cognitive Theory of Language and Culture Series (University of Chicago Press, 1995); David D. Clarke et al., 'Emerging Patterns and Evolving Polysemies: The Acquisition of Get between Four and Ten Years', in *Flexible Patterns of Meaning in Mind and Language*, ed. David D. Clarke et al. (De Gruyter Mouton, 2003), https://doi.org/doi:10.1515/9783110895698.333.

[52] For the historical stages of Ancient Egyptian language, see James P. Allen, *The Ancient Egyptian Language an Historical Study* (Cambridge: Cambridge University Press, 2013), chap. 1.2.

1. Frequency threshold: At least 30 attestations across TLA, RAMSES, MORTEXVAR databases
2. Diachronic stability: Continuous attestation spanning covering at least 3 historical periods
3. Semantic coherence: Consistent determinative usage (N4/N35A co-occurrence)
4. Collocational density: 5 or more distinct co-occurrence patterns with atmospheric/divine terminology

Terms like *šnỉ.t* "hail/storm" (24 attestations) and *qrỉ* "storm" (29 attestations) approach but do not meet these thresholds, while exhibiting semantic instability hat complicates focused analysis.

At first, still being cognisant of the potential risk of a biased choice[53], we selected the lexemes distinguished by their definite determinative[54] or semogram[55], which best indicates, though not exclusively[56], the category of hydrometeors or atmospheric waters. Thereafter, we choose to opt for lexemes not only on behalf of their deciphered denotative signification but also on behalf of their possible connotative signification.

[53] We would like to thank Professor Carlos Gracia Zamacona for sharing the chapter in press : Carlos Gracia Zamacona, 'Modulating Semograms: Some Procedures for Semantic Specification and Re-Categorization in the Pyramid Texts and Other Mortuary Texts', in *Signs, Language, and Culture. The Semograms of the Pyramid Texts between Iconicity and Referential Reality*, ed. J. Cervelló and M. Orriols, Harvard Egyptological Studies (Leiden Boston: Brill, 2023).

[54] Michel Malaise and Jean Winand, *Grammaire Raisonnée de l'égyptien Classique*, Aegyptiaca Leodiensia 6 (Liège: Centre Informatique de Philosophie et Lettres, Université de Liège, 1999), para. 41.

[55] Stéphane Polis and Serge Rosmorduc, 'The Hieroglyphic Sign Functions: Suggestions for a Revised Taxonomy', in *Fuzzy Boundaries: Festschrift Für Antonio Loprieno*, ed. M. Müller et al., vol. 1, 2 vols (Hamburg: Widmaier, 2015), 149–74.

[56] The lexemes under analysis are identified by the determinative sign for "rainy sky", represented as N4 (). Additionally, other determinatives observed in the context include N35a (), associated with "water", P5 (), and E21 (), which contribute to the semantic and interpretive framework of these terms.

Altogether, we applied an onomasiological approach[57] to defer the near-synonymy of the lexemes as well as a semasiological viewpoint which is also suitable to reveal the structured polysemic[58] patterns in the selected lexemes. This multi-layered approach should enable us to apprehend the different meanings and nuances of the selected lexemes and to identify a potential semantic field that may be inherent to the Egyptian language system and probably dissimilar to our modern conception.

It is vital to clarify the distinct semantic space *ỉgp* occupies. While other terms like *qr, qrr, qrỉ* "cloud, storm cloud" or *šnʿ* "storm cloud" are indeed part of the broader atmospheric phenomena

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[57] Onomasiology and semasiology are complementary approaches in lexical semantics: onomasiology examines how concepts (signified) are expressed through various words, while semasiology analyses the multiple meanings (signified) of a single word (signifier). For example, onomasiology studies how "rain" can be expressed through terms like "downpour" or "drizzle", while semasiology explores the literal and metaphorical meanings of the word "rain" itself. For the dichotomy between the two linguistic axioms, see Dylan Glynn, 'Semasiology and Onomasiology: Empirical Questions between Meaning, Naming and Context', in *Recontextualizing Language and Linguistics*, ed. Jocelyne Daems et al. (Berlin, München, Boston: De Gruyter Mouton, 2015), 47–80, https://doi.org/doi:10.1515/9783110435597-004; Winand, 'The Case of Pḥ and Spr', 1237–38.

[58] Polysemy is a widely observed phenomenon in natural languages and has been a topic of extensive study in linguistics, with different approaches proposing various theories about the representation and organization of multiple senses. Some (Lakoff, Langacker) argue for a network representation where related meanings are connected to a core sense, while others (Allwood, Evans, Goldberg) suggest that multiple senses are context-dependent variations of a single core sense. Additionally, some researchers (Nerlich) propose combining both lexical-semantic and grammatical constructional approaches to better understand polysemy. See George Lakoff, *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind* (Chicago, IL: University of Chicago press, 2008); Ronald W. Langacker, *Foundations of Cognitive Grammar 2, Descriptive Application* (Stanford, Calif.: Stanford Univ. Press, 1991); Jens Allwood, 'Meaning Potentials and Context: Some Consequences for the Analysis of Variation in Meaning', in *Cognitive Approaches to Lexical Semantics*, ed. Hubert Cuyckens, René Dirven, and John R. Taylor (Berlin, New York: De Gruyter Mouton, 2003), 29–66, https://doi.org/doi:10.1515/9783110219074.29; Vyvyan Evans, 'The Meaning of Time: Polysemy, the Lexicon and Conceptual Structure', *Journal of Linguistics* 41, no. 1 (March 2005): 33–75; Adele E. Goldberg, *Constructions: A Construction Grammar Approach to Argument Structure*, Cognitive Theory of Language and Culture Series (Chicago, IL: University of Chicago Press, 1995); Brigitte Nerlich, Zazie Todd, and David D. Clarke, 'Emerging Patterns and Evolving Polysemies: The Acquisition of Get between Four and Ten Years', in *Flexible Patterns of Meaning in Mind and Language*, ed. Brigitte Nerlich et al. (Berlin, New York: De Gruyter Mouton, 2003), 333–58, https://doi.org/doi:10.1515/9783110895698.333.

lexicon, *ỉgp* was prioritized because it occupies a unique semantic space that bridges the concepts of clouds and rain. Unlike *qr, qrr, qrỉ*, which are primarily associated with "perturbations and wind storms", *ỉgp* has a more direct and specific connection to rain and other hydrometeors as a harbinger of rainfall. This distinction is critical for understanding rain-bearing phenomena from an ancient Egyptian perspective.

Furthermore, our selection is strongly supported by the emic categorization evidenced through shared semograms. Terms within the studied semantic field, including *ỉgp*, were regularly classified by the same semograms as terms referring to rain and other hydrometeors. This directly demonstrates that, for the ancient Egyptians themselves, these concepts belonged to a shared conceptual domain of atmospheric water release and celestial emanations. Specifically, *ỉgp* consistently uses the determinative  (N4), depicting "sky with falling water", which is characteristic of hydrometeors and emanations.

While the study dedicates extensive lexical analysis chapters to *ḥw.t*, *ỉgp*, and *ỉʒd.t* due to their relatively high frequency and semantic richness within the corpus, it is crucial to clarify the treatment of other significant terms, particularly those related to storms and precipitations, such as *šnỉ.t/šnw.t/šnỉ* "hail, storm". The decision not to include a dedicated chapter for terms like *šnỉ.t/šnw.t/šnỉ* stems from their being judged less central or representative for *in-depth* analysis, partly due to the challenges in delineating their precise meaning given semantic overlap with other perturbation terms. For example, *qr, qrr, qrỉ* are also associated with "storm, storm cloud", and *šnʿ* with "storm cloud".

This approach is grounded in an emic understanding, reflecting the ancient Egyptian conceptualization. From their perspective, phenomena like storms and hail were intrinsically linked to other atmospheric waters, a connection strongly supported by the fact that terms within the "storm" semantic field were regularly classified by the same semograms (hieroglyphic determinatives) as terms referring to rain and other hydrometeors. For instance, the N4 hieroglyph (), which visually depicts "sky with falling water" and is primarily associated with hydrometeors and emanations, functioned as a determinative for terms such as *ḥw.t*, *ỉgp*, *šnỉ.t*, and *sšn* in the Pyramid Texts. Additionally, determinatives like "water" (N35a), "action" (A24), and the "Sethian animal" (E21) were used to classify both hydrometeors and perturbations, clearly indicating their shared conceptual domain for the Egyptians themselves.

While a dedicated graphic analysis section for *ỉgp* and *ỉʒd.t* was not included due to the consistent use of N4, the graphic aspect of *šnỉ.t/šnw.t/šnỉ*, particularly its association with the N4 hieroglyph, is explored contextually within the study's broader analysis of determinatives and their significance in conveying meaning and cultural associations. For example, the use of N4 for "snow" (a

rare meteorological event and a perturbation term) is highlighted as underscoring its disruptive nature in the Egyptian environment. Furthermore, terms like *snm* "storm, flood of rain" are analysed within the "Natural Phenomena" section of the *ḥw.t* chapter, demonstrating their integration into the broader discussion of atmospheric events.

The contextual integration of *snm* within this analysis, despite its exclusion from dedicated treatment, reflects its liminal semantic position. Unlike core perturbation vocabulary (*nšn.i, qrỉ*) which exhibits consistent E21 determinative usage indicating violence/disorder semantics, *snm* demonstrates hybrid determinative patterns and explicit etymological connection to precipitation , which we will explore in detail. This hybrid profile appears to justify contextual treatment rather than systematic exclusion, illustrating the permeable boundaries between our analytical categories while maintaining methodological consistency regarding focused analysis criteria.

In light of the relative paucity of hydrometeor vocabulary, we adopted an inclusive approach that considered not only terms with a primary or literal reference to atmospheric waters (e.g., *ḥw.t* "rain"), but also those with a secondary or metaphorical connection to the domain (e.g., *mw-nw-p.t* "waters of heaven"). This allows us to capture a fuller range of the conceptual associations and figurative extensions that shaped the ancient Egyptian understanding of these phenomena.

Applying these criteria - chronological breadth, semantic relevance, and inclusive scope - we aim to construct a corpus that is optimally representative of the lexical and conceptual landscape of atmospheric waters in ancient Egyptian, while also remaining attentive to the limitations and unevenness of our textual sources.

This choice allows for in-depth semantic analysis by subjecting these three representative lexemes to a thorough investigation along the axes of the "lexical trail" methodology. Through detailed probes into the semantic heart of the precipitation domain, examining their denotative meanings, connotative extensions, and morphosyntactic behaviours, the research aims to illuminate the overarching structure and organization of the ancient Egyptian precipitation lexicon.

It is acknowledged that this targeted approach entails a trade-off between the breadth of coverage and the depth of analysis. However, by carefully selecting the most representative and richly attested lexemes for full analysis, the study can still arrive at a meaningful and textured understanding of how the ancient Egyptians linguistically construed and conceptualized the domain of atmospheric waters. This strategy ensures a balance between comprehensively mapping the semantic field and granularly examining its key components within the scope of the present work.

1.1.4. Overview of the data

Having established our criteria for lexeme selection, let us now survey the corpus itself. Our preliminary investigation employed a screening process of the Egyptian language corpus to compile a list of semantically related terms, which are displayed in a preliminary inventory below distinguished by their denotative and connotative meanings.

In organizing the lexemes into separate tables based on denotative and connotative significance, our aim is to highlight the multidimensional nature of meaning in the ancient Egyptian lexicon. The denotative table foregrounds the primary, literal referents of each term, giving us a sense of the basic vocabulary used to describe atmospheric waters.

The connotative table, by contrast, delves into the secondary, associative meanings that these terms accrued in particular contexts. Juxtaposing these two dimensions, we can begin to appreciate how the Egyptians not only named and categorized natural phenomena, but also imbued them with deeper symbolic and affective resonances.

This separation also helps guide our analysis by distinguishing between the more stable, conventionalized aspects of meaning (denotation) and the more fluid, context-dependent ones (connotation). At the same time, it reminds us that these two facets are ultimately interlinked, as the connotative extensions of a term often build upon and enrich its denotative core. Examining each level separately but also in tandem, we gain a more holistic understanding of how atmospheric waters were construed in the ancient Egyptian language and mind.

The lexemes presented in the following tables offer a panorama of the semantic field of precipitation in the ancient Egyptian language, encompassing terms related to the physical phenomena, intensity, and metaphorical associations of atmospheric waters. However, given the constraints of this study and the aim of providing an in-depth semantic analysis, a complete examination of each individual lexeme falls beyond the scope of the present work.

Instead, the subsequent chapters will focus on three representative lexemes, subjecting them to a thorough investigation along the axes of the "lexical trail" methodology outlined in the next section. These case studies will serve as detailed probes into the semantic heart of the precipitation domain, illuminating the central denotative meanings, connotative extensions, and morphosyntactic behaviours of the core lexemes. The comprehensions gleaned from these focused explorations can then be extrapolated to clarify the overarching structure and organization of the precipitation lexicon as a whole.

This targeted approach admittedly entails a trade-off between the breadth of coverage and the depth of analysis. However, it is a necessary strategy for achieving a balance between the mapping

of the semantic field and the granular examination of its key components within the space of the present study. Carefully selecting the most representative and richly attested lexemes for full analysis, we can still arrive at a meaningful and textured understanding of how the ancient Egyptians linguistically construed and conceptualized the domain of atmospheric waters.

1.1.4.1. Lexemes by their Denotative Significance

In the first table, we have listed the lexemes belonging to the semantic domain we are examining by their denotative meaning. Their sense can be defined as its primary, explicit, and literal interpretation, devoid of any emotional or cultural connotations that individuals may associate with that particular word. For the entry of the lexeme, their hieroglyphic standardization, their translations, their period of attestations and their references, we deployed the TLA v2.01[59].

For the entry of the lexeme, their hieroglyphic standardization, their period of attestations[60], their references, their translations – when the German translation is distinctive, it will be mentioned alongside. Following a thorough examination of the scientific literature, our research collective systematically compiled and deployed key findings, including the online database TLA v2.01, Ramses[61],

[59] 'Thesaurus Linguae Aegyptiae v2.1.2', 15 December 2022, https://thesaurus-linguae-aegyptiae.de.

[60] The date of a witness should only be regarded as the *terminus post quem* for the inscription of a text, rather than for the text itself, as previously discussed by W. Schenkel and P. Vernus. In conservative corpora such as funerary texts, the text may predate the witness but be reused at a later time. Conversely, later texts may be deliberately made to appear older, as noted by A. Stauder. See Wolfgang Schenkel, 'Repères Chronologiques de l'histoire Rédactionelle Des Coffin Texts', in *Actes Du XXIXe Congrès International Des Orientalistes: Égyptologie*, ed. Georges Posener, 2 vols (Paris: l'Asiathèque, 1975), 98–103; Wolfgang Schenkel, 'Zur Redaktions- Und Überlieferungsgeschichte Des Spruchs 335 a Der Sargtexte', in *Göttinger Totenbuchstudien: Beiträge Zum 17. Kapitel*, ed. Wolfhart Westendorf, Göttinger Orientforschungen, 4. Reihe: Ägypten 3 (Wiesbaden: Harrassowitz, 1975); Pascal Vernus, 'La Position Linguistique Des Textes Des Sarcophages', in *The World of the Coffin Texts: Proceedings of the Symposium Held on the Occasion of the 100th Birthday of Adriaan de Buck, Leiden, December 17-19, 1992*, ed. Harco Willems (Leiden: Nederlands Instituut voor het Nabije Oosten, 1996), 143–96; Andréas Stauder, 'L'émulation Du Passé à l'ère Thoutmoside : La Dimension Linguistique', in *Vergangenheit Und Zukunft: Studien Zum Historischen Bewusstsein in Der Thutmosidenzeit*, ed. Susanne Bickel, Aegyptiaca Helvetica 22 (Basel: Schwabe, 2013), 77–126.

[61] 'Ramses Online', Ramses Online an annotated corpus of Late Egyptian, accessed 3 January 2021, http://ramses.ulg.ac.be/.

and MORTEXVAR[62]. This consolidation of evidence enabled us to substantially augment the number of corroborating sources, which will be elucidated in further detail later in this report.

We are keenly aware that the manner in which the hieroglyphs have been presented is standardized; nonetheless, we have deliberately selected this format intending to provide a broad and inclusive survey for our readers. While we strive for scrutiny of the literature, we acknowledge that some relevant sources may be inadvertently overlooked. We ask readers to excuse any oversights, as we intend our investigation to contribute rigour and transparency to the field. As in previous inspiring studies[63], too fragmentary witnesses are not included in the analysis and only used the "exploitable" ones. This decision was made with the aim of facilitating a greater understanding and appreciation of the subject.

[62] 'The Earlier Ancient Egyptian Mortuary Texts Variability', https://www.mortexvar.com/, 2019.

[63] Gaëlle Chantrain, *Éléments de La Terminologie Du Temps En Égyptien Ancien: Une Étude de Sémantique Lexicale En Diachronie*, Lingua Aegyptia, Studia Monographica 21 (Hamburg: Widmaier, 2020), 28.

	Transliteration	Translation	Time of attestation	References	Relative Frequency by occurrence number
	*ỉʒd.t*	dew; (pleasant) scent; (pouring) rain	1939 BCE - 200 CE	*Wb* 1, 36.1–7 TLA ID 21180	113
	*nšn.ỉ*	rage: storm	2375 BCE - 324 CE	*Wb* 2, 341.1-16 TLA ID 88790	86
	*ỉd.t*	(pleasant) scent; perfume; dew; exudation	2842 BCE - 14 CE	*Wb* 1,152.7-12 TLA ID 33840	43
	*ḥʒtj*	cloudiness, veiling (of the sky in Germ.)	2321 BCE - 200 CE	*Wb* 3, 35. 8-12 TLA ID 101690	32
	*ḥw.t*	rain, flood	2375 BCE - 30 BCE	*Wb* 3, 49.1-4 TLA ID 102400	31
	*ỉgp/gp*	rain cloud	2375 BCE - 200 CE	*Wb* 1, 140.20-21 TLA ID 32730	30
	*qrỉ/qrr*	storm; storm cloud	2375 BCE - 30 BCE	*Wb* 5, 61 TLA ID 161770	29
	*šnỉ.t/šnw.t/ šnỉ*	hail, storm	2375 BCE - 551 BCE	*Wb* 4, 502.15–503.4 TLA ID 856116	24
	*ḥwỉ*	to flow, to flood; to rain	2321 BCE - 30 BCE; 1759 BCE - 343 BCE	*Wb* 3, 48.16-22; *Wb* 3, 48.23 TLA ID 102400; 854530	10
	*šnʿ*	storm cloud	1759 BCE - 116 BCE	*Wb* 4, 507.3-9 TLA ID 155760	10
	*sšd*	thunderbolt	2321 BCE - 526 BCE	*Wb* 4, 300.8-9 TLA ID 145830	8
	*srq*	snow (Sem. loan word)	1292 BCE - 1189 CE	*Wb* 4, 204.14 TLA ID 139820	6
	*ḫʒp.t*	storm, severe weather (in Germ.)	2375 BCE - 30 BCE	*Wb* 3, 362.8 TLA ID 122540	5

	*ḫ3ḫ3tj/ḫ3ḫ3*	storm, severe weather (in Germ.)	1425 BCE - 116 BCE	*Wb* 3, 363.8–9 TLA ID 122610	4
	*sỉm*	mist, fog, dampness (or similar)	2134 -525 BCE	*Wb* 4, 37.6 TLA ID 128300	2
	*snm*	storm, flood of rain (in Germ.)	1539 -1292 BCE	*Wb* 4, 165.11-12 TLA ID 137440	2
	*sšn*	storm, severe weather (in Germ.)	2321 BCE - 287 BCE	*Wb* 4, 294.2 TLA ID 145270	1

Table 2: Lexemes by Denotative Significance

1.1.4.2. Lexemes by their Connotative Significance

In the second following table, we can perceive a preliminary outline of the lexemes according to their connotative significance. Here, the emotional or cultural connotations attached to these terms go beyond their literal meaning. A thorough comprehension of surrounding context is needed as this secondary lexical interpretation is frequently shaped only by the textual setting. We have omitted bibliographical references accordingly, as some of them are included in our proposal and compilation based on recent research and the hermeneutics of primary sources.

Unlike denotation, connotation may be subjective and may differ based on cultural, personal, or situational factors and so it is rather hazy and subtle to apprehend.

Hence, we have compiled a list of lexemes related to the semantic field of observation, including those with explicit inherent meanings as well as those with contrasting connotations. The latter can be particularly useful in deciphering the emic conceptualization of lexical units[64].

Indeed, knowledge of antonyms could enhance our understanding of the parasynonyms by providing a point of contrast for the meaning of a word. This, in turn, can facilitate comprehension and aid in the interpretation of the intended meaning of a given ambiguous term.

The inclusion of certain connotative terms lacks specific bibliographical references because their selection is grounded in the current study's proposals, recent research, and the interpretation of

[64] Igor Mel'čuk and Lidija Iordanskaja, 'Connotation', in *Slavistische Linguistik 2004-2005: Referate des XXX. Konstanzer Slavistischen Arbeitstreffens, Klagenfurt, 13.-17. September 2004 und Referate des XXXI. Konstanzer Slavistischen Arbeitstreffens, Freudenstadt, 19.-23. September 2005*, ed. Tilman Berger et al. (München, Allemagne: O. Sagner, 2006), 875–82.

primary source materials. A distinctive selection of these instances, identified through personal scrutiny and scholarly discernment, are integral to the analysis.

Lexeme	Transliteration	Translation	Time of attestation	References
	*mw n p.t*	water of the sky: rain	1202 BCE - 1198 BCE	*Wb* 2, 51.2 TLA ID 69130
	*mw ʿnḫ ỉm(j).w p.t*	living water	2278 BCE - 2184 BCE	
	*ḥʿpj m/n p.t*	flood of/from the sky: rain	1353 BCE - 1336 BCE - 30 BCE	
	*rmỉ p.t*	to weep of the sky: to rain	2332 BCE - 305 BCE	
	*rḏw*	efflux, outflow: moisture of the rain	2375 BCE - 324 CE	*Wb* 2, 469.5-19 TLA ID 97200
	*ỉsd pr m rʒ Stš* *ỉsd Stš*	spittle of Seth: rain	2332 BCE - 2814 BCE	
	*mw ỉn.w šw wṯsw Mndftj*	waters brought by Shu, raised by Menedefti: divinization of the dew or the flood	2332 BCE - 2283 BCE	
	*Nw n p.t*	Nu of the sky: rain	943 BCE - c. 837 BCE	
	*sṯs.w*	elevation: clouds	1292 BCE - 1191 BCE	*Wb* 4, 361.15-362.2 TLA ID 149470
	*sṯs.w šw*	airspace; clouds ("what is raised by Shu")	1425 BCE - 30 BCE	*Wb* 4, 361.8-14 TLA ID 851537
	*wtn.w*	clouds a body of water in the sky	c. 2134 BCE - c. 2040 BCE	*Wb* 1, 381.1-2 TLA ID 51190
	*kʒp.t/ kʒp.wt*	cover of the sky: cloud	c. 2134 BCE - c. 2040 BCE	*Wb* 5, 104.7 TLA ID 51190
	*ʿḏ p.t*	destroy the sky: storm	c. 2345 -30 BCE	*Wb* 1, 238.22 TLA ID 42080

	*ḫnnw m p.t*	disturbance in the sky: storm	2375 BCE - 324 CE	
	*ḫrw hmhm.t*	thunder	c. 2134-2040 BCE	
	*nhmhm*	to roar of earth and sky	2375 BCE	*Wb* 2, 286.3-4 TLA ID 85630
	*ḫrw Stḫ*	voice of Seth: thunder	1292 BCE - 1189 BCE	
	*mdwỉ p.t*	to speak (of the sky): to thunder	2332 BCE - 2814 BCE	
	*ḥtp.w*	good weather	1279 BCE -1213 BCE	*Wb* 3, 194.5 TLA ID 111440
	*ỉ'ỉ (ḥr) p.t*	the sky is washed	2375 BCE - 2814 BCE	
	*kft p.t*	the clearing up of the sky	2040 BCE -1782 BCE	
	*sbš p.t*	the clearing up of the sky	2375 BCE - 2283 BCE	
	*bȝq psḏ.t*	the expanse (of the sky) is clear	2278 BCE - 2184 BCE	

Table 3: Lexemes by Connotative Significance

1.1.4.3. Methodology for Analysing Connotative Expressions of Precipitations

To understand these complex layers of meaning of the connotative dimension, we will employ Conceptual Metaphor Theory (CMT) and Embodied Cognition as our methodology.

Conceptual Metaphor Theory (CMT) and Embodied Cognition offer a valuable methodological basis for analysing and identifying the connotative significance of lexemes related to precipitation in ancient Egyptian texts. CMT, as demonstrated by several Egyptological studies[65], enables the

[65] Concerning Conceptual Metaphor Theory, see Rune Nyord, 'Prototype Structures and Conceptual Metaphor: Cognitive Approaches to Lexical Semantics in Ancient Egyptian', in *Lexical Semantics in Ancient Egyptian*, ed. Stéphane Polis et al. (Widmaier, 2012), 141–74; Shih-Wei Hsu, 'The Ancient Egyptian Idea of "Death" in Conceptual Metaphor Theory', *Aula Orientalis* 39, no. 1 (2021): 97–107.

identification of cognitive mechanisms that map properties from a concrete source domain onto a more abstract target domain.

To apply CMT to the connotative expressions of precipitation, several steps will be undertaken. The first step involves determining the source and target domains for each connotative expression, such as identifying flooding, pouring out, or welling up as the source domain and rain, dew, or precipitation as the target domain. Subsequently, the analysis will focus on examining the specific properties and relations transferred from the source to the target domain, which may encompass aspects like abundance, dynamism, directionality, and environmental effects.

Embodied Cognition theory[66], which posits that abstract concepts are grounded in concrete sensorimotor experiences, will be employed to consider the influence of the ancient Egyptians' physical environment and lived experiences, particularly the Nile inundation, on shaping these metaphorical mappings. Furthermore, the analysis will investigate patterns and variations in metaphorical mappings across different connotative expressions, with consistencies potentially indicating entrenched conceptual metaphors and variations suggesting novel or context-specific usages.

Interpreting the metaphorical expressions within the wider context of ancient Egyptian cosmology, religion, and environmental knowledge will be crucial, as cultural factors likely influenced the salience of specific experiential domains for conceptualizing abstract notions. Where feasible, the analysis will also trace diachronic changes in metaphorical expressions to identify potential shifts or developments in conceptual mappings over time.

Systematically applying CMT and incorporating insights from Embodied Cognition, this methodology aims to illuminate the cognitive processes and experiential foundations underlying the complex connotative language used to describe precipitation phenomena in ancient Egyptian texts. The goal is to reconstruct the embodied metaphorical understandings that shaped the ancient Egyptian conceptualization of atmospheric events, grounding the analysis in specific linguistic

[66] Concerning Embodied Cognition, the theory positing that our understanding of abstract concepts is grounded in our physical experiences and sensory perceptions, see Andy Clark, 'An Embodied Cognitive Science?', *Trends in Cognitive Sciences* 3, no. 9 (1999): 345–51; Lawrence W. Barsalou, 'Grounded Cognition', *Annual Review of Psychology* 59 (January 2008): 617–45; Rune Nyord, 'Taking Phenomenology to Heart: Some Heuristic Remarks on Studying Ancient Egyptian Embodied Experience', in *'Being in Ancient Egypt': Thoughts on Agency, Materiality and Cognition; Proceedings of the Seminar Held in Copenhagen, September 29 - 30, 2006*, ed. Annette Kjølby and Rune Nyord (Archaeopress, 2009), 63–74; Elisabeth Steinbach-Eicke, 'Metaphors of Perception Verbs in Ancient Egyptian: The Proximal Senses', in *The Routledge Handbook of the Senses in the Ancient Near East*, ed. Kiersten Neumann and Allison Thomason (Routledge, 2022), 576–602.

examples from the texts while considering the broader cultural and environmental context in which these expressions were produced and interpreted.

Building upon this preliminary overview of both denotative and connotative lexemes, the selection of *ḥw.t* "rain", *ỉgp* "cloud", and *ỉʒd.t* "dew" as the primary focus of this study was based on their status as the most frequent and representative terms for atmospheric waters in the ancient Egyptian corpus. These terms were chosen due to their discernible attestation in various contexts and their significance in both practical and symbolic dimensions of ancient Egyptian life.

1.1.5. Semantic Field of Atmospheric Phenomena

In defining the semantic field central to our study, we have chosen to focus on the broader category of "atmospheric phenomena" rather than the narrower term "meteorologic phenomena". This choice follows the work of Mantha and Mel'čuk[67], who argue that "meteorologic" is semantically derived from "atmospheric" and thus represents a more specific subset of the larger domain.

To understand how hydrometeors fit into this semantic field, let's consider a tree view[68] of the relevant categories:

entity

- physical entity
  - process
    - phenomenon
      - natural phenomenon
        - physical phenomenon
          - atmospheric phenomenon
            - weather
              - storm
              - hydrometeors
                - precipitation
                  - rain
                  - dew
                  - snow
                  - hail
                - cloud
                - fog
                - mist

As we can see, hydrometeors occupy a specific place within the broader semantic field of atmospheric phenomena. They are a type of condensation phenomenon, which in turn is a subcategory of weather phenomena within the larger domain of atmospheric processes, but as a distinguished category from the storm.

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[67] Suzanne Mantha and Igor Mel'čuk, 'Phénomènes atmosphériques dans le Dictionnaire explicatif et combinatoire du français moderne (DEC): essai de description d'un champ lexical', *Revue québécoise de linguistique* 13, no. 2 (1984): 272, https://doi.org/10.7202/602521ar.

[68] Based on 'WordNet - A Lexical Database for English', 1 March 2010, https://wordnet.princeton.edu/.

Hydrometeors encompass all water particles that form in the atmosphere and fall to the earth's surface, including various forms of precipitation like rain, snow, and hail, as well as suspended particles like clouds and fog. From a scientific perspective, what unites these phenomena is their shared origin in the condensation of atmospheric water vapor, whether that condensation occurs in the free atmosphere (as with clouds and precipitation) or at the earth's surface (as with dew and frost).

Focusing our analysis on the lexical units related to hydrometeors, we can explore how the ancient Egyptians conceptualized and categorized this specific subset of atmospheric phenomena. This approach allows us to trace the semantic connections between terms for rain, clouds, dew, and other forms of atmospheric water, and to situate these terms within the broader network of meanings associated with weather and the environment.

However, in undertaking this analysis, we must also remain attentive to the ways in which the ancient Egyptian understanding of these phenomena may have differed from our own modern scientific background. The Egyptians' conception of the natural world was deeply shaped by their unique geographical and cultural context, characterized by the annual flooding of the Nile and the centrality of agriculture to their way of life.

This context is reflected in the vocabulary used to describe hydrometeorological phenomena, which often draws on semantic domains related to water, agriculture, violence, and divine intervention. We can see this, for example, in the determinatives, besides the prototypical N4, used to classify terms for hydrometeors and perturbations, which include signs such as "canal"  N36, "water"  N35a, "action"  A24, and "the Sethian animal"  E21.

These graphic elements might at first suggest that the ancient Egyptians understood hydrometeors not just as physical phenomena, but as dynamic events with powerful impacts on the land and its inhabitants. The occurrence of rain and storms was seen as a manifestation of the divine agency, whether benevolent (as in the life-giving floodwaters of the Nile) or destructive (as in the disorder and upheaval associated with Seth, at least from the first millennium BCE, and other tempestuous deities).

To fully make sense of this semantic field, then, we must strive to balance our own scientific understanding of atmospheric processes with an appreciation for the distinctive cultural lens through which the ancient Egyptians viewed these phenomena.

We will then explore the connotative dimensions of the term, including its metaphorical extensions and its associations with other semantic domains like agriculture, violence, and religion. Through this analysis, we aim to shed light on how the ancient Egyptians conceptualized and made sense of these hydrometeorological phenomena, and how this understanding was reflected in the richness and complexity of their lexicon.

1.1.5.1. Semantic Cores of the Hydrometeorological Lexicon

For an initial overview, compiling of our corpus and consulting of the works by J. Winand[69] R. Hannig[70] and also the specific I. Mel'čuk[71], we narrowed the focus of our semantic field toward those lexemes that displayed a more distinguished, occasionally overlapping, facet pertaining to specific semantic cores with their lexical units.

These lexemes cluster around atmospheric water phenomena, though their ancient Egyptian semantic organization may differ from modern meteorological taxonomy. Corpus analysis reveals three emic clustering patterns based on determinative co-occurrence and collocational behaviour:

Cluster 1: Direct Precipitation (N4/N35A determinatives) - *ḥw.t, ỉʒd.t*: Terms consistently associated with sky-to-ground water movement

Cluster 2: Atmospheric States (N4/N1 determinatives) - *ỉgp, ḥʒtj*: Terms emphasizing visible atmospheric conditions

Cluster 3: Perturbations (N4/E21 determinatives) – e.g. *nšn.ỉ, qrỉ*: Terms linking atmospheric water with violence/disorder semantics. This clustering reflects indigenous categorization rather than imposed scientific classification.

[69] For the Egyptian lexis sorted by its classifiers, Winand, Stella, and Neven, *Lexique Du Moyen Égyptien: Avec Une Introduction Grammaticale et Une Liste Des Mots Présentés Selon Le Classificateur Sémantique*, 127–78.

[70] For the Egyptian lexis by semantic fields, Rainer Hannig and Petra Vomberg, *Wortschatz Der Pharaonen in Sachgruppen: Kulturhandbuch Ägyptens*, Hannig-Lexica 2 "Mainz: Philipp von Zabern, 1999", 247–64.

[71] Mantha and Mel'čuk, 'Phénomènes atmosphériques dans le Dictionnaire explicatif et combinatoire du français moderne "DEC"'.

It is important to clarify that, from a scientific perspective, storms and perturbations are not classified as hydrometeors *per se*[72]. Hydrometeors are specifically defined as actual liquid and solid water particles in the atmosphere, such as rain, snow, hail, dew, frost, fog, and mist. Instead, "storm" is categorized as a distinct phenomenon within the broader semantic field of atmospheric events.

Nevertheless, their crucial role within the broader semantic field of the hydrometeorological lexicon, which includes precipitation, clouds, and perturbations, is consistently acknowledged and contextually integrated throughout this analysis. This approach is grounded in an emic understanding that these phenomena were intrinsically linked in the ancient Egyptian conceptualization of atmospheric waters, as we will soon read. This linkage is evidenced by their frequent sharing of determinatives, such as water symbols (e.g., N4 , N35a) or the Sethian animal (E21), which were used for both hydrometeors and perturbations. The study explicitly recognizes "storm" as one of the three major "semantic cores" within the overall hydrometeorological lexicon.

We now present an overview of the three principal —though at times overlapping—semantic cores that structure the primary lexical units associated with hydrometeors or atmospheric waters in the ancient Egyptian language.

Hydrometeors as Precipitations

This core includes terms that refer to the fall of water from the atmosphere to the earth's surface, whether in liquid or solid form. The key lexical units here are

ḥw.t "rain, flood"
ḥwỉ "to flow, to flood, to rain"

-Hail:
šnỉ.t/šnw.t/šnỉ "hail, storm"

-Snow:
srq "snow (Semitic loan word)"

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[72] Concerning the term "hydrometeor", see M.K. Yau and R.R. Rogers, *A Short Course in Cloud Physics* (Elsevier Science, 1996), 1; Storm Dunlop, *A Dictionary of Weather* (OUP Oxford, 2008), under hydrometeor. Concerning “storm” as a separate phenomenon, see Igor Aleksandrovič Mel’čuk et al., *Dictionnaire explicatif et combinatoire du français contemporain*, 4 vols (Presses de l’Université de Montréal, 1984), vol. IV p.284-285; 290-291.

mw n p.t "water of the sky: rain"

mw ʿnḫ jmj.w p.t "living waters in the sky"

ḥʿpj m/n p.t "flood from/of the sky: rain"

rmỉ p.t "to weep of the sky: to rain"

rḏw "efflux, outflow: moisture of the rain"

ỉsd pr m rʒ Stš / ỉsd Stš "spittle of Seth: rain"

mw ỉn.w šw wṯsw Mndftj "waters brought by Shu, raised by Menedefti: divinization of the dew or the flood"

Nw n p.t "Nu of the sky: rain"

These terms all designate forms of precipitation, the primary mode by which atmospheric water reaches the ground. Inspecting their denotative and connotative meanings, as well as their syntactic and collocational patterns, we can gain insight into how the ancient Egyptians categorized and conceptualized these phenomena.

Hydrometeors as Clouds and Atmospheric Conditions

This core includes terms that refer to the visible manifestations of water vapor in the sky, as well as related atmospheric phenomena. Key lexical units include:

ỉd.t "pleasant scent, perfume, dew, exudation"

ỉgp "rain cloud"

ḫʒtj "cloudiness, veiling of the sky"

sỉm "mist, fog, dampness"

ỉʒd.t "dew, pouring rain"

sṯs.w "elevation: clouds"

sṯs.w šw "airspace; clouds - 'what is raised by Shu'"

wtn.w "clouds, a body of water in the sky"

kʒp.t / kʒp.wt "cover of the sky: cloud"

These terms all relate to the appearance and behaviour of clouds, which are essential for the formation of precipitation. Studying their semantic ranges and metaphorical extensions, we can

explore how the Egyptians understood the link between atmospheric conditions and the occurrence of rain, storms, and other hydrometeors.

Storm as Perturbations

While perturbation vocabulary may not align strictly with modern scientific classifications of hydrometeors, these terms constitute a coherent emic semantic core within ancient Egyptian conceptualizations of atmospheric phenomena. The lexical units grouped under this category emphasize the intensity, severity, or disruptive impact of meteorological events, frequently encoding connotations of violence, divine intervention, or cosmic disorder. From an emic perspective, ancient Egyptian speakers clearly categorized these phenomena as conceptually related to atmospheric waters, as evidenced by shared determinative systems (N4/E21) and collocational patterns with hydrometeorological vocabulary. Key lexical units here are

nšn.i̯ "rage, storm"
qri̯/qrr "storm, storm cloud"
šnʿ "storm cloud"
ḫ3p.t "storm, severe weather"
ḫ3ḫ3tj/ḫ3ḫ3 "storm, severe weather"
snm "storm, flood of rain"
sšn "storm, severe weather"
sšd "thunderbolt"
ʿḏ p.t "butchery of the sky: storm"
ḫnnw m p.t "disturbance in the sky: storm"
ḫrw hmhm.t "thunder"
ḫrw Stḫ "voice of Seth: thunder"
mdwi̯ p.t "to speak of the sky: to thunder"

These terms all emphasize the potentially violent and disruptive aspects of storms and heavy precipitation. Examining their semantic associations and figurative uses, we can shed light on how the Egyptians conceptualized the power and danger of these phenomena, as well as their potential links to divine agency and cosmic chaos.

Taken together, these three semantic cores cover the key aspects of hydrometeorological phenomena as reflected in the ancient Egyptian lexicon: the physical forms of precipitation, the

atmospheric conditions that generate them, and their potential for intense and impactful effects on the earth and human society.

Organizing our analysis around these cores, we can trace the network of semantic relationships that connect different terms within the broader domain of atmospheric waters. At the same time, we can explore how these terms were used not only to describe and categorize natural phenomena, but also to express a range of cultural meanings and metaphorical associations.

While this study dedicates in-depth lexical analysis to *ḥw.t* "rain", *ỉgp* "cloud", and *ỉʒd.t* "dew" as its primary case studies, it is important to note that terms specifically denoting "storm" or "perturbations" (e.g., *qr, qrr, qrỉ, šnʿ, nšn.ỉ, sšn, sšd*) are not subjected to separate, exhaustive chapters. Nevertheless, their crucial role within the broader semantic field of hydrometeors, which includes precipitation, clouds, and perturbations, is consistently acknowledged and contextually integrated throughout the analysis. This approach is grounded in an emic understanding that these phenomena were intrinsically linked in the ancient Egyptian conceptualization of atmospheric waters, often sharing determinatives or divine associations, and were recognized as distinct yet interconnected manifestations. The study thus incorporates these terms where they significantly illuminate the meanings and cultural significance of the primary lexemes, contributing to a textured understanding of how Egyptians perceived and linguistically encoded such dynamic weather events.

The inclusion of lexemes like *snm* "storm, flood of rain" demonstrates the contextual treatment employed in this analysis. While *snm* exhibits clear semantic connections to precipitation (note the explicit "flood of rain" gloss), other perturbation terms are included based on their emic integration within the broader atmospheric phenomena domain, regardless of their strict meteorological classification. This approach prioritizes ancient Egyptian cognitive categorization over modern scientific taxonomy, thereby capturing the indigenous conceptual framework that governed lexical organization in this semantic field.

This contextual methodology ensures that our analysis reflects ancient Egyptian ways of conceptualizing atmospheric disturbances rather than imposing external classificatory schemes that might obscure culturally specific semantic relationships.

For the disambiguation of these lexemes and the labelling of semantic relationships between them, we decided to use the lexical online database of English Wordnet[73]. This platform is a wide-ranging lexical database of English, featuring groups of nouns, verbs, adjectives, and adverbs that are organized into cognitive synonyms (synsets), each representing a distinct concept. These synsets are

[73] 'WordNet - A Lexical Database for English'.

interconnected through conceptual-semantic and lexical relationships, creating a network of related words and concepts.

For the scientific definition of the selected lexemes and their lexical units, we opted for the Explanatory and Combinatorial Dictionary of Contemporary French [74]. The ECDCF provides an exhaustive description of the relevant semantic, syntactic, morphological, and restricted lexical co-occurrence properties for each lexical unit. It is organized into ten separate zones for each lexical unit, with each zone providing specific information.

The selection of these lexemes was predominantly based on their semantic features and correspondences, which are closely intertwined and thus should be jointly examined.

This lexical analysis reveals a distinct semantic field centred around atmospheric phenomena and weather conditions. The lexemes capture the Ancient Egyptians' attention to natural elements, with a particular emphasis on precipitation, including rain, dew, hail, and snow. Moreover, the lexicon attests to their nuanced understanding of the intensity and severity of weather, as evidenced by terms like "rage", "storm", and "thunderbolt". This might reflect the culture's awareness of the potential destructive power of such weather events.

The lexemes also disclose the Egyptians' grasp of atmospheric phenomena. Descriptions of cloudiness, veiling of the sky, and storm clouds could suggest that they not only observed weather patterns but also recognized the visual cues and effects of different meteorological conditions. Additionally, the temporal range of these terms—spanning centuries—highlights their enduring importance in the cultural vocabulary, hinting at their significance in societal practices, beliefs, and possibly mythological contexts.

The linguistic study further unveils the interplay between Ancient Egyptian and neighbouring civilizations. The presence of Semitic loan words, like "snow", suggests linguistic and cultural interactions, hinting at broader trade or cultural connections. These insights collectively underscore the Ancient Egyptians' profound connection to their natural environment, their capacity for nuanced observation and description, and their potential intertwining of meteorological phenomena with cultural, symbolic, and linguistic elements.

Furthermore, the connotations of these lexemes concur typologically in other languages, which was an additional factor in assembling them for the study. We aim to provide a detailed analysis of these selected lexemes, highlighting their semantic and pragmatic functions, and their contributions to the discourse on precipitation phenomena. Examining these lexemes in conjunction

[74] Mel'čuk, Arbatchewsky-Jumarie, and Clas, *DEC*, vol. II; IV.

with each other, this study will enhance our understanding of how they operate in natural language and the role they play in shaping the conceptualization of weather-related events in Egyptian language.

Central to the graphemic representation of these hydrometeorological concepts is the hieroglyphic sign N4 (), which serves as a determinative for several key lexemes in our corpus. This sign, with its distinctive representation of descending lines suggesting precipitation, provides palaeographic evidence for how ancient Egyptians visually conceptualized these phenomena which will be explored in the final section of this chapter.

1.1.5.2. Distribution and Implicit Presence of Atmospheric Waters Lexemes

The distribution of the weather-related lexemes in the Egyptian language has perplexed us for some time. At least *prima facie*, this class of vocabulary could appear to be quite ordinary and recurrent, yet it is thought-provoking how it is rather sporadic in the whole corpus. This observation has prompted us to investigate the underlying reasons for this apparent anomaly.

It could be posited that the rarity of rainfall in Egypt, even in modern times, was a contributing factor to the scarcity of these natural phenomena[75]. However, this assumption has been disproved by numerous scientific studies and data that relate the climatic changes and the profuse incidence of torrential rainfall or the scarcity of it[76].

Despite the quoted scientific studies and data, the underlying reasons for this linguistic absence in the extant written corpus remain unclear. Our research aims to address this gap in knowledge by investigating the factors that contribute to this singularity.

In pursuit of this aim, our study will involve analysing various cultural, historical, and geographical factors that may have influenced the development and use of language in ancient Egypt. These could include the influence of foreign languages, the social and political context in which language was used, and the role of writing and literature in shaping the language. We will explore the

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[75] We have exposed the deep-seated preconception dating back to Herodotus, see *Herodoti Historiae. Bd. 1: Libri I-IV continens*, ed. N. G. Wilson (Oxonii: E Typographeo Clarendoniano, 2015), bk. III,10.

[76] Judith Bunbury, *The Nile and Ancient Egypt: Changing Land- and Waterscapes, from the Neolithic to the Roman Era* (Cambridge: Cambridge University Press, 2019); Judith Bunbury, 'How Ancient Egypt Shows That Climate Change Is Always with Us', *The Ancient Near East Today* 8, no. 4 (2020); Federico Contardi, 'Disasters Connected with the Rhythm of the Nile in the Textual Sources', in *Egyptian Curses 2 : A Research on Ancient Catastrophes*, ed. Giuseppina Capriotti Vittozzi (Rome: CNR Edizioni, 2015), 11–26; Bell, 'Climate and the History of Egypt: The Middle Kingdom'; Jun Yi Wong, 'Have You Ever Seen the Rain?', *Nile* 28 (1 November 2020): 24–35.

linguistic features of ancient Egyptian that may have impacted the expression of this category of lexemes.

1.1.5.3. Size and Representativeness of the Corpus: Zipf's Law

To define the size of a corpus required for a suitable analysis, and perhaps as an ostensible clue for our inquiry, we must start by referring to the law postulated by the Harvard linguist G. K. Zipf[77]. This pioneering law states that in a language, a few words occur with high frequency, while many words occur rarely. Based on his statistical observation, Zipf articulated the law, stating that the frequency of a word in a collection of texts is inversely proportional to its ranking in a frequency table. The law indicates that a large amount of text is required to provide adequate information for rare words and usages. To give an example, to compile a dictionary with 80,000 headwords, a significant amount of data is required to obtain sufficient instances of items at the lower end of the frequency range. While the precise amount of data needed for a given linguistic feature remains unknown, having a large corpus of text is crucial for gaining a complete understanding of a language[78].

In closing, the determination of a definitive minimum size for a lexicographic corpus remains intangible, yet it has been demonstrated how the availability of a large dataset is instrumental in the acquisition of linguistic knowledge. The analysis of a vast extent of the Ancient Egyptian language offers a unique opportunity to scrutinize a substantial quantity of data. Thereby, this approach is deemed capable of providing sufficient evidence to elucidate the underlying logic behind our choice and later it could easily reveal the evolution of linguistic features, semantic shift and collocations.

1.1.6. Data Collection and Their Limitations

The lack of data collection is a significant limitation that can impede research in various fields, including linguistics. However, as stated earlier, the use of a wider corpus can partially alleviate this issue. In the context of hydrometeors vocabulary analysis, this corpus can facilitate cross-checks and comparisons that are difficult to make in a restricted one.

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[77] George Kingsley Zipf, *The psycho-biology of language: an introduction to dynamic philology* (Cambridge, Mass., Etats-Unis d'Amérique: M.I.T. Press, 1968), 40.

[78] Atkins and Rundell, *The Oxford Guide to Practical Lexicography*, 61.

To overcome previous constraints, we will analyse lexemes from the Early Dynastic Period (3085-2675 B.C.E.) to the Third Intermediate Period (1069-664 B.C.E.)[79], so that we can better reconstruct the semantic network of atmospheric waters and define its boundaries.

The analysis of lexical units in the context of meteorology expressions can offer insights into the conceptual hierarchy and the semantic specificities and restrictions of these terms. Moreover, the comparison of their distribution in different textual genres and stages of the language, along with the examination of their semograms can further inform our understanding of how these expressions reflect their pre-existing structure. Therefore, we believe that this research direction holds significant potential to advance our understanding of Egyptian language evolution and the representation of natural concepts.

For our studies, it has been proven crucial to draw evidence from a wide range of sources. However, since we are dealing with a limited and scarce attestations, we draw their attestations from a rather vast body of evidence within the specific interval of interest. By doing so, we can ensure that our findings are based on a representative sample and are relevant to the context of the interval under examination.

Moreover, considering the scarcity of attestations, we will use sources from later stages of the language on occasion[80]. This approach can serve as a support for certain case studies and shed light on the subjects under examination. However, we will be cautious when interpreting the results and acknowledge the potential limitations of used sources that are not directly relevant to the interval of interest.

Online Database

In our lexicographical research, we have undertaken an examination of texts written from the Early Dynastic Period until the Third Intermediate Period, in a diachronic perspective. However, together with the primary sources another objective of our study is to investigate the lexemes and their entries occurring in the available online databases:

—the Thesaurus Linguae Aegyptiae (TLA)[81] and its new version TLA v2.01[82],

[79] Again for the specific chronology, see Levasseur and Somaglino, *Atlas de l'Égypte Ancienne*.

[80] From Late, Ptolemaic and Roman Period. For the chronology see Levasseur and Somaglino.

[81] Polis and Winand, 'Structuring the Lexicon', fig. 2.

[82] 'TLA 2'.

—the Ramses Online an annotated corpus of Late Egyptian[83],

—the Open Richly Annotated Egyptian Corpus (ORAEC)[84] linked with

—the Ancient Egyptian Dictionary (AED)[85];

—The Earlier Ancient Egyptian Mortuary Texts Variability Database (MORTEXVAR)[86].

General and Specialized dictionaries

We considered this compilation an indispensable tool for the lexicographical research, as it provides a list of references to Egyptian lexemes found in dictionaries but also in scientific literature.

To this end, we have consulted various authoritative sources: wide-ranging and specialized dictionaries and *lexica*. The primary sources were

—Wörterbuch (*Wb*.) by A. Erman and H. Grapow[87]

—Année Lexicographique[88], a three-volume work authored by D. Meeks (AL).

Besides the *Wb* and *AL*, we have also turned to other specialized dictionaries, which offer a wealth of information on Egyptian language and culture. These include dictionaries of hieroglyphics, grammar, and syntax, as well as dictionaries that focus on specific periods of Egyptian history:

—The Ägyptisches Wörterbuch I. Altes Reich und Erste Zwischenzeit [89]

—The Ägyptisches Wörterbuch II. Mittleres Reich und Zweite Zwischenzeit [90]

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[83] 'Ramses Online', Ramses Online an Annotated Corpus of Late Egyptian, accessed 3 January 2021, http://ramses.ulg.ac.be/; Stéphane Polis et al., 'Ramses. An Annotated Corpus of Late Egyptian', *Proceedings of the 10th International Congress of Egyptologists. University of the Aegean, Rhodes 22-29 May 2008*, Peeters, 2015. I would like to express my gratitude to S. Polis for granting me the extended access to the database.

[84] 'Open Richly Annotated Egyptian Corpus', 19 September 2022, https://oraec.github.io/.

[85] 'AED-Ancient Egyptian Dictionary', accessed 11 January 2019, https://simondschweitzer.github.io/aed/.

[86] 'The Earlier Ancient Egyptian Mortuary Texts Variability'.

[87] Adolf Erman and Hermann Grapow, eds., *Wörterbuch der aegyptischen Sprache*, 5 vols (Berlin: Akademie-Verlag, 1926).

[88] Meeks, *AL I*; Meeks, *AL II*; Meeks, *AL III*.

[89] Rainer Hannig, *Ägyptisches Wörterbuch I: Altes Reich Und Erste Zwischenzeit*, Hannig-Lexica 4 (Mainz: Philipp von Zabern, 2003).

[90] Rainer Hannig, *Ägyptisches Wörterbuch II: Mittleres Reich Und Zweite Zwischenzeit*, Hannig-Lexica 5 (Mainz: von Zabern, 2006).

—The Wortschatz der Pharaonen in Sachgruppen [91] by R. Hannig

—The Concise Dictionary of Middle Egyptian [92] by R. Faulkner

—The Dictionary of Late-Egyptian [93] by L. Lesko

—The Ptolemaic Lexicon by P. Wilson [94]

—Dictionary of Demotic by W. Erichsen[95]

—The Chicago Demotic Dictionary Project (CDD)[96]

—The dictionaries of the Coptic Language by W. Westendorf's [97], by J. Černý [98] and by W. Vycichl[99].

[91] Hannig and Vomberg, *Wortschatz Der Pharaonen in Sachgruppen: Kulturhandbuch Ägyptens*.

[92] Faulkner, *CDME*.

[93] Leonard H. Lesko, *A Dictionary of Late Egyptian*, rev. (Providence, RI: Scribe Publications, 2002).

[94] Penelope Wilson, *A Ptolemaic Lexikon: A Lexicographical Study of the Texts in the Temple of Edfu*, Orientalia Lovaniensia Analecta 78 (Leuven: Peeters, 1997).

[95] Wolja Erichsen, *Demotisches Glossar* (Kopenhagen: Ejnar Munksgaard, 1954).

[96] Janet H. Johnson, *The Demotic Dictionary of the Oriental Institute of the University of Chicago* (Chicago: Oriental Institute, University of Chicago, 2001).

[97] Wolfhart Westendorf, *Koptisches Handwörterbuch: Bearbeitet Auf Grund Des Koptischen Handwörterbuchs Wilhelm Spiegelbergs* (Heidelberg: Carl Winter, 1965).

[98] Jaroslav Černý, *Coptic Etymological Dictionary* (Cambridge: Cambridge University Press, 1976).

[99] Werner Vycichl, *Dictionnaire Étymologique de La Langue Copte* (Leuven: Peeters, 1983).

For the corpus of the Coffin Texts:

—The Hieroglyphic Dictionary of Egyptian Coffin Texts by R. Van der Molen [100] .
—The Coffin Texts Word Index by D. Van der Plas and J. Borghouts[101].

Finally, to identify diachronic relationships and to observe the evolution of lexemes in Coptic, the last phase of the Egyptian language, we have relied on a range of sources. These include historical texts, linguistic analyses, and comparative studies of related languages but we found quite prolix to quote them altogether and we will do it on proper occasions.

In conclusion, our study has involved a rigorous and complete examination of available sources, utilizing a diachronic and also synchronic perspective to gain a deeper understanding of the lexemes of the semantic domain analysed and their significant in Ancient Egyptian language.

Theoretical framework and methodology

With this initial view of our lexical data in place, we can now delve into the theoretical foundations that will guide our analysis. To make sense of the semantic patterns and conceptual structures underlying these lexemes, we will draw on insights from a range of disciplines, including lexical semantics, cognitive linguistics, and cultural anthropology.

Our research endeavours involve an investigation of the specific field of hydrometeors, and to accomplish this, we have decided to adopt a diverse range of theories and methodologies that have been developed in recent years. This selection is not restricted to the field of Egyptology but extends to other interdisciplinary areas as well. The aim of this approach is to gain a broad understanding of the subject matter through a diverse range of perspectives. Our primary objective is to adopt a descriptive perspective initially, which can then be adapted to meet the precise requirements of our research.

[100] Rami van der Molen, *A Hieroglyphic Dictionary of Egyptian Coffin Texts*, Probleme Der Ägyptologie 15 (Leiden: Brill, 2000).

[101] Dirk van der Plas and Joris F. Borghouts, *Coffin Texts Word Index*, Publications Interuniversitaires de Recherches Égyptologiques Informatisées 6 (Utrecht: Utrecht University, 1998).

Crucially, as emphasized by Jean Winand[102], our analysis will examine precipitation lexemes not as isolated units, but as part of a broader relational network. Winand argues that a lexeme must be continually actualized in relation to other lexemes within a given notional domain. In line with this insight, we will map the semantic field of precipitation vocabulary by illuminating the web of connections and associative relations that link key terms to each other and structure their usage in context. This relational approach, which builds on Winand's conception of semantic "halos" surrounding each lexeme, allows for a more dynamic and conceptually rigorous understanding of how the Egyptians linguistically constructed the domain of atmospheric water phenomena.

An extensive review of the scientific works has been conducted to gather information about the various theories and methodologies employed in similar research areas. This approach is essential to try to avoid some bias in our research, indeed, the consulting of the sources and of the references lead us to read other texts and studies. This is a substantial element which stimulated our curiosity and analytical awareness, also provided us with a broader and critical stance on the subject. Therefore, we have prioritized a cross-linguistic, comparative, and empirical approach, rather than one that is limited to one language and culture, which we will present in this section.

1.1.7. Compiling and Interrogating the Corpus

The importance of finding a suitable methodological framework for analysing ancient languages with logographic writing systems cannot be overstated. In this regard, we will rely on the "Lexical Trail" method of S. Polis and J. Winand[103], integrated with the lexicological analysis of A. Lehmann and F. Martin-Berthet[104], as well as the last study of G. Chantrain[105]. This approach includes an in-depth analysis of different lexical fields, making it suitably appropriate for our research.

The lexical trail method involves five axes of analysis:

the Graphematic axis,
the Phonematic axis,
the Morphematic axis,
the Syntagmatic axis,
the Semantic axis.

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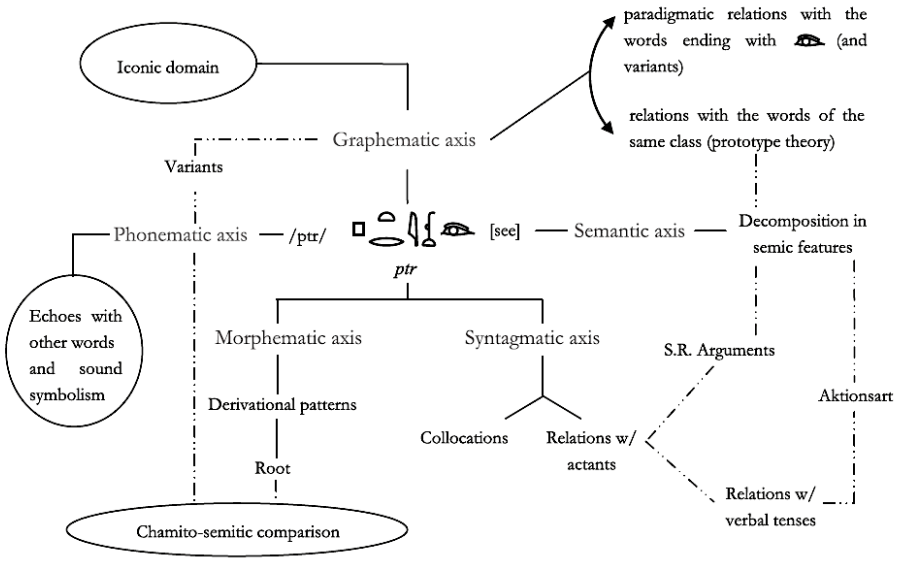
[102] Jean Winand, 'Études de Sémantique Lexicale En Égyptien Ancien 1. L'antonymie', *Forthcoming*, 2025.

[103] Polis and Winand, 'Structuring the Lexicon', 1506.

[104] Alise Lehmann and Françoise Martin-Berthet, *Lexicologie: Sémantique, Morphologie et Lexicographie* (Paris: Armand Colin, 2013).

[105] Chantrain, *Éléments*.



The 'Lexical Trail'[106]

We will briefly describe this set of five axes, which is commonly used in lexicographical and lexicological research as a methodology for analysing and understanding the characteristics of lexemes.

1.1.7.1. Graphematic Axis

The first axis, known as the graphematic axis, places emphasis on the graphemes and allographs of the lexemes, as well as their distinguishing determinative. This axis is concerned with the visual appearance of the lexeme and how it is represented in written form.

1.1.7.2. Phonematic Axis

The second axis, the phonematic axis, considers the phonology of the lexeme. This involves analysing the reconstructed pronunciation of the term, as well as its relation to other words that may be homophonic. Exploring the sound-based characteristics of the lexeme, we can gain insights into its historical origins and its relationship to other terms in the language.

[106] Polis and Winand, 'Structuring the Lexicon', fig. 2.

1.1.7.3. Morphematic Axis

The third axis, the morphematic axis, is focused on identifying the word family to which the lexeme belongs. This involves examining the roots, prefixes, and suffixes of the lexeme in order to establish links with other words in the same language or related languages of the Afro-Asiatic family. Tracing the historical development of the lexeme in this way, we can acquire a thorough familiarity with its etymology and its evolution over time.

1.1.7.4. Syntagmatic Axis

The fourth axis, the syntagmatic axis, looks at the collocation and locution of the lexeme within a given linguistic context. This involves analysing the co(n)textual environment of the lexeme in order to determine its likely syntactic and semantic roles. Exploring the ways in which the lexeme is used in context, we can have a keen discernment into its significant and the way it functions within the broader language system.

1.1.7.5. Semantic Axis

Finally, the fifth axis, the semantic axis examines the evolution of the meanings of the lexeme over time. This axis is concerned with identifying the prototypical links between the lexeme and other words in the same semantic field. Investigating the semantic relationships between words, we can gain a considerable proficiency in the way that meanings change over time, and how these changes are reflected in the language as a whole.

While all five axes offer valuable lenses for lexical analysis, our study of hydrometeor terms will focus primarily on the semantic, syntagmatic, and morphological dimensions - examining the meanings and conceptual relations of lexemes, their syntactic contexts and collocational patterns, and relevant aspects of their written form, such as the use of classifiers. At the same time, we will draw on graphemic and phonological information as required to support and enrich the semantic analysis. Consequently, we intend to customize the "lexical path" method’s five axes to cater to the unique features of our corpus.

Ultimately, our aim is not simply to list and define a set of lexical items, but to elucidate the underlying conceptual structure of the precipitation domain as construed by the ancient Egyptians. An exhaustive understanding of a culture's worldview and belief system is critical for accurately mapping its semantic universe. Our semantic field approach, informed by Winand's theoretical

insights and analytical methods, seeks to reveal how the manifold relations between atmospheric waters terms reflect and construct the Egyptians' unique meteorological experience and knowledge. Closely inspecting how these lexemes are deployed in context and in relation to each other, we can begin to reconstruct the complex network of meaning that undergirds this critical environmental domain in the Egyptian imagination.

Our analysis will commence by scrutinizing the lexeme's general overview, including its appearance in online databases and dictionaries.

1.1.8. Study of Determinatives: The Cognitive Approach and the Palaeographic Approach

Seeking an appropriate theoretical background particularly focusing on the graphemic axis, we have found the recent study by C. Schwechler [107] 'Les noms des pains en Égypte ancienne: étude lexicologique', to be a valuable contribution to our research. We will now discuss and paraphrase some noteworthy insights from this study. The scholar provides a brief overview of the methodology used to examine determinatives by O. Goldwasser and her team[108]. This method is based on the cognitive linguistics research of E. Rosch and G. Lakoff[109], and it analyses three key principles.

1.1.8.1. Principles of the Cognitive Approach

The first principle is that through the analysis of the determinative, here referred to as the 'classifier', it is possible to reveal how the ancient Egyptians observed and classified the world.

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[107] Coralie Schwechler, *Les noms des pains en Égypte ancienne: étude lexicologique*, Studien zur altagyptischen Kultur. Beihefte 22 (Hamburg, Allemagne: Helmut Buske Verlag, 2020), 223–25. Recent scholarship, including this study, indicates that the role of determinatives in ancient Egyptian writing is more intricate than mere disambiguation, though this remains a valuable utility. Beyond clarifying word meanings, these graphemes served as crucial visual semantic cues, reflecting the ancient Egyptians' cognitive classification of the world and visually encoding complex conceptual associations within their lexicon, see Frank Kammerzell and Eliese-Sophia Lincke, 'Egyptian Classifiers at the Interface of Lexical Semantics and Pragmatics', in *Lexical Semantics in Ancient Egyptian*, ed. Eitan Grossman et al. (Widmaier, 2012), 100–101.

[108] Orly Goldwasser, *Prophets, Lovers and Giraffes: Wor(l)d Classification in Ancient Egypt*, Göttinger Orientforschungen, 4. Reihe : Ägypten 38 (Wiesbaden: Harrassowitz, 2002).

[109] Goldwasser, 1–6, 25–33.

Secondly, O. Goldwasser's approach employs the prototype theory, which posits that some members of a category are more emblematic of their category than others[110]. These categories can be arranged according to two different systems: the taxonomic and schematic systems[111].

The taxonomic system goes from the most abstract to the most concrete, with the hypernym at the top of the scale (e.g., mammal), followed by the base level (e.g., dog), and finally the hyponym, which is the most precise name (e.g., teckel). The schematic system establishes a metonymic or metaphorical connection between the classifier and the item being classified, as we can see with the (I3) sign, which determines words expressing savagery[112], voracity or aggressiveness[113].

1.1.8.2. Palaeographic Study of the Signs

While O. Goldwasser's approach yields interesting results, it sometimes poses certain methodological inconveniences, as noted by D. Meeks[114]. He observes that her work is largely based on references written in standardized hieroglyphics, and little attention has been given to the palaeography of the signs.

The palaeographic study of the signs, according to D. Meeks[115], brings to light several important facts when working with determinative. The first is that some hieroglyphs whose identification seems certain are, in reality, chimeras. For example, the well-known sign of the bee  combines the characteristics of wasps and hornets[116]. Secondly, certain singularities that seem

[110] Goldwasser, 28–29.

[111] Goldwasser, 29–35.

[112] Winand, Stella, and Neven, *Lexique Du Moyen Égyptien: Avec Une Introduction Grammaticale et Une Liste Des Mots Présentés Selon Le Classificateur Sémantique*, 151–52.

[113] For other significant studies on determinatives, see McDonald, 'Animal Metaphor'; Angela McDonald, 'A Metaphor for Troubled Times: The Evolution of the Seth Deity Determinative in the First Intermediate Period', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 134 (2007): 26–39.

[114] Dimitri Meeks, 'La Paléographie Hiéroglyphique: Une Discipline Nouvelle', *Égypte, Afrique & Orient* 46 (2007): 3–14.

[115] Dimitri Meeks, 'De Quelques "insectes" Égyptiens: Entre Lexique et Paléographie', in *Perspectives on Ancient Egypt: Studies in Honor of Edward Brovarski*, ed. Peter Der Manuelian et al. (Conseil Suprême des Antiquités de l'Égypte, 2010), 273–304.

[116] Meeks, 282–83.

inflexible to us are more flexible for the Egyptians. Among the spellings of the phonogram *ḫpr* (), it is possible to find eight-legged beetles, a distinctive feature that belongs only to arachnids[117].

The cognitive and palaeographic approaches offer two different angles for the study of determinatives and do not answer the same questions. Both approaches could be equally suited to the analysis of determinatives within a specific semantic field. In our context, we shall explore the approach which will yield more satisfactory results.

1.1.9. Comparison of Hydrometeors Lexemes in Ancient Egyptian with Other Languages

An additional approach that appeared to be intriguing to investigate is the comparison of the Egyptian language with other languages, particularly in terms of how they express the semantic domain of precipitation. This approach has the potential to provide new insights that could assist in clarifying the scarcity of lexemes as well as in understanding more comprehensively the universal notion which might be linked with the weather description.

As formerly stated, we consider the comparative approach to be significant not only in terms of how weather-related expressions are encoded, but also in how they can demonstrate semantic similarities among different languages. This broader perspective enables the examination of not only the potential origins, but also the development of lexemes across various languages. Studying cognates and derivatives, it is possible to trace the evolution of words and their meanings, as well as to identify connections between languages and cultures. Although both cognates and linguistic derivatives pertain to the connection between words, they have distinct origins and significations.

1.1.9.1. Cognates and Derivatives

In the field of historical linguistics, the terms cognates and derivatives are closely related concepts in linguistics, yet they have distinct meanings[118]. Cognates are words in different languages that have a common origin and possess similar meanings, suggesting that these languages have

[117] Meeks, 296–97.

[118] For a recent study on cognates and on the specific difference with derivatives, see Mikołaj Rychło, 'Cognates versus Independent Derivatives', in *Contrasting Cognates in Modern Languages from a Diachronic Perspective* (Gdańsk: Gdańsk University Press, 2019), 110–27.

descended from an etymological ancestor in a common parent language. However, over time, these words may have diverged in meaning as languages develop independently. For example, the English word "father" and the French word "père" are cognates since they both originate from the Latin word "pater" and this one after the reconstructed Proto-Indo-European *ph₂tḗr[119].

On the other hand, derivatives are words that are derived from another word or root – etymon – whether in the same language or a different one[120]. Any word that originates from a specific etymon can be considered a derivative. For instance, the English word "beef" comes from the Old French word "boef", meaning "ox". Although "beef" and "boef" share a common etymological ancestry, they are not cognates since they were borrowed from one language into another.

The study of derivatives and cognates can provide a better understanding of the semantic organization of words and their constituting components, albeit, the reconstruction of the prototype of a morpheme can be challenging due to phonetic reduction and reinforcement of various kinds[121]. Therefore, on occasion, always to find instructive and remarkable parallels, we will employ CogNet[122], an extensive repository of cognate pairs, that encompasses 8.1 million cognates across 338 languages, 38 writing systems, and 91,285 concepts, automatically derived from wordnets and dictionaries[123].

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[119] Václav Blažek, 'Indo-European kinship terms in *-ə̯2TER', in *Grammaticvs: studia linguistica Adolfo Erharto quinque et septuagenario oblata*, ed. Ondřej Šefčík and Bohumil Vykypěl (V Brně: Masarykova univerzita, 2001), 24–33.

[120] Rychło, 'Cognates versus Independent Derivatives'.

[121] P. Heggarty recognises both the importance and the challenges inherent in this endeavour, highlighting the crucial role of computerised methods, see Paul Heggarty, 'Beyond Lexicostatistics: How to Get More out of "Word List" Comparisons', *Diachronica* 27, no. 2 (1 January 2010): 301–24.

[122] 'CogNet – UKC – Universal Knowledge Core', CogNet, 2023, http://ukc.disi.unitn.it/index.php/cognet/. This database incorporates two categories of cognates: those with a substantiated etymological link based on gold-standard evidence, meaningful for our investigations in historical linguistics, and those with only indirect evidence of relatedness, such as through orthographic or phonetic resemblance, which are appropriate for computational linguistics applications like machine translation or bilingual lexicon induction.

[123] Khuyagbaatar Batsuren, Gabor Bella, and Fausto Giunchiglia, 'CogNet: A Large-Scale Cognate Database', in *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics* (Florence, Italy, 2019), 3136–45.

1.1.9.2. Cognates in Egyptian and Other Afro-Asiatic Languages

Despite having a common etymology, some cognates have undergone semantic shift[124], which makes sometimes difficult to recognize them with controversial results. As J. Allen stated[125], the correspondence between the consonants of Egyptian words and those of cognates in other Afro-Asiatic languages is a subject of debate and uncertainty. Our analysis will rely on the studies by J. Allen[126] regarding the phonemic inventory of Proto-Semitic consonants and their reconstructed correspondences. Previous studies on these cognates have focused on Semitic languages and their reconstructed Proto-Semitic forms, important for the early history of the language[127]. Our approach will also focus on cognates in more recent languages always to observe some similarities or divergencies[128].

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[124] Ana Sabina Uban et al., 'Tracking Semantic Change in Cognate Sets for English and Romance Languages', in *Proceedings of the 2nd International Workshop on Computational Approaches to Historical Language Change 2021* (LChange 2021, Online: Association for Computational Linguistics, 2021), 64–74.

[125] Allen, *The Ancient Egyptian Language an Historical Study*, 33–34.

Concerning further significant contributions to the ongoing scholarly discourse, refer to Frank Kammerzell, 'Zur Umschreibung Und Lautung', in *Großes Handwörterbuch Ägyptisch - Deutsch: Die Sprache Der Pharaonen (2800-950 v. Chr.)*, ed. Rainer Hannig and Frank Kammerzell (Mainz: Philipp von Zabern, 1995), xxiii–lix; Loprieno, *Ancient Egyptian*, 28–50; Thomas Schneider, 'Beiträge Zur Sogenannten "Neueren Komparatistik"', *Lingua Aegyptia* 5 (1997): 189–209; Carsten Peust, *Egyptian Phonology: An Introduction to the Phonology of a Dead Language*, Monographien Zur Ägyptischen Sprache 2 (Göttingen: Peust & Gutschmidt, 1999); Frank Kammerzell, 'Old Egyptian and Pre-Old Egyptian: Tracing Linguistic Diversity in Archaic Egypt and the Creation of the Egyptian Language', in *Texte Und Denkmäler Des Ägyptischen Alten Reiches*, ed. Stephan Johannes Seidlmayer (Berlin: Achet, Dr. Norbert Dürring, 2005), 165–247.

[126] Allen, *The Ancient Egyptian Language an Historical Study*, chap. 4.

[127] Alexander Militarev, L.E. Kogan, and A. Arakelova, *Semitic Etymological Dictionary*, Alter Orient Und Altes Testament 2 (Münster: Ugarit-Verlag, 2000); Alexander Militarev, 'Addenda and Conclusion of an Etymology-Based 100item Wordlist for Semitic Languages', in *Volume 13/1-2*, ed. Vladimir Dybo et al. (Piscataway, NJ, USA: Gorgias Press, 2019), 91–138, https://doi.org/doi:10.31826/9781463236779-009.

[128] Alexander Borg, *Rewriting Dialectal Arabic Prehistory: The Ancient Egyptian Lexical Evidence*, Language and Linguistics E-Books Online, Collection 2021 (Leiden, The Netherlands: Brill, 2021), https://doi.org/10.1163/9789004472136.

1.1.9.3. Derivatives in Egyptian Language

As we explained earlier, derivatives are usually formed within a single language, while cognates are formed across different languages. Derivatives are formed by adding prefixes or suffixes –affixes [129] – to a base word, while cognates share a common root word[130]. Derivatives often have a different meaning than their base word, while cognates could have, yet not exclusively, a similar meaning to their counterpart in another language. Understanding the difference between linguistic derivatives and cognates is important for studying the development and evolution of languages[131]. While cognates can reveal the historical relationships between different languages, derivatives can provide insights into how words are formed and how their meanings change over time. Again, we will postpone the examination of examples to a subsequent section dedicated to case studies.

All things considered, the study of cognates and derivatives is of significance for our historical and comparative linguistic inquiry since it enables us to explore the degree of relatedness between languages. Moreover, by analysing cognate pairs, we can also infer the evolution of the Egyptian language and its interaction with other languages over time. The prominence of cognates extends beyond the field of linguistics, as the study of cognates can facilitate a wide range of applications such as language acquisition, bilingual word recognition, corpus linguistics, cross-lingual information retrieval, and machine translation[132].

While the study of cognates and derivatives illuminates the lexical evolution of the Egyptian language, a wide-ranging inquiry also demands a rigorous palaeographic analysis of the script itself. The morphological development and semiotic function of individual hieroglyphs offer a complementary perspective on diachronic change. The investigation therefore now turns to a graphic analysis of the sign N4 to explore these dimensions.

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[129] In Ancient Egyptian the list of the attested affixes is : prefixes *m- n- ḥ- s-;* (written suffixes) *-t -w -tj -j, ø,* see Malaise and Winand, *Grammaire*, para. 25.

[130] For a recent compilation of hypothetical roots for Egyptian words, based on phonetic and semantic similarities among attested lexemes, not on etymology, see Helmut Satzinger, 'A Lexicon of Egyptian Lexical Roots (Project)', in *Afroasiatica Romana : 'Proceedings of the 15th Meeting of Afroasiatic Linguistics' 17-19 September 2014, Rome*, ed. Maria Giulia Amadasi Guzzo and Alessio Agostini (Roma: Sapienza Università di Roma, 2017), 213–23; Helmut Satzinger and Danijela Stefanović, *Egyptian Root Lexicon*, Lingua Aegyptia, Studia Monographica 25 (Hamburg: Widmaier, 2021).

[131] Rychło, 'Cognates versus Independent Derivatives'.

[132] Alina Maria Ciobanu and Liviu P. Dinu, 'Automatic Identification and Production of Related Words for Historical Linguistics', *Computational Linguistics* 45, no. 4 (1 January 2020): 2.

Graphic Analysis of the sign  N4

This section presents the analysis of the ancient Egyptian hieroglyph N4, primarily associated with hydrometeors. It examines the sign's formation as a structured composite grapheme, tracing its evolution from potential proto-hieroglyphic precursors to its established function within the hieroglyphic system. The investigation delves into the palaeographic variations of N4 across different historical periods, identifying distinct morphological typologies and their semiotic implications. Also, the analysis explores the complex semantic relationships between N4 and related signs, particularly those denoting luminosity, drawing potential parallels with possible cognitive strategies observed in other writing systems and contextualizing these connections within ancient Egyptian cosmology and lexical structures.

1.1.10. Formation and Structure of the sign  N4

In the group of figurative determinatives, the logogram, characteristic of hydrometeors and emanations[133], is the sign  N4. The sign could be considered as a *dessin raisonné* "reasoned design"[134], this designation indicates that its conceptual architecture transcends mere pictographic representation to embody a composite structure derived from the systematic integration of its constituent elements. The sign does not attempt naturalistic representation but rather presents a conventionalized visual schema encoding specific semantic properties through its structural components.

[133] Winand, Stella, and Neven, *Lexique Du Moyen Égyptien: Avec Une Introduction Grammaticale et Une Liste Des Mots Présentés Selon Le Classificateur Sémantique*, 155.

[134] The image is not a realistic representation but a conventional one, see Pierre Lacau, *Sur Le Système Hiéroglyphique*, Bibliothèque d'étude 25 (Le Caire: L'institut français d'archéologie orientale, 1954), 25;42.

The sign's tripartite composition can be systematically analysed as follows:

Component	Element	Semiotic Interpretation
	Celestial vault[135]	Origin and source of the phenomenon.
	Liquid emission	Liquids multiplied in an upright position.
	Oriented motion	Directional flow with vectorial properties.

Unlike other signs, N4 functions as what P. Vernus classifies as an "emergent monogram"[136]—a graphemic structure whose semantic value derives from the synthesis of its constituent parts rather than through simple additive association. The meaning emerges from the integration of components, creating a semiotic unit whose signification transcends the sum of its elements. This compositional principle could demonstrate how natural phenomena could be visually encoded through structured component relationships.

The structural integration of these components could reflect a cognitive model of atmospheric waters that remained remarkably stable throughout Egyptian history. In addition to its role as a determinative for hydrometeorological phenomena, the sign N4 also functions as a logogram for the verb *ḥwj* "to rain"[137] and the noun *i͗ʒd.t* "dew"[138], thereby encoding both the process and product of atmospheric precipitation within its semantic spectrum.

The interrelation between graphemic structure and lexical semantics is further evidenced in the parallel construction of compound lexical units denoting precipitation. The compound expression

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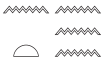
[135] For a detailed analysis of the sign N1, see Philippe Collombert, 'The Egyptian Hieroglyphic Sign for the Sky', *Hieroglyphs* 1 (2023): 219–44.

[136] Pascal Vernus, 'Inventer Des Signes d'écriture Figuratifs', in *Guide Des Écritures de l'Égypte Ancienne*, ed. Stéphane Polis (Le Caire: Institut français d'archéologie orientale, 2022), 135–36.

We extend profound gratitude to Professor Pascal Vernus for his insights shared during our private correspondence (15 April 2025), where his juxtaposition of Egyptian graphemic analysis with the structural principles of Chinese *liùshū* (六書) illuminated previously unrecognized multidimensional semantic resonances and provided inspiration for the comparisons between the two writing systems.

[137] *Wb* 3, 48.23. TLA ID 102750.

[138] *Wb* 1, 152.7–12. TLA ID 33840.

 *mw n(.j) pt*[139] "water from the sky", denoting rain, conceptually mirrors the graphemic composition of N4, demonstrating how the semantic organization of the lexicon reinforces and is reinforced by the structural principles of the writing system. Similar lexicalization patterns appear in other terminology, such as  *n.t* "water, flood"[140],  *nw.w* "primaeval waters"[141],  *nw.j*[142] " water (gen.); (flood) water(s)", all also semantically linked to atmospheric waters.

This sign exemplifies how the physical arrangement of components within the sign space conveys additional semantic information beyond mere denotation[143]. The celestial vault positioned superiorly establishes the spatial origin of the phenomenon, while the descending elements visually encode the directional properties inherent to precipitation. The structural integration of these components reflects a cognitive model of atmospheric waters that remained remarkably stable.

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[139] *Wb.* 2, 51.2.

[140] *Wb.* 2, 198.10-15. TLA ID 79020.

[141] *Wb.* 2, 214.18-215.4. TLA ID 500005.

An illustrative example of this semantic association can be found in the following passage from the Late Period P. Berlin 3048, E. VIII, 4:

snḥp Nww n(.j) p.t sprr mw tp ḏw.w š.w

"He who creates the Primeval Waters of the sky (i.e., rain), who causes water to flow forth over the mountains and valleys".

In this context, the term *Nww*, typically associated with the primordial ocean, is directly linked to the celestial realm (*p.t*) and explicitly equated with atmospheric precipitation. The passage emphasizes the divine power to generate and control the flow of water from the heavens, drawing a clear connection between the mythological concept of the Primeval Waters and the natural phenomenon of rain.

[142] *Wb*. 2, 221.3-13. TLA ID 81240.

[143] Stéphane Polis, 'The Functions and Toposyntax of Ancient Egyptian Hieroglyphs: Exploring the Iconicity and Spatiality of Pictorial Graphemes', *Signata : Annales Des Sémiotiques* 9 (2018): 291–363.

1.1.10.1. Earliest Attestations of N4

Prior to the emergence of hieroglyphs like N4, during the Naqada IID and IIIA1 periods (c. 3400-3200 BCE), early Egyptian visual culture featured iconographic forms that also engaged with atmospheric phenomena[144]. Notably, a recurring motif found on Wavy-handled jars from Abydos and labels from tomb U-j depicts a vertically oriented, winding element with a crescent above it[145].



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This graphic form has been interpreted as a lightning bolt striking from the sky, with the crescent representing the sky and a ground line sometimes present to emphasize the action, it could be considered a conflated form as both a lightning bolt and a vertical snake, representing dangerous forces from above and below. The bulb-like thickening on some depictions could support the snake identification[147].

While this predynastic motif shares a vertical orientation and relates to powerful atmospheric events with the later hieroglyphs, 𓇋 N3[148] and 𓇼 N4, there are significant distinctions. The earlier form belongs to the realm of iconography on prestige and ritual objects, emphasizing a singular, forceful

[144] Frank Förster et al., 'The Earliest Known Egyptian Metal Vessel with Figurative Decoration (Naqada IIIA): Lethal Power Emblems, Early Kingship and Ritual Practice', *Forthcoming*, Archeo-Nil, 2025.

[145] Collombert, 'The Egyptian Hieroglyphic Sign for the Sky', 228.

[146] Förster et al., 'The Earliest Known Egyptian Metal Vessel with Figurative Decoration (Naqada IIIA): Lethal Power Emblems, Early Kingship and Ritual Practice', fig. 4 p. 8.

[147] Förster et al., 42.

[148] The hieroglyph N3 𓇋, later denoting *grḥ* "night", appears in one of its earliest forms within the observed iconographic motif from Tomb U-j, where Dreyer identified it as a lightning bolt positioned below a sky symbol on Wavy-handled jars and labels. See, Günter Dreyer et al., *Umm El-Qaab I: Das Prädynastische Königsgrab U-j Und Seine Frühen Schriftzeugnisse*, Archäologische Veröffentlichungen, Deutsches Archäologisches Institut, Abteilung Kairo 86 (Mainz: Philip von Zabern, 1998), 143.

event[149]. In contrast, N3 and N4 are systematically structured hieroglyphs within a developed writing system, appearing by the Fifth Dynasty, representing the broader concept of hydrometeors through its component elements.

Hypothetical Precursors: Fourth Dynasty Inscriptions

Scholars have proposed earlier precursors to N4 in Fourth Dynasty (c. 2613–2494 BCE) rock inscriptions at the *Wasserberg* or "Meteorological Observations" near the Dakhla Oasis, interpreted as proto-forms of meteorological notation[150]. These carvings seem to depict rectangular sky glyphs above straight and undulating lines, paralleling N4's later structure. However, the absence of accompanying phonetic complements or syntactic context renders their classification as conventional hieroglyphic signs, in the strictest traditional sense, problematic. Scholars [151] caution against overinterpretation, noting that such symbols may represent ideographic notations for water management rather than lexical signs.

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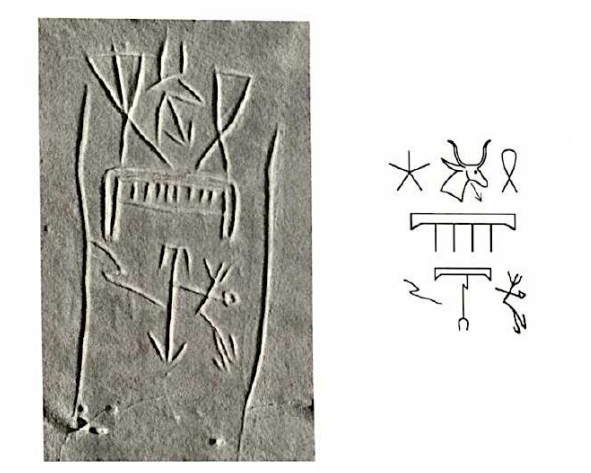
[149] The semantic evolution of *nšnj* "storm", "rage" (*Wb* 2, 341.1-16. TLA ID 88790) could exemplify the conceptual blending of violent atmospheric forces and aggression in Egyptian lexicography. Analysis of P. Edwin Smith (Case 41, Gloss E) reveals *nš* as synonymous with *pr* "emergence", positioning *nšnj* as the sky's total release of water. Critically, determinatives of the Seth-animal fused with water symbols or the *pt*-sign (sky) inject the term with an aggressive dimension, reshaping neutral "rain" into destructive "storm". This violent connotation extends metaphorically to human emotion, enabling *nšnj* to denote "rage", thereby illustrating how natural and affective violence shared a lexical framework; paraphrased from Angela McDonald, 'Animal Metaphor in the Egyptian Determinative System: Three Case Studies' (Oxford, University of Oxford, 2002), 135–36.

[150] Ventker, *Der Starke*, 10 note 40; Klaus-Peter Kuhlmann, 'Der "Wasserberg Des Djedefre" (Chufu 01/1) : Ein Lagerplatz Mit Expeditionsinschriften Der 4. Dynastie Im Raum Der Oase Dachla', *Mitteilungen Des Deutschen Archäologischen Instituts, Abteilung Kairo* 61 (2005): 267–69.

[151] Through private correspondence, email message 14/10/2024, Pascal Vernus conveyed his reservations regarding the interpretation of this specific sign as a form of writing, a stance that mirrors the scepticism held by Juan Carlos Moreno García. Refer to Pascal Vernus, 'Écriture, Langue et Images: La Naissance Des Hiéroglyphes', *Claroscuro* 19, no. 2 (2020): 11–12.



Meteorological observations 1[152]



Meteorological observations 2[153]

The Dakhla examples seem to lack the diagnostic downward-sloping strokes that later distinguish N4 from generic "sky+water" composites, suggesting they belong to a broader tradition of proto-hieroglyphic environmental notation rather than constituting direct antecedents.

[152] Meteorological observations, images and transcriptions of the rock inscriptions of the Dachla Oasis, from the photo of Kuhlmann, 268.

[153] Meteorological observations, images and transcriptions of the rock inscriptions of the Dachla Oasis, from the photo of Kuhlmann, 268.

Fifth Dynasty Pyramid Texts

The earliest unequivocal attestation of hieroglyph N4 (𓈖) occurs in the Pyramid Texts of Unas (e.g. Fig. 4), dating to the late Fifth Dynasty (c. 2345–2315 BCE). Within the ritual corpus, N4 functions as a determinative for terms such as *ḥw.t* "rain", *ỉgp* "cloud", *šnỉ.t* "hail, storm", *sšn* "storm, severe weather", and *ḫ3p.t* "storm, severe weather", situating it firmly within the theological discourse on celestial emissions. This usage aligns with the sign's tripartite structure (celestial vault, descending liquid, and motion vectors), which visually encodes the Egyptian conception of rain as a dynamic interaction between divine agency (*p.t* as source) and terrestrial reception.

The emergence of N4 during this period aligns with the developments in Egyptian writing system, where determinatives were increasingly used to clarify meaning and enrich textual expression[154].

While the sign N4's precursors in Naqada III iconography and Fourth Dynasty rock inscriptions remain speculative due to their lack of specific context, its formalization in Fifth Dynasty Pyramid Texts (c. 2345–2315 BCE) marks its crystallized integration into the hieroglyphic system. Thereafter, N4 exhibits remarkable stability in form and function across three millennia, contrasting sharply with its ambiguous antecedents.

Despite minor graphetic variations, the tripartite structure (celestial vault, descending elements, directional vectors) remains intact, reflecting standardized scribal conventions. This stability contrasts with the sign's contested prehistory and underscores its entrenched role in encoding hydrometeorological concepts. Unlike earlier proto-hieroglyphic signs, which blended ritual and functional notation, N4's later usage adheres strictly to lexical and grammatical frameworks, demonstrating the maturation of hieroglyphic writing as a tool for both documentation and cosmological discourse. While the sign's underlying structural principles remain largely consistent, allowing it to reliably represent concepts of descending atmospheric water, it exhibits significant

[154] This period witnessed a significant increase in the quantity and complexity of written genres, with a greater number of determinatives being introduced to better differentiate words both phonetically and semantically, refer to Antonio Loprieno, *Ancient Egyptian: A Linguistic Introduction* (Cambridge: Cambridge University Press, 1995), 20–21; Andréas Stauder, 'The Earliest Egyptian Writing', in *Visible Language: Inventions of Writing in the Ancient Middle East and Beyond*, ed. Christopher Woods (Chicago, IL: Oriental Institute of the University of Chicago, 2010), 145–46.

graphetic variation in its visual rendering across subsequent periods, which will be explored in the next section.

1.1.10.2. Graphetic Categories and Morphological Variations of the N4 Sign

Palaeography Typology and Structural Variants

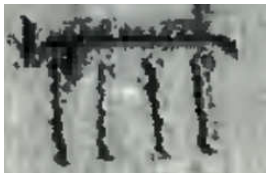
The diachronic examination of the N4 hieroglyph's attestations from the Old Kingdom through the Ptolemaic Period showcases a fundamental morphological consistency in its underlying structural composition, despite considerable graphetic variation. This palaeographic analysis, based on systematic documentation across monumental inscriptions, funerary texts, and administrative documents, identifies three primary morphological typologies distinguished specifically by the rendering of the water line element, independent of the celestial vault's configuration or the relative proportions between components.

It is noteworthy that these three water line morphologies are not exclusive to N4 but manifest across the hieroglyphic corpus in signs containing water elements (e.g.  A6,  A60,  A100,  D46A,  D60,  D198,  W15,  W16) prior to the Late Period[155].

[155] According to P. Vernus, through personal communication (May 21, 2025), it should be emphasized that all of these observations are part of the broader issue that I refer to as "stylization in the form of broken zigzag lines, circles, dots, continuous strokes, chevrons, and similar motifs", see also Pascal Vernus, *Les Hiéroglyphes*, forthcoming.

1. Descending Lines





This variant, exemplified in the Pyramid of Unas (5th Dynasty, Old Kingdom)[156], features zigzag lines, from one single line to multiple jets of rain. Another relevant example is found on the 12th dynasty Coffin of Khnumu-Nekht:

[157]

Here, the lines are descending from the celestial arch, creating a visual impression of continuous flow. This representation appears to be the prevalent form during the Old Kingdom period. The lines typically maintain consistent amplitude and wavelength, suggesting standardized execution within the scribal tradition.

The waving line morphology represents the earliest attested form and remains dominant throughout the Old and Middle Kingdom[158]. The monogram composed by a variant of the sign N4 (𓈙) appears in significant collocations with the Sethian animal determinative 𓃩 (E21) within the Coffin

[156] Bernard V. Bothmer, Alexandre Piankoff, and L. F. Husson, *The Pyramid of Unas*, ed. N. Rambova, Egyptian Religious Texts and Representations 5 (Princeton, NJ: Princeton University Press for the Bollingen Foundation, 1968), pl. 31, 9.

[157] Walter Ewing Crum, Herbert Thompson, and W. M. Flinders Petrie, *Gizeh and Rifeh*, British School of Archaeology in Egypt and Egyptian Research Account 13 (London: British School of Archaeology in Egypt; Bernard Quaritch, 1907), pl. XIIIG.; Margaret Alice Murray, *The Tomb of Two Brothers*, Museum Handbooks (Manchester Museum Owens College) (Manchester, London: Sherratt & Hughes ; Dulau, 1910), pl. 19,2.

[158] J. Vandier, 'Un Curieux Monument Funéraire Du Moyen Empire', *Revue Du Louvre: La Revue Des Musées de France* 13 (1963): 1–10.

Texts, notably in CT VII, 517c[159]. This association reinforces the meteorological connotations of Seth's character within Egyptian religious texts establishing the canonical representation of precipitation phenomena in the hieroglyphic repertoire[160]. The 25th Dynasty Stelae of Taharqa at Kawa exhibit a morphologically distinct variant, featuring either a single pendulous element or three descending lines terminating in droplet forms.


161


162

This innovation, later echoed in Ptolemaic-era inscriptions at Karnak Temple


[163],

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[159] According to private correspondence with P. Vernus (21 May 2025), the sign under discussion in  CT VII, 517c is identified as a double monogram. Vernus further notes that one variant incorporates the animal sign linked to the god Seth, depicted in the act of spitting, as observed in  CT VI, 254p, possibly related to his epithet the "Spewer" related to his influence over atmospheric phenomena as we will see on page 240. Additionally, it should be noted that the sign N1 is attested with water flowing down from one side, as seen in


. in CT VII, 487c.

[160] For a recent analysis of this sign's semantic function in relation to atmospheric phenomena, see Jorke Grotenhuis, 'Digitizing Seth: Digital Approaches to Sethian Classification in the Coffin Texts', *Hieroglyphs* 2 (2024): 7–42.

[161] Giuseppina Lenzo, *Les Stèles de Taharqa à Kawa: Paléographie*, Paléographie Hiéroglyphique 7 (Le Caire: Institut française d'archéologie orientale, 2015), 91.

[162] Lenzo, 91.

[163] Pierre Clère, *La Porte d'Évergète à Karnak, 2e Partie: Planches*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 84 ([Le Caire]: Institut français d'archéologie orientale du Caire, 1961), pl. 44.

This could demonstrate that while these categories provide a useful analytical framework for examining the components of hieroglyph N4, they remain notably permeable in practice. The evolutionary trajectory visible in these examples already exposes significant morphological development connecting to the third category that we will explore in subsequent sections. Thus, the categories help structure our analysis, but the overlaps and transitions between them reveal a constant interaction, highlighting the need to consider their interconnections rather than treating them as rigidly separate.

2. Descending Elements as Grain, Lines and Drops

The graphemic innovation of descending elements within the N4 sign demonstrates a strategic shift from linear zigzag configurations to discrete representations of grain, droplets, and small oblique or straight small lines. This morphological transformation achieves dual objectives: heightened naturalism in rainfall depiction and the establishment of semantic interconnections with sign M33, which classifies grain-related terms[164].

This parallelism between descending hydrometeor elements and cereal pictographs potentially encodes a conceptual equation of precipitation types, particularly evident in terms like  *šnỉ.t* "hailstorm; storm"[165], where icy pellets' morphological resemblance to cereal grains may reflect an associative framework.

Notable exemplars of this graphemic strategy appear in Pyramid Texts Utterance 262 (§336ab):

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[164] Winand, Stella, and Neven, *Lexique Du Moyen Égyptien: Avec Une Introduction Grammaticale et Une Liste Des Mots Présentés Selon Le Classificateur Sémantique*, 154.

[165] *Wb* 4, 502.15-503.4. Lemma ID 155570. This lexeme occupies a liminal position within the hydrometeorological semantic field, exhibiting considerable polysemy that spans both specific precipitation phenomena "hail" and broader atmospheric disturbances "storm". Its semantic instability—evidenced by divergent lexicographical interpretations ranging from concrete meteorological events to abstract perturbation concepts—renders it unsuitable for the focused morphological and contextual analysis framework applied to our core lexemes. Its graphemic variability and determinative alternations appear to have directly influenced scholarly interpretations: attestations featuring N4 with grain-shaped descending elements have been consistently translated as concrete meteorological phenomena "hail", while those displaying N4 variants with linear or chaotic water patterns are rendered as violent atmospheric disturbances "storm".

[166]

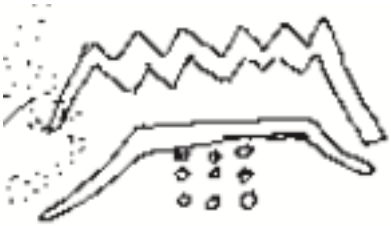
Where descending grain-like elements function as determinative for specific meteorological events. Further morphological innovation is evidenced in the rock inscriptions of Wadi Hammamat 114 (lines 6, 9):

[167] [168]

Which deploy unique three-over-three grain arrangements and quintuple oblique lines, and Louvre Stela C30 (verso, line 9): [169], featuring an atypical three-tiered linear configuration.

These exceptional cases, while maintaining fundamental structural principles of the N4 sign, present distinctive formal characteristics that moderately expand the boundaries of the established typological parameters without essentially challenging the overall classification system.

A particularly noteworthy instance of the descending droplets motif-where three elements are rendered as droplets rather than simple lines appears on the First Intermediate Period stela of Gegi from Upper Egypt:

[170].

[166] These photos are provided by Philip Seyr, to whom I am deeply indebted not only for this visual documentation but also for signalling crucial addenda that significantly enhanced the palaeographic analysis presented herein.

[167] Photos provided by Philip Seyr.

[168] Photos provided by Philip Seyr.

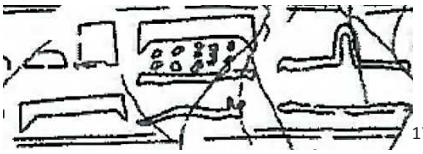
[169] See 'Stèle de Sebekiry et Sebekhetep', accessed 11 April 2025, https://collections.louvre.fr/ark:/53355/cl010022854.

[170] Luc Gabolde and Mansour el-Noubi, 'Stèle de Gegi (PPI) Avec Une Invocation d'offrande Au "Furieux" (?) Dans Les Magasins de Louxor', *Revue d'égyptologie* 51 (2000): 263.

The iconographic evidence from this monument clearly demonstrates the adoption of a distinctive representational strategy, in which the descending elements culminate in droplet forms, thereby signalling a nuanced approach to depicting celestial emanations.

Here we can also observe that while less common, variation in the celestial arch component occasionally appears, particularly in simplified renderings as a horizontal or slightly curved bar without terminal elements in certain Old Kingdom contexts, as seen in PT § 891b, PT § 426c, Senwosretankh funerary inscriptions[171]. This structural simplification appears predominantly in spatially constrained contexts or expeditious executions, suggesting pragmatic adaptation rather than conceptual innovation. Even reduced to a minimal horizontal band, the arch retains its core semiotic function: encoding the sky (*p.t*) as a bounded cosmic plane that is simultaneously closed and penetrable[172]. The absence of terminal elements in these simplified forms reinforces the sky's dual nature—an impenetrable vault punctuated by liminal portals through which divine forces (light, precipitation) emerge.

A comparable variant characterized by descending drop-like elements is documented in a New Kingdom context, specifically within the rock inscription at Hagar el-Merwa, which dates to the reign of Thutmosis I and a further attestation of this morphological feature appears on the Poetical Stela of Thutmosis III:


173


174

This variant demonstrates:

¥ Distinct separation between celestial vault and descending elements

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[171] Harry Burton, Lindsley F. Hall, and William C. Hayes, *The Texts in the Maṣṭabeh of Se'n-Wosret-'ankh at Lisht*, Publications of the Metropolitan Museum of Art Egyptian Expedition 12 (New York: Metropolitan Museum of Art, 1937), pl. IX, 458.

I am indebted to Philip Seyr for his insights concerning these observations, communicated through personal correspondence (16/03/2025).

[172] Collombert, 'The Egyptian Hieroglyphic Sign for the Sky', 232.

[173] W. V. Davies, 'Nubia in the New Kingdom: The Egyptians at Kurgus', in *Nubia in the New Kingdom: Lived Experience, Pharaonic Control and Indigenous Traditions*, ed. Neal Spencer, Michaela Binder, and Anna Stevens (Leuven: Peeters, 2017), fig. 6.

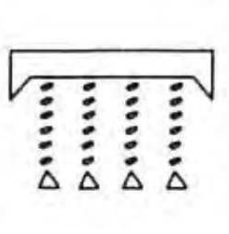
[174] CG34010, line 15.

- Individual droplets represented as small circles ovals or grains
- variable numbers of droplets depending on available space and textual context.

Evolution of Droplet Morphology

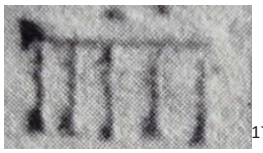
A significant transformation in droplet iconography emerges in the Tomb of Senenmut dating to the early New Kingdom period (18th Dynasty, c. 1479–1458 BCE). Initially, the hieroglyphic representation features a linear arrangement of dots culminating in an upward-pointing triangular elements, such as

[175]



Tombs of Senenmut[176]

Within the same inscriptional context, merely columns away, this configuration undergoes modification wherein the discrete droplets are replaced by a sequence of interconnected upward triangular elements:

[177] Tombs of Senenmut.

Remarkably, these morphological variations with triangular elements reappear during the much later Ptolemaic era, as evidenced in the following table, indicating either a sustained tradition or deliberate archaizing revival of these representational conventions.

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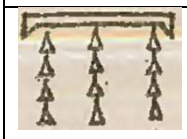
[175] Peter F. Dorman, *The Tombs of Senenmut: The Architecture and Decoration of Tombs 71 and 353*, Publications of the Metropolitan Museum of Art Egyptian Expedition 24 (New York: Metropolitan Museum of Art, 1991), pl. 64-65 col. 40;45.

[176] Facsimile from Dimitri Meeks, *Les Architraves Du Temple d'Esna: Paléographie*, Paléographie Hiéroglyphique 1 (Le Caire: Institut français d'archéologie orientale, 2004), 127.

[177] Peter F. Dorman, *The Tombs of Senenmut: The Architecture and Decoration of Tombs 71 and 353*, Publications of the Metropolitan Museum of Art Egyptian Expedition 24 (New York: Metropolitan Museum of Art, 1991), pl. 64-65 col. 40;45.

A significant palaeographic observation regarding these examples concerns the distinctive configuration of water lines, which seems to exhibit features specific to the N4 sign and not attested in other mentioned hieroglyphs that incorporate water elements. These particular linear arrangements-characterized by their specific orientation, spacing, and termination in triangular forms constitute a graphemic signature unique to N4/S15's semantic domain of celestial emanation.

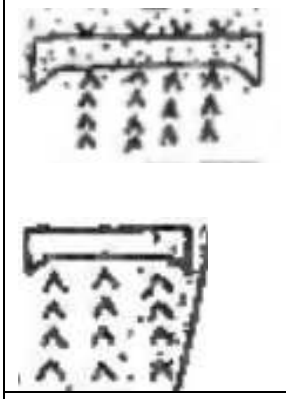
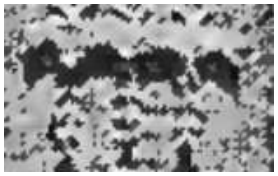
Droplet morphology in N4 S15

	Site/Monument	Period/Dynasty	Morphological Features of the Sign
	Naos of Sopdu, Saft el-Henneh[178]	30th Dynasty	Descending elements shaped as upward-pointing triangles.
	Temple of Horus, Edfu[179]	Ptolemaic Period	Downward-pointing open triangles surmount the sky vault; four horizontal rows of drop-shaped elements, each terminating in upward-pointing open triangles.
	Temple of Esna[180]	Ptolemaic Period	Downward-pointing open triangles atop the sky vault, with additional upward-pointing open triangles in the descending elements.

[178] Edouard Naville, *The Shrine of Saft El Henneh and the Land of Goshen (1885)*, Memoir of the Egypt Exploration Fund 5 (Trübner, 1887), pl.2; Günther Roeder, *Naos: Nr. 70001-70050*, Catalogue Général Des Antiquités Égyptiennes Du Musée Du Caire 75 (Breitkopf & Härtel, 1914), pl. 17-33; Åke Engsheden, *Le Naos de Sopdou à Saft El-Henneh (CG 70021): Paléographie*, Paléographie Hiéroglyphique 6 (Institut français d'archéologie orientale, 2014), 113. I thank Professor I. Guermeur for signalling that this analysis should precisely cite Engsheden, *Le naos de Sopdou*, §321, and especially the reference therein to D. Meeks, *Architraves du temple d'Esna*, §342, p. 127, which explains the N4/S15 sign overlap underlying this discussion.

[179] A. M. Blackman and H. W. Fairman, 'The Significance of the Ceremony Hwt bHsw in the Temple of Horus at Edfu', *Journal of Egyptian Archaeology* 36 (1950): 70.

[180] Meeks, *Les Architraves Du Temple d'Esna: Paléographie*, 127.

	Temple of Amun-Re-Montu in Karnak (Propylon)[181]	Ptolemaic Period	Downward-pointing open triangles atop the sky vault, with additional upward-pointing triangles in the descending elements. Descending upward-pointing open triangles.
	Temple of Deir el-Medina[182]	Ptolemaic Period	Downward-pointing open triangles atop the sky vault, with additional upward-pointing triangles in the descending elements.

This evolutionary pattern in droplet representation seems to exhibit substantial iconographic overlap with the 𓏏 S15 sign, comprising earlier allographs 𓎛 S16 𓏏 S17, particularly in contexts where traversing elements are integrated into the standard precipitation motif, with the seemingly graphic shared element of the sky vault 𓏠 N1.

This graphemic family attested since at least the First Dynasty 𓏏 S17[183] and the Fourth Dynasty 𓎛 S16[184] , originally depicting a pectoral or girdle of faience beads[185], these signs underwent systematic

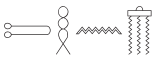
[181] Sydney H. Aufrère et al., *Le Propylône d'Amon-Rê-Montou à Karnak-Nord*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 117 (Institut Français d'Archéologie Orientale, 2000), 403;316.

[182] Luc Gabolde and Pierre du Bourguet, *Le Temple de Deir Al-Médîna*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 121 (Le Caire: Institut français d'archéologie orientale, 2002), 352 (169).

[183] Ilona Regulski, *A Palaeographic Study of Early Writing in Egypt*, Orientalia Lovaniensia Analecta 195 (Leuven: Peeters; Departement Oosterse Studies, 2010), 180.

[184] A. Mariette, *Les Mastabas de l'Ancien Empire: Fragment Du Dernier Ouvrage de A. Mariette*, ed. G. Maspero (Paris: F. Vieweg, 1889), 113.

[185] Gardiner, *EG*, 505.

semantic expansion to encode first words such as "faience, glass"[186], secondly abstract concepts of radiance and illumination, as seen in  *ṯḥn* "to be bright; to gleam; to dazzle"[187].

The connection between light fluidity and the minerals is illustrated in the following:

ỉ ỉȝ.t-wr.t sṯỉ.s wȝḏ šsm.t mfkȝ.t sb(ȝ).w
"Oh far-striding one, she scatters greenstone, malachite, and turquoise—the stars!"
(PT 350 § 567ab)

This remarkable passage may suggest a cosmological connection between celestial bodies and precious green minerals. The verb *sṯỉ* "to shoot; to throw; to pour; to shine"[188], could be interpreted as a semantic bridge, as it is typically employed with liquid subjects yet here applies to stellar emanations and minerals. This usage might reinforce an Egyptian conceptual framework wherein celestial phenomena—whether aqueous or luminous—share properties of flow and diffusion. This interpretation will be further explored in the following sections.

Paleographically significant is  *šsm.t* "malachite"[189], its written form form  using a variant of sign  S17A, which exhibits possible structural morphological parallels with N4 variants[190], and presenting a possible systematic semiotic linkage between precious materials (green stones), and visual properties (luminosity) and architectural elements (columns) which we will explore soon.

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[186] *Wb* 5, 390.11-391.15.TLA 176220.

[187] *Wb* 5, 391-392.16.TLA ID 176570.

Refer also to Sydney Aufrère, *L'univers Minéral Dans La Pensée Égyptienne*, Bibliothèque d'étude 105 (Le Caire: Institut Français d'Archéologie Orientale, 1991), 542.

[188] *Wb* 4, 326.1-327.14. TLA ID 147570.

[189] *Wb* 4, 539.1-3. TLA ID 157430.

[190] In private correspondence (e-mail, 08/08/2025), Dr. Florence Mauric-Barbério drew my attention to the occurrence of sign S17 in KV 17, noting its resemblance to N4 in the writing of *šsm.t*, thereby enriching my reflections on the graphic and semantic relations between these signs.

3. Traversing and Descending Elements as Pillars or Beams

The descending or traversing elements that constitute 𓉐 N4/ 𓊽 S15 variants progressively assimilated visual and functional properties of luminous emission signs, suggesting that Egyptian cosmological thought conceptualized precipitation and radiance as analogous or complementary celestial phenomena. This graphemic conflation potentially encodes the concept that both light and water constitute divine emanations from the celestial realm, differentiated in form but unified in origin.

Particularly revealing is the presence of compositional elements resembling the 𓇋 M13 "stem papyrus" sign[191], in both hydrometeorological and luminosity contexts. This graphemic component appears prominently in terms such as

wȝḏ 𓇋 "papyrus (plant)"[192] and "papyriform column"[193] (architectural element associated with celestial support), possibly connected to the grain morphology already explored;

wȝḏ 𓇋𓊪 "blue-green stone (generic); malachite"[194], term that we found in the aforementioned passage, (precious material with reflective properties.

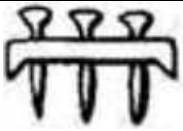
	Site/Monument	**Period/Dynasty**	**Morphological Features of the Sign**
	The temple in Luxor of	18th Dynasty	Four papyrus plants or columns traversing the sky vault.

[191] Gardiner, *EG*, 480. The connotations associated with the sign are considerable in number and have precipitated a substantial body of scholarly literature. Among relevant studies, see particularly David P. Silverman, 'The wAD Amulet of Feldspar and Its Implicit and Explicit Wish', in *Lotus and Laurel: Studies on Egyptian Language and Religion in Honour of Paul John Frandsen*, ed. Rune Nyord and Kim Ryholt (Museum Tusculanum Press, 2015).

[192] *Wb* 1, 263.7-264.4. TLA ID 43530.

[193] *Wb* 1, 264.8-9. TLA ID 43550.

[194] *Wb* 1, 267.3-8. TLA ID 43620.

	Amenhotep III[195]		
	The naos of Sopdu from Saft el-Henneh[196],	30th Dynasty	Three papyrus plants or columns traversing the sky vault.
	the Ptolemaic temple of Edfu[197]	Ptolemaic	Three papyrus plants or columns traversing the sky vault.
	The temple in Athribis[198]	Ptolemaic	Three papyrus plants or columns traversing the sky vault.

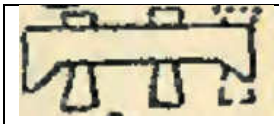
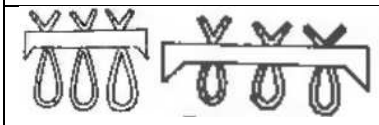
[195] Al. Gayet, *Le Temple de Louxor, 1er Fascicule: Constructions d'Aménophis III. Cour d'Aménophis, Salle Hypostyle, Salle Des Offertoires, Salle Du Lever et Sanctuaire de Maut*, Mémoires Publiés Par Les Membres de La Mission Archéologique Française Au Caire 15 (Paris: Ernest Leroux, 1894), pl. 22. This overlap seems common in hieratic since at least at least the from the 22nd dynasty, see Ursula Verhoeven, Untersuchungen Zur Späthieratischen Buchschrift, Orientalia Lovaniensia Analecta 99 (Leuven: Peeters, 2001), 240.

The formal instability of the S15, S16, hieroglyphic signs dates back at least to the First Intermediate Period, particularly their graphic assimilation to other glyphic forms, as noted in private correspondence with Philip Seyr (16 March 2025), these signs exhibit significant formal variability, often being subsumed under the shape of the F31 (𓄣) classifier, as evidenced in mortuary contexts from Nag ed-Der and Middle Kingdom administrative texts Refer to Edward Brovarski, *Naga Ed-Dêr in the First Intermediate Period* (Atlanta, GA: Lockwood Press, 2018), 303; Vivienne Gae Callender, *El-Hawawish: Tombs, Sarcophagi, Stelae. Palaeography.*, vol. 8, Paléographie Hiéroglyphique (Caire: Institut français d'archéologie orientale, 2019), 472 §716. Concurrently, the same sign possibly merges with the N8 (𓈖) sign in ritual and legal inscriptions, a phenomenon documented in the Coptos Decree E (late Middle Kingdom), now housed at the Musée des Confluences, Lyon.

[196] Åke Engsheden, *Le Naos de Sopdou à Saft El-Henneh (CG 70021): Paléographie*, Paléographie Hiéroglyphique 6 (Le Caire: Institut français d'archéologie orientale, 2014), 113.

[197] Dieter Kurth, *Edfu: Studien Zu Vokabular, Ikonographie Und Grammatik*, Die Inschriften Des Tempels von Edfu: Begleitheft 4 (Wiesbaden: Harrassowitz, 1994), 20.

[198] E. B. Knobel, J. H. Walker, and W. M. Flinders Petrie, *Athribis*, British School of Archaeology in Egypt and Egyptian Research Account 14 (London: British School of Archaeology in Egypt; Bernard Quaritch, 1908), pl. 16.

	The temple of Isis in Philae[199].	Ptolemaic	Four papyrus plants or columns covering the sky vault.
	The temple of Mut in Karnak[200].	Ptolemaic	Elements as a possible variation of the ones *supra*.

1.1.10.3. Comparative Approach: Chinese *Liùshū* and *Zhuǎn Zhù*

The last identified category of N4 (traversing descending elements overlapping with S15) invites a cross-linguistic approach drawing from Chinese character studies. In the Chinese *liùshū* (六書), a framework for categorizing Chinese characters, the category of *zhuǎn zhù* (转注, "transformed cognates")[201] describes characters that share a semantic root but diverge in later form while retaining conceptual kinship, exemplified by the pair 考 (*kǎo*, "to investigate/aged") and 老 (*lǎo*, "old"). These characters, derived from the same etymological root and form, bifurcated into distinct glyphs while preserving their semantic connection to antiquity and longevity.

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[199] Junker, Winter, and Daum, *Philä-Publikation II: Das Geburtshaus Des Tempels Der Isis in Philä,* p. 56-7.

[200] S. Cauville et al., *La Porte Ptolémaïque de l'enceinte de Mout à Karnak*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 107 (Le Caire: Institut français d'archéologie orientale, 1983), pl. 7, 9.

[201] Recent studies on the concept of "转注" (*zhuǎn zhù*) in Chinese philology have provided significant insights into its interpretation and historical development. Gao Xiaofang (高小方), in his article "也论'转注" (*Another Discussion on 'Zhuan Zhu'*), argues for a more nuanced understanding of the term, emphasizing its role within the Six Principles of Chinese character formation and addressing longstanding ambiguities in its definition. Gao's work highlights the necessity of revisiting classical texts to clarify the term's semantic and functional dimensions. Similarly, Ji Wenhui (吉文辉), in "转注并非不解之谜" (*'Zhuan Zhu' Is Not an Unsolvable Mystery*), challenges the notion that "转注" is an enigmatic concept. Ji provides a systematic analysis of historical interpretations, arguing that its meaning can be demystified through careful philological and contextual examination. Together, these studies contribute to a deeper understanding of "转注" by bridging traditional scholarship with contemporary linguistic perspectives. Refer to 高小方, '也论"转注"', 辞书研究 1 (2017): 50–58; 吉文辉, '转注并非不解之谜', 汉字文化 14 (2017): 54–57.

This cognitive strategy of extending semantic fields through graphemic variation finds striking parallels in the Egyptian writing system, where divergent signs encoding celestial phenomena–such as  S15's luminous emissions and N4's precipitation–coexist within a shared framework of celestial emanation. Similar to how *zhuǎn zhù* reflects a cognitive strategy to extend semantic fields through modified visual representations, the Egyptian system appears to encode analogous conceptual bridges—treating light and water as parallel manifestations of celestial "outflow". The durability of such connections in both scripts might imply cross-cultural cognitive patterns in mapping abstract natural phenomena onto writing systems, organizing celestial emissions (light, rain) as possible cognate expressions of divine agency.

This conceptual bridge is further substantiated by textual evidence, one of these is a Third Intermediate Period funerary inscriptions, which explicitly articulate the metaphorical association between light and liquid phenomena. A focal example appears on the outer coffin of Nes-Pauti-Taui, where the inscription states:

> *ḏd.f prỉ.ỉ {.k} ʿq(.ỉ) mȝȝ(.ỉ) ỉtn wr {wr} ḥwỉ.(w) m ỉȝḫ.w.f*
> He says: I come out, (I) go in, (I) see the great disc of the sun, flooded with its light.
> (Nes-Pauti-Taui's Outer Coffin, Bottom part, Interior, Banner 43)[202]

The text employs a particularly significant semantic construction by pairing the term *ỉȝḫ.w*[203], which specifically denotes solar radiance, with the pseudo-particle form of the verb *ḥwỉ*, "to flood"[204], here written with the W21 as a determinative for wine and liquids[205]. This graphic choice is especially

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[202] Roswitha Egner and Elfriede Haslauer, *Kunsthistorisches Museum Wien, Ägyptisch-Orientalische Sammlung, Lieferung 10: Särge Der Dritten Zwischenzeit 1*, Corpus Antiquitatum Aegyptiacarum: Lose-Blatt-Katalog Ägyptischer Altertümer (Mainz/Rhein: Philipp von Zabern, 1994).

[203] *Wb* 1, 33.3-5. TLA ID 20880.

[204] *Wb* 3, 48.16-22. TLA ID 102740.

Raymond Faulkner, *A Concise Dictionary of Middle Egyptian* (Oxford: Oxford University Press for Griffith Institute, 1962), 165; Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 1 (1977)* (Paris: Imprimerie la Margeride, 1980); Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 2 (1978)* (Paris: Imprimerie la Margeride, 1981), 78.2612; Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 3 (1979)* (Paris: Imprimerie la Margeride, 1982) 79.1912.

[205] Gardiner, *EG*, 530; Malaise and Winand, *Grammaire*, 740.

significant as it could demonstrate how ancient Egyptian scribes conceptualized the dispersal of light through metaphorical extension of liquid terminology and representation.

The phrase *ḥwỉ m ỉȝḫ.w.f* "flooded with its light" represents a metaphorical mapping where the properties of flowing water are transferred to the domain of light emission. The use of *ḥwỉ* in this context suggests that the ancient Egyptians perceived both phenomena – the dispersal of water and the emission of light – as sharing fundamental characteristics in terms of their movement and effect on the surrounding environment. This interpretation is strengthened by the fact that *ḥwỉ* typically implies not just the presence of liquid, but specifically its dynamic movement and transformative impact on what it encounters.

The conceptual association between light and liquid phenomena in ancient Egyptian thought is further evidenced by the organizational logic of the Tanis Sign-Papyrus (P. London BM EA 10672)[206], a sign list where semantically organized hieroglyphics are followed by their hieratic correspondence and a brief explanation of their meaning[207].

The sequential placement of the signs for shining ( S15) and hydrometeors (N4) in this document merits careful analysis. The Tanis Sign-Papyrus's organization of these signs in close

This lexical overlap may reflect a cognitive model where atmospheric phenomena were encoded as parallel expressions of celestial agency. The conceptual overlap between light and water emissions in Egyptian lexical semantics is explored in depth in my doctoral research "A lexical trail of hydrometeors: a corpus-based study of atmospheric water terminology in Ancient Egyptian", particularly regarding verbs like *wbn* "to rise, shine" *ḥwỉ* "to flood", and *sṯỉ/stỉ* "to shoot; to throw; to pour; to shine", which collocate with terms for both radiance *ỉȝḫ.w* and fluid dynamics *ḥꜥpj* "Nile inundation" (*Wb* 3, 42.11-43.4 Wb 3, 43.13-14; TLA ID 102190). This semantic may reflect a cognitive model where celestial emissions—whether aqueous or luminous—share a common etiological framework.

[206] Concerning P. London BM EA 10672, see Heinrich Brugsch, F. Ll. Griffith, and W. M. F. Petrie, *Two Hieroglyphic Papyri from Tanis: I. The Sign Papyrus (a Syllabary); II. The Geographical Papyrus (an Almanack)*, Memoir of the Egypt Exploration Fund 9 (London: Trübner & Co, 1889), vol. I p. 15; pl. III.

[207] Joachim Friedrich Quack, 'La Classification Des Hiéroglyphes Par Les Égyptiens', in *Guide Des Écritures de l'Égypte Ancienne*, ed. Stéphane Polis (Le Caire: Institut français d'archéologie orientale, 2022), 140–43.

proximity indicates more than mere visual similarity - it could reflect a structured semantic taxonomy that groups celestial emissions by their shared aetiological framework[208].

This interpretation gains further strength when we consider how these two entries are phrased in the papyrus: J. Quack's translation[209] of the hieratic part of these entries respectively exposes a conceivable conception of celestial phenomena that bridges visual and atmospheric effects:



S15 p.t ỉ(w).s ṯḥn.t

N4G p.t [n] šnʿ

"a sky that is sparkling,

a sky [of] storm".

The parallel construction of "a sky that is sparkling" and "a sky of storm" suggests these were seen as related manifestations of celestial activity. The repeated use of *p.t* "sky" as the nominal and

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[208] For the classification of knowledge according to Egyptian categories see Quack. It should be emphasized that, within these corpora Alan H. Gardiner, *Ancient Egyptian Onomastica*, 3 vols (Oxford: Oxford University Press, 1947); Erik Iversen, *Papyrus Carlsberg Nr. VII: Fragments of a Hieroglyphic Dictionary*, Det Kongelige Danske Videnskabernes Selskab, Historisk-Filologiske Skrifter 3 (København: I Kommission hos Ejnar Munksgaard, 1958). No analogous juxtaposition of the signs N4 and S15 has been identified. Nevertheless, the Onomasticon of Amenemope (Late Ramesside-early Third Intermediate Period) offers a quite similar lexical sequence: *sty ỉtn* "solar beams" appears in proximity to *šnʿ* "storm-cloud" and *ỉʒd.t* "dew". This arrangement, while potentially circumstantial, hints at a possible conceptual association between luminous and aqueous celestial phenomena-both potentially understood as emanations from divine sources. In Egyptian taxonomic systems it seems that phenomena are often grouped by their perceived origins rather than physical properties, suggesting the proximity may reflect complementary cosmic functions rather than conclusive evidence of a unified classificatory scheme; see Alan H. Gardiner, *Ancient Egyptian Onomastica* (Oxford: Oxford University Press, 1947), vol. I, p. 6*.

[209] I am deeply grateful to J. Quack for his expert assistance and for providing an alternative translation based on his examination of a multispectral image (personal communication, email, 13 December 2022). His proposed rendering diverges from Griffith's earlier translation, "Sky rising? Sky raining", as published in Brugsch, Griffith, and Petrie, *Two Hieroglyphic Papyri from Tanis: I. The Sign Papyrus (a Syllabary); II. The Geographical Papyrus (an Almanack)*, vol. I p. 15; ll.6–7. This contribution has been instrumental in refining the interpretation of the relevant passage.

graphic anchor in both descriptions underscores their conceptual proximity as manifestations of celestial activity, akin to the *zhuǎn zhù* principle's emphasis on shared roots despite graphemic divergence.

The Egyptian system's treatment of light and precipitation as cognate expressions of divine agency may mirror the *liùshū* strategy of extending semantic fields through controlled graphemic evolution. Just as 考 and 老 preserve their connection to antiquity through shared radicals and phonetic elements, S15 and N4 retain their association with celestial outflow through the integration of the N1 () component, which signifies the sky as the origin of both phenomena.

Enhanced Comparative Analysis

The *zhuǎn zhù* principle could illuminate how graphemic variation in Egyptian hieroglyphs could encode conceptual kinship without explicitly requiring direct genetic lineage. While N4 and  S15 share no provable historical derivation, their structural overlap (both integrating  N1 "sky") and semantic divergence (precipitation vs. light) could mirror the Chinese strategy of extending semantic fields through controlled visual modification.

Key Parallels:

Aspect	Chinese *Zhuǎn Zhù*	Egyptian N4/S15 Relationship
Root component	Shared radical (e.g., 耂 in 考/老)	Celestial vault () as shared origin.
Semantic divergence	"Investigate" vs. "old"	"Rain/dew" vs. "radiance".
Cognitive strategy	Morphological branching from a common concept	Component recombination to express analogous celestial phenomena.

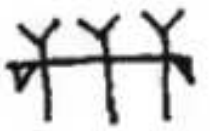
This comparative framework suggests that both cultures independently developed systems of "semantic cousins"—signs diverging graphetically while retaining conceptual ties to a core idea (here, CELESTIAL EMANATION). For Egyptian scribes, the  N1 component in N4/S15 functioned

analogously to the 𢍏 sign in Chinese, anchoring related signs to a shared cosmological principle: divine outflow from the sky.

It is important to stress that the comparison with the Chinese *zhuǎn zhù* principle serves not to suggest a direct historical or genetic relationship between Egyptian signs such as N4 and S15, but to highlight a convergent cognitive strategy in the organization of writing systems. Just as Chinese script uses graphemic kinship to signal conceptual relatedness among characters, the Egyptian script appears to group signs for precipitation and radiance through shared visual components, reflecting their parallel roles as forms of celestial emanation. This structural affinity does not imply that the signs are historically linked, but rather that they are brought together for conceptual reasons, as part of a deliberate semiotic taxonomy that encodes the Egyptians' cosmological understanding of the natural world.

Possible Cosmological Connection: Pillars of the Sky and the god Shu

The possible cosmological connection between the hieroglyphic signs S15 and N4 and the architectural and mythological motif of the "pillars of the sky"-as well as their association with the god Shu-can be elucidated through a close examination of their graphemic composition and semantic function.



[210]  [211] The Ptolemaic temple of Esna.

The elements constituting sign S15, and by extension N4, demonstrate a conceptual integration with Egyptian cosmological architecture. This is particularly evident in their visual correspondence to the determinative 𓏏 O30, which appears in words such as 𓊪𓋴𓏏 *sḫn.t* "pole; support"[212] .

[210] Maria Theresia Derchain-Urtel, *Epigraphische Untersuchungen Zur Griechisch-Römischen Zeit in Ägypten*, Ägypten Und Altes Testament 43 (Wiesbaden: Harrassowitz, 1999), 157.

[211] Meeks, *Les Architraves Du Temple d'Esna: Paléographie*, 127.

[212] *Wb* 3, 471.15-472.7. TLA ID 142500.

The graphic representation of this sign, often in the form of three or four parallel elements 𓉐𓉐𓉐 (Urk. IV, 1662, 11) acting as a logogram[213], directly recalls the archetypal image of the four pillars supporting the sky at the cardinal points. These pillars are fundamental components of Egyptian cosmology, functioning as the structural supports for the celestial vault and enabling the god Shu-who is intrinsically linked to atmospheric waters, air, and light[214] –to maintain the separation between sky and earth.

Although the specific variant of this sign, which is primarily attested from the late first millennium BCE into the first millennium CE, may be considered a simplified form of the papyriform column, its underlying conceptual associations remain consistent with much earlier textual traditions.

Notably, the motif of the sky supported by pillars is already present in the Coffin Texts (with parallels in the Book of the Dead, 54) and the Pyramid Texts:

ỉw.ỉ m sʒw.t sḫn.t tw ʿʒ.t wp.t Gb r Nw.t

"I am the guardian of this great prop which separates the Geb from Nut".

(CT III, 209a)

The passage establishes the pillar (*sḫn.t*) as dynamic agent of cosmic equilibrium. Their depiction in S15/N4's composition–through descending elements resembling structural supports– visually reinforces Shu's perpetual act of sustaining the firmament, thereby enabling the regulated flow of atmospheric phenomena as water and light.

This interdependence between divine agency and meteorological phenomena also emerges in Pyramids Texts:

sḫm.f m-ḫn(w).f bʒ.f ḥʒ.f spd.f tp.f rḏỉ.n Ḥr.w n (W)sr(.w) mn.f m p.t mỉ ḏw mỉ zḫn.t

"His power is in him, his ba is behind him, his sharpness is upon him, (like) that which Horus gave to Osiris, that he might endure in heaven like a mountain, like a support".

(PT 582 §1559ac)

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[213] For textual documentation of the orthographic variations of *sḫn.t*, consult 'TLA 2'/lemma/142500., which enumerates attestations of the term alongside the specific hieroglyphic sign variants and their textual contexts.

[214] Erik Hornung, 'Licht Und Finsternis in Der Vorstellungswelt Altägyptens', *Studium Generale* 18, no. 2 (1965): 75.

Here, the king's ascension parallels Shu's cosmic maintenance, with the *sḫn.t* "support" serving dual symbolic functions: as a physical pillar preventing celestial collapse and as a metaphysical conduit for divine energies. The glyph's descending elements, when contextualized within this framework, might surpass the atmospheric phenomena to embody the controlled descent of life-sustaining forces from the ordered cosmos.

Our analysis suggests that the Egyptian hieroglyph N4, far from being a pictographic representation of hydrometeors, embodies a peculiar "emergent monogram" whose semantic depth arises from the structured integration of its constituent elements, reflecting a precise understanding of atmospheric phenomena. The diachronic study of its graphetic variations reveals both a remarkable consistency in underlying principles and a dynamic evolution in visual rendering, potentially mirroring shifts in scribal practices and conceptual nuances. Furthermore, the observed graphemic and semantic interconnections between N4 and signs denoting luminosity, particularly S15, alongside potential cosmological linkages to the pillars of the sky and the god Shu, hint at a deeper cognitive framework where celestial emissions were perhaps viewed as cognate expressions of divine agency. While acknowledging the inherent limitations in interpreting ancient visual systems, the parallels observed with the Chinese *zhuǎn zhù* principle offer a compelling, albeit tentative, cross-cultural lens through which to appreciate the capacity for extending semantic fields through controlled graphemic variation. Further research into the contextual usage and semiotic landscape of these signs may yet yield more advanced discernment into the elaborate relationship between the Egyptian writing system and their conceptualization of the natural world.

Conclusion: Adapting the Approaches to the Corpus

In this chapter, we have laid out the methodological basis and empirical foundations for our study of hydrometeors'' vocabulary in the ancient Egyptian language. Compiling a far-reaching corpus of lexemes related to atmospheric waters, establishing criteria for their selection and classification, and situating them within the broader semantic field of hydrometeorological phenomena, we have aimed to construct a robust dataset for examining the lexical encoding of these critical environmental factors in the Egyptian language and conceptual system.

Our corpus, drawn from a range of genres and periods, has been designed to capture the breadth and depth of Egyptian representations of hydrometeors, from the literal terminology for rain, clouds, dew, and storms to the rich veins of metaphorical and mythological imagery that suffuse this semantic domain. The organization of the lexemes into denotational and connotational categories,

and their further grouping into semantic cores related to the forms, conditions, and impacts of precipitation, provides a structure for tracing the complex networks of meaning that radiate from these central concepts.

At the same time, we have highlighted the challenges posed by the fragmentary and uneven nature of the surviving textual record, and the strategies we have adopted to mitigate these limitations. The use of digital tools and the application of statistical measures allow us to assess the representativeness of our dataset and to identify patterns of usage that might be obscured by the vagaries of preservation. Combining close philological analysis with computational and quantitative methods, we aim to build a more complete and more reliable picture of the place of hydrometeors in the Egyptian lexicon and worldview.

However, the compilation and organization of our corpus is only the first step in the journey of understanding. To fully unpack the meanings and functions of these lexemes, we must subject them to a rigorous and multifaceted analysis that takes into account their formal features, semantic associations, and contextual usages. This is where the "lexical trail" methodology comes into play, providing a systematic background for examining each lexeme along the five axes of graphemics, phonemics, morphemics, syntagmatics, and semantics.

For the three key lexemes at the heart of our study - *ḥwt* "rain", *ỉgp* "cloud", and *ỉdt* "dew" - our analysis will proceed in three main stages:

Overview of the data and distribution according to diachrony and literary genre. This will involve a quantitative survey of the attestations of each lexeme across our corpus, tracking their frequency, chronological development, and generic contexts to identify patterns of usage and change over time. The graphic and phonetic analysis of the lexemes will be incorporated into this morphological analysis as needed, to shed light on the orthographic and phonological representation of the lexemes and their components.

Morphological analysis. Here we will examine the word formation processes that underlie each lexeme, including its root structure, derivational patterns, and inflectional morphology. Situating the lexemes within their wider morphological families, we can gain insight into their etymologies, semantic ranges, and paradigmatic relationships.

Contextual and syntactic analysis. Finally, we will undertake a fine-grained study of the syntagmatic environments in which each lexeme occurs, from the level of the phrase and clause to the broader discursive and textual structures. In the chapters that follow, we will put this methodology into action, presenting detailed case studies of *ḥwt*, *ỉgp*, and *ỉʒd.t* that showcase the interpretive potential of our approach.

2. LEXICAL ANALYSIS OF THE FIRST LEXEME *ḥw.t* "rain"

Overview of Distribution according to Diachrony

An initial review of dictionaries entries for the lexeme *ḥw.t* exposes discrepancies in its lexical representation. While some dictionaries present "rain" and "flood" as polysemous senses under a single lemma, with the "flood" sense specifically referencing the inundation of the Nile from at least the New Kingdom[215], others list only "rain" as a definition[216]. This lack of consensus shows that additional corpus-based linguistic analysis could be essential to clarify the semantic scope of the term.

The variation in whether the lexeme denotes solely hydrometeors or both precipitation and flooding suggests singular perceptual associations connected to this word. Diachronic study tracing textual usages of the lexeme across different time periods could provide insight into how the core and extended meanings have evolved. Examining both dictionary definitions and textual data is needed to fully understand the semantic range and perceptual underpinnings of the lexeme.

Our investigation commences with an examination of selected dictionaries, beginning with the Coptic stage of the language. In this phase, we encounter several lexemes related to the concept of rain and in particular to the lexeme  *ḥw.t*.

These include:

ⲉⲓⲙⲟⲟⲩ[217] "to rain",

ⲉⲟⲩⲙⲡⲉ[218] "rain (of sky)",

ⲉⲱⲟⲩ/ⲉⲟⲩ[219] either for the verb "to rain" or for the noun "rain".

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[215] *Wb* 3, 49.1-4 5.

[216] Only with the meaning "rain" in Faulkner, *CDME*, 165. Only with the meaning of "pluie" in Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 1 (1977)* (Paris: Imprimerie la Margeride, 1980) 77.2625-26; One with the meaning "pluie et le flot" in Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 2 (1978)* (Paris: Imprimerie la Margeride, 1981) 78.2615; One lemma with the only meaning of "pluie" in Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 3 (1979)* (Paris: Imprimerie la Margeride, 1982) 79.1913.

[217] W. E. Crum, *A Coptic Dictionary: Compiled with the Help of Many Scholars.* (Oxford: Clarendon Press, 1929), 198b; Westendorf, *Koptisches Handwörterbuch*, 107.

[218] Crum, *Coptic Dictionary*, 732a; Černý, *Coptic Etymological Dictionary*, 304; Westendorf, *Koptisches Handwörterbuch*, 404; Vycichl, *Dictionnaire Étymologique*, 318b.

[219] Crum, *Coptic Dictionary*, 732a; Černý, *Coptic Etymological Dictionary*, 304; Westendorf, *Koptisches Handwörterbuch*, 404; Vycichl, *Dictionnaire Étymologique*, 318b.

These terms form the core of the Coptic language's vocabulary for this particular meteorological phenomenon. We have to apprehend the possible etymology of the first lexeme as compound from the verb ⲉⲓ "to hit " and the noun ⲙⲟⲟⲩ "water", meaning "to rain (water)"; the noun ⲉⲱⲟ/ ⲉⲟⲩ "rain" or "flood" ⲙⲡⲉ "of the sky", meaning "rain (of the sky)".

However, the Coptic language's lexicon for describing rain is not limited to these terms. There are other lexemes that define the same atmospheric phenomenon, albeit in different ways, for instance, ⲃⲉⲉⲃⲉ[220] can mean "bubble", "well up", "pour forth", "bring forth", or "rain down". The term ⲱϣⲓ[221] which translates to "sky", is used in the phrase ⲙⲟⲩ ⲛⲱϣⲓ to denote "rain". Another term, ⲃⲣⲱ[222] can mean "dew", "fine rain", or "drizzle". These parasynonymous lexemes, which denote similar but not identical concepts, hint at differentiated conceptualization of precipitation.

Firstly, we can infer, based on ⲉⲓⲙⲟⲟⲩ, a connection between water and the verb expressing the notion "to beat, to hit"; secondly, that water is connected to the sky in a possessive construction underlying the source of the phenomenon either with the specific word ⲙⲡⲉ "of the sky", or the more metaphorical term ⲱϣⲓ "hanging" or the celestial roof; thirdly, a later connection can be drawn on another more subtle level but that we have already mentioned is the link with the overflowing inundation of the river Nile in the lexeme ⲃⲉⲉⲃⲉ, and the more specific term ⲃⲣⲱ[223] can mean "dew", "fine rain", or "drizzle", also suggesting a sheer distinction between different types of rain, depending on its intensity and duration.

In the Demotic stage of the Egyptian language, we encounter the noun *ḥw*, the compound *ḥw-m-p.t*, and the verb *ḥwj*[224]. Progressing to the Late Egyptian, the verb *ḥwi̯*[225] resurfaces, accompanied by the nouns *ḥw.t*, signifying "rain", and *ḥj.t*, denoting "flood"[226]. in Middle Egyptian, we observe the lexeme *ḥw.t*[227], which encompasses both "rain" and "flood" within its semantic range,

[220] Crum, *Coptic Dictionary*, 28b29a; Westendorf, *Koptisches Handwörterbuch*, 20; Vycichl, *Dictionnaire Étymologique*, 25.

[221] Crum, *Coptic Dictionary*, 535a; Černý, *Coptic Etymological Dictionary*, 231; Westendorf, *Koptisches Handwörterbuch*, 296; Vycichl, *Dictionnaire Étymologique*, 251b.

[222] Crum, *Coptic Dictionary*, 828a; Westendorf, *Koptisches Handwörterbuch*, 464.

[223] Crum, *Coptic Dictionary*, 828a; Westendorf, *Koptisches Handwörterbuch*, 464.

[224] Johnson, *CDD*, ḥ 67; Erichsen, *DG*, 295.

[225] Lesko, *A Dictionary of Late Egyptian*, 303.

[226] Meeks, *AL III,* 79.1913.

[227] Faulkner, *CDME*, 165; Meeks, *AL I,* 77.2626; Meeks, *AL II,* 78.2615.

and the reappearance of the verb *ḥwỉ* [228]. This dual meaning of the lexeme is already present in the final phase of Old Egyptian, indicating a sustained polysemy over an extensive chronological span[229]. This phenomenon exposes a first glimpse into the conservative nature of the semantic fields related to meteorological terms in the Egyptian language and invites further inquiry into the mechanisms that underpin such enduring lexical phenomena.

Based on our search results, here is a table with the 30 attestations[230] of the Egyptian lexeme *ḥw.t* meaning "rain" divided by literary genre. This survey covers textual evidence spanning from the Old Kingdom through the Ptolemaic-Roman period, revealing both temporal trends and genre preferences in ancient Egyptian documentation of meteorological phenomena. The table's categorization by genre illuminates the lexeme's remarkable versatility across different textual traditions, while its chronological distribution offers insights into potential shifts in either documentation practices or the cultural significance of rain throughout Egyptian history. Of particular note is the term's presence across both practical and theological contexts, suggesting its integration into multiple spheres of ancient Egyptian thought and practice. All lexeme attestations are documented comprehensively in the appendices. The in-table presentation has been kept streamlined, eschewing abbreviated citations or complex footnotes, to optimize clarity and accessibility[231]. This distributional analysis, while revealing significant patterns in the textual record, represents only a preliminary step for studying the lexeme's full scope in ancient Egyptian.

[228] Faulkner, *CDME*, 165; Meeks, *AL I*, 77.2623; Molen, *DCT*, 317.

[229] Hannig, *Ägyptisches Wörterbuch I*, 781.

[230] For the purposes of this analysis, attestations of the lexeme *ḥw.t* that display variation in form or that demonstrate explicit associations with the flood have been excluded, as their inclusion would introduce interpretive complexities beyond the current scope and potentially obscure the primary semantic focus under investigation.

[231] This approach tends to align with the principles outlined in Chantrain, *Éléments*, 28-32;45.

Genre	Old Kingdom	First Intermediate Period	Middle Kingdom	Second Intermediate Period	New Kingdom	Third Intermediate/Late Period (Traditional Egyptian[232])	Ptolemaic-Roman (hieroglyphic inscriptions)	Total
Royal Inscriptions	0	-	1	0	6	5	0	12
Religious/Funerary Texts	1	1	0	0	2	0	0	4
Magical/Medical Texts	0	-	0	0	3	2	0	5
Literary/Wisdom Texts	0	-	2	1	1	0	0	4
Administrative/Duty Texts	0	-	0	0	1	0	0	1
Temple/Ritual Texts	0	-	0	0	0	0	1	1
Mathematical Text	0	-	0	1	0	0	0	1
Hymn	0	-	0	0	1	0	0	1
Autobiography	0	-	1	0	0	0	0	1
Total per Period	1	1	4	2	14	7	1	30

Table 4: Frequency of *ḥw.t* by Genre and Time Period

The only Old Kingdom attestation in the Pyramid Texts (PT 285) represents the first documented usage of *ḥw.t*, though this should not be interpreted as evidence for the term's origin at this time. The Middle Kingdom presents a moderate frequency, while the Third Intermediate and Late Periods maintain significant representation.

Turning to the genre distribution exposes patterns in how rain was conceptualized and recorded across different textual traditions. Royal inscriptions demonstrate clear predominance, comprising 12/30 of all attestations. This prevalence in royal ideology might suggest that rain served as a significant element in pharaonic rhetoric, potentially functioning as a marker of divine favour or royal power. The even distribution across Religious/Funerary Texts, Magical/Medical Texts, Literary/Wisdom Texts, and Temple/Ritual Texts, might indicate a broad integration of rain-related concepts across multiple aspects of Egyptian cultural and religious life. The limited representation in Administrative/Duty Texts is particularly noteworthy, as it suggests that rain may have been

[232] Pascal Vernus, 'Traditional Egyptian I (Dynamics)', *UCLA Encyclopedia of Egyptology* 1, no. 1 (22 June 2016), https://escholarship.org/uc/item/0bg342rh.

considered less but still relevant for bureaucratic documentation, possibly reflecting its limited economic significance in a civilization primarily dependent on Nilotic irrigation.

Now to the intersection of chronological and genre distributions reveals additional discernment. The observed frequencies, particularly the concentration in royal inscriptions and New Kingdom texts, raise fundamental questions about semantic development that merit deeper investigation. The concentration of royal inscriptions in the New Kingdom (14 attestations) coincides with a period of expanded imperial activity and enhanced monumental documentation[233]. The consistent presence of religious and magical texts across multiple periods suggests a sustained significance of rain in Egyptian religious thought, while the distribution of literary attestations shows a notable concentration in the Middle Kingdom (4 attestations), aligning with this period's recognized literary fluorescence.

Several caveats must be considered when interpreting this distribution. First, the survival rate of ancient Egyptian texts varies significantly across periods and genres, potentially skewing our understanding of the actual frequency of *ḥw.t* usage. Second, the categorization of texts by genre sometimes involves subjective judgments, particularly for texts that exhibit characteristics of multiple genres.

[233] John Baines, *Visual and Written Culture in Ancient Egypt* (Oxford: Oxford University Press, 2007), 59.

Morphological Analysis

2.1.1. Etymology of the lexeme *ḥw.t* "rain" in Ancient Egyptian language

The etymological origins of the lexeme *ḥw.t* have been a topic of considerable scholarly interest and debate. Researchers have proposed differing hypotheses regarding its derivation, with two primary theories emerging.

The first theory, as proposed by F. Calice suggests that *ḥw.t* is derived from the verb *ḥwỉ*, which carries the meaning "to flow"[234]. This interpretation implies a semantic connection between the lexeme and the concept of fluidity or movement.

On the other hand, the second theory[235], defended by J. Lopez and G. Roquet proposes a closer relationship between *ḥw.t* and the verb *ḥwỉ* with the meaning "to beat". This perspective suggests a possible link to the idea of rhythm, repetition and perception.

This chapter aims to investigate these competing hypotheses and explore the possibility of an alternative nuance not yet considered for the verb *ḥwỉ*.

Brief overview of the polysemous nature of the root *ḥwỉ*

The origin of the lexeme *ḥw.t* as a potential deverbal noun crucially depends on clarifying the nature of the root *ḥwỉ*, a key investigative focus of this section. The root *ḥwỉ*[236] exhibits a remarkable breadth of meanings, ranging from direct physical actions such as "to beat", "to strike" and "to smite" to more extended domain of meaning like "to defeat in argument" or "to tread a road".

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[234] Franz Calice, *Grundlagen Der Ägyptisch-Semitischen Wortvergleichung: Eine Kritische Diskussion Des Bisherigen Vergleichsmaterials*, Beihefte Zur Wiener Zeitschrift Für Die Kunde Des Morgenlandes 1 (Wien: Orientalisches Institut der Universität, 1936), 176.

[235] Jesus Lopez, 'Naufragé, Col. 36-37 et 105-106', *Revue d'égyptologie* 24 (1972): 111–15; Roquet, 'Espace et Lexique Du Sacré: Autour Du Nom Du "Ciel" En Vieux-Nubien', 158.

Other scholars who have contributed to this debate include: Černý, *Coptic Etymological Dictionary*, 304; Vycichl, *Dictionnaire Étymologique*, 318; Satzinger and Stefanović, *Egyptian Root Lexicon*, 276.

[236] 'TLA 2'; Satzinger and Stefanović, *Egyptian Root Lexicon*, 275–76.

The root *ḥwỉ* appears to also encompass intransitive meanings related to the movement and flow of water, such as "to surge up", "to overflow" and "to flood"[237]. This aspect of its semantic range will be further substantiated in the subsequent analysis. The polysemous nature of the root *ḥwỉ* may suggest a deep-rooted connection between the ancient Egyptian perception of physical force and the dynamics of natural phenomena, particularly water.

The Origin of the Lexeme *ḥw.t*

This chapter aims to explore the preliminary hypothesis that the lexeme *ḥw.t* is derived from the intransitive aspects of the root *ḥwỉ*, which reflect natural processes of dispersal and movement of force. To gain a more inclusive understanding of this relationship, it is crucial to examine the verb *ḥwỉ* and its root in greater detail. While initially associated with the act of hitting or striking, the verb demonstrates a remarkably broad range of meanings that extend into the realm of motion, specifically pertaining to the flow or flooding of water. We aim to elucidate the connection between these seemingly disparate meanings through an examination of linguistic evidence and historical context.

The analysis will first examine the argument structure that *ḥwỉ* frequently occurs in identifying their semantic and syntactic properties. It will focus on how the meanings of *ḥwỉ* interact with and are elaborated by these constructions, and whether certain senses are more strongly associated with particular constructions.

Next, the core (prototypical) sense of *ḥwỉ* will be identified based on its most frequent and basic usage. The extended senses will then be analysed in terms of their cognitive relations to the core sense, such as metaphor or metonymy. The polysemy of *ḥwỉ* will be represented as a network, with the core sense at the centre and the extended senses connected by the cognitive mechanisms that motivate them.

The multiple senses of *ḥwỉ* will be treated as contextual variations of a single core meaning, computed based on the constructional and discursive context. The aim is to develop a parsimonious

[237] *Wb* 3, 48.16-22. TLA ID 102740. Raymond Faulkner, *A Concise Dictionary of Middle Egyptian* (Oxford: Oxford University Press for Griffith Institute, 1962), 165; Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 1 (1977)* (Paris: Imprimerie la Margeride, 1980); Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 2 (1978)* (Paris: Imprimerie la Margeride, 1981), 78.2612; Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 3 (1979)* (Paris: Imprimerie la Margeride, 1982) 79.1912.

polysemy network that captures the motivated relations between senses and explains how senses arise in context, while avoiding an implausible proliferation of distinct senses.

Combining these approaches, this methodology provides an agenda for analysing the semantics and argument realization of *ḥwỉ*. It seeks to elucidate both the cognitive mechanisms underlying polysemy and the role of constructional context in giving rise to context-dependent senses.

2.1.2. The Semantic Range of the Root *ḥwỉ*

As hitherto stated, we conducted a review of pertinent scientific articles and systematically synthesized and operationalized key findings. This process entailed compiling critical online databases and specialized lexical resources.

The Ancient Egyptian root *ḥwỉ* demonstrates significant polysemy, encompassing a wide range of meanings across multiple semantic domains. Based on the following dictionaries and our findings, exposed later in this chapter, and the argument structure of various nuances of the verb, we established transitive and intransitive constructions that yield different meanings[238]. Some entries "flap wings", "clap" and other collocations: *ḥw sḏb* "implant an obstacle", *ḥwt ʿ* "extending the arm", and *ḥwỉ mnỉ.t* " to drive in mooring post" were excluded from this analysis due to their peripheral relevance.

ḥwỉ 1,1: "to beat (people), strike, smite"
ḥwỉ 1,2: "to defeat in argument"
ḥwỉ (animal) 1,3: "drive off cattle"
ḥwỉ 1,4(corn): "thresh"
ḥwỉ /sḥwj 1,5(crops): "gather" (enantiosemous meaning discussed *infra*)
ḥwỉ 1.6: "throw" *r* "against" wall
ḥwỉ 1.7 (road, earth): "tread; roam"

Ambitransitive meanings

ḥwỉ 2.1: "to surge up, to (over)flow, of Nile" "to flood"
ḥwỉ 3.1: "to rain" derived from 2.1

[238] We follow here the *ḥwỉ* lemmas are from Faulkner, *CDME*, 165;238. For additional references, refer to *Wb* 3, 46.1-48.15 TLA ID 102730

Transitive meanings

The transitive meanings of *ḥwỉ* are deeply rooted in the physical realm, conveying notions of force, impact, and directed action. These meanings often involve the forceful dispersal or movement of objects or materials through physical exertion or impact.

One of the earliest and most prevalent meanings of *ḥwỉ* can be deduced from the iconicity of the hieroglyphic sign  [239], which depicts a man (A24) engaging in the act of striking with both hands a wick of twisted flax (V28) which serves as a phonetic component. This image not only represents the action of hitting but also serves as a determinative, denoting force, effort[240], and various activities[241]. In hieratic script, the sign can be followed by (A25), forming a group  [242], with different interpretations proposed by scholars[243], which will be considered in detail later.

The primary interpretation of *ḥwỉ* 1,1: "to beat, to strike, to smite", in early contexts is closely tied to agricultural practices, such as the beating of men working in the fields, the beating of flax, and the threshing of grain. All these senses highlight the verb's role as a verb of contact[244], implying physical force and movement as in the following excerpt from the Mastaba of Ptah-hetep:

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[239] Henry G. Fischer, 'The Evolution of Composite Hieroglyphs in Ancient Egypt', in *Ancient Egypt in the Metropolitan Museum Journal, Supplement: Volumes 12-13 (1977-1978)*, ed. Anonymous and Henry G. Fischer (New York: Metropolitan Museum of Art, 1980), 9 fig. 4b; Jochem Kahl, *Das System Der Ägyptischen Hieroglyphenschrift in Der 0.-3. Dynastie*, Göttinger Orientforschungen 29 (Wiesbaden: Harrassowitz, 1994), 432; Regulski, *A Palaeographic Study of Early Writing in Egypt*, 92; Philippe Collombert, *Le Tombeau de Mérérouka: Paléographie*, Paléographie Hiéroglyphique 4 (Le Caire: Institut Français d'Archéologie Orientale, 2010), 10–11.

[240] Gardiner, *EG*, 444–45; Malaise and Winand, *Grammaire*, 696.

[241] Winand, Stella, and Neven, *Lexique Du Moyen Égyptien: Avec Une Introduction Grammaticale et Une Liste Des Mots Présentés Selon Le Classificateur Sémantique*, 135–36. By the 18th Dynasty, this representation evolved, with sign (D40) occasionally substituting the original.

[242] 'AKU-PAL · Paläographie Des Hieratischen Und Der Kursivhieroglyphen', 23 November 2023, https://aku-pal.uni-mainz.de/graphemes/44.

[243] Alan H. Gardiner, 'The Hieratic Writing of the Verb Hw "to Strike"', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 44 (1907): 126–29; Georg Möller, 'Zur Datierung Literarischer Handschriften Aus Der Ersten Hälfte Des Neuen Reichs', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 56 (1920): 39; Ursula Verhoeven, *Untersuchungen Zur Späthieratischen Buchschrift*, Orientalia Lovaniensia Analecta 99 (Leuven: Peeters, 2001), 230.

[244] 'WordNet - A Lexical Database for English'.

ex.1. *m ḥwỉ.n.k ỉsṯ s gnn gs.w*

Whom, as well as the man weak in the side, you have beaten?

(Mastaba of Ptah-hetep, Sacrificial chamber, south wall top, east side, 2nd register from the top)[245]

This example underscores the verb's propensity in describing actions that involve direct physical contact for the purpose of inflicting a blow, as evidenced by its collocation with *s* "man". Interestingly, the particle *ỉsṯ* serves a coordinative function[246]: it can be employed to introduce a new element or idea, often with a sense of addition or extension. However, the core meaning seems yet to be fully established, as evidenced by the semantic extension *ḥwỉ* 1,6 "to throw".

This sense encompasses the forceful projection of an object, often against a surface or an obstacle. The preposition *r* "to, towards" stands out as the principal preposition in collocation[247] with this meaning, serving to indicate the direction or the recipient (whether animate or inanimate) towards which an object is directed or propelled, as it reads in the following passage:

ex.2. *ỉw.st (ḥr) ḥwỉ.f r pȝ mw*

Then she threw him into the water.

(Horus and Seth, 8,13)[248]

[245] F. Ll. Griffith et al., *The Ramesseum / The Tomb of Ptah-Hetep*, British School of Archaeology in Egypt and Egyptian Research Account 2 (London: Bernard Quaritch, 1898), pl XXXIII.

[246] Elsa Oréal, *Les Particules En Égyptien Ancien: De l'ancien Égyptien à l'égyptien Classique*, Bibliothèque d'étude 152 (Le Caire: Institut Français d'Archéologie Orientale, 2011), 182–85.

[247] The collocation analysis was conducted utilizing the Thesaurus Linguae Aegyptiae version 1 (TLA v. 1) as the primary corpus resource.

[248] Alan H. Gardiner, *The Library of A. Chester Beatty: Description of a Hieratic Papyrus with a Mythological Story, Love-Songs, and Other Miscellaneous Texts; the Chester Beatty Papyri, No. 1* (London: Privately printed by John Johnson at the Oxford University Press; Emery Walker, 1931), pl. VIII, 13; Alan H. Gardiner, *Late-Egyptian Stories*, Bibliotheca Aegyptiaca 1 (Bruxelles: Fondation Égyptologique Reine Élisabeth, 1932), Hous and Seth, 8,13.

The preposition functions as a critical *marqueur de relation*[249], delineating the intended trajectory or target of the action. Conversely, in an opposite application, particularly when the recipient of the action is animate, it often conveys negative connotations, suggesting a layer of hostility or adversarial intent embedded within the context of its use.

This is exemplified in the following passage from Horus and Seth:

ex.3. *ỉw.st (ḥr) ḥwỉ.f r pȝw.f (ḥr) ḥwỉ.f r ḥm n Stẖ*
Then he threw it at the majesty of Seth.
(Horus and Seth, 13,10)[250]

The use of *ḥwỉ* in conjunction with the preposition *r* and an animate recipient (in this case, Seth) underscores the adversarial nature of the action.

An earlier example showcases the initial ambiguity between the two meanings of the verb:

ex.4. *ỉw ms ms.w sr.w ḥwỉ{.t}.tw r sȝ.wt*
Indeed, the children of officials are thrown (or beaten) against walls.
(Ipuwer, 5,6)[251]

This passage is particularly illustrative of the overlap between the physical impact implied by the use of *ms.w* (children) and the act of throwing directed by *r sȝ.wt* (against walls). In this example, *ḥwỉ* is employed in a context that vividly combines elements of physical aggression (impact) and targeted action (throwing). The children are not merely being moved from one place to another; they are being forcefully propelled towards a specific target, the walls, which implies an intention to harm

[249] Julie Stauder-Porchet, *La Préposition En Égyptien de La Première Phase: Approche Sémantique*, Aegyptiaca Helvetica 21 (Basel: Schwabe, 2009), 230–34.

[250] Alan H. Gardiner, *The Library of A. Chester Beatty: Description of a Hieratic Papyrus with a Mythological Story, Love-Songs, and Other Miscellaneous Texts; the Chester Beatty Papyri, No. 1* (London: Privately printed by John Johnson at the Oxford University Press; Emery Walker, 1931), pl. XIII, 10; Alan H. Gardiner, *Late-Egyptian Stories*, Bibliotheca Aegyptiaca 1 (Bruxelles: Fondation Égyptologique Reine Élisabeth, 1932), Horus and Seth, 13, 10.

[251] Roland Enmarch, *The Dialogue of Ipuwer and the Lord of All*, Griffith Institute Publications (Oxford: Griffith Institute, 2005), 35.

or punish. This usage suggests the semantic of *ḥwỉ* where the notions of physical impact and throwing are interwoven.

It is important that the verb  *ḥwʒ* "throw", which translates as "throw", could potentially be identified as a subsequent allograph of the term *ḥwỉ*. This observation suggests that, despite the evolution of script forms, the verb *ḥwʒ* has preserved the original meaning ascribed to *ḥwỉ*. The implication of such a linguistic development point to a degree of orthographic variation within the written language, while maintaining a core semantic consistency across the temporal spectrum of the language's usage, which must be completely distinct from the other more metaphorical extensions.

Furthermore, when consulting Demotic[252] or Coptic dictionaries[253], we find clear meanings such as "throwing", "casting", "laying", and "trusting". This suggests that the core meaning could be "to throw so as to hit" in a transitive sense[254].

The Ancient Egyptian verb *ḥwỉ* demonstrates a lexical expansion from its primary physical connotations to encompass metaphorical and intellectual realms. This verb, traditionally associated with physical actions such as beating or throwing, extends its semantic range to include "to defeat in argument", as indicated by meaning 1,2 in the lexical entries. The usage of *ḥwỉ* in contexts of argumentation appears to demonstrate an extension of its meaning, suggesting a shift from literal physical beating to a metaphorical intellectual conquest. This potential shift will be explored further in the analysis of relevant passages.

ex.5. *ḥ(w)ỉ.k sw m ḫsf n sr.w*

You will beat him with the punishment from the high officials[255].

(Ptahhotep, 83)[256]

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[252] Erichsen, *DG*, 296.

[253] Crum, *Coptic Dictionary*, 732b–35; Westendorf, *Koptisches Handwörterbuch*, 402–3.

[254] Typologically we could see a similar connotation in the Ancient Greek verb βάλλω, see H. G. Liddell et al., *A Greek-English Lexicon*, Ninth Edition with Revised Supplement (Oxford, New York: Oxford University Press, 1996), s.v. βάλλω.

[255] For the translation: "À toi de lui porter un coup du fait de la punition que lui infligeront les magistrats", see Pascal Vernus, *Sagesses de l'Égypte Pharaonique*, La Salamandre (Paris: Impr. Nationale, 2001), 113–14.

[256] Gustave Jéquier, *Le Papyrus Prisse et Ses Variantes: Papyrus de La Bibliothèque Nationale (Nos. 183 à 194), Papyrus 10371 et 10435 Du British Museum, Tablette Carnarvon Au Musée Du Caire, Publiés En Fac-Similé (16 Planches En Phototype) Avec Introduction* (Paris: Paul Geuthner, 1911), pl. VI,3.

We may find a conceptual leap, where "beating" an opponent is equated with the punitive judgment delivered by high officials. This metaphorical usage underscores the power of words and reasoning as a means of overcoming adversaries in legal and intellectual disputes.

The context of Ptahhotep's fourth maxim, along with the preceding two[257], advises against retaliatory actions towards social inferiors in the wrong, suggesting that such individuals will self-defeat in the societal view.

Here, *ḫsf* meaning "to punish", emphasizes the notion that in the realm of public opinion and judicial proceedings, prevailing in an argument can be tantamount to delivering a figurative blow, where patience and the unfolding of events lead to a form of metaphorical "throwing down" of the opponent.

This additional layer of metaphorical meaning enriches our understanding of the Ancient Egyptian rhetorical practices, revealing a sophisticated appreciation for the power of language and its capacity to enact social and intellectual change. It underscores the ancient belief in the potency of discourse, not only as a tool for communication but as a weapon of intellectual combat, capable of delivering the figurative *coup de grâce* in the battles of wit and wisdom[258].

[257] R. B. Parkinson, *The Tale of Sinuhe and Other Ancient Egyptian Poems, 1940-1640 BC* (Oxford: Clarendon Press, 1997), 266.

[258] Concerning the ancient Egyptians' awareness of language's capacity to shape social realities as instrument of power, this concept might lead to further semantic overlapping, see Andréas Stauder, 'Opposing Voices in Ancient Egyptian Literature', in *Disputation Literature in the Near East and Beyond*, ed. Enrique Jiménez and Catherine Mittermayer (Berlin, Boston: De Gruyter, 2020), 124; Laurent Coulon, 'La Rhétorique et Ses Fictions: Pouvoirs et Duplicité Du Discours à Travers La Littérature Égyptienne Du Moyen et Du Nouvel Empire', *Bulletin de l'Institut Français d'Archéologie Orientale* 99 (1999): 112–14; Laurent Coulon, 'Rhétorique et Stratégies Du Discours Dans Les Formules Funéraires: Les Innovations Des Textes Des Sarcophages', in *D'un Monde à l'autre: Textes Des Pyramides & Textes Des Sarcophages. Actes de La Table Ronde Internationale, 'Textes Des Pyramides versus Textes Des Sarcophages', IFAO - 24-26 Septembre 2001*, ed. Susanne Bickel and Bernard Mathieu (Le Caire: Institut français d'archéologie orientale, 2004), 128–29.

The second metaphorical expression embodied in the *ḥwỉ* term, specifically in its usage as *ḥwỉ* 1,7 "tread road"[259] or *ḥwỉ tʒ* "roam the earth". In this context, *ḥwỉ* functions as a verb of manner of movement, condensing the notion of traversing a physical path or expanse in a specific way[260]. The verb itself conveys the manner of movement, while the path or direction is expressed through separate elements, such as *tʒ* "the land".

This metaphorical extension is underpinned by the typological affinity between the verb "to hit" such as the English phrase "we hit London by noon" or the French expression "battre la campagne" "to roam the countryside"[261] .

Consider the excerpt:

ex.6. *ḥwỉ.n(.ỉ) tʒ ḥr.f*

I hit the land on his account.

(Urk. I, 192, 12)[262]

In this example, the verb *ḥwỉ* is employed to describe a situation where the action of "hitting" or "touching" the land is conceptually framed as a type of motion. To better comprehend this usage,

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[259] This phrase has already been addressed, as detailed in the following references: Lopez, 'RdE 24', 112; Frank Feder, 'Ist "Das Erschüttern Des Landes (Hwi tA)" Hochverrat?', in *Von Theben Nach Giza: Festmiszellen Für Stefan Grunert Zum 65. Geburtstag*, ed. Frank Feder, Ludwig D. Morenz, and Günter Vittmann (Göttingen: Seminar für Ägyptologie und Koptologie der Universität Göttingen, 2011), 41–47; Hartwig Altenmüller, 'Die Zeit "Diesseits Und Jenseits Der Todesschwelle" Im Brief Sesostris' I. an Sinuhe', *Göttinger Miszellen* 188 (2002): 9–14.

[260] Verbs of manner of movement describe the style or quality of movement (e.g., "run", "swim", "crawl"), focusing on how the action is performed rather than the trajectory or endpoint. Verbs of directed movement emphasize the path, direction, or destination of movement (e.g., "enter", "leave", "arrive"), often without specifying the manner in which the movement is carried out. For the identification of the core meaning components lexicalized by hitting verbs in directed motion and contact event descriptions, see Beth Levin, 'Pounding up the Stairs and Slamming into the Wall: Hitting Verbs in Directed Motion Event Descriptions', in *Neglected Aspects of Motion-Event Description: Deconstructing Motion Events, John Benjamins*, ed. E. Corre and L. Sarda (Amsterdam, Netherlands, 2023).

[261] See 'Merriam-Webster', 2011, https://www.merriam-webster.com/; 'CNRTL Centre National de Ressources Textuelles et Lexicales', 2012, https://www.cnrtl.fr/definition/.

[262] Kurt Sethe, *Urkunden Des Alten Reichs*, Urkunden Des Ägyptischen Altertums, I (Leipzig: Hinrichs, 1932), 192; T. G. H. James, *Corpus of Hieroglyphic Inscriptions in The Brooklyn Museum, I: From Dynasty I to the End of Dynasty XVIII*, Wilbour Monographs 6 (Brooklyn: The Brooklyn Museum, 1974), 15.

we find helpful to consider B. Levin's typology of motion verbs[263]. According to this framework, motion verbs can be classified based on how they encode two key components of a motion event: the manner of movement and the path of movement. In some languages, known as "satellite-framed" languages, the manner of movement is typically encoded within the verb itself, while the path is expressed through separate elements, such as prepositions or other "satellites" outside the verb.

In the case of *ḥwỉ* in this context, the verb appears to follow this satellite-framed pattern. The manner of movement - specifically, the forceful or impactful nature of the action - is inherently encoded within the meaning of the verb "to hit". On the other hand, the path of movement, which in this instance is the destination or goal of the action, is lexicalized outside the verb through the separate element *tȝ*, meaning "the land". This construction suggests that ancient Egyptian may have functioned, at least in some respects, as a satellite-framed language. Expressing the manner of movement within the verb *ḥwỉ* and the path information through the separate element *tȝ*.

To further illustrate this concept, let's consider a more familiar example from English, which is also considered a satellite-framed language. In the sentence "She ran into the room", the verb "ran" encodes the manner of movement (a rapid, two-legged motion), while the preposition "into" expresses the path (the direction and destination of the movement). Similarly, in the ancient Egyptian example, *ḥwỉ* encodes the manner (a forceful, impactful action), while *tȝ* expresses the path (the destination or goal of the action)[264].

Whereas, the phrase *ḥwỉ ḫȝs.t*: "to smite foreign country"[265] convey the idea of forcefully exercising power on a second participant, a concept that is closely related to driving off cattle, likely through physical exertion. This usage features the verb's connotations of force and impact, effectively transposing the act of striking or hitting into the realm of power dynamics.

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[263] Levin, 'Pounding up the Stairs and Slamming into the Wall: Hitting Verbs in Directed Motion Event Descriptions'. While B. Levin's typology of motion verbs stems from a structuralist linguistic approach, which differs somewhat from the cognitive linguistic framework of our study, it proves useful in this context for elucidating the conceptual framing of *ḥwỉ.*

[264] Similar collocations can be found in ancient Egyptian texts, such as *ḥwỉ bw*: "reach a place" (PT 534 § 1272d), and *ḥwỉ mtn*: "pave a path"(Ptahhotep, 379; Urk. IV, 385; Ipuwer 4,6), further illustrating the verb's usage as a motion verb with the path lexicalized outside the verb. Other examples, such as *ḥwỉ šʿi*: "cross the sands" (*Bersheh*, pl. XVIII).

[265] For others collocations of *ḥwỉ tȝ* and similar such as in Sin. B198-9*,* see Aylward M. Blackman, 'Some Notes on the Story of Sinuhe and Other Egyptian Texts', *Journal of Egyptian Archaeology* 22, no. 1 (1936): 38.

Patently, the *ḥwỉ* 1,3 "drive off cattle" meaning conveys the idea of vehemently compelling the movement of livestock, likely through physical action:

ex.7. *mȝȝ kȝ.t sḏ.t skȝ ȝzḏ ḥwỉ mḥʿ(w) šdỉ.t ʿȝ ḥwỉ ʿȝ zp.(t) ḏȝḏȝ*

The contemplation of field work: ploughing, harvesting (and) beating the flax, transporting (with) donkeys, driving the threshing donkey, winnowing.

(Sacrificial chapel of the Sekhemankhptah, south wall, Scene title, 1)[266]

Here "to drive" (pushing an animal) *ʿȝ* "donkey", clearly implies the forcing of the movement of an animal, likely through physical exertion like pushing, prodding, or herding. This usage suggests a human agency being exerted to make the animal move in a desired direction or location. The act of "driving" an animal requires physical effort and the application of force to overcome the animal's inertia or resistance.

Alike in the same example, closely tied to agricultural practices, another meaning is attested: *ḥwỉ* 1,4: "to thresh", referring to the act of separating grain from its husks or stalks through forceful striking or beating. In this contest, the threshing or seeding out of a grain found in collocation with *mḥʿ(w)* "flax" or *ỉt* "corn" implies the deliberate action of scattering. The purpose of this scattering is to disperse and segregate different particles, thereby driving them in various directions to facilitate the separation of grain from chaff.

The close relationship between the act of threshing and the broader agricultural cycle of reaping the harvest is further elucidated through the close lexical association with the verb *ȝzḏ* "to sickle; to harvest"[267]. An illustrative example of this can be found in the Pyramid Texts:

ex.8. *ḥwi.n.(ỉ) ỉt ȝzḏ.n.(ỉ) bd.t ỉrỉ.n.ỉ rnpw.t.k ỉm*

I have threshed barley and reaped emmer, then I have made your annual offerings of them.

(PT 667B § 1953a)

In this example, the verbs *ḥwỉ* and *ȝzḏ* reflect the sequence of agricultural tasks: first, the emmer wheat is reaped (*ȝzḏ*), and then the barley is threshed (*ḥwỉ*). This passage not only showcases

[266] Suzanne E. Chapman, Nicholas Thayer, and William Kelly Simpson, *The Offering Chapel of Sekhem-Ankh-Ptah in the Museum of Fine Arts* (Boston: Museum of Fine Arts, 1976), pl. IX, b.

[267] *Wb* 1, 19.15-16. TLA ID 264.

the practical aspects of the agricultural process but also features the deeper significance of these activities within the religious and ceremonial context of ancient Egyptian culture.

The final clause of the passage, "Then I have made your annual offerings of them", shows that the products of these agricultural labours were not merely intended for sustenance but also served a higher purpose as offerings to the gods or deceased individuals. This additional layer of meaning could emphasize the importance of the agricultural cycle not only in terms of food production but also in fulfilling religious obligations.

Enantiosemous Shift to "Gather" and "Collect"

We progressively realize in what way the semantic evolution of *ḥwỉ* is also rooted in the agrarian practices, wherein the act of threshing namely forcefully separating the grain is a prerequisite for the subsequent process of gathering and collecting the desired yield.

Linked to these agricultural concepts, in the semantic shift *ḥwỉ /sḥwỉ* 1,5 to gather (crops) (derived from 1.4) as in "to bring together". It may at first seem anomalous, but it can be interpreted as the opposite action of dispersion, where things are brought together or amassed through movement or energetic action.

Thus, the ancient Egyptian verb *ḥwỉ* reveals a notable linguistic phenomenon known as an enantiosemous shift[268], where a word evolves to encompass meanings that are antithetical to its original sense. This dualistic nature of the threshing process is mirrored in the linguistic semantic of *ḥwỉ,* which exhibits the meanings of gathering and collecting crops at first as in:

[268] For a study concerning the enantiosemy with a rich bibliography on the subject, see Georges Bohas and Karim Bachmar, *L'énantiosémie dans le lexique de l'arabe classique*, Publications de l'Institut orientaliste de Louvain (Louvain-la-Neuve, Leuven: Université catholique de Louvain ; Peeters, 2017).

ḥwi̯ "to gather (crops, the harvest)"[269],

in more abstract way, as seen in lexemes such as

sḥw(i̯) "to collect; to assemble"[270],
sḥw "collection; assemblage; summary"[271].
sḥw "grouping (of personnel); assembly"[272].

In this semantic evolution, the prefix *s-* appears to play a significant role. It is possible that its function extends beyond a purely causative one, perhaps expressing intensive or typologically antonymic nuances, potentially acting as an enantiosemy maker akin to the English prefix *dis-*[273], which generates antithetic privative significances. This hypothesis will be examined through comparative examples.

A similar phenomenon can be observed in Classical Arabic[274]. The Arabic prefix *'a* exhibit a dual functionality, serving both to transform intransitive verbs into their transitive counterparts and to generate words with contradictory senses.

The first function of the *'a* prefix is to invert the syntactic structure of a verb, converting an intransitive verb (one that does not take a direct object) into a transitive verb (one that requires a direct object). For example, the intransitive form I verb *ḫaraja* "He went out" becomes the transitive form IV *'aḫraja* "he made [someone/something] go out". In this case, the active agent of the intransitive verb becomes the passive agent in the transitive form.

The second function of the *'a* prefix is known as *salb* or "deprivation, privation". This occurs when the addition of the prefix generates a meaning opposite to that of the original verb. A clear example is the verb *šakā*, which means "He complained of an illness". When the *'a* prefix is added, the resulting verb *'aškāhu* takes on the contrary meaning: "he cured him of the illness of which he was complaining.

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[269] *Wb* 3, 47.4-6. TLA ID 102840.

[270] *Wb* 4, 211.13-212.5. TLA ID 140540.

[271] *Wb* 4, 212.6-15. TLA ID 140550.

[272] Meeks, *AL II*, s.v. 78.3709.

[273] For "Dis" see 'Merriam-Webster'.

[274] Paraphrased from Bohas and Bachmar, *L'énantiosémie dans le lexique de l'arabe classique*, 60–61.

Returning to ancient Egyptian, a parallel development of an analogous antithetical shift is observed with the root √*nš*[275], which bifurcates into two distinct verbs:

 *nš*: "to gather (grain) together"[276],

 *nš*: "to carry away, throw out, expel"[277].

This dichotomy further illustrates the capacity of ancient Egyptian words to embody contrasting concepts, such as gathering and dispersing, within a single semantic basis. Thus, the seemingly contradictory concepts of scattering and collecting are inextricably intertwined within the same semantic domain, originating from a shared etymological foundation.

Furthermore, the notion of "scattering" particularly in relation to a body of water like a river flowing or emptying, is intrinsically connected to the idea of spreading and scattering. As we have already and thoroughly perceived, this concept is already embedded in the agricultural use of *ḥwỉ*.

As a conclusive, yet still thought-provoking example of the use of *ḥwỉ*, we find an attestation with a liquid as the direct object, once again in an agricultural context:

ex.9. *mȝȝ sḥw qsnw ḥ(wỉ.t) ỉȝrr.(w)t kȝt nb(.t) nỉ.t sḫ.t*

Watching the gathering of the Qesnu bird, the pressing of the grapes and every field work.

(Tomb of Tjy, sacrificial chamber, south wall, inscriptions 1: scene title)[278]

Here we find both the "gathering" from the lexeme *swḥ sḥw,* and "pressing" and "squeezing" of the *ỉȝrr.wt* "grape vine; grapes; raisins"[279]. The term *ḥwỉ*, denoting the action of "beating" or "pressing", is employed in the context of winemaking and serves as an instantiation of this semantic duality.

In this domain, the act of pressing as hitting the grapes precipitates the dispersal of individual particles (the grape juice) from the solid matter (the grape skins), while simultaneously enabling the convergence and amalgamation of these dispersed particles into a cohesive liquid form (wine). This

[275] 'TLA 2'√*nš* (Lemma ID 871484).

[276] *Wb* 2, 337.11. TLA ID 88440.

[277] *Wb* 2, 337.3-4. TLA ID 854521.

[278] Georg Steindorff, *Das Grab Des Ti*, Veröffentlichungen Der Ernst von Sieglin Expedition in Ägypten (Leipzig: Hinrichs, 1913), pl.130-131.

[279] *Wb* 1, 32.12-14.

multivalent usage of the lexeme *ḥwỉ* may condense both the centrifugal force of dispersal and the centripetal force of gathering.

A similar dispersal and subsequent gathering from small particles to form a larger whole, propelled from a source and then conglomerated, can be found at the core meaning related to the action of "flowing" and "raining". We may imagine that just as water is formed from individual particles coalescing into a cohesive substance, so too are crops formed from individual grains gathered into a unified yield.

Root's Ambitransitive Meanings

This exploration of the semantic aspects leads us to consider the more intransitive or ambitransitive meanings of the verb, wherein the actions of "flowing" and "raining" once again reflect a natural progression from dispersion to collection. The verb *ḥwỉ* thus captures a spectrum of meanings that traverse from the forceful scattering of individual elements to a likely deliberate assembly into a unified entity. These meanings include:

The Meanings "To Flow, to Flood"

ḥwỉ 2.1: "to surge up, to overflow, of the Nile"; "to flood": This denotation captures the dynamic and substantial movement of water, specifically in the context of the Nile's annual inundation, a pivotal event in the Egyptian agricultural cycle.

From a quantitative analysis perspective, in examining the occurrences of the intransitive verb *ḥwỉ* 2.1, predominantly utilizing the Thesaurus Linguae Aegyptiae (TLA) version 1, we could identify several recurrent subjects among the 57[280] attestations examined:

 *jm* "the sea": 2 times,

 *mw* "water": 1 time,

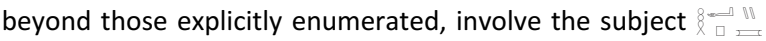
 *ḥj* "flow": 1 time,

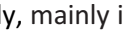
 *fd.t* "sweat": 1 time,

 *p.t* "sky": 1 time,

[280] For this type of analysis, we mostly exploit the 'TLA'.

 *wpw.t* "message, task": 2 times.

Upon scrutinizing the data, it becomes manifestly evident that the majority of attestations, encompassing virtually all instances beyond those explicitly enumerated, involve the subject  *Ḥ'pj* "the Nile; flood". This observation underlines the verb's association with liquids and most precisely with the annual inundation.

The root transition from a verb of contact to a verb of motion, which it could be considered the same verb, only used intransitively, mainly in the context of flowing or flooding , is a pivotal aspect of *ḫwỉ*'s semantic value. In its association with the lexeme *ḫʿpj*, the Nile and the concept of flooding, where *ḫwỉ* is used to describe the movement of water in a way that could emphasize the manner rather than the path of motion[281].

The other collocations of *ḫwỉ* with lexemes such as *jm* "the sea", *mw* "water", *ḫj* "flow", and *fd.t* "sweat" could further establish the verb's association with the dispersal of liquids and the movement of fluids from a central point or source. The expanse of the sea, the flow of water, and even the exudation of bodily fluids like sweat all involve the propagation of matter from a localized origin to a wider area. Moreover, the collocation with *p.t* "sky" suggests an extension of the core meaning to atmospheric phenomena, specifically the dispersal of water vapour or precipitation from the celestial area.

In later times, the lexeme *ḫʿpj* shows a main co-occurrence, for the frequency of collocation we used the TLA[282], with the general motion verb  *ỉwỉ* "to come" likely stressing the manner of motion (to arrive in a due course) and showing no direct object giving less importance to the path and again employed to establish a close connection between the subject and the way it reaches a target in a due time.

Going back to *ḫwỉ*'s application to the flooding of the Nile, its significance in expressing natural phenomena without a direct object, might imply an inherent, recurring motion, almost an absolute sense of the verb as we find in the following excerpt:

ex.10. *sdȝ mȝȝ.w Ḥ(ʿ)p(j) ḫwỉ.f*

Those who see the Nile flood as it flows will tremble.

(PT 581 § 1553b)

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[281] Levin, 'Pounding up the Stairs and Slamming into the Wall: Hitting Verbs in Directed Motion Event Descriptions'.

[282] 'TLA'.

The association with the verb of motion and emotion *sdȝ* "to tremble" and the verb of perception *mȝȝ* "to see, to look at" carries in a religious funerary context of the Pyramid Texts, the concept, closely related to the field of religious phenomenology, of *mysterium tremendum*, it refers to the profound encounter with the sacred that generates feelings of awe and fear, while the divine also attracts believers with its benevolence, creating feelings of joy and love, demonstrating the dualistic nature of the sacred and its complex relationship with worshippers[283] . This verbs association, together with the forceful movement and dispersal of liquids, often with intensity and on a large scale, has a strict link in the conceptualization and expression of natural phenomena and specifically atmospheric waters, again giving another evidence for the nature of the verb *ḥwỉ*.

In regard to the rare transitive employment of *ḥwỉ*, a significant occurrence emerges wherein *mr* "canal", assumes the role of the object:

ex.11. *mkt nwj ḥʿpj m ḥwj mr*

The protection of the flooding of the Nile is inundating the canals.

(Amulet Papyri, pDeM 44, 4)[284]

This specific instance permits us to postulate an ambitransitive sense, meaning "to irrigate", which resonates with the intrinsic link between the Nile's overflowing and the subsequent dissemination of its life-giving waters throughout the agricultural landscape.

However, while this transitive construal holds significance, it remains a solitary example amidst a vast corpus wherein the occurrences overwhelmingly adhere to an intransitive interpretation. Consequently, in our pursuit of scholarly rigour and precision, we are acknowledging the predominance of the intransitive construal while simultaneously recognizing the nuanced ambitransitive potential revealed through this singular case.

To further analyse the semantic construal of the verb *ḥwỉ* and its association with the notions of spreading and dispersal, we could examine the collocation with the term *wpw.t* "message, task", it serves to stress the metaphorical extension of *ḥwỉ*'s meaning beyond its literal sense, possibly

[283] Dirk van der Plas, *L'hymne à La Crue Du Nil: I: Traduction et Commentaire: II: Présentation Du Texte*, Egyptologische Uitgaven 4 (Leiden: Nederlands Instituut voor het Nabije Oosten, 1986), 92–93.

[284] Yvan Koenig, 'Le Contre-Envoûtement de Ta-i.Di-Imen: Pap. Deir El-Médineh 44', *Bulletin de l'Institut Français d'Archéologie Orientale* 99 (1999): 259–81.

exposing the underlying conceptual background that governed its usage in the ancient Egyptian lexicon:

ex.12. *ỉw tʒy.ỉ wpw.t ḥr ḥwỉ mỉ ḥʿpj*

My mission is flowing like the flood of the Nile.

(Letter with order in Elephantine = P. Chester Beatty V = P. BM EA 10685, Rto. 8.14-Vso. 1.3-4)[285]

This metaphorical construal draws upon the core meaning of *ḥwỉ* as denoting the propagation of elements from a central point. Just as the Nile's waters spread outward from the river's course, inundating the surrounding land, a mission or task might be conceived as emanating from a central source (the individual or entity undertaking the mission) and dispersing its influence or effects across a wider area or domain.

The choice to employ *ḥwỉ* in this context suggests that the ancient Egyptians perceived the successful execution of a mission or task as a process of dissemination or propagation, much like the diffusion of water or other natural phenomena from a localized origin. This metaphorical mapping likely stems from the pervasive presence of the Nile's annual inundation in the ancient Egyptian worldview.

In the second example, taken from a magical context, the metaphorical use of *ḥwỉ* reinforces its semantic value as a verb associated with meteorological phenomena:

ex.13. *ỉw{.ỉ} ⟨.t⟩ jỉ⟨.tỉ⟩ ḥr ḥwỉ mỉ pʒ Ḥʿpỉ ḥr ḥbs mj šnʿ ỉw ṯʒj.tw ḥʿ.w.n*

You (poison) have come, flooding like the Nile and covering like the rain clouds, after (so that?) our bodies were taken.

(Magic Papyri, P. BM EA 10085 + 10105, ro x+1.9)[286]

This excerpt vividly construes the dispersal and pervasive spread of a poison through the metaphors of the inundation of the Nile and the encompassing coverage of rain clouds. The choice to depict the spreading of the poison through these hydrological and atmospheric metaphors could underscore the ancient Egyptians' conceptualization of *ḥwỉ* as a verb including the notions of forceful,

[285] Gardiner, *Late-Egyptian Stories*, 49; Ricardo A. Caminos, *Late-Egyptian Miscellanies*, Brown Egyptological Studies 1 (London: Oxford University Press, 1954), 148–49.

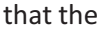
[286] Christian Leitz, *Magical and Medical Papyri of the New Kingdom*, Hieratic Papyri in the British Museum 7 (London: The British Museum Press, 1999), 85–92.

pervasive, and all-encompassing propagation. The image of the Nile's floodwaters and the rain clouds evokes a sense of a devastating, unstoppable force emanating from a single source and extending its influence across a vast area[287].

These examples highlight the cognitive and linguistic strategies employed by the ancient Egyptians to conceptualize, communicate, and make sense of abstract and complex concepts through the metaphorical extension of concrete, familiar experiences from the natural world. The semantic association of *ḥwỉ* with the notions of spreading and dispersal appears to be a fundamental conceptual building block that facilitated this metaphorical mapping, enabling the ancient Egyptians to express and understand a wide range of phenomena through the lens of their observations of the natural cycles and processes that governed their existence.

Consequently, this metaphorical foundation likely paved the way for the ancient Egyptian root *ḥwỉ* to acquire a meteorological meaning that captured one of nature's awe-inspiring displays of dispersal and dissemination - the phenomenon of rainfall.

The shift to rain

The semantic development underlying *ḥwỉ*'s meteorological sense  *"ḥ(w)j"* 3.2: "to rain" [288], presents competing etymological pathways that merit detailed examination. One possible interpretation of this development of the ancient Egyptian root *ḥwỉ*, particularly relevant to this lexicographic investigation, suggests that the meaning  *ḥ(w)j* 3.2: "to rain" may have emerged as a semantic extension from the fundamental notion of water dispersion, captured in the earlier meaning *ḥwỉ* 2.1: "to surge up, to overflow". This hypothesis warrants detailed examination in the following sections.

It is indicative that this explicit denotation of *ḥwỉ* as "to rain" is attested only from the New Kingdom period onwards, suggesting a possible later development in the lexeme's semantic trail. From a diachronic and cognitive-semantic perspective, the meteorological sense *ḥwỉ* "to rain" could plausibly be derived from the already-attested meaning *ḥwỉ* "to surge up, to overflow' through a process of metaphorical extension grounded in physical experience. In both uses, the lexical core

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[287] This sense could align with P. Vernus's concept of the "ubiquitous" Nile[287], where the force of the Nile extends beyond its banks, refer to Pascal Vernus, 'De l'humide Dans l'aride: Le Paradoxe Du Ouadi Inondé et Des Montagnes Submergées – Du Nil Confiné Au Nil Expansionniste Dans l'appropriation Du Paysage Par l'idéologie Égyptienne', *Forthcoming*, 2025.

[288] *Wb* 3, 48.23. TLA ID 102750.

might encode uncontrolled displacement of water from a bounded source to a dispersed state. In hydrological contexts, this involves the overtopping of banks or conduits; in meteorological contexts, it refers to the release of water from the celestial "container" (sky, clouds) to the terrestrial surface. It could also align with conceptual metaphor theory PRECIPITATION AS OVERFLOW in which rain is construed as the "spilling" of the waters of the sky.

The emergence of this meaning appears to be an exclusive semantic extension of the fundamental notion of water dispersion, captured in the earlier meaning *ḥwỉ* 2.1: "to surge up, to overflow". This semantic association may emphasize the ancient Egyptians' recognition of the intrinsic holistic connection between the dispersal of water in various contexts, from the inundation of the Nile to the atmospheric phenomenon of precipitation. The concept of water droplets being "dynamically and abundantly dispersed from the sky" might evoke the dynamic process of atmospheric water vapour condensing and coalescing into liquid droplets, which are then propelled earthward by gravitational and meteorological forces.

A notable characteristic of this specific sense of *ḥwỉ* is its pervasive collocation with the term *p.t*, denoting the conceptual domain of "sky". Indeed, a complete analysis of the attestations in the TLA (version 2) reveals that out of the 11 documented occurrences of this signification, 10 instances are found in direct conjunction with the lexeme ***p.t***. This pattern, always intransitive, is exemplified by the following earliest excerpt of the lexeme from the Rock inscription at Hagar el Merwa, dating back to the reign of Thutmosis I:

ex.14. *nn ḥwỉ n.f p.t nn msỉ mnmn.wt.f 4 nn wn ỉwʿ(.w).f tp tȝ*

The sky will not rain for him; his cattle will not give birth; his heirs will not exist on earth.

(Rock inscription at Hagar el Merwa, 3)[289]

In this particular inscription, the sky is proclaimed to withhold its rains as a form of punishment for a Nubian trespasser, thereby inducing drought and famine. The consequences of this deprivation of rain are depicted as far-reaching, encompassing not only the inability of livestock to reproduce, but also the cessation of human propagation, with the trespasser's heirs being denied existence on earth.

[289] Davies, 'Nubia in the New Kingdom: The Egyptians at Kurgus'.

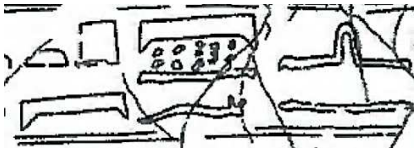
The use of the prospective negative construction (*nn + sḏm.f*)[290], also known as the negative objective future adds a layer of nuance and emphasis to the collocations involving the verb *ḥwỉ* ("to rain"). In this construction the modal contrast is neutralized and it conveys a definitive and impending negative outcome. In the context of the inscription, it is employed to emphasize the severity of the consequences that will befall the individual or entity in question. The use of the prospective negative presents these consequences not as mere possibilities or subjective interpretations, but as objective future events that will unfold with certainty if the celestial realm denies its rain.

By employing this linguistic construction, the collocation of the verb *ḥwỉ* "to rain" with the verbs *msỉ* "give birth; to fashion; to create" and *wnn* "to exist; to become" are permeated with a sense of heightened significance and urgency. The withholding of rain is not portrayed as a mere temporary inconvenience, but rather as a calamitous event that will inexorably lead to the cessation of life cycles – both animal and human – and the denial of existence itself.

The collocation of *ḥwỉ* with *msỉ* in this context is particularly informative, as it establishes a direct conceptual link between the atmospheric phenomenon of precipitation and the biological process of reproduction. This association likely stems from the ancient Egyptians' recognition of the vital role played by rain[291] in sustaining the fertility of the land and the availability of water sources, both of which are essential for the propagation of life.

As we said, the semantic extension of the ancient Egyptian root *ḥwỉ* to encompass the meaning "to rain" appears to be derived from the sense of "to surge up, to overflow, of the Nile; to flood" *ḥwỉ* rather than from the notion of "to beat" *ḥwỉ*.

This assertion may be supported by further conceptual factors, as it appears in this excerpt:

[292]

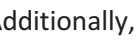
The orthographic representation of the verb *ḥwỉ* in this stela features the sign of the sky raining down (a variant of 𓉔N4), serving as a vivid ideogram for the action it denotes. This graphic

[290] Pascal Vernus, *Future at Issue: Tense, Mood and Aspect in Middle Egyptian: Studies in Syntax and Semantics*, Yale Egyptological Studies 4 (New Haven: Yale Egyptological Seminar, Department of Near Eastern Languages and Civilizations, Graduate School, Yale University, 1990), 126–30; Malaise and Winand, *Grammaire*, para. 642.

[291] See also Guey, 'Encore La" Pluie Miraculeuse"'; Posener, 'À Propos de La "Pluie Miraculeuse"'.

[292] Davies, 'Nubia in the New Kingdom: The Egyptians at Kurgus', fig. 6.

association could stress the posited connection between the verb and the phenomenon of hydrometeors, suggesting a semantic link between the lexeme and the concept of water dispersal from the sky.

Additionally, the typical spelling of the verb  "to rain" with the determinative  (N35a) is conjectured to relate the lexeme not to the notion of "beating", but rather to that of "scattering" or "pouring out water". This semantic association with the dispersal and outpouring of water appears to be the conceptual foundation upon which the meaning of "to rain" is predicated, representing the atmospheric manifestation of water dispersal from a celestial source.

This semantic leap was a testament to the ancient Egyptians' observation of the natural world and their ability to draw parallels between different phenomena. Just as the Nile's waters surged forth and dispersed across the land, the ancient Egyptians recognized a similar process occurring in the atmosphere, where water droplets were forcefully and abundantly dispersed from the sky.

This semantic leap could be further reinforced by the observed connection between the verb *ḫwỉ* and the term *tr* "time; season"[293] in the following textual examples. They read

ex.15. *p.t ḫwỉ ḥr ḥr.ỉ m trỉ n šmw*

The sky raining on my face like in the summer time.

(Legend of Isis and Re, P. Turin Cat. 1993, ro 4,5)[294]

ex.16. *p.t ḫwỉ.j.s m pr n Wsr.t n tr ỉr.w ỉs pw*

The sky was raining in the house of *Wsrt*, yet it was not time in question.

(P. BM EA 9961 vso, Isis and the seven scorpions, 27-28)[295]

In these examples, the association is not merely incidental but rather might suggest a deeper understanding of the temporal aspects of atmospheric phenomena. This connection might accentuate the ancient Egyptians' recognition of the importance of seasonality and the appropriate timing of natural events, such as rainfall.

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[293] For the meanings of the lexeme *tr* in context and its collocations such as *m tr n*, see Chantrain, *Éléments*, chap. II.4.3.2.

[294] 'Papyri Museo Egizio', accessed 10 February 2025, https://collezionepapiri.museoegizio.it/en-GB/document/185/. We gratefully acknowledge the assistance of Susanne Töpfer, curator at the Museo Egizio, for granting access to and enabling detailed analysis of the papyrus document.

[295] Marie Vandenbeusch, 'Evidence of an Ancient Archive? The Papyrus British Museum EA 9961', *Journal of Egyptian Archaeology* 104, no. 2 (2018): 177–94.

In the Legend of Isis and Re, the occurrence of rain outside of its expected temporal context is closely linked to a moment of emotional distress. Along with the description of untimely rain, the text employs the verb *sḏȝḏȝ* "to tremble; to make tremble", in the passage that describes the aftermath of a bite from a poisonous creature known as *ḏdf.t* "snake, worm".

This juxtaposition of unseasonable rain and the physical and emotional response to the venomous bite highlights the ancient Egyptians' belief in the interconnection of natural phenomena and their impact on human experience. In this context is particularly significant, as it suggests a profound emotional and physical reaction to the disruption of the natural order as postulated by J. Borghouts[296].

This thematic connection between the bite of a venomous creature and rain will be further explored later on since it occurs in other ancient Egyptian texts, where these similar patterns of association could provide additional insights into the civilization's beliefs. The consistent linking of these events in the literature implies that the ancient Egyptians may have perceived a symbolic or a real relationship between the venomous bite and the disruption of natural cycles, as represented by unseasonal rain.

In the second illustrative example, which also pertains to the theme of venomous entities, specifically scorpions, the account introduces an instance of sudden rainfall. This atmospheric event is depicted as providing an unforeseen respite and protection in a dire situation. Specifically, it is portrayed as the sole source of water capable of extinguishing a blaze that has engulfed the domicile of a character referred to as *Wsrt*.

This narrative connection reinforces the previously discussed link between the emotional distress caused by the bite of a poisonous animal and the unexpected manifestation of atmospheric phenomenon on page 116. The rain, which in other contexts might be associated with chaos or disruption, here takes on a benevolent role, acting as a natural counterbalance to the destructive power of the fire.

[296] J. F. Borghouts, *Ancient Egyptian Magical Texts: Translated*, Nisaba 9 (Leiden: E. J. Brill, 1978), 107.

Another instructive example we have chosen to analyse presents a collocation among three distinct elements: rain, mountains, and the concept of shining, which could be connected to elements emanating from the sky. This distinctive combination of concepts offers an opportunity to delve deeper into the ancient Egyptians' linguistic and conceptual understanding of atmospheric phenomena and their relationship with the natural environment:

ex.17. *ỉs gr ḥwỉ.t p.t m Tȝ-Stỉ sṯḥn.n.s ḏw.w r-ḏr.sn*

In addition, the sky rained in Nubia and made all its mountains shine.

(Kawa Stele V, Bottom text box ,9)[297]

The collocation of the verb *ḥwỉ* "to rain" with the toponym *Tȝ-Stỉ* "Nubia" immediately establishes a geographical context, situating the atmospheric phenomenon within the specific region of Nubia. This locational specificity suggests that the ancient Egyptians recognized and documented the occurrence of rain in different geographical areas, potentially reflecting their awareness of regional variations in climate and weather patterns.

Two hypotheses can be proposed to explain the association between mountains and rain in this text. Firstly, the specific mention of mountains in relation to rainfall is significant, as it aligns with the well-established meteorological phenomenon known as orographic precipitation[298]. This phenomenon occurs when air masses are forced to rise over elevated terrain, such as mountains or hills, causing the air to cool and condense, leading to the formation of clouds and, ultimately, precipitation. This phenomenon would have been particularly evident in regions like Nubia, where the rugged terrain and mountainous landscapes provided ample opportunities for orographic precipitation to befall.

Secondly, another possible explanation for the association between mountains and rain in this passage is the phenomenon known as the "rain shadow effect"[299]. Mountains can act as barriers that block the passage of moisture-laden air masses, creating a rain shadow on the leeward side of

[297] M. F. Laming Macadam, *The Temples of Kawa I: The Inscriptions* (Oxford: Oxford University Press, 1949), 22–32, pl. 9–10; Lenzo, *Les Stèles de Taharqa à Kawa: Paléographie*.

[298] Gregory L. Johnson and Clayton L. Hanson, 'Topographic and Atmospheric Influences on Precipitation Variability over a Mountainous Watershed', *Journal of Applied Meteorology and Climatology* 34, no. 1 (1 January 1995): 68–87.

[299] Concerning the phenomenon of rain shadow, see Alexander J. Stockham et al., 'Quantifying the Rain-Shadow Effect: Results from the Peak District, British Isles', *Bulletin of the American Meteorological Society* 99, no. 4 (1 April 2018): 777–90.

the mountain range. In this context, the ancient Egyptians may have recognized the protective role that mountains played in shielding certain areas from intense downpours. While the windward side of the mountains would experience heavy rainfall due to orographic precipitation, the leeward side would remain relatively dry, providing shelter and respite from the intense precipitation.

This understanding of the rain shadow effect could have been particularly valuable for ancient Egyptian settlements located in the rain shadow of mountain ranges, as it would have allowed them to benefit from the life-giving waters of rainfall while avoiding the potential dangers and disruptions caused by excessive downpours[300].

The ancient Egyptians' alertness of these phenomena could be further supported by earlier examples from Egyptian literature, such as

ỉw ỉr.n(.ỉ) ḏw n Ḥfȝ.t šw.t n Ḥrmr
I acted as a mountain for Hefat and as a cool shade for Hormer.
(Ankhtifi's Inscription, 10, IV, 26-27)[301]

This document employs a metaphorical comparison between the deceased and a mountain. This metaphor emphasizes the protective and sheltering qualities of mountains, suggesting that the ancient Egyptians recognized the role of mountains in providing refuge and relief from harsh conditions. The mention of "cool shade" in this passage is germane, as it evokes the idea of respite from the heat and intensity of the sun. This concept of mountains as a source of shelter and protection can be extended to the context of rainfall, as mountains can offer similar relief from the force and intensity of heavy downpours.

The second example is from the Hymns to Senwosret III, it reads

ỉsw ḏw pw mḏr ḏʿ r tr n nšnn p.t

[300] Concerning this phenomenon in the interested areas, see Kayden Haleakala et al., 'The Evolving Roles of Intensity and Wet Season Timing in Rainfall Regimes Surrounding the Red Sea', *Environmental Research Letters* 17, no. 4 (April 2022): 044039, https://doi.org/10.1088/1748-9326/ac5560; Modathir A. H. Zaroug et al., 'A Sensitivity Study on the Role of the Swamps of Southern Sudan in the Summer Climate of North Africa Using a Regional Climate Model', *Theoretical and Applied Climatology* 113, no. 1 (1 July 2013): 63–81; Céline Van den Hende et al., 'Analysis of Rain-Shadows in the Ethiopian Mountains Using Climatological Model Data', *Climate Dynamics* 56, no. 5–6 (2021): 1663–79.

[301] Vandier, Khafaga, and Vandier-d'Abbadie, *Mo'alla*, 220–21; 229.

Indeed, he is the mountain that blocks the storm at the time of the sky's wrath.
(pKahoun LV, 1 r°2, 17, 19)[302]

It directly addresses the correlation between mountains and storms. The passage explicitly acknowledges the role of mountains in blocking storms and providing protection from the sky's fury. This description could align closely with the concept of the rain shadow effect, as it features the ability of mountains to intercept and obstruct the passage of storms, thereby shielding certain areas from the full force of the precipitation.

Going back to the passage of Kawa Stele V, a significant feature is the juxtaposition of rain with the concept of *sṯḥn.n.s ḏw.w r-ḏr.sn* (made all its mountains shine) introducing a salient visual image of the natural landscape transformed by the interplay of water and light, where mountains "shine" in the aftermath of rainfall. This could also hint at a possible semantic connection between light and hydrometeors.

Firstly, this interaction evokes the reflective properties of wet surfaces, but it is also likely connected to the emergence of vegetation and natural resources following precipitation. The verb *sṯḥn* "to make bright; to make dazzling"[303] and its related verb *ṯḥn* "to be bright; to gleam; to dazzle"[304] are frequently[305] associated with the growth and vitality of the natural world, in this particular case following precipitation.

Secondly, the choice to associate rain with the concept of "shining" might also suggests a deeper symbolic or metaphorical connection between atmospheric phenomena and the idea of illumination. This connection could be explored through the analysis of the hieroglyphic signs used to represent these concepts.

The hieroglyphic sign  (N4), which is, as we have seen, could be used to represent the verb *ḫwi̯* "to rain", depicts a stylized representation of rain or water droplets emanating from the sky. As noted by G. Lenzo[306] in the palaeographic analysis of the passage from the Kawa Stele V, this sign bears a noticeable resemblance to the signs  (S15) and its oldest variants  (S16),  (S17), which depicts a pectoral with sparkling beads and are associated with the concept of shining or emanating rays of

[302] F. Ll. Griffith, *The Petrie Papyri: Hieratic Papyri from Kahun and Gurob*, 2 vols (London: Bernard Quaritch, 1898), pl. II l.19.

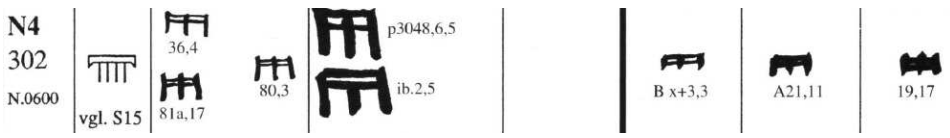
[303] *Wb* 4, 359.14-360.14. TLA ID 149370.

[304] *Wb* 5, 391-392.16-17. TLA ID 176570; 400374.

[305] Collocation analysis, see 'TLA'.

[306] Lenzo, *Les Stèles de Taharqa à Kawa: Paléographie*, 91.

light. The interchangeability between the signs N4 and S15, which has been common since at least the from the 22nd dynasty, likely originates from overlap of their similar hieratic forms[307].



Hieratic Palaeography of N4 and S15[308]

However, we wonder if this visual similarity between the signs representing rain and shining could suggest that the ancient Egyptians may have perceived a conceptual connection between the two phenomena at least in later times. Just as rain pours forth from the sky, the ancient Egyptians may have viewed the rays of sunlight as a form of emanation or substance pouring down from the celestial realm, illuminating and transforming the landscape below. This conceivable parallelism seems to be alluded in the following passage from a Coffin of the Third Intermediate Period, which we explored in the section concerning the analysis on sign N4 on page 86.

ex.18. *ḏd.f prỉ.ỉ {.k} ꜥq(.ỉ) mɜɜ(.ỉ) ỉtn wr {wr} ḥwỉ.(w) m ỉɜḫ.w.f*

He says: I come out, (I) go in, (I) see the great disc of the sun, flooded with its light.

(Nes-Pauti-Taui's Outer Coffin, (ÄS 6263), Bottom part, Interior, Banner 43)[309]

[307] Verhoeven, *Untersuchungen Zur Späthieratischen Buchschrift*, 240.

[307] The instability of the S15, S16, and S17 hieroglyphic signs dates back to the First Intermediate Period, particularly their graphic assimilation to other glyphic forms, as noted in private correspondence with Philip Seyr (16 March 2025), these signs exhibit significant formal variability, often being subsumed under the F31 (𓄿) classifier, as evidenced in mortuary contexts from Nag ed-Der and Middle Kingdom administrative texts Refer to Brovarski, *Naga Ed-Dêr in the First Intermediate Period*, 303; Callender, *El-Hawawish: Tombs, Sarcophagi, Stelae. Palaeography.*, 8:472 §716. Concurrently, the same sign occasionally merges with the N8 (𓇋) sign in ritual and legal inscriptions, a phenomenon documented in the Coptos Decree E (late Middle Kingdom), now housed at the Musée des Confluences, Lyon.

[308] Verhoeven, *Untersuchungen Zur Späthieratischen Buchschrift*, 158.

[309] Egner and Haslauer, *Kunsthistorisches Museum Wien, Ägyptisch-Orientalische Sammlung, Lieferung 10: Särge Der Dritten Zwischenzeit 1*.

The text employs a particularly significant semantic construction by pairing the term *i3ḫ.w*[310], which specifically denotes solar radiance, with the pseudo-participle form of the verb *ḥwỉ*, "to flood"[311], as we have seen traditionally associated with flooding or inundation, here written with the 𓈖 (W21) as a determinative for wine and liquids[312]. This graphic choice is especially noteworthy because it could demonstrate how ancient Egyptian scribes conceptualized the dispersal of light through metaphorical extension of liquid terminology and representation.

The phrase *ḥwỉ m i3ḫ.w.f* "flooded with its light" represents a sophisticated metaphorical mapping where the properties of flowing water are transferred to the domain of light emission. The use of *ḥwỉ* in this context suggests that the ancient Egyptians perceived both phenomena - the dispersal of water and the emission of light - as sharing fundamental characteristics in terms of their movement and effect on the surrounding environment. This interpretation is strengthened by the fact that *ḥwỉ* typically implies not just the presence of liquid, but specifically its dynamic movement and transformative impact on what it encounters.

Furthermore, the broader context of this funerary text, where the deceased describes their ability to move between realms and witness celestial phenomena, adds another layer of significance to this metaphorical construction. The sun's light is not merely portrayed as illuminating, but as actively "flooding" the space it encounters, suggesting a material quality to light that parallels the tangible nature of water. This conceptualization aligns with other ancient Egyptian texts where both rain and sunlight are depicted as substances that descend from the celestial realm to transform the terrestrial world.

The conceptual association between light and liquid phenomena in ancient Egyptian thought is further substantiated by evidence from the Tanis Sign-Papyrus (P. London BM EA 10672)[313], a sign

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[310] *Wb* 1, 33.3-5. TLA ID 20880.

[311] *Wb* 3, 48.16-22. TLA ID 102740.

Raymond Faulkner, *A Concise Dictionary of Middle Egyptian* (Oxford: Oxford University Press for Griffith Institute, 1962), 165; Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 1 (1977)* (Paris: Imprimerie la Margeride, 1980); Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 2 (1978)* (Paris: Imprimerie la Margeride, 1981), 78.2612; Dimitri Meeks, *Année Lexicographique: Égypte Ancienne. Tome 3 (1979)* (Paris: Imprimerie la Margeride, 1982) 79.1912.

[312] Gardiner, *EG*, 530; Malaise and Winand, *Grammaire*, 740.

[313] Concerning P. London BM EA 10672, see Heinrich Brugsch, F. Ll. Griffith, and W. M. F. Petrie, *Two Hieroglyphic Papyri from Tanis: I. The Sign Papyrus (a Syllabary); II. The Geographical Papyrus (an Almanack)*, Memoir of the Egypt Exploration Fund 9 (London: Trübner & Co, 1889), vol. I p. 15; pl. III.

list where semantically organized[314] hieroglyphics are followed by their hieratic correspondence and a brief explanation of their meaning.

The sequential placement of the signs for shining ( S15) and hydrometeors (N4) in this document merits careful analysis. This pairing becomes especially meaningful when considered alongside the metaphorical construction found in Nes-Pauti-Taui's coffin text, where light is described as "flooding" (*ḥwỉ m ỉʒḫ.w.f*). Together, these sources suggest a consistent conceptual framework in which both light and precipitation were understood as emanating substances that descend from the celestial realm.

The Tanis Sign-Papyrus's organization of these signs in close proximity indicates more than mere visual similarity - it could point to a deeper semantic relationship or conflation. When we consider that this document was specifically created to explain and categorize hieroglyphic signs, the juxtaposition of these particular signs takes on additional significance.

This interpretation gains further strength when we consider how these two entries are phrased in the papyrus: J. Quack's translation[315] of the hieratic part of these entries as "a sky that is sparkling" and "a sky of storm" respectively exposes a conceivable conception of celestial phenomena that bridges visual and atmospheric effects. The parallel construction of "a sky that is sparkling" and "a sky of storm" suggests these were seen as related manifestations of celestial activity. The use of "sky" (*p.t*) as the common element in both descriptions reinforces the conceptual link between these phenomena as forms of celestial emanation.

The evidence from the Sign-Papyrus thus provides a crucial link to understanding the broader semantic development of *ḥwỉ*. The verb's application to both liquid phenomena (as in flooding or rain) and light phenomena (as seen in the coffin text's "flooded with light") appears to stem from a fundamental conceptual metaphor where both are understood as forms of celestial emanation. This underlying conceptual framework helps explain how *ḥwỉ* could develop such seemingly diverse applications while maintaining semantic coherence - they all reflect different manifestations of the same basic concept of emanation.

This analysis suggests that the core motivational meaning of *ḥwỉ* likely centres on the notion of a substance or force that emanates from a source and transforms what it encounters. This fundamental concept can then account for both the verb's transitive uses (where the emanating

[314] Quack, 'La Classification Des Hiéroglyphes Par Les Égyptiens'.

[315] J. Quack, personal communication, email message, 13/12/2022. I express my gratitude to J. Quack for his valuable support and the proposed translation. His suggested rendering differs from the translation by Griffith, "Sky rising? Sky raining", as found in Brugsch, Griffith, and Petrie, *Two Hieroglyphic Papyri from Tanis: I. The Sign Papyrus (a Syllabary); II. The Geographical Papyrus (an Almanack)*, vol. I p. 15; ll.6–7.

substance directly affects an object) and its intransitive applications (where the focus is on the process of emanation itself).

In this context, the term "core motivational meaning"[316] is employed to support the idea that the fundamental, or "core", aspect of linguistic motivation is rooted in meaning and conceptualization, which are shaped by cognitive and other language-independent factors. This shaping influence on the properties of linguistic signs provides the basis for why language is structured and used the way it is, allowing for the expression and negotiation of meanings. The concept refers to the inherent link between form, meaning, and underlying cognitive and experiential bases that motivate linguistic phenomena.

However, this concept employed here requires methodological clarification in light of recent advances in polysemy theory. Following recent studies by S. Polis and E. Grossman[317], we acknowledge that "different meaning cores can coexist synchronically for the same lexeme" and that speakers do not necessarily derive contextual meanings through computational processes from a single *Grundbedeutung*. Our analysis adopts a preponderant meaning hypothesis: while multiple semantic cores may coexist within *ḥwỉ*'s polysemic network, diachronic evidence suggests that the "water dispersion" schema exhibits greater extensional productivity than competing cores, as demonstrated by its systematic collocational patterns with liquid terminology and its consistent intransitive argument structure across both terrestrial (overflow) and atmospheric (rainfall) contexts. This preponderant core thus functions as the primary licensing mechanism for semantic extension within the hydrometeorological domain, without precluding the synchronic activation of alternative meaning cores in specific constructional contexts. This approach aligns with usage-based models of semantic change where frequency effects and collocational entrenchment influence the directionality of lexical extension.

2.1.3. The Core Motivational Meaning of *ḥwỉ*

The term *ḥwỉ* presents a network of meanings that span across various semantic domains. To elucidate the underlying semantic unity of these disparate usages, it is necessary to identify the core

[316] See Klaus-Uwe Panther and Günter Radden, eds., *Motivation in Grammar and the Lexicon* (John Benjamins, 2011), 11–13.

[317] Eitan Grossman and Stéphane Polis, 'Navigating Polyfunctionality in the Lexicon: Semantic Maps and Ancient Egyptian Lexical Semantics', in *Lexical Semantics in Ancient Egyptian*, ed. Eitan Grossman et al. (Widmaier, 2012). I am grateful to Stéphane Polis for his insightful suggestion on this point.

conceptual thread that binds them and to propose a central motif that encapsulates the essential nature of the term and possibly the root.

The examination of the attested senses of *ḥwỉ* exposes a recurring notion of forceful movement and impact. This core meaning is particularly salient in the term's application to physical actions associated with agricultural labour, such as the threshing of grain or the driving of cattle. In these contexts, *ḥwỉ* denotes a deliberate and vigorous motion that is exerted upon an object to achieve a desired result. Even the possible enantiosemous sense of "to gather" or "to collect" can be understood as a natural consequence of this forceful action; after the initial dispersal, there is a subsequent re-aggregation of the scattered elements.

The intransitive senses of *ḥwỉ*, which include "to surge up", "to overflow", and "to flood", can be analysed as metaphorical extensions of this core meaning into the domain of natural phenomena. Here, the forceful movement is attributed to the dynamic and potent properties of water itself, which acts upon the environment in a manner analogous to the human agent's exertion of force in the transitive uses.

Further semantic extensions of *ḥwỉ*, such as "to defeat in argument" or "to tread a road", likewise build upon this foundational notion of forceful movement. In these cases, the application of force is abstracted and projected into the realms of intellectual discourse and spatial navigation, respectively.

On behalf of these observations, we can propose that the core motivational meaning of *ḥwỉ* is that of dispersal caused by the contact and movement of force. This central concept captures the essential commonality underlying the term's various uses, all of which involve the exertion of energy resulting in movement, change, or impact.

Firstly, the physical actions described by *ḥwỉ* such as "to beat", "to strike", and "to smite", inherently involve the application of force resulting in movement and impact. These actions are not passive but require an active exertion of energy to achieve a specific effect, whether it be the beating of workers, the striking of flax, or the smiting in a combative sense. It is the physical force applied to objects, the powerful surge of water, or the metaphorical force of words and actions, *ḥwỉ* consistently conveys the idea of a dynamic and potent force that initiates motion and transformation.

Secondly, the concept of dispersal is particularly significant, as it is present in both the factual scattering of seeds during threshing and the figurative striking position in argumentation. The movement of force, on the other hand, condenses the association with actions that propel or drive entities, whether they are physical objects, animals, or even extended concepts like arguments or journeys.

The intransitive aspects of *ḥwỉ* reflect the core meaning of dispersal and movement of force through their association with natural processes and phenomena. The meanings "to surge up", "to overflow", and "to flood" all depict scenarios where water moves with natural force, spreading and dispersing without the direct intervention of human agency.

This intransitive movement is inherently forceful and transformative, mirroring the transitive actions where force is deliberately applied. The natural phenomena described by these terms—particularly the inundation of the Nile—are characterized by the powerful and uncontrollable movement of water that impacts the surrounding environment. This movement is not gentle or slow but sudden and forceful, akin to the physical actions of beating or striking.

The intransitive meaning "to rain", derived from the concept of water surging and overflowing, further exemplifies the core meaning. Rainfall is a natural process where water is dispersed from the sky, impacting the land below. It is a manifestation of the movement of force from one domain to another, which is a fundamental aspect of the verb *ḥwỉ*.

The intransitive aspects of *ḥwỉ* could serve to reinforce the root's core motivational meaning by illustrating how natural forces operate in a manner consistent with the principles of dispersal and movement. These natural expressions of force complement the transitive and metaphorical uses of *ḥwỉ*, creating a cohesive semantic network that centres around the dynamic interaction of force and motion.

Overall, also in line with Polis and Grossman's observation that many Egyptian verbs "navigate polyfunctionality" synchronically[318], operating across partially overlapping semantic domains without a single invariant core, *ḥwỉ* need not be reduced to one exclusive "motivational meaning". Instead, the lexeme's semantic network might be conceived as polycentric, with at least two major attractor senses—IMPACT, supported by the frequent use of the A24 "to beat" determinative, and a plausible SELF-MOTION/EMISSION value as "to throw itself". The latter, though less foregrounded graphically, is compatible with the verb's morphological and syntactic behaviour and offers a compelling event-schema link to the attested sense "to overflow": the subject-liquid is construed as actively projecting itself beyond its container. From an emic perspective, this self-propelled outpouring schema could then be recruited metaphorically to describe the descent of rain, representing the "sky's waters" as casting themselves down toward the earth. In this account, the extension from "to throw itself" → "to overflow" → "to rain" is semantically motivated by shared motion dynamics, while the "to beat" imagery reinforces only one salient construal of the phenomenon. The interplay of these

[318] Grossman and Polis, 'Navigating Polyfunctionality in the Lexicon: Semantic Maps and Ancient Egyptian Lexical Semantics'.

cores—one graphically salient, one contextually grounded—fits the documented Egyptian tendency for lexemes to maintain multiple functional centres, each activated in different collocational and discourse environment.

The following table summarizes the various meanings of the Egyptian root *ḫwỉ* and its related form *sḫwỉ*:

Table 5: Meanings of the root ḫwỉ.

Egyptian Term	Meaning(s)	Description
ḫwỉ 1	"to beat"	Involves forceful physical actions such as propelling something with force.
	"to thrust"	Similar to beating, implies a forceful, forward motion.
	"to throw"	Conveys the action of propelling something through the air with force.
	"to drive" (to push an animal)	Compelling movement through physical exertion.
	"to reach/roam"	Involves moving with effort or to cover a distance.
	"to thresh flax or orge"	Refers to the agricultural process of separating the grain from plants, which requires forceful action.
ḫwỉ 2	"to flow"	Relates to the forceful movement of liquids.
	"flood"	Describes the intense and large-scale dispersal of water.

ḥwỉ 3	"to rain"	Involves the natural and often forceful dispersal of water droplets from the sky.
ḥwỉ / sḥwỉ 4	"to gather"	Represents the collection of elements after they have been dispersed, indicating a cyclical process.

This unified semantic thread could have held significant symbolic or practical importance in ancient Egyptian culture, reflecting their understanding of the relationship between human actions, natural phenomena, and the forces that govern movement, dispersal, gathering, and cyclical processes in the physical and cosmic realms. It may have captured the interaction between human agency and the forces of nature, as well as the cyclical nature of activities like agriculture.

To further substantiate the proposed core motivational meaning of *ḥwỉ* and its emphasis on the dispersal and movement of force, it is helpful to briefly examine the semantic parallels exhibited by another Ancient Egyptian verb, namely *ḫȝ*ʿ[319], since this verb seems to display a similar polysemous structure to that of *ḥwỉ*.

The verb *ḫȝ*ʿ exhibits a polysemous nature exposing a cognitive link between the notions of throwing and releasing fluids. Just as *ḥwỉ* encompasses meanings such as "to throw" and "to flow" or "to release, empty out", *ḫȝ*ʿ displays a similar semantic extent, with significations including "to throw", "to lay", "to leave", "to eliminate", and "to release".

Interestingly, *ḫȝ*ʿ also extends its semantic domain to the physiological processes of secreting blood[320] or urine[321].This specific usage of the verb to describe the release of bodily fluids could provide additional evidence for the conceptual association between the forceful expulsion of substances and the act of throwing. The parallel polysemy exhibited by *ḫȝ*ʿ and *ḥwỉ* suggests that the ancient Egyptians perceived a fundamental connection between the physical action of propelling an object and the release or dispersal of liquids. The semantic analogy between the meanings of these two verbs could reinforce the posited core motivational meaning of *ḥwỉ* revolves around the concept of dispersal and forceful movement.

[319] *Wb* 3, 227.3-228.25. TLA ID 113560.

[320] Serge Sauneron, *Un traité égyptien d'ophiologie: papyrus du Brooklyn Museum n°47.218.48 et .85*, Bibliothèque générale (Le Caire: Institut Français d'Archéologie Orientale, 1989), 87.

[321] Wolfhart Westendorf, *Handbuch Der Altägyptischen Medizin*, Handbuch Der Orientalistik, Erste Abteilung 36 (Leiden: Brill, 1999), 647.

This parallel provides additional support for the proposed etymological origins of the lexeme *ḥw.t*, as it demonstrates that the association between the expulsion of liquids and the concept of throwing was not an isolated phenomenon but rather a pervasive conceptual background reflected in various lexical domains.

Typological Parallels: Corroborating Evidence

As we investigate deeper into the semantic complexities of the lexeme *ḥwỉ*, our research has led us to draw potential typological parallels[322] with the Akkadian verb *raḫāṣu*[323]. The comparative analysis of these two polysemous verbs may have yielded evidence that reinforces our hypothesis regarding the semantic unity of *ḥwỉ*. It is noteworthy that these cross-linguistic resonances do not imply a direct causal relationship or borrowing between the languages. Rather, they suggest the possibility of shared cognitive patterns and conceptualizations arising from the universal human experience of natural phenomena. The Chicago Assyrian Dictionary outlines four principal meanings for *raḫāṣu*, each of which resonates with the semantic range of *ḥwỉ* in evident ways:

raḫāṣu A: "to trample", "to destroy"

Even if only at a general abstract level (high semantic transitivity), this meaning aligns with the transitive sense of *ḥwỉ* as "to beat" or "to strike", where the application of force results in the alteration or destruction of the target.

raḫāṣu B: "to wash", "to bathe", "to soak"

The association with water in this meaning of *raḫāṣu* echoes the aspects of *ḥwỉ* related to the movement and flow of water, such as "to surge up", "to overflow", and "to flood". The act of washing or immersion implies a transformative interaction with water, paralleling the dynamic and iterative nature of natural forces captured by *ḥwỉ*.

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[322] We already mentioned the semantic parallel with the Greek verb βάλλω, but also with Sumerian verb *dub*, see Halloran John Alan and John Alan Halloran, *Sumerian Lexicon : A Dictionary Guide to the Ancient Sumerian Language*, *Sumerian Lexicon : A Dictionary Guide to the Ancient Sumerian Language* (Los Angeles, Cal: Logogram, 2006), s.v. dub; *Leipzig-Münchner sumerischer Zettelkasten* (Verlag nicht ermittelbar, 2006), s.v. dub.

[323] Robert D. Biggs, *The Assyrian Dictionary : Of the Oriental Institute of the University of Chicago Vol. 14, R* (Chicago: Oriental institute, 1999), 65–79.

raḫāṣu C: "to trust, to rely"

While this meaning may not have a direct counterpart in the semantic range of *ḥwỉ*, it is conceivable that the concept of trust involves an underlying metaphor of placing something valuable into the care of another, which could be abstractly related to the dispersal and movement of force. Trusting someone could be metaphorically framed as "casting" one's fate or "throwing" one's lot with another, which resonates with the transitive sense of *ḥwỉ* as "to throw".

raḫāṣu D: "to bring together, mobilize"

This meaning shares common ground with the enantiosemous shift of *ḥwỉ* "to gather" where the initial action of dispersal or destruction is followed by the act of collecting the scattered elements. The mobilization aspect of *raḫāṣu* D may also mirror the metaphorical extension of *ḥwỉ* "to drive off cattle", where the directed movement of animals is central.

Beside this semantic richness[324], the existence of the deverbal noun *riḫṣu* A "destruction, devastation (by the storm)"[325] in Akkadian could provide an additional semantic bridge to the lexeme *ḥw.t* in Ancient Egyptian, both terms condensing the forceful and dynamic aspects of precipitation and inundation.

The typological parallels between *ḥwỉ* and *raḫāṣu* could corroborate the semantic unity we propose for the Egyptian term and also suggest a broader cross-linguistic pattern in the

[324] Special thanks for the insightful contributions to this semantic question are extended to Mr. Lionel Marti, and Mr. Dominique Charpin, as confirmed through personal communication (Mr. Lionel Marti, email, 1/23/2024; Mr. Dominique Charpin, email, 2/19/ 2024). Appreciation is also expressed for the help of Ms. Masetti-Rouault (email, 1/21/2024), who brought attention to the fact that the *Akkadisches Handwörterbuch* by W. Von Soden consolidates the first two meanings under a single entry, suggesting a connection to the Semitic root **rḥḍ* "to wash". This entry is further divided into two subcategories: one indicating the act of submerging or flooding, often associated with the destructive power of the Storm god Adad, and the other referring to the act of washing, typically in a ritual context, see Soden Wolfram von, *Akkadisches Handwörterbuch .Band II . M-S*, *Akkadisches Handwörterbuch . Band II . M-S : unter Benutzung des lexikalischen Nachlasses von Bruno Meissner (1868-1947)* (Wiesbaden: Otto Harrassowitz, 1972), 942–43.

[325]Robert D. Biggs, *The Assyrian Dictionary : Of the Oriental Institute of the University of Chicago Vol. 14, R* (Chicago: Oriental institute, 1999), 335-6. Interestingly the lexeme *raḫiṣu* means "trampling down" and more precisely "threshing floor", see Jeremy Allen Black et al., *A Concise Dictionary of Akkadian*, 2nd (corrected) printing, Santag, Bd. 5 (Wiesbaden: Harrassowitz, 2000), 295.

conceptualization of forceful movement, dispersal, and conglomeration together with the dynamic power of water.

2.1.4. Conclusion

The etymological origins of the lexeme *ḥw.t* have been elucidated through a widespread analysis of *ḥwỉ* and the examination of typological parallels. The intransitive meanings of *ḥwỉ,* particularly "to throw (itself)" and, by extension, "to surge" or "to flow, are intrinsically tied to the idea of forceful movement and dispersal, embodying natural processes characterized by an inherent propagation of force or matter from a central source, which bears a striking resemblance to the natural processes denoted by *ḥw.t*.

This semantic connection stands in stark contrast to the transitive meanings of *ḥwỉ*, which refer to actions that exert force upon objects. The intransitive connotations of the root, on the other hand, embody natural phenomena characterized by an inherent movement of force or dispersion, devoid of a direct object. This semantic thread could be indicative of an understanding of the syntactic encoding of human actions that exert force (transitive verbs) and the autonomous forces of nature (intransitive verbs), highlighting a distinct relationship between human agency and natural phenomena.

A closer look at the intransitive connotations of *ḥwỉ* revealed a central theme of forceful, autonomous movement and dispersion. The notion of something "throwing itself" implies a self-directed, inherent propagation of force or matter from a central point, a concept that is semantically closely related to the ideas of "surging" and "flowing". These latter terms also involve the autonomous, powerful motion of a substance (typically a liquid) in a particular direction, without the direct application of external force.

This semantic parallel bears a striking resemblance to the natural phenomenon of rainfall. When rain falls from the sky, it is essentially "throwing itself". The raindrops surge and flow towards the ground in a self-directed, forceful manner, without any external agent directly applying force to them. In this sense, the intransitive meanings of *ḥwỉ*, particularly "to throw (itself)", and the related notions of "to surge" and "to flow", capture the essential characteristics of rainfall as an autonomous, self-propagating natural process.

Further evidence supporting this etymological relationship can be found in the orthography of *ḥw.t*. The examination of the hieroglyphic spelling of the term reveals the consistent use of the determinative sign  (N35a), which is also employed in the representation of the verb *ḥwỉ* "to flow" . The shared use of this determinative in both *ḥw.t* and *ḥwỉ* "to flow" could reinforce the idea that

the two terms are semantically and morphologically connected, with *ḥw.t* being derived from the intransitive sense of *ḥwỉ*.

The more descriptive determinative for "rain", (N4), which depicts a sky with falling raindrops, is rarely used in the spelling of *ḥw.t*. This orthographic choice suggests that the ancient Egyptians prioritized the semantic connection between *ḥw.t* and the intransitive meanings of *ḥwỉ*, particularly the notion of "to flow", over the pictorial representation of the natural phenomenon itself.

Deriving *ḥw.t* from the intransitive connotations of *ḥwỉ*, the ancient Egyptians linguistically encoded their understanding of rain as an autonomous, self-propagating natural process, characterized by the forceful, self-directed movement of water from the sky to the ground. In light of the foregoing analysis, it is plausible to assert that the term *ḥw.t* is etymologically derived from the intransitive properties of the root *ḥwỉ*. This derivation might condense the natural processes of forceful dispersion and movement, rather than stemming from the transitive sense of "to beat", which is predominantly associated with human activities. The orthographic and semantic evidence seem to reinforce this etymological interpretation.

Graphic Analysis of the Lexeme *ḥw.t* "rain"

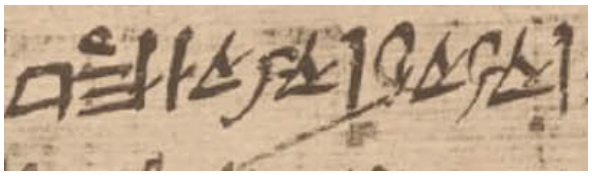
This part of our study aims to provide an analysis of the representation and usage of lexeme *ḥw.t* across various scripts and historical periods, by examining its graphical forms, phonetic components, and associated determinatives. We thus seek to expose the nuances and evolution of this term within the Egyptian writing system. Additionally, we will explore the semantic and conceptual connections between *ḥw.t* and the metaphorical phrase *mw n p.t* "water of the sky" highlighting how these terms collectively shaped the ancient Egyptian conceptualization of rain.

Representation of the Lexeme in Hieroglyphic and Hieratic Script

Our investigation into the distribution of the lexeme across Ancient Egyptian scripts yielded insightful quantitative results. The analysis encompassed 39 occurrences of the lexeme (variations included), revealing a predominant usage in hieroglyphic script with 27 instances, compared to 12 instances in hieratic script. This discrepancy in script usage could be indicative of the lexeme's association with monumental and royal textual productions, which traditionally favoured hieroglyphic script for its formal and ceremonial connotations. In contrast, hieratic script, being more cursory and employed for every day administrative and literary purposes[326], featured the lexeme less frequently.

[326] John Baines, 'Literacy and Ancient Egyptian Society', *Man* 18, no. 3 (1983): 582–83; Baines, *Visual and Written Culture in Ancient Egypt*, 46–49.

In accordance with academic tradition, our study will present a table that juxtaposes the hieroglyphic transcriptions of the hieratic script with the hieroglyphic script itself. This approach is required by the absence of a standardized form of hieratic script, which exhibits a greater degree of variation and fluidity across different periods and textual genres. To provide a clear and consistent image of the lexeme *ḥw.t* within our analysis, we expose here a sample of an excerpt from the medical text of Papyrus Berlin P.3038, in hieratic script:



Papyrus Berlin P.3038, recto 21,6.



ḥwỉ n.f ḥwj.t š

Rain and flood will pour out for him

(P. Berlin 3038, ro.21,6)[327]

This excerpt is above transcribed into hieroglyphic script, allowing for a direct comparison and a more accessible understanding of the lexeme's use and appearance in the original hieratic form.

[327] Walter Wreszinski, *Der Grosse Medizinische Papyrus Des Berliner Museums (Pap. Berl. 3038): In Facsimile Und Umschrift Mit Übersetzung, Kommentar Und Glossar*, Die Medizin Der Alten Ägypter 1 (Leipzig: J. C. Hinrichs, 1909), pl.21.

2.1.5. Graphic Diachronic Distribution of *ḥw.t*

The subsequent table offers a widespread overview of the occurrences of *ḥw.t* in both hieroglyphic and hieratic scripts, spanning various historical periods. This comparative presentation serves to delineate the script preferences and contextual applications of the lexeme throughout the epochs of Ancient Egyptian script.

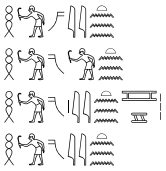
	Old Kingdom - 1st Intermediate Period	Middle Kingdom -2nd Intermediate Period	New Kingdom-3rd Intermediate Period	Late Period	Ptolemaic Period
Hieroglyphic	 328	 329	 330	 331	 332
Hieratic	–	 333	 334	 335	 336

Table 6: Diachronic distribution of *ḥw.t* by script.

[328] PT 285 § 426c

[329] Inscriptions of Wadi Hammamat M 191, 2; CT VII, 370f; Heqaib (sanctuary of), inscription stela n.9,7

[330] Urk. IV 1116, 5; Urk. IV 1-16, 84, 8-11; KRI II 233-256, Tomb of Ramses VI, KV 9, Corridor C, left wall niche, right wall, column 6.

[331] Amduat, 12th hour, middle register, 6th scene, 830-831; Kawa IV, 10; Kawa IV,15

[332] Metternich Stele New York MMA 50.85, Spell 8; Karnak Opet Temple, central Hall VII, frieze on west wall: west wind Opet 101

[333] P. BM EA 10755 II, ro I, 6; P. Amherst 3 + P. Berlin P 3024, 136; P. Berlin P 3033, 11,14

[334] P. Moskau Puschkin B, A 2, 4; P. Turin 968+1890+1878 ro I, 8); P. Berlin 3038, 88, 7,12 - 8,1; P. Berlin P. 3038, ro21,6;

[335] P. Brooklyn 47.218.48+85, 84, 5,16

[336] P. BM EA 10252, ro 27,20a; P. New York MMA 9/35/21, 1

Our table highlights a clear preference for hieroglyphic script in the representation of the lexeme *ḥw.t* during the Old Kingdom through to the Ptolemaic Period, with a notable absence of hieratic representations in the earliest periods examined. This might imply that hieroglyphs were particularly favoured for inscriptions of a more permanent and monumental nature, which often involved religious or royal context where the lexeme *ḥw.t* might be used in the context of describing natural phenomena or divine interventions related to rain or flooding.

In contrast, the presence of hieratic script in the Middle and New Kingdoms aligns with the script's use in more routine, administrative, or literary texts, reflecting the everyday usage of the language in practical or non-monumental contexts. The variation in script usage may underscore the dual function of the lexeme within the cultural and administrative life of Ancient Egypt, serving both in the sacred, ceremonial inscriptions and the pragmatic, administrative records.

The Old Kingdom to the First Intermediate Period showcases the lexeme exclusively in hieroglyphic script, suggesting its association with monumental and religious texts during this early phase of Egyptian history. The absence of hieratic examples from this period could be attributed to the limited survival of hieratic texts and their medium[337] or the lexeme's restricted usage in formal contexts.

Moving into the Middle Kingdom and Second Intermediate Period, the lexeme appears in both hieroglyphic and hieratic scripts, indicating a broadening of its application across various and increasing textual genres. The hieroglyphic form maintains its presence, likely in ceremonial and monumental inscriptions, while the emergence of hieratic examples points to the lexeme's incorporation into administrative and literary documents.

The New Kingdom to the Third Intermediate Period witnesses a notable increase in the lexeme's occurrence in both scripts. This proliferation could be attributed to the significant expansion of textual production during this era[338]. This surge in textual production, particularly in biographical inscriptions at the beginning of the New Kingdom, which featured epithets and intertextuality, likely contributed to the lexeme's increased occurrence in both hieroglyphic and hieratic scripts. Furthermore, the lexeme's potential significance in various contexts, including religious, medical, and literary compositions, may also have played a role in its proliferation. The parallel usage of the lexeme in both scripts suggests a fluid transition between formal and everyday contexts, indicating a broader cultural and linguistic significance.

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[337] Baines, *Visual and Written Culture in Ancient Egypt*, 37.

[338] Baines, 59.

During the Late Period, the lexeme in hieratic script appears only in a rare form, while its hieroglyphic usage remains consistent. This shift may suggest a reversion to the lexeme's association with ceremonial and monumental texts, potentially influenced by archaizing tendencies[339] or changes in scribal practices during this time. These changes could be linked to the decline of the hieratic script and the rise of the demotic script. Additionally, new determinatives can be observed following the lexeme in Late Period hieratic writing.

In the Ptolemaic Period, the lexeme *ḥw.t* is found in both hieroglyphic and hieratic scripts, demonstrating its continued relevance and adaptability amidst the evolving cultural and linguistic contexts. This period is notable for the introduction of new determinatives in the word's orthography. This orthographic innovation, which will be further examined in subsequent discussions, seems to highlight the dynamic nature of the ancient Egyptian writing system, suggesting its adaptation to the changing needs and complexities of communication during the Ptolemaic Period[340].

Having examined the diachronic distribution and script preferences of the lexeme *ḥw.t* across historical periods, we now turn our attention to a detailed analysis of its individual components. Thoroughly examining the phonetic and determinative elements that constitute the lexeme, we aim to uncover the nuances in pronunciation, meaning, and function that shaped its usage and evolution within the ancient Egyptian language.

Conundrum and Previous Interpretations

The uniliteral phonogram representing the consonant sound *ḥ*, is a staple component in the spelling of *ḥw.t*. Its consistent presence across various epochs underscores its phonetic significance in articulating the initial consonant of the lexeme.

Notably, from the Middle Kingdom onwards, this phonogram is predominantly observed in hieratic texts often in combination with other significant hieroglyphs such as

[339] Peter Der Manuelian, *Living in the Past : Studies in Archaism of the Egyptian Twenty-Sixth Dynasty*, *Living in the Past : Studies in Archaism of the Egyptian Twenty-Sixth Dynasty*, Studies in Egyptology (London, New York (N. Y.): Kegan Paul International, 1994), 387–91; Olivier Perdu, 'L'avertissement d'Aménirdis Ière Sur Sa Statue Caire JE 3420 (= CG 565)', *Revue d'égyptologie* 47 (1996): 43–66; Baines, *Visual and Written Culture in Ancient Egypt*, 332.

[340] Antonio Loprieno, 'Linguistic Variety and Egyptian Literature', in *Ancient Egyptian Literature: History and Forms*, ed. Antonio Loprieno (Leiden; New York; Köln: E. J. Brill, 1996), 526–27.

A25 ()[341], Z12 (), as well as A24 ().

In Egyptological studies, certain hieroglyphic signs present a profound interpretative challenge due to their complex and atypical orthographic features. One such sign is (Z12), which combined with A25 and A24, A. Gardiner categorically described as an "orthographic monstrosity"[342]. This characterization underscores the sign's deviation from conventional hieroglyphic forms and its intricate symbolic representation, which demanded a scholarly examination.

Firstly, by A. Gardiner it has been hypothesized that this sign may have originated from the arm of the sign A25 [343]. According to this perspective, the arm segment of A25 somehow became detached, undergoing a transformation that not only rendered it independent but also reversed its orientation. This transformation appears to have been recognized and adopted into the hieroglyphic system by at least the 19th dynasty, indicating a significant modification in the script's orthographic practices.

Secondly, G. Möller[344] suggested that the sign represented a belt, intricately knotted at the back of the figure depicted by . This interpretation might align with the imaginative conventions and the symbolic significance of apparel and adornment in ancient Egyptian culture, where such details often held specific meanings related to status or function and thus characterizing in a peculiar way the sign itself[345].

The last and more recent explanation by U. Verhoeven[346], somehow similar to the first one, considers the possibility that Z12 represents a drooping, rear arm, thereby maintaining a direct anatomical connection to the original sign A25. Each of these interpretations highlights the multifaceted nature of hieroglyphic signs and the complexity inherent in this study.

We will now explore two alternative perspectives on the combination of these signs at the beginning of the lexeme *ḥw.t*, aiming to understand the functional roles of the combination of these signs within the script. To begin, it is crucial to emphasize the significance of minimal distinctions between signs in their semantic and functional roles within a script. This is particularly evident in

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[341] For, the presence of this sign in combination with Z12 () in hieratic script, see Gardiner, *EG*, 445.

[342] Gardiner, 'The Hieratic Writing of the Verb Hw "to Strike"', 126.

[343] Gardiner, 128.

[344] Möller, 'Zur Datierung Literarischer Handschriften Aus Der Ersten Hälfte Des Neuen Reichs', 39.

[345] L. Green, 'Seeing through Ancient Egyptian Clothes: Garments and Hairstyles as Indicators of Social Status in Old, Middle and New Kingdom Egypt', *KMT* 6, no. 4 (1996 1995): 28–40, 76–77.

[346] Verhoeven, *Untersuchungen Zur Späthieratischen Buchschrift*, 230.

scripts that encompass a vast array of signs, such as Egyptian hieroglyphs, where even minor variations in form can substantially alter the intended meaning. The divergence between two visually similar signs underpins and delineates their unique values or meanings, a phenomenon known as "Differential Iconicity"[347]. This characteristic is a hallmark of the ancient Egyptian writing system.

Remarkably, in the hieratic script, the same minimal differentiating elements that are deictically emphasized in hieroglyphs are often accentuated albeit the common features are typically abbreviated. This further underscores the importance of these subtle distinctions in conveying meaning and function within the script.

The first perspective, we would like to propose, posits that the graphical relatedness of the signs in question may extend beyond their phonetic function, potentially conveying a distinct semantic connotation. J. Lopez's[348] suggestion regarding the writing of the verb *ḥwỉ* serves as a suitable example:

[349] (A19)

Sin. R. 14,189 B. 72, 164, 198

In this orthography, the sign , depicting a man leaning on a staff, whether in conjunction with (A24) or not, is employed to specifically denote the action of roaming the land. This explanation aims to elucidate the particular semantic nuance of the verb *ḥwỉ*, enhancing our perception of its usage in certain contexts.

In the case of the combination of signs at the beginning of the lexeme *ḥw.t*, we can postulate that it represents the notion of dynamic impact or forceful motion, with the depiction of the right hand prominently featured[350]. The visual characteristics of these signs may have been intentionally employed to evoke a specific semantic association, one that transcends the extensive yet more intense significance of "beating" or "striking" typically ascribed to the sign (A24) alone, suggesting a precise semantic layer that could be essential for interpreting certain hieroglyphic texts.

The semantic distinction hypothesis could partially explain the potential semantic nuances conveyed by the combination of signs; we think is it is crucial to consider an alternative perspective

[347] Andréas Stauder, 'On System-Internal and Differential Iconicity in Egyptian Hieroglyphic Writing', *Signata: Annales Des Sémiotiques / Annals of Semiotics* 9 (2018): 380–84.

[348] Lopez, 'RdE 24', 112–13.

[349] 'AKU-PAL · Paläographie Des Hieratischen Und Der Kursivhieroglyphen', 23 November 2023, https://aku-pal.uni-mainz.de/signs/6398.

[350] Noteworthy is also the case of the spelling in the p. Sallier I with two arms, see Ibid graphemes/865.

that focuses on the graphic aspects of these graphical conglomerations. This leads us to the graphic distinction hypothesis, which explores how these sign combinations may have served to differentiate and clarify pronunciation in the context of the ancient Egyptian writing system.

Our second perspective in the study of these hieroglyphic combination posits that these conglomerations of signs, akin to monograms[351], serve a graphic purpose beyond their semantic value. We find some instances where the lexeme *ḥwỉ* is spelled as a graphic dual[352], employing the repetition of the stem consonant or the same sign to specify pronunciation, as illustrated in this spelling:

 for *ḥwỉ*

Sh.S., 36-37

Such orthographic practices demonstrate a meticulous attention to graphic detail. This suggests that beyond their semantic value, these signs were employed with the intention of guiding pronunciation and creating graphic puns[353], potentially functioning as mnemonic devices[354].

The ancient Egyptian script's reliance on various orthographic conventions, including the strategic use of determinatives and phonetic complements, features a concerted effort to mitigate ambiguity[355]. These conventions were not arbitrary but were carefully designed to convey the intended pronunciation and graphic value of words and phrases clearly[356].

A closer examination of the lexeme *ḥw.t*, particularly in its hieratic rendition, exposes the inherent challenge posed by visually similar signs. The signs exemplify this challenge, displaying a high degree of indistinctness that can confound interpretation, as shown in the following table:

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[351] Malaise and Winand, *Grammaire*, paras 1085–1086.

[352] J. F. Borghouts, *Egyptian: An Introduction to the Writing and Language of the Middle Kingdom*, Egyptologische Uitgaven 24 (Leiden; Leuven: Nederlands Instituut voor het Nabije Oosten; Peeters, 2010), vol. II, 77.

[353] Simon Thuault, '"Jeux de Mots" et Actes Rituels: Sur La Relation Entre Textes Des Pyramides, Listes d'offrandes et Iconographie Funéraire.', *Lingua Aegyptia* 29 (2021): 193–214.

[354] Edmund S. Meltzer, 'Remarks on Ancient Egyptian Writing with Emphasis on Its Mnemonic Aspects', in *Processing of Visible Language*, ed. Edmund S. Meltzer et al. (New York; London: Plenum Press, 1979), 63.

[355] Malaise and Winand, *Grammaire*, paras 39–43.

[356] For an example of the phenomenon illustrating the extensive use of graphic conventions intended to perplex the reader, see Marina Sokolova, 'Reading Coffins', *Chronique d'Égypte* 92, no. 183 (2017): 5–36.

SIGNS			
Hieroglyphic script			
Hieratic script			 [357]
Gardiner Sign List	A19	A24	A25
Phonetic Values	*ỉʒw, wr, smsw, sr, tni, ỉk, ḥw*	*ḥwi, nḫt, dr.*	*ḥwi*

Table 7: Sign Comparison.

The visual similarity among these signs raises important questions about the strategies employed by ancient scribes to differentiate them. One possible solution to this problem of visual ambiguity is the use of distinctive marks[358], such as the sign (Z12), to differentiate between otherwise similar signs.

In the case of the lexeme *ḥw.t*, the combination of signs  could be interpreted as a deliberate attempt to mark a specific graphic sign with the exclusive pronunciation *ḥwỉ*, thereby distinguishing it from other signs with similar visual characteristics.

This hypothesis is supported by the fact that the signs (A19) and (A24) are also signs with polyfunctional values (ideograms, phonograms and determinatives), they can represent multiple concepts or ideas depending on the context in which they are used. The use of a distinctive mark, such as (Z12), would have been crucial in ensuring that the intended value of the sign was clearly conveyed, without any ambiguity or confusion.

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[357] P. Berlin 3022, 210; P. Bnf 183, Column 1, 4; Papyrus 32157 of Petrie Museum of Egyptian Archaeology rto,Column 1,5 see 'AKU'.

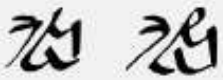
[358] Concerning distinctive marks and diacritics in hieratic, see Hans Goedicke, *Old Hieratic Paleography* (Baltimore: Halgo, 1988), VII; Ilona Regulski, 'The Beginning of Hieratic Writing in Egypt', *Studien Zur Altägyptischen Kultur* 38 (2009): 265; Kyra van der Moezel, 'On Signs, Lists and Standardisation', in *Ägyptologische 'Binsen'-Weisheiten III: Formen Und Funktionen von Zeichenliste Und Paläographie. Akten Der Internationalen Und Interdisziplinären Tagung in Der Akademie Der Wissenschaften Und Der Literatur, Mainz, Im April 2016*, ed. Svenja A. Gülden, Ursula Verhoeven, and Kyra van der Moezel (Stuttgart: Franz Steiner, 2018), 58–60; Stéphane Polis, 'Methods, Tools, and Perspectives of Hieratic Palaeography', in *The Oxford Handbook of Egyptian Epigraphy and Palaeography*, ed. Dimitri Laboury and Vanessa Davies (New York: Oxford University Press, 2020), 551.

The implications of this hypothesis are significant for our understanding of the hieratic script of *ḥw.t*. The hieratic script often involved the simplification and abbreviation of signs. This could lead to increased visual similarity among different signs, necessitating the use of distinctive marks to maintain clarity. The introduction of 𓏺 (Z12) as a visual cue would have been an effective solution to this challenge, ensuring that each sign retained its unique identity and meaning.

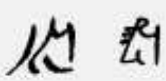
The potential use of 𓏺 (Z12) as a distinctive mark in the lexeme *ḥw.t* could also have implications for the inclusion of other phonetic complements, such as the 𓅱*w* phonogram. If the combination of signs 𓎛𓄿𓏺𓐍 was sufficient to convey the pronunciation *ḥwỉ* unambiguously, then the inclusion of the *w* phonogram may have been considered superfluous by scribes.

The hypothesis that distinctive marks, such as 𓏺 (Z12), were used to differentiate between visually similar signs is further supported by the evolution of the grapheme A25 (𓄿). As shown in the table below, the grapheme A25 underwent significant changes over time, with the distinctive sign 𓏺 (Z12) being introduced at a certain point in its development. This introduction of a distinctive mark could be interpreted as a response to the apparent visual similarity between A25 and other signs, such as 𓄽 (A19) and 𓐍 (A24), in hieratic script.

New Kingdom, 18th Dynasty, Amenhotep I. Djeserkare



New Kingdom, 18th Dynasty, Thutmose III. Mencheperre (entire period)



New Kingdom, 18th Dynasty, Amenhotep II. Aacheperure



New Kingdom, 18th Dynasty, Amenhotep III. Nebmaatre



New Kingdom, 19th Dynasty, Seti II Usercheperure



Third Intermediate Period, 21st Dynasty, Psusennes I Aacheperre-Setepenamun



Third Intermediate Period, 21st Dynasty, Siamun Netjerycheperre-Setepenamun



Third Intermediate Period, 21st Dynasty, Psusennes II Titcheperure



Third Intermediate Period, 22-23 dynasty



Table 8: Evolution of the grapheme A25[359].

[359] Ibid/graphemes/44.

The graphic distinction hypothesis posits that the peculiar combination of signs within the lexeme *ḥw.t* served a crucial graphic purpose, particularly in differentiating and clarifying the sign A25. This hypothesis could be supported by the observation that, during the Ptolemaic Period, the Z12 sign was exclusively used to represent the sound *ḥw(i)*[360].

The use of Z12 as a distinctive mark highlights its role in mitigating visual ambiguity among similar signs, thereby maintaining clarity in the written record. This practice reflects a broader orthographic strategy within the Egyptian writing system, where distinctive marks and phonetic complements were employed to enhance the precision and reliability of hieroglyphic and hieratic scripts. The evolution of the grapheme A25, with the introduction of Z12, exemplifies this approach, demonstrating how scribes adapted their orthographic conventions to address the challenges posed by visual similarity and to preserve the phonetic integrity of the language.

In essence, the incorporation of these signs within the lexeme *ḥw.t* served multiple critical functions that enhanced the clarity, precision, and accurate transmission of hieroglyphic writing. Firstly, these signs acted as visual semantic cues, crucial for distinguishing between visually similar symbols, thereby mitigating ambiguity and ensuring accurate interpretation. This was particularly vital in the hieratic script, where the propensity for visual similarity among signs was heightened due to the script's cursive nature.

Variability in the Presence of Phonetic Components

Having explored the uniliteral phonogram *ḥ* and its combinations with other signs, we now turn our attention to the analysis of additional phonograms constituting the lexeme *ḥw.t*. This section will concisely examine the phonograms  (*w*),  (*j*), and (*t*), highlighting their historical usage and phonetic significance in the representation of the lexeme across different periods and scripts.

 (*w*)

This phonogram denoting the semivowel *w*, is documented in hieroglyphic inscriptions up to the Second Intermediate Period but is notably absent in hieratic representations of the lexeme.

 (*j*)

[360] Verhoeven, *Untersuchungen Zur Späthieratischen Buchschrift*, 230; Wilson, *Ptolemaic Lexikon*, 623–25.

The double yod indicative of the presence of *y* sounds following the primary phonograms, is observed in both hieroglyphic and hieratic scripts from the Middle Kingdom through to the Ptolemaic era.

 (*t*)

This sign is a constant feature in the spelling of *ḥw.t* until the Late Period. Its enduring presence across both hieroglyphic and hieratic scripts underscores its grammatical and phonetic importance in denoting the feminine aspect of the lexeme.

The analysis of the uniliteral phonogram *ḥ* and its combinations with signs such as A25, Z12, and A24 has revealed potential semantic and graphic nuances in the representation of the lexeme *ḥw.t*. The hypotheses regarding semantic distinctions and the use of distinctive marks to differentiate pronunciation have shed light on the interaction between graphical form and meaning in the ancient Egyptian writing system.

Building upon these insights, we will now explore the variability in the presence of the phonetic components *ḥ, w, y,* and *t* in the lexeme *ḥw.t*. This investigation will consider factors such as regional variations in pronunciation, the influence of linguistic phenomena like diglossia, and the potential impact of scribal conventions and preferences on the graphical representation of the lexeme.

This inconsistency in the inclusion or omission of these signs may be attributed to several factors, among which regional variations in pronunciation stand out as a reasonable explanation. The different forms of the lexeme found in Coptic dialects, such as ϩωογ (attested in Sahidic, Akhmimic, Subakhmimic, Bohairic, and Fayumic), ϩωγ (Subakhmimic), ϩοʙ (Mesokemic), and ϩογ- (Sahidic)[361], provide valuable insights into the potential influence of regional pronunciation on the graphic representation of *ḥw.t*. The phonetic components of the lexeme, particularly the presence or absence of the *w* and *y* signs, may thus reflect the phonological realization of the word in different geographical areas.

These dialectal differences possibly influenced how scribes chose to represent the lexeme in their writings, leading to the observed discrepancies in the absence or shift of specific phonetic components, possibly due to stress features[362]. The variability in the graphical representation of *ḥw.t* may also reflect a deeper linguistic evolution, where phonetic elements were adapted or omitted based on the phonological characteristics of the regional dialects. This adaptation process suggests a

[361] Crum, *Coptic Dictionary*, 732a; Černý, *Coptic Etymological Dictionary*, 304; Westendorf, *Koptisches Handwörterbuch*, 404; Vycichl, *Dictionnaire Étymologique*, 318b.

[362] James P. Allen, *Ancient Egyptian Phonology* (Cambridge: Cambridge University Press, 2020), 114–16.

dynamic interaction between spoken language and written form, where the orthographic practices were not merely conservative reproductions of a standard template but were responsive to the linguistic environment.

Furthermore, the New Kingdom period witnessed a linguistic phenomenon known as diglossia[363], characterized by the coexistence of historically different layers of language. This situation introduced an additional level of complexity to the written representation of the lexeme *ḥw.t*. The simultaneous presence of older and newer forms of the language, each with its own phonetic and orthographic conventions, may have contributed to the variability in the use of phonetic components. In addition to analysing these components, examining the determinatives used with the lexeme *ḥw.t* could help us understand its semantic and conceptual dimensions.

2.1.6. Lexeme Determinatives: 𓈖 N35a vs. 𓉔 N4

To fully understand the lexeme's meaning, we must analyse the determinatives used with it, particularly the contrast between 𓈖 N35a and 𓉔 N4. However, to understand the implications of the determinatives used with *ḥw.t*, it is essential to first explore the conceptual functions of water determinatives.

[363] Hans Ulrich Gumbrecht, 'Does Egyptology Need a "Theory of Literature"?', in *Ancient Egyptian Literature: History and Forms*, ed. Antonio Loprieno (Leiden; New York; Köln: E. J. Brill, 1996), 16; John Baines, 'Classicism and Modernism in the Literature of the New Kingdom', in *Ancient Egyptian Literature: History and Forms*, ed. Antonio Loprieno (Leiden; New York; Köln: E. J. Brill, 1996), 159; Loprieno, 'Linguistic Variety and Egyptian Literature', 523–25.

Conceptual Functions of Water Determinatives

A. Loprieno's classification of water determinatives[364] into three major conceptual functions provides an outline for interpreting the semantic nuances conveyed by the choice of determinatives in the lexeme *ḥw.t*.

N35a 𓈖: Naturally Flowing Water

The determinative N35a 𓈖 is associated with the concept of naturally flowing water, such as rivers, streams, and here also rain. Its predominant use in the lexeme *ḥw.t* underscores the Ancient Egyptians' perception of rain as a natural phenomenon, intrinsically connected to the cyclical processes of water in the environment.

N36 𓉔 or N37 𓊃: Culturally Organized Waters

In contrast, the determinatives N36 and N37 are linked to culturally organized waters, such as those found in artificial pools, channels, gardens, and water meadows. These determinatives reflect human intervention in the management and distribution of water resources for agricultural, aesthetic, or recreational purposes. At least in the first stages of the language, the absence of these determinatives in the lexeme *ḥw.t* suggests that rain was primarily perceived as a natural phenomenon, distinct from the culturally controlled water systems.

The introduction of the determinative N36 in the orthography of the lexeme *ḥw.t* 𓄿𓅱𓈖𓉔 during the Late and Ptolemaic Periods likely served to highlight the dual aspects of the term. On one hand, they reference the liquid essence of the rainwater, and on the other, they allude to the man-made irrigation channels that were integral to agricultural practices. This orthography may reflect a deepening complexity in the lexicon, as it condenses both the natural occurrence of water dispersion and its managed utilization within the context of agrarian society. In the Ptolemaic Papyrus of Imhotep

[364] Antonio Loprieno, 'Water in Egyptian Literature', in *Acqua Nell'antico Egitto: Vita, Rigenerazione, Incantesimo, Medicamento. Proceedings of the First International Conference for Young Egyptologists: Italy, Chianciano Terme, October 15-18, 2003. - (Egitto Antico; 3)*, ed. Alessia Amenta, Maria Michela Luiselli, and Maria Novella Sordi (Roma: 'L'Erma' di Bretschneider, 2005), 25–40.

son of Pschentohe[365], it appears in collocation with the term *nw.j* "water (gen.); (flood) water(s)" [366], which is spelled with the same determinatives.

A6 : Religious Function of Water

The determinative A6 symbolizes the religious function of water as an instrument and symbol of ethical purity or liturgical purification. Its absence in the lexeme *ḥw.t* seems to indicate that rain, in its natural form, was not directly associated with the religious or ritual aspects of water. However, the resultant accumulation of rainwater may have been imbued with spiritual significance, as it contributed to the life-sustaining properties of water in general.

First and Unique Presence of the Determinative N4 in Pyramid Texts

The investigation of the lexeme *ḥw.t* across various data in the analysed corpus displays a significant preference for the determinative N35a (water) over N4 (raining sky). Out of the scrutinized occurrences of this lexeme ( ) in the Egyptian corpus, the spelling of *ḥw.t* in hieratic and hieroglyphic scripts employs the determinative N35a rather than the more visually representative N4, used only once in the following example. This overwhelming preference for N35a could suggest a conceptual emphasis on the outcome or effect of rain — the accumulation or presence of water — rather than the raining process itself. This focus on the very physical nature of hydrometeors, rather than its visual representation.

The marked preference for the N35a determinative over N4 in the writing of *ḥw.t* could be influenced by a specific feature of writing, particularly in hieratic, and therefore in genres influences by this script, which favours generic classifiers over specific, logogrammatic ones [367] . A closer examination of *ḥw.t* 's representation in hieroglyphic script, particularly within the context of the Pyramid Texts, will be exposed in the following page.

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[365] For the source, see Jean-Claude Goyon, *Le Papyrus d'Imouthès Fils de Psintaès Au Metropolitan Museum of Art de New-York (Papyrus MMA 35.9.21)* (New York: The Metropolitan Museum of Art, 1999) 9,9.

[366] *Wb* 2, 221.3-13. TLA ID 81240.

[367] Winand, Stella, and Neven, *Lexique Du Moyen Égyptien: Avec Une Introduction Grammaticale et Une Liste Des Mots Présentés Selon Le Classificateur Sémantique*, 128–29.



First attestation of N4 in PT 285 § 426c[368]

The logogram here determinative N4 accompanying the lexeme *ḥw.t* in the pyramids of Unas and Pepy I exhibits vertical lines that are rendered straight descending from the sky, a graphic representation of the concept of rain. In contrast, the Pyramid of Teti presents a variation where the determinatives N4 are depicted with both wavy and straight lines, detached from the sky sign N1 , in two separate occurrences of the lexeme.

This graphic variation, especially in a corpus as theologically significant as the Pyramid Texts, prompts further inquiry into its underlying motivations. Notably, in one instance within the pyramid of Teti example *supra*, the lexeme *ḥw.t* is followed by the determinative N4. This is the sole occurrence where such a determinative is used, explicitly linking the graphical aspect of the lexeme *ḥw.t* to hydrometeors and weather perturbations.

[368] James P. Allen, *A New Concordance of the Pyramid Texts* (Providence, RI: Brown University, 2013), vol. III, PT 285.

Prevalent Use of N35a over N4 in the Lexeme *ḥw.t*

The predominant use of N35a in the lexeme *ḥw.t* aligns with the conceptual function of naturally flowing water, emphasizing the natural phenomenon of rain and its resultant accumulation of water. This preference could be attributed to several factors.

The use of N35a underscores the Ancient Egyptians' conceptual focus on the tangible outcome of rain, which is water. This emphasis aligns with the critical importance of water in the Egyptian environment, especially considering the centrality of the Nile and its annual flooding to agriculture, sustenance, and culture[369]. The determinative N35a thus directs attention to the resultant water as a vital resource, rather than the meteorological phenomenon of rain.

The choice of N35a may also reflect a semantic broadening of the lexeme *ḥw.t* to encompass both "rain" and "flood", as we will see later on. Given the critical role of the Nile's inundation in renewing the land, the lexeme *ḥw.t* with the determinative N35a could connote not only rainwater but also the flooding waters of the Nile, integrating the concepts of rain and flood within a single semantic field.

Employing N35a, the Ancient Egyptians might have integrated the phenomena of rain and flooding, possibly acknowledging their interconnectedness in the natural and agricultural cycles. This integration reflects an understanding of the cyclical and sustaining nature of water, from the sky to the earth, in nurturing life and land.

The preference for N35a over N4 highlights the utility and impact of rain as a source of water, essential for survival, agriculture, and ritual practices. The use of N35a over N4 in the context of *ḥw.t* may also carry cultural and religious connotations, associating rainwater with notions of purity, renewal, and divine providence as we will see later.

It might be argued that the predominant use of the determinative N35a over N4 with the term *ḥw.t* does not necessarily imply a conceptual emphasis on the outcome of raining (the accumulation of water) over the process itself. Instead, this preference could be attributed to scribal conventions or the aesthetic preferences of scribes, rather than a deliberate conceptual choice.

Besides the mentioned tendency to use more general over more specific determinatives the overwhelming preference for N35a across a wide range of texts and periods suggests a consistent conceptual emphasis. The use of N35a as untamed water, according to the mentioned A. Loprieno categorization, could also align with the broader ancient Egyptian worldview, which placed a

[369] Bunbury, *The Nile and Ancient Egypt*, 2–13.

significant emphasis on the tangible and life-sustaining but still untamed, and sometimes nefarious, aspects of water[370].

The predominant use of the determinative N35a in the lexeme *ḥw.t* not only highlights the semantic focus on untamed water, rather than the precipitation, but also bears a significant relationship to the phrase *mw n p.t* "water of the sky", which we will explore in the following section.

2.1.7. Conceptualizing Rain: The Phrase *mw n p.t* (Water of the Sky)

In the context of ancient Egyptian language and thought, metaphors and phrases were used to conceptualize complex and abstract phenomena, such as death, life, and natural events, in more tangible terms[371]. Similarly, the phrase *mw n p.t* could be seen as a metaphorical expression that conceptualizes rain (the target domain) through the source domain of celestial water descending from the sky. The graphical similarities between *ḥw.t* and *mw n p.t*, both employing the water determinative N35a, could also visually anchor these terms to the concept of water originating from the celestial sphere.

The lexeme *ḥw.t* and the compound expression  *mw n(.w) p.t* "water of the sky"[372] exhibit graphical similarities that are not merely coincidental but rather indicative: both expressions utilize the sign N35a , which signifies water, thereby visually anchoring the terms to the elemental aquatic substance.

The *nisba* adjective *n(.w)* "belonging to" within the phrase *mw n(.w) p.t* establishes an unswerving connection between water and its celestial origin, emphasizing the source of the rainfall[373].

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[370] Renata-Gabriela Tatomir, 'Coincidentia Oppositorum et Conjunctio Oppositorum: The Mental Category of Water in the Ancient Egyptian Universe', in *L'acqua Nell'antico Egitto: Vita, Rigenerazione, Incantesimo, Medicamento; Proceedings of the First International Conference for Young Egyptologists, Italy, Chianciano Terme, October 15-18, 2003*, ed. Alessia Amenta, Maria Michela Luiselli, and Maria Novella Sordi (Roma: 'L'Erma' di Bretschneider, 2005), 181–87.

[371] Hsu, 'The Ancient Egyptian Idea of "Death" in Conceptual Metaphor Theory'.

[372] *Wb* 2,51.2. TLA ID 69130.

[373] Concerning the multiple functions related to indirect genitive and the contrast with direct genitive, see Wolfgang Schenkel, 'Direkter Und Indirekter "Genitiv"', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 88 (1962): 58–66; Malaise and Winand, *Grammaire*, paras 92–3; Carsten Peust, 'Direkter Und Indirekter Genitiv Im Älteren Ägyptisch Nach Dem Zeugnis Der Sargtexte', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 144, no. 2 (2017): 208–24.

This graphical linkage serves to reinforce the core meaning of the concept, focusing on the liquid nature of the substance and the provenance of the observed phenomenon.

Building on the graphical similarities, it is also important to explore the semantic connections between *ḥw.t* and *mw n p.t*. The semantic interaction between *ḥw.t* and *mw n p.t* is profound, as both terms capture the essence of rain within the Egyptian conceptual universe. The phrase *mw n p.t* elucidates the origin of rain as a divine or cosmic event, with the highest frequent noun for sky (*p.t)* being the domain from which the life-giving waters descend. Having established the graphical and semantic connections, we can now delve into the textual examples concerning the role of the phrase *mw n p.t* in the conceptualization of rain.

Early Textual Metaphors: Pyramid and Coffin Texts

The conceptual roots of the phrase *mw n p.t* can be traced back to the Pyramid Texts[374], where a foundational metaphor laid the groundwork for the later, more explicit articulation of the concept. Although the exact phrase is not employed, the Pyramid Texts present a representative image of rain as "living waters" descending from the celestial realm:

ex.19. *i(w) mw ʿnḫ ỉm(j).w p.t*
The living waters that are in the sky come.
(PT 685 § 2063a)

This phrase is not merely descriptive but laden with metaphorical significance. It portrays rain as "living waters", a term that animates and personifies this natural phenomenon, suggesting an intrinsic vitality and dynamism. The use of "living" as a descriptor for "waters" implies that rain is not seen as a static element but as a life-affirming force that actively participates in the cyclical rhythms of existence. The phrase also establishes the sky as the domain of origin for these waters[375], thereby creating a vivid image of the celestial realm as a reservoir of life. This metaphorical representation aligns with the Egyptian deep-seated reverence for the sky as a divine source of water, possibly related to the communal blue colour, and sustenance and renewal, particularly as embodied by the goddess

[374] Silvia Zago, 'A Cosmography of the Unknown: The Qbḥw (Nṯrw) Region of the Outer Sky in the Book of Nut', *Bulletin de l'Institut Français d'Archéologie Orientale* 121 (2021): 511–29.

[375] Silvia Zago, 'A Cosmography of the Unknown: The Qbḥw (Nṯrw) Region of the Outer Sky in the Book of Nut', *Bulletin de l'Institut Français d'Archéologie Orientale* 121 (2021): 515.

Nut[376], whose name could also be characterized in Egyptian by the determinative N35a  (CT I, 270f).

A second passage from the Pyramid Texts[377] presenting a suitable example of the elaborate metaphor concerning precipitation reads

ex.20. *ỉnḏ ḥr.ṯn mw ỉn.w Šw wṯsw Mndftj*

Hail to you, the Waters brought by Shu, raised by Menedefti

in which Geb purified his limbs, when consciences were invaded by fear and hearts invaded by terror.

(PT 486 § 1039a)

In this excerpt, we observe the correlation between the waters and the deities Menedefti and Shu, a god often associated with air and light[378], who is depicted here as bringing the waters; Menedefti, whose name could probably literally translate to "the Flowing One" from the verb *df*[379], is portrayed as raising these waters. B. Mathieu[380] has proposed that Menedefti could personify dew, perceived as a form of hydrometeor, or flood. This interpretation might align with the natural phenomena described in the text.

The succeeding mention of Geb, the earth god, purifying his limbs with these waters, emphasizes the natural cycle of rainwater cleansing the earth and soil. This emphasizes the physical interaction between the earth and water and also symbolizes a form of divine purification. The act of cleansing by Geb can be seen as a metaphor for the rejuvenating and purifying properties of water in the natural world, without excluding other possible interpretations.

What also seems particularly noteworthy in this passage is the mentioned connection between natural phenomena and human emotions. The text describes how consciences were invaded

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[376] Jan Assmann, 'Tod Und Initiation Im Altägyptischen Totenglauben', in *Sehnsucht Nach Dem Ursprung: Zu Mircea Eliade*, ed. Hans Peter Duerr (Frankfurt am Main: Syndikat, 1983), 340–42.

[377] Kurt Sethe, *Die Altaegyptischen Pyramidentexte: Nach Den Papierabdrücken Und Photographien Des Berliner Museums*, 4 vols (Leipzig: J. C. Hinrichs, 1908).

[378] Hornung, 'Licht Und Finsternis in Der Vorstellungswelt Altägyptens', 75.

'Thesaurus Linguae Aegyptiae v2.1.2', 15 December 2022, https://thesaurus-linguae-aegyptiae.de/lemma/870641.

[380] Bernard Mathieu, *Les Textes de La Pyramide de Pépy Ier: Traduction*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 142 (Institut français d'archéologie orientale, 2018), 337.

by fear and hearts by terror, suggesting a deep psychological impact of these natural and atmospheric events. This link between awe-inspiring natural occurrences and human emotional responses is a *topos* in religious and funerary literature.

Two additional examples from the Pyramid Texts exhibit a remarkable linguistic and semantic pattern that sheds light on the ancient Egyptian perception of atmospheric phenomena and their impact on the celestial and terrestrial realms:

ex.21. *ỉʿỉ (ḥr) p.t bȝq pḏ.t*

(When) the face of the sky is washed, the celestial expanse is gleaming.

(PT 570 § 1443a)

ex.22. *ỉʿỉ.tỉ ḫȝs.t n.(j) m ḫm.w*

May the desert be washed for me, don't be dry as dust.

(PT 232 § 236c)

An examination of these texts exposes a consistent structure, an asyndetic connection between two sentences, where the second part serves to clarify or expand upon the first. In both formulas, the verb *ỉʿỉ* "to wash" , written with the water determinative N35a , plays a central role in conveying an atmospheric inference. The use of this verb in relation to the sky and the desert likely suggests a metaphorical cleansing or purification process brought about by hydrometeors, such as rainfall or dew.

In PT 570 § 1443a[381], the washing of the sky's surface (*ḥr p.t*) is further clarified by the second part of the formula, which describes the celestial expanse (*pḏ.t*) as being clear or bright (*bȝq*). This juxtaposition emphasizes the transformative effect of the washing process on the sky, resulting in a luminous and pristine appearance. The verb *bȝq*[382], meaning "to be bright; to be clear (of character); to be well", underscores the positive and refreshing qualities associated with the cleansing of the sky. The asyndetic connection between the two clauses creates a cause-and-effect relationship, emphasizing the transformative impact of the washing on the sky's appearance.

[381] Kurt Sethe, *Übersetzung Und Kommentar,* vol. V p. 570.

[382] *Wb* 1, 424.12-425.17. TLA ID 53730.

PT 232 § 236c[383] employs the second person of the stative form in its imperative function to command a state[384]. The formula pleads the desert (*ḫȝs.t*) to be washed, drawing a parallel with the washing of the sky in the previous example. Conversely, the second part of the formula introduces a contrasting state through a negative order expressed by the defective verb *ỉmỉ*[385] followed by the negative complement of the verb *ḫm* "be dry (as dust)" [386], as similarly interpreted by C. Leitz[387].

Firstly, this structure creates a juxtaposition between the desired state of the desert and the undesirable state of dryness. Secondly, the association of the washed desert and the admonition against being dry as dust emphasizes the transformative power of water and its ability to bring life and vitality to the arid landscape. The contrast between the two states accentuates the importance of moisture and its associated blessings in the context of the desert environment.

Interestingly, PT 232 § 236c, being a spell against snakes, also hints at a connection between precipitation events and the presence of venomous creatures such as arachnids and snakes. This association may expose the ancient Egyptian observation of the increased activity or emergence of these creatures during or after rainfall or periods of increased moisture[388]. The inclusion of this spell in the context of atmospheric phenomena suggests a conceivable interaction between environmental factors, fauna, and the potential dangers they pose.

Building upon the metaphorical foundation laid in the Pyramid Texts, the Coffin Texts further develop the associations between water and the sky. A notable similarity emerges between the terms  *n.t* "water, watercourse, flood" and *p.t* "sky" which is exemplified in:

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[383] Kurt Sethe, *Übersetzung Und Kommentar,* vol. I p. 206-9.

[384] James P. Allen, *Grammar of the Ancient Egyptian Pyramid Texts. Volume 1: Unis*, Languages of the Ancient Near East 7 (Winona Lake, IN: Eisenbrauns, 2017), 143–44.

[385] Allen, 114.

[386] *Wb* 1, 277.12-13.TLA ID 116860.

[387] Christian Leitz, 'Die Schlangensprüche in Den Pyramidentexten', 2016, 405.

[388] P. R. Langlands, K. E. C. Brennan, and D. J. Pearson, 'Spiders, Spinifex, Rainfall and Fire: Long-Term Changes in an Arid Spider Assemblage', *Journal of Arid Environments* 67, no. 1 (1 October 2006): 36–59; 'Egypt: Hundreds Stung by Scorpions after Deadly Floods in Aswan', 13 November 2021, https://www.bbc.com/news/world-middle-east-59274686; Letízia M. G. Jesus et al., 'Environmental Drivers of Tropical Forest Snake Phenology: Insights from Citizen Science', *Ecology and Evolution* 13, no. 7 (23 July 2023): e10305.

ex.23. *ỉrj N tn wȝ.t.k m (p.t) hȝt n.t*

This N will prepare your path in the sky, and waters will come down.

(CT VII, 368a-b)

This phrase establishes a direct association between the sky (*p.t*) and the concept of water (*n.t*), specifically referring to the descent of water from the celestial realm, it reinforces the idea that water was perceived as originating from the sky, a notion that aligns with the natural phenomenon of precipitation and hydrometeors. This connection is further solidified by the reference to the "path in the sky" (*wȝ.t.k m p.t*), which could be interpreted as a metaphorical representation of the celestial journey undertaken by water before descending to the earth. The association between the term *wȝ.t* and atmospheric phenomena will be further explored in the subsequent sections of this analysis.

The following Spell from the Coffin Text introduces an intriguing epithet:

ḥw.t ex. 1. *ḫr.(j)-ḥw.t*

Bringer of rain

(CT VII, 370f)

This epithet is attributed to the divinity *Nḥbtj*, who is evoked in the previous spell (CT Spell 1089). The sky is portrayed as the source of water, with the descent of water from the sky being conceptualized as a path or journey. Additionally, the association of a divinity with the epithet "possessors of rain" underscores the sacred and divine connotations attached to the natural phenomenon of precipitation.

In the Coffin Texts, other formulas present the interaction between atmospheric phenomena, the need to control celestial waters, and the ever-present fear of drowning[389]. One particular example of this subtle yet inimitable connection can be found in the water spells known as *ḥs.w m mw* "blessings on waters"[390]. These spells, mainly used as a means of protection against the dangers associated with water, such as the threat of crocodiles and drowning, could also serve to expose the

[389] For an in-depth discussion on the *topos* of fear of death by crocodile and drowning, refer to Gerald Moers, *Fingierte Welten in Der Ägyptischen Literatur Des 2. Jahrtausends v. Chr.: Grenzüberschreitung, Reisemotiv Und Fiktionalität*, Probleme Der Ägyptologie 19 (Leiden: Brill, 2001), 202-211;197-199.

[390] For a study of these particular spells and their apotropaic functions, refer to Robert K. Ritner, *The Mechanics of Ancient Egyptian Magical Practice*, Studies in Ancient Oriental Civilization 54 (Chicago: The Oriental Institute of the University of Chicago, 1993), 48.

subjacent relationship between atmospheric disturbances and the celestial waters that needed to be controlled.

Another Spell of the Coffin Texts exemplifies this association, stating:

ex.24. *ỉw snḏ.k ʿq.(w)*
šfw.t.k rw.t(ỉ)
r rq.t.s nšn(j) n Wsr.t
snḏ.w nb.t tʒ
Fear of you has set,
dread of you has left
so that it wards off the storm of Her who is Mighty and
the fear of the Mistress of the land.
(CT VII, 36 i-s)

This passage features the ancient Egyptian recurring belief in the necessity to tame and settle *rqỉ*[391] storms *nšnj*, which were perceived as manifestations of divine or supernatural wrath[392]. The reference to "Her who is Mighty" and "the Mistress of the land", titles likely associated with the goddess of the royal uraeus[393], might suggest once more the presence of a deity or powerful entity connected with storms and atmospheric disturbances.

The use of the *sḏm.t.f* construction after the preposition-conjunction *r* "until", which in Coffin Texts could also be translated as "in order to"[394] is linguistically notable, since this syntactic structure might emphasize the purposive resultative nature of the spell, indicating that the invocation of fear and dread is intended to ward off the storm and the fear associated with the powerful entities mentioned.

The noun *nšnj* "rage", which metaphorically means "storm", is followed here by two determinatives: the Sethian animal  E21 and the sky N1. The use of these determinatives combined is remarkable, as hydrometeors and perturbations are often associated with the god Seth,

[391] *Wb* 2, 456.9-12. TLA ID 96290.

[392] Ines Köhler, *Rage like an Egyptian: Die Möglichkeiten Eines Kognitiv-Semantischen Zugangs Zum Altägyptischen Wortschatz Am Beispiel Des Wortfelds*, Studien Zur Altägyptischen Kultur, Beihefte 18 (Hamburg: Helmut Buske, 2016), 293–94.

[393] Parkinson, *The Tale of Sinuhe and Other Ancient Egyptian Poems, 1940-1640 BC*, 297.

[394] L. M. J. Zonhoven, *Studies on the sDm.T=f Verb Form in Classical Egyptian* (Groningen, 1997), 38–39.

who was known for his chaotic and destructive nature[395]. The presence of this determinative reinforces the idea that the storm is not merely a natural phenomenon but a manifestation of divine or supernatural power, imbued with the chaotic energy of Seth. The sky determinative N1 further accentuates the celestial and atmospheric nature of the storm, linking it to the celestial domain and the forces of nature.

Interestingly, the same formula found in Spell 836 also appears in a Middle Egyptian literary text the "Tale of the Herdsman"[396], underscoring the pervasive nature of the connection between atmospheric perturbations and water in ancient Egyptian conception. The recurrence of this formula in different texts, spanning both funerary and literary genres, could imply a widespread cultural and religious preoccupation with controlling and mitigating the dangers associated with water and storms.

A *topos* in the Coffin Texts that further reinforces the connection between weather and water spells is the set of formulas known as "to have power over the water" *sḫm m mw*. This theme serves as a leitmotif for a group of Coffin Texts formulas (359-362), underscoring its significance within the corpus. The magical goal of attaining "power over water" mentioned in these texts aligns strictly with the discussed concepts of "water-defence" and apotropaic spells, suggesting a coherent and interconnected system of beliefs and practices related to the control and manipulation of water.

The phrases *sḫm m mw* and *ḥsj m mw*[397] appear as parallel constructions in the Coffin Texts[398], further stressing the importance of controlling water in both a literal and metaphorical sense. The verb *sḫm*, meaning "to be mighty power" or "to prevail over", is a key concept in ancient Egyptian

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[395] McDonald, 'A Metaphor'; Bernard Mathieu, 'Seth Polymorphe: Le Rival, Le Vaincu, l'auxiliaire', *Égypte Nilotique et Méditerranéenne* 4 (2011): 137–58; Susana Soler, 'Los Orígenes Del Sincretismo Seth-Baal. Seth y La Tormenta Según Los Clasificadores de Los Textos de Los Sarcófagos Del Reino Medio', in *"Sentido de Un Empeño". Homenatge a Gregorio Del Olmo Lete*, ed. Ll. Feliu, A. Millet, and J. Vidal (Barcino: Monographica Orientalia, 2021), 461–75.

[396] Adolf Erman and A. H. Gardiner, *Literarische Texte Des Mittleren Reiches, II: Die Erzählung Des Sinuhe Und Hirtengeschichte*, Hieratische Papyrus Aus Den Königlichen Museen Zu Berlin 5 (Leipzig: J. C. Hinrichs, 1909), pl. 16-17; Ludwig D. Morenz, *Beiträge Zur Schriftlichkeitskultur Im Mittleren Reich Und in Der 2. Zwischenzeit*, Ägypten Und Altes Testament 29 (Wiesbaden: Harrassowitz, 1996), 124–35; Parkinson, *The Tale of Sinuhe and Other Ancient Egyptian Poems, 1940-1640 BC*, 287–88.

[397] Roman Gundacker, 'Ist Hcjw-Mw "Wasserzauber" Ein "Älteres Kompositum"? Untersuchungen Zu Einem Terminus Technicus Der Ägyptischenlingua Magica', *Lingua Aegyptia* 27 (2019): 77–129, https://doi.org/10.37011/lingaeg.27.05.

[398] Ritner, *The Mechanics*, 48; Moers, *Fingierte Welten in Der Ägyptischen Literatur Des 2. Jahrtausends v. Chr.: Grenzüberschreitung, Reisemotiv Und Fiktionalität*, 128–29.

religion and magic, often associated with the power of deities and the king[399]. Its use in the context of water spells underlines the importance of exerting control over the potentially dangerous and unpredictable forces associated with water. Similarly, the verb *ḥsi̯*, meaning "to praise" or "to favour", underscores the apotropaic nature of these spells, aimed at safeguarding the deceased from the perils of water in the afterlife. The connection between the "power over water" formulas and the broader theme of weather and water spells in the Coffin Texts is further reinforced by the shared vocabulary and imagery employed across these texts. The recurrence of terms related to water, such as *mw* "water", *i̯trw* "river", and *ḥʿpj-ʿȝ* "flood" and most specifically *nšn(j)* "storm", creates a coherent semantic field that underlies the interconnected nature of these spells.

New Kingdom Textual References

The exact phrase *mw n p.t* emerged in various textual sources from the New Kingdom onwards. One notable example is found in a magical papyrus from the second half of the New Kingdom:

ex.25. *wʿb ḏw-msw-n-p.t m mw n.w p.t*
He purifies himself with the waters of the sky
(P. Budapest Museum 51.1960 Col. B1-B2,3)[400]

This excerpt could confirm the use of *mw n p.t* in the context of purification rituals but also emphasize the perceived sacredness of the rainwater. The act of purification, *wʿb* is directly associated with the "waters of the sky", suggesting that rainwater was considered a potent and divine cleansing agent. This association is particularly significant given the arid climate of Egypt, where rain was an infrequent and precious occurrence, often seen as a blessing from the divine realm[401].

Here, the phrase summarizes a dual aspect and functions of water: as a physical substance that descends from the sky and as a sacred element imbued with purifying powers. This phrase is situated within a magical papyrus, a genre replete with protective and healing incantations, which

[399] Wolfgang Helck and Wolfhart Westendorf, eds., *Lexikon Der Ägyptologie V: Pyramidenbau-Steingefäße* (Wiesbaden: Otto Harrassowitz, 1984), 772–74.

[400] László Kákosy, 'Fragmente Eines Unpublizierten Magischen Textes in Budapest', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 117 (1990): 144–45.

[401] Guey, 'Encore La" Pluie Miraculeuse"'; Posener, 'À Propos de La "Pluie Miraculeuse"'; Claude Vandersleyen, 'Une Tempête Sous Le Règne d'Amosis', *Revue d'égyptologie* 19 (1967): 123–59.

highlights the significance of rainwater in practices designed to cleanse and protect individuals from impurities and malevolent forces.

As we will explore later, the use of dew water was similarly employed for its properties[402], further illustrating the Egyptians' conception of water's role in their ritualistic practices. Dew, like rain, was considered a gift from the sky, and its collection and use in rituals paralleled that of rainwater.

Graffiti Evidence

The phrase *mw n p.t* (water of the sky) was also found on other peculiar media, as evidenced in the graffiti from Thebes during the second half of the New Kingdom period, offers a glimpse into the ancient Egyptian experience and perception of rain. These inscriptions, etched into the stone of Thebes, serve as enduring records of the meteorological events that were significant enough to be memorialized by the people of that era.

ex.26. *ḥzj.t ỉr.n pz mw n p.t*
Descending is what the water of the sky has done.
(Graffito 3012, 3013)[403]

ex.27. *ḥzj.t ỉr.n pz mw, m pz mw ḥrj m tz p.t*
Descending is what the water has done, from the high water from the sky.
(Graffito 2868)

In these examples, the phrase *mw n p.t* is not merely a descriptor of rain; it could be a testament to the Egyptians' recognition of the sky as an active force in the natural world[404]. The fact that these occurrences of rain were inscribed in graffiti might also indicate that they were events out

[402] Robert K. Ritner, 'Innovations and Adaptations in Ancient Egyptian Medicine', *Journal of Near Eastern Studies* 59, no. 2 (2000): 122.

[403] Leblanc, 'Thèbes'; Andreas Dorn and Matthias Müller, 'Regenfälle in Theben-West', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 133 (2006): 90–93.

[404] For further discussions on *mw n p.t* and *ḥꜥpj n p.t* "Nile of the sky" as designations for rain, see Vladimir Vikentiev, *La Haute Crue Du Nil et l'averse de l'an 6 Du Roi Taharqa: Le Dieu 'Hemen' et Son Chef-Lieu 'Hefat'* (Le Caire: Impr. de l'IFAO, 1930), 54.

of the ordinary, worthy of being recorded for posterity[405] possibly highlighted by the particular construal of the infinitive.

Here, according to the analysis of J. Winand[406], this construction could serve to emphasize the agency and power attributed to the sky and its waters. By using the infinitive form of the verb (*ḥ3j.t*) followed by the relative form *ỉr.n* and the subject (*p3 mw n p.t / p3 mw ḥrj m t3 p.t*), the construction highlights the action performed by the subject. This grammatical structure presents the rain events as dynamic and unfolding actions rather than static occurrences.

In these examples, the infinitive form *ḥ3j.t* (descending) is used to foreground the action of descending, while the relative form *ỉr.n* (has done) links this action directly to the subject *p3 mw n p.t* (the water of the sky). This construction effectively personifies the sky and its waters, attributing to them an active role in the natural world. The sky is not merely a passive backdrop but an active agent that brings about the life-sustaining phenomenon of rain, also accentuated in the second example by the repetition of *m p3 mw ḥrj m t3 p.t* (from the high water from the sky)[407].

The contextual analysis of these graffiti also requires consideration of their physical location and archaeological context. As exposed by C. Desroches-Noblecourt's[408], such inscriptions often occur near natural water collection points where rainwater accumulated in rock basins following precipitation events. The term *mw n p.t* in these contexts thus refers not to active rainfall (*ḥw.t*) but to the collected residue of previous precipitation, explaining the use of *mw* "water" rather than *ḥw.t*

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[405] Dorn and Müller, 'Regenfälle', 93.

[406] Malaise and Winand, *Grammaire*, paras 1036–1037. Concerning the construal infinitive + *ir.n / i.iri* + agent + (direct object pronoun) + (prepositional phrase), see Friedrich Junge, *Late Egyptian Grammar: An Introduction*, trans. David Warburton, second English, Griffith Institute Publications (Oxford: Griffith Institute, 2005), 229.For the infinitive's stating function, see Frank Feder, 'Das Ende Des "Narrativen" Infinitivs Im Sinuhe', *Lingua Aegyptia* 12 (2004): 54–58.

[407] Parallel with graffiti inscriptions by visitors is noteworthy, since a quite similar type of wording is used but with human agents *ỉw.t pw ỉrt.n sš N*, see Chloé Ragazzoli, 'L'épigraphie Secondaire Dans Les Tombes Thébaines (Unpublished HDR Thesis)' (2016), 63; Hana Navratilova, *Visitors' Graffiti of Dynasties 18 and 19 in Abusir and Northern Saqqara: With a Survey of the Graffiti at Giza, Southern Saqqara, Dahshur and Maidum*, 2nd, revised ed. (Wallasey, UK: Abercromby, 2015), 119–22; Chloé Ragazzoli, 'Genres Textuels et Supports Matériels: Une Inscription de Visiteur Comme Exercice Sur Ostracon (Ostracon University College 31918).', *NeHeT* 4 (2016): 68–69.

[408] Christiane Desroches-Noblecourt, 'Les Temples de La Nubie Submergée et La Rive Gauche de Thèbes', *Le Courrier Du CNRS* 9 (1973): 35.

"rain process". This distinction could align with the archaeological evidence from O. Cairo JE 72460[409], where similar water accumulation is documented.

Indeed, the ostracon Cairo JE 72460 introduces the idea that *mw n p.t* may have functioned as a metonymic topographical noun[410]. This suggests that the locations where rainwater accumulated were significant enough to be named, indicating the rarity and importance of these rain events. The use of *mw n p.t* in this way would have provided a means of commemorating the unusual occurrence of rain, marking the landscape with the memory of this vital and sporadic blessing from the sky.

In summary, the textual evidence from the Pyramid Texts, Coffin Texts, New Kingdom sources, and graffiti collectively illustrate the profound role of the phrase *mw n p.t* in shaping the ancient Egyptian conceptualization of rain. The Pyramid Texts laid the metaphorical foundation, portraying rain as "living waters" descending from the celestial realm. The Coffin Texts further developed the associations between water and the sky, establishing a direct link between the two. New Kingdom sources, such as magical papyri, confirmed the enduring presence of the phrase *mw n p.t* and its significance in purification rituals. Graffiti from Thebes during this period served as pertinent records of the ancient Egyptian experience and perception of rain, using the peculiar construction to emphasize the agency and power attributed to the sky and its waters.

The interpretation of *mw n p.t* as a designation of rain is supported by both graphical and semantic evidence, yet it is essential to address potential ambiguities and polysemy in its usage. Graphically, the phrase *mw n p.t* employs the water determinative N35a, which is commonly associated with naturally flowing water, including rain, as seen in the lexeme *ḥw.t*. Semantically, the phrase explicitly links water (*mw*) to the sky (*p.t*), emphasizing its celestial origin and aligning with the ancient Egyptian conceptualization of rain as a divine or cosmic phenomenon.

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[409] Elisabeth Thomas, 'Cairo Ostracon J. 72460', in *Studies in Honor of George R. Hughes: January 12, 1977*, ed. Janet H. Johnson and Edward F. Wente (Oriental Institute of the University of Chicago, 1976); K. A. Kitchen, *Ramesside Inscriptions, Historical and Biographical, II* (B. H. Blackwell, 1979), 855–56; (KRITA 503 KRITANC II § 315); Konstantin C. Lakomy, *Cairo Ostrakon J.72460: Eine Untersuchung Zur Königlichen Bestattungstradition Im Tal Der Könige Zu Beginn Der Ramessidenzeit*, Göttinger Miszellen, Beihefte 4 (Seminar für Ägyptologie und Koptologie der Universität Göttingen, 2008); Andreas Dorn and Stéphane Polis, 'A Re-Examination of O. Cairo JdE 72460 (= O. Cairo SR 1475): Ending the Quest for a 19th Dynasty Queen's Tomb in the Valley of the Kings', in *Aere Perennius: Mélanges Égyptologiques En l'honneur de Pascal Vernus*, ed. Philippe Collombert et al. (Peeters, 2016).

[410] Leblanc, 'Thèbes', 203; Dorn and Polis, 'A Re-Examination of O. Cairo JdE 72460 (= O. Cairo SR 1475): Ending the Quest for a 19th Dynasty Queen's Tomb in the Valley of the Kings', x + 22-23.

However, the term *mw* can also refer to water in a more general sense, encompassing various forms such as dew, which is similarly perceived as a gift from the sky. This polysemy is evident in different textual contexts, where *mw n p.t* might denote not only rain but also other forms of celestial water, such as dew, which was also considered sacred and used in purification rituals. Therefore, while the primary interpretation of *mw n p.t* as rain is well founded, acknowledging its potential broader application to other forms of pure water is crucial for a full understanding of its usage in ancient Egyptian texts.

In conclusion, the graphic analysis of the lexeme *ḥw.t* across various scripts and historical periods has revealed the predominant usage of hieroglyphic script for *ḥw.t*, particularly in monumental and royal texts, while hieratic script featured less frequently. The graphical and semantic connections between *ḥw*.t and the phrase *mw n p.t* (water of the sky) has shed light into the ancient Egyptian conceptualization of rain as a sacred, life-sustaining phenomenon. The shared use of the water determinative N35a in both terms visually and conceptually anchors them to the same ontological conception. Textual evidence from the Pyramid Texts to New Kingdom sources further supports this proposal, illustrating the evolving understanding of rain as a divine gift and a crucial element in religious rituals and purification practices.

Contextual Analysis and Syntactic Analysis of the Lexeme *ḥw.t*

This section aims to provide an analysis of the usage of *ḥw.t* in various textual sources and its collocations with other lexemes. The analysis will concentrate on two main aspects: firstly, the contextual and semantic collocations of *ḥw.t*, investigating the lexeme's connections with various semantic domains and its common co-occurrences with other nouns; secondly, a syntactic analysis of *ḥw.t* will be conducted, examining its grammatical behaviour and the syntactic structures in which it appears.

2.1.8. Identified Contextual Collocations

Ancient Egyptian language boasts a rich vocabulary related to the concept of "flood" and "inundation", with at least 20 common nouns attested[411], such as *ʒgb.w*[412], *wḏn.w*[413], *bꜥḥ.w*[414], *mḥ.j*[415], *n.t*[416]. In this context, the nuance underlying the lexeme *ḥw.t*, which appears to lean more towards the meaning of "rain" rather than "flood", becomes particularly intriguing.

Given the relatively limited number of attestations of *ḥw.t*, our approach will focus on identifying its frequent collocations with other nouns and the semantic domains they represent. The analysis of our corpus has revealed that *ḥw.t* frequently collocates with nouns from various semantic domains, including

– Geographical features:

Topographical Associations: Examination of how *ḥw.t* is used in landscape descriptions, including its collocation with nouns referring to mountains, valleys, and deserts.

Terrestrial Impact: Investigation of the link between *ḥw.t* and geographical features, highlighting the perception of the earth as a recipient of rainfall.

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[411] Concerning "Überschwemmung" and "Flut", see the lemma search results in 'TLA 2'. Refer also to Rainer Hannig, *Großes Handwörterbuch Deutsch - Ägyptisch*, Hannig-Lexica 3 (Darmstadt, 2014), 432; 1334–35.

[412] *Wb* 1, 22.10-14. TLA ID 314.

[413] *Wb* 1, 409.10-12. TLA ID 52710.

[414] *Wb* 1, 448.1-8. TLA ID 54990.

[415] *Wb* 2, 122.17-19. TLA ID 73760.

[416] *Wb* 2, 198.10-15. TLA ID 79020.

– Natural phenomena:

Atmospheric Collocations: Analysis of how *ḥw.t* co-occurs with terms denoting atmospheric and celestial events, such as wind, storm, and snow, within the broader context of natural forces.

Meteorological Sequencing: Analysis of the logical sequence of atmospheric phenomena (wind, calm, storm, rain) and their implications.

The Sky as Source: Exploration of the ancient Egyptian perception of the sky as a dynamic force and the source of rain, linking it to liquid substances.

Agricultural and Seasonal Terms:

Agricultural Cycle: Examination of *ḥw.t's* collocations with terms related to crops, vegetation, and the agricultural cycle.

Seasonal Rhythms: Investigation of the role of *ḥw.t* in the ancient Egyptian perception of the natural world and its rhythms, linking rain with specific times of the year and annual cycles.

– Divine and Mythological Associations:

Deity Connections: Identification of deities associated with *ḥw.t*, particularly those related to the sky, weather, and power, revealing its significance in religious and mythological narratives.

Divine Intervention: Analysis of how *ḥw.t* is used in contexts describing divine control over weather phenomena.

Cosmological Significance: Exploration of the role of *ḥw.t* in creation myths and the maintenance of cosmic order, relating rain to the divine sphere and the interrelation of all aspects of the cosmos.

Symbolic Significance: Detailed look at the metaphorical use of rain, exploring the ancient Egyptian tendency to draw connections between the natural world and human experience, such as comparing death to rain. These collocational patterns suggest that *ḥw.t* carried a complex set of connotations that extended beyond the mere notion of "overflow".

Syntactic Analysis

To the contextual analysis, we will integrate a syntactic analysis of *ḥw.t*, examining its grammatical behaviour and the syntactic structures in which it appears. The analysis will focus on the following aspects:

– Grammatical functions: We investigate the various grammatical roles that *ḥw.t* assumes within sentences, such as subject, object, or adverbial modifier.

– Morphological patterns: We examine the morphological forms in which *ḥw.t* occurs, including its singular and plural forms, as well as any derived forms or compounds.

– Syntactic constructions: We explore the different syntactic constructions in which *ḥw.t* appears, such as nominal phrases, prepositional phrases, or verbal predicates.

Through this holistic contextual and syntactic analysis, we seek to contribute to the broader understanding of the ancient Egyptian conceptualization of hydrometeors, as well as the linguistic mechanisms employed to express these concepts. The examples presented in this analysis are not arranged in chronological order. We opted for this approach, since it allows for a wide-ranging exploration of the term's multilayered nature, its associations with geographical features, natural phenomena, and divine entities, as well as its role in various textual genres.

2.1.9. Geographical Features

The lexeme *ḥw.t* frequently appears in association with various geographical features in ancient Egyptian texts. This interconnectedness underscores the multifaceted role of rain in the physical world. In this section, we explore the collocations of *ḥw.t* with geographical nouns, emphasizing their significance in ancient Egyptian conceptualizations of rain.

2.1.9.1. Rain and Sky

The sky (*p.t*) is a fundamental geographical feature evidently linked to the concept of rain. The association of *ḥw.t* with *p.t* features the ancient Egyptian conception of the sky as the source of rainfall, emphasizing the celestial origin of this life-giving phenomenon. We observed in previous excerpts of the graphic analysis of *ḥw.t*, as this term is related to some construal where it could be considered agentive. The concept of sky in Egyptian is deeply associated to the atmospheric phenomena as also demonstrated by several attestations of the written form of the term e.g.  (CT

II, 1a). As we have seen previously on page 156, the blue colour of the sky could be connected with the presence of air and watery nature of the sky, since the ancient Egyptians imagined the sky as a vast body of water, this "basin" was not simply a metaphor, but a fundamental aspect of their cosmology.

The funerary texts also frequently reference the *sbȝ.w p.t*[417] "doors of the firmament" and *ptr.w*[418] "windows of the sky", highlighting the belief that the sky had openings through which gods and celestial elements could pass. These doors were significant for the passage of celestial beings and phenomena.

The sky was also seen as a *ḫnmt wrt*[419] "great sieve" almost with the same function. This title suggests the image of a sieve that filters not only starlight, but also celestial liquids such as hydrometeors and therefore rain[420].

On these premises, we will now analyse our excerpts for the collocations of these two nouns. One of the earliest descriptions of the relationship between rain and sky can be found in a well-known fictional tale from the 17th dynasty, preserved in the Westcar papyrus:

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[417] PT. § 1115b, 1720a. See also Aly Mennah, 'Conception of the Doors of Heaven in Ancient Egyptian Religion', in *Current Research in Egyptology 2022: Proceedings of the Twenty-Second Annual Symposium, Université Paul-Valéry Montpellier 3, 26-30 September 2022*, ed. L. Chapon et al. (Oxford: Archaeopress, 2023).

For the related expression *ws n pt* "window of the sky", which became a toponym in the Bubastite region, see Serge Sauneron, *Villes et Légendes d'Égypte*, 2nd revised, Bibliothèque d'étude 90 (Institut français d'archéologie orientale, 1983), 158–59; Dimitri Meeks, *Mythes et Légendes Du Delta d'après Le Papyrus Brooklyn 47.218.84*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 125 (Institut Français d'Archéologie Orientale, 2006), 109 n. 326; Ivan Guermeur, 'Religion Égyptienne En Égypte Hellénistique et Romaine', *Annuaire de l'École Pratique Des Hautes Études (EPHE), Section Des Sciences Religieuses. Résumé Des Conférences et Travaux* 131 (September 2024): 191 n. 113, https://doi.org/10.4000/122wy. I extend my thanks to I. Guermeur for drawing attention to this toponymic parallel, which significantly enhances our understanding of how celestial aperture terminology functioned within Egyptian conceptualization.

[418] *Wb* 1, 565.1-2. TLA ID 62930. See also Sethe, *Übersetzung Und Kommentar*, vol.VI p. 124; Molen, *DCT*, 142–43; Wilson, *Ptolemaic Lexikon*, 380–81.

[419] *Wb* 3, 382.5-6. TLA ID 550441. See also Christian Leitz et al., *Lexikon Der Ägyptischen Götter Und Götterbezeichnungen*, Orientalia Lovaniensia Analecta 8 (Leuven: Peeters, 2002), vol. VI,21.

[420] Helck and Westendorf, *Lexikon Der Ägyptologie V: Pyramidenbau-Steingefäße*, 924.

ḥw.t ex. 2. *ʿḥʿ.n rḏỉ.n.sn ỉwỉ.t p.t m ḏʿ ḥr ḥwj.t*

And then they made the sky to come (down) with gale and rain.

(P. Berlin P 3033, 11, 14)[421]

In this excerpt, the verb *rḏỉ* "to cause" is used in the accomplished form *rḏỉ.n.sn* to describe the action of making the sky come down. The subject *sn* "they" refers to the gods mentioned in the previous context. The phrase *m ḏʿ ḥr ḥwj.t* employs the preposition *m* to indicate the manner in which the sky descends, with *ḏʿ*[422] "gale, wind storm" and *ḥw.t,* connected by the preposition conjunction *ḥr* (and), emphasizing the forceful and turbulent nature of the event.

The lexeme *ḥwj.t* is directly associated with the sky (*p.t*), suggesting a cognitive understanding of the sky as a source of weather phenomena also connected to liquid substance as the rain is. The determinative 𓈖 N35a used with *ḥwj.t* further reinforces this connection. The use of the verb *ỉwỉ* "to come" with the sky as the subject personifies the sky, portraying it as an entity capable of movement and action. This passage demonstrates the ancient Egyptians' perception of the sky as a dynamic and powerful force, with the ability to bring forth intense rain and wind storms. The literary context heightens the dramatic effect of the event, emphasizing the gods' control over the elements.

Alternatively, this passage may be interpreted as a representation of the ancient Egyptian belief system that envisioned the firmament as a vast repository of water. In this conceptualization, the sky is perceived as a celestial cistern, from which aqueous elements descend to the terrestrial plane.

The association between the sky, divine intervention, and intense rainfall is further reinforced in a royal inscription from the 18th dynasty, specifically the Ahmose Storm Stela:

[421] Adolf Erman, ed., *Die Märchen Des Papyrus Westcar*, Mittheilungen Aus Den Orientalischen Sammlungen 5–6 (Berlin: W. Spemann, 1890), pl. XI, 14. Verena M. Lepper, *Untersuchungen Zu pWestcar: Eine Philologische Und Literaturwissenschaftliche (Neu-)Analyse*, Ägyptologische Abhandlungen 70 (Wiesbaden: Harrassowitz, 2008), 51.

[422] *Wb* 5, 533.11-534.6. TLA ID 182480.

ḥw.t ex. 3. *[ʿḥʿ.n] [rḏi. n] ⸢nṯr⸣.w ỉwỉ.t p.t m ḏʿ n(.j) ḥ[(w)j.t]*

[Then] the ⸢God⸣s made the sky come down in a storm of rain.

(Ahmose Storm stele ro 6-7) [423]

The stela describes a catastrophic storm that occurred during Ahmose's reign, causing great destruction and prompting the pharaoh to rebuild and restore order in the aftermath. Some scholars have suggested a potential connection between the storm described on the stela and the Minoan eruption of Thera (present-day Santorini) in the Aegean Sea, which is believed to have occurred around 1613 BCE[424]. However, the interpretation of the stela and its relationship to the Thera eruption remains a subject of ongoing debate among scholars[425].

Although the beginning of the passage is fragmentary, the preserved text clearly indicates the gods' role in causing a powerful rainstorm. The subject *nṯr.w* "gods" is preceded by the accomplished

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[423] Wolfgang Helck, *Historisch-Biographische Texte Der 2. Zwischenzeit Und Neue Texte Der 18. Dynastie*, 2nd revised, Kleine Ägyptische Texte 6 (Wiesbaden: Harrassowitz, 1983), 104–103; Andrea Klug, *Königliche Stelen in Der Zeit von Ahmose Bis Amenophis III*, Monumenta Aegyptiaca 8 (Bruxelles: Fondation Égyptologique Reine Élisabeth / Turnhout, Brepols, 2002), 35–46, 501–2; Peter Beylage, *Aufbau Der Königlichen Stelentexte Vom Beginn Der 18. Dynastie Bis Zur Amarnazeit: Teil 1: Transkription Und Übersetzung Der Texte. Teil 2: Methodik Und Analyse Der Texte*, Ägypten Und Altes Testament 54 (Wiesbaden: Harrassowitz, 2002), 77–85, 608–13.

[424] Robert K. Ritner and Nadine Moeller, 'The Ahmose "Tempest Stela", Thera and Comparative Chronology', *Journal of Near Eastern Studies* 73, no. 1 (2014): 1–19.

[425] James P. Allen and Malcolm H. Wiener, 'Separate Lives: The Ahmose Stela and the Theran Eruption', *Journal of Near Eastern Studies* 57, no. 1 (1998): 1–28; Hana Navrátilová, 'The Unwetterstele of Ahmose as a Historical Text', in *Acqua Nell'antico Egitto: Vita, Rigenerazione, Incantesimo, Medicamento. Proceedings of the First International Conference for Young Egyptologists: Italy, Chianciano Terme, October 15-18, 2003. - (Egitto Antico; 3)*, ed. Alessia Amenta, Maria Michela Luiselli, and Maria Novella Sordi (Roma: 'L'Erma' di Bretschneider, 2005), 81–88. For a recent analysis challenging previous scholarly interpretations of Egyptian texts as potential references to the Thera eruption, see Joachim Friedrich Quack, 'Gibt Es in Ägypten Schriftliche Quellen Zum Thera-Ausbruch?', in *1600 - Kultureller Umbruch Im Schatten Des Thera-Ausbruchs? 4. Mitteldeutscher Archäologentag Vom 14. Bis 16. Oktober 2011 in Halle (Saale) / 1600 - Cultural Change in the Shadow of the Thera-Eruption? 4th Archaeological Conference of Central Germany October 14-16, 2011 in Halle (Saale)*, ed. François Bertemes et al. (Landesmuseum für Vorgeschichte, 2013). Quack's detailed textual analysis demonstrates that none of the proposed Egyptian textual references to the Thera volcanic eruption can withstand close philological scrutiny, concluding that there is no credible mention of this natural catastrophe in Egyptian sources.

verb form *rḏỉ.n* "made", indicating their active role in bringing about the event. As in the previous example, the verb *ỉwỉ* "to come" is used with the sky (*p.t*) as the subject, emphasizing its movement. The phrase *m ḏ‘ n(.j) ḥ[(w)j.t]* describes the nature of the sky's descent, with *ḏ‘* "storm" and *ḥ[(w)j.t]* "rain" stressing the intensity of the phenomenon.

The possibility of intertextuality between these two excerpts is a captivating point to consider. The similarities in their descriptions of intense rainstorms and the role of divine intervention could suggest a shared cultural understanding or a common literary tradition. If we assume that the Westcar Papyrus predates the Ahmose Storm Stela[426], it is possible that the latter text drew inspiration from the images and language used in the earlier literary work. This could imply that the Westcar Papyrus was well known and influential, with its descriptions of weather phenomena and divine involvement serving as a model for later inscriptions.

It is imperative to consider an alternative more plausible proposition that posits a common cultural context as the source for the analogous descriptions of precipitation events and their divine attribution in both texts, rather than assuming direct textual influence. The convergence of atmospheric observations and their subsequent integration into religious and mythological narratives could plausibly account for the emergence of comparable literary depictions across diverse chronological and geographical contexts. This perspective acknowledges the potential for independent development of similar ideas within a shared cultural milieu, emphasizing the role of collective human experience in shaping literary expressions of natural phenomena.

Regarding the difference between the two passages in their use of the prepositions *n* and *ḥr*, this distinction is significant. In the Ahmose Storm Stela, the use of the genitival adjective *n(.j)* in the phrase *m ḏ‘ n(.j) ḥ[(w)j.t* could suggest that the *ḏ‘* "storm" consists of or is characterized by *ḥ(w)j.t* "rain". This construction presents the rain as an integral part or a defining feature of the storm.

In a divergent syntactical construction, the Westcar Papyrus employs the preposition *ḥr* within the phrasal structure *ḥr ḥw.jt.* This preposition, which possesses the semantic capacity to denote addition and, consequently, can function as a coordination conjunction [427], allows for the interpretation of the phrase as either "with rain" or "accompanied by rain". The selection of this preposition suggests that, within the context of the described meteorological phenomenon, the rain assumes a secondary, concomitant role, rather than constituting the principal component of the storm itself.

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[426] Lepper, *Untersuchungen Zu pWestcar: Eine Philologische Und Literaturwissenschaftliche (Neu-)Analyse*, 317–20.

[427] Malaise and Winand, *Grammaire*, para. 236.

The different prepositions used in these passages may reflect nuances in the ancient Egyptian perception of the relationship between storms and rain. The Ahmose Storm Stela's use of *n* suggests a more intrinsic connection, with rain being a fundamental component of the storm, while the Westcar Papyrus's use of *ḥr* implies a more peripheral or additional role for the rain in relation to the storm.

These distinctions in prepositional usage could also be influenced by the different contexts and purposes of the texts. The Ahmose Storm Stela, as a royal inscription, may have sought to emphasize the all-encompassing nature of the storm and its divine origins, while the Westcar Papyrus, as a literary text, may have focused more on the descriptive aspects of the storm and its accompanying elements.

Further evidence of how the ancient Egyptians conceptualized the relationship between the sky and rain could be found in the passage from the 18th dynasty literary text "The Sporting King". The Sporting King is a fragmentary narrative that revolves around the adventures and exploits of a king who enjoys hunting and other outdoor pursuits[428]. The surviving text, although incomplete, is helpful to explore the ancient Egyptian perception of the natural world and in particular in this passage the interconnectedness of atmospheric phenomena:

ḫw.t ex. 4. *snm tp-ʿ ṯzw wr.t p.t [...] ḥ(w)j.t ʿ3.t*
Rainstorm preceding a great wind, the sky [...] heavy rains.
(The Sporting King, section A, 2, 4)[429]

The phrase *ḥ(w)j.t ʿ3.t* "heavy rains" employs the adjective *ʿ3.t* "great, here contextually heavy" to accentuate the intensity of the rainfall. The clause *snm tp-ʿ ṯzw wr.t* "rainstorm preceding a great wind", suggests that the heavy rains were accompanied by strong winds, painting a picture of a powerful and potentially destructive weather event. The use of *snm*[430] "rainstorm", term which will encounter and explore later on page 219, and *ṯzw* "wind" in this context could emphasize the ancient Egyptians' specific vocabulary for describing various aspects of storms and their effects.

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[428] R. B. Parkinson, *Poetry and Culture in Middle Kingdom Egypt: A Dark Side to Perfection*, Athlone Publications in Egyptology and Ancient Near Eastern Studies (London; New York: Continuum, 2002), 311–12; Stephen Quirke, *Egyptian Literature 1800 BC: Questions and Readings*, Egyptology 2 (London: Golden House, 2004), 207–11.

[429] Ricardo A. Caminos, *Literary Fragments in the Hieratic Script* (Oxford: Oxford University Press for Griffith Institute, 1956), 22–39, pl. 8–16.

[430] *Wb* 4, 165.11-12. TLA ID 137440.

The exact role of the sky in this passage is unclear due to the lacuna. However, the surviving text reinforces the idea that the sky was seen as the source of intense rainfall and storms. The literary nature of the text suggests that such descriptions were used to create vivid and evocative scenes, reflecting the cultural significance of weather phenomena in ancient Egyptian thought and literature.

The importance of observing and recording celestial and meteorological phenomena is also evident in another excerpt, found in several New Kingdom tomb inscriptions, it outlines the Duties of the Vizier[431] here in relation to the monitoring of astronomical and meteorological events:

ḫw.t ex. 5. *smỉ.t(w) n.f pr.t-Spd.t ḥꜥpj smỉ.t(w) n.f ḫwj.t p.t*

One will report to him the rising of Sothis and the (onset of the) inundation, and one will report to him the rain of the sky.

(Urk. IV 1116, 5)

The reporting of the rising of Sothis (Sirius) *pr.t-Spd.t*[432] and the onset of the Nile inundation were crucial for agricultural planning and the maintenance of the Egyptian calendar[433]. The verb *smỉ* (to report) is used twice in this excerpt, emphasizing the importance of conveying information about these events to the vizier. The rising of Sothis, *pr.t-Spd.t*, marked the beginning of the Egyptian year and was closely linked to the Nile inundation *ḥꜥpj*.

The direct genitive construal[434] directly and deeply connects the sky (*p.t*) with the occurrence of rain (*ḫwj.t*). The rains are described as a "rain of the sky" indicating the ancient Egyptians' understanding of the boundless link between celestial realm and the rain precipitation. In contrast, the phrase *p.t m ḫwjt* (sky with rain) found in other examples, such as the Ahmose Storm Stela, employs the preposition *m* (with), suggesting a slightly different nuance. While *ḫwj.t p.t* emphasizes a direct and intrinsic connection between the sky and rain, *p.t m ḫwjt* implies that the rain is an accompanying element of the sky, rather than its primary constituent. This subtle difference in prepositional usage might reflect nuances in the ancient Egyptian perception of the relationship between the sky and rain.

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[431] G. P. F. van den Boorn, *The Duties of the Vizier: Civil Administration in the Early New Kingdom*, Studies in Egyptology (London; New York: Kegan Paul International, 1988), 288.

[432] *Wb* 1, 525.12. TLA ID 60840.

[433] For recent studies concerning the heliacal risings of Sothis and the flood of the Nile in the context of Egyptian Calendar, see Rolf Krauss, 'Haben Otto Neugebauer und William Feller die Niljahre richtig gemittelt?', *Zeitschrift für Ägyptische Sprache und Altertumskunde* 144, no. 1 (27 June 2017): 65–85.

[434] Malaise and Winand, *Grammaire*, paras 89–91.

The inclusion of rain reporting among the vizier's duties emphasizes the importance of meteorological observations in ancient Egyptian administration since the earliest times[435]. The passage specifically indicates that the vizier received reports on both astronomical and weather events, suggesting a system was in place for collecting and interpreting such data. This information would have had practical implications for agriculture, resource management, and the overall functioning of the state. While the vizier was not directly responsible for gathering this data, his role as the recipient of these reports underscores the importance of such information in governmental decision-making processes. The centralization of this knowledge at the vizier's level implies its critical nature in state administration and planning.

This organizational function related to weather observation and reporting appears to have persisted throughout Egyptian history. A possible yet arguable connection with this role can be found in the Colophon of the Metternich Stela from the Ptolemaic period (verso lines 87-88)[436], a text which will be explored later on in detail on page 216, where the designation *sḫ3.w ḥwj.t* appears. This can be interpreted as a title "scribe of the rain" or "scribe of the flood", suggesting a specialized administrative position dedicated to recording and possibly interpreting meteorological phenomena.

The appearance of *sḫ3.w ḥwj.t* in a much later period might indicate the enduring importance of weather-related observations in Egyptian administration. It might also suggest a continuity in the bureaucratic titles and possible practices related to meteorological record-keeping from the Old Kingdom through to the Ptolemaic period. This continuity could reflect the ongoing significance of weather patterns, particularly rainfall and flooding, to Egyptian agriculture and, by extension, to the economy and stability of the state. The role of the *sḫ3.w ḥwj.t* may have involved not only recording rainfall and flood levels but also interpreting this data in the context of agricultural planning, religious rituals, and state administration.

While the previous examples have focused on more formal contexts, the connection between the sky and rain is also evident in mythological context. The following excerpt from a Second Intermediate Period mathematical papyrus (Papyrus Rhind) may demonstrate how deeply intertwined meteorological concepts were with Egyptian tradition:

ḥw.t ex. 6. *msw.t 3s.t ỉr.t p.t ḥ(w).t*

[435] A. César González-García et al., *Astronomy of Ancient Egypt: A Cultural Perspective*, Historical & Cultural Astronomy (Cham: Springer, 2023), 57–68.

[436] C. E. Sander-Hansen, *Die Texte Der Metternichstele*, Analecta Aegyptiaca 7 (København: Ejnar Munksgaard, 1956), 48–49.

Birth of Isis: The sky making rain.

(P. BM 10057 vso. 87b, 3)[437]

This concise passage refers to the birth of the goddess Isis, the fourth epagomenal day[438], connecting this event with the sky's production of rain. The verb *ỉrỉ* "to make" is used to describe the sky's (*p.t*) action of creating rain (*ḥ(w).t*). Once again, we can observe the consistent tendency to attribute natural phenomena to divine forces. In this passage, the use of *ỉrỉ* (to make) with *ḥ(w).t* as the direct object of the subject *p.t* emphasizes the sky's active role in producing rain. This transitive construction suggests that the rain is an intrinsic part of the sky's action, reinforcing the idea that the sky is the source and generator of rainfall.

In contrast, the previous example using *ỉwỉ* (to come) with the preposition *m* and *ḥw.t* present a different grammatical and semantic structure. This construction could imply that the rain is a complementary element of the storm, rather than a direct product of the sky. The preposition *m* (with) suggests a state or condition of the sky during rainfall, emphasizing the sky's temporary transformation or condition rather than its role as the source. This linguistic difference points to a more dynamic and interactive relationship between the sky and rain in the *ỉwỉ* constructions.

The association of Isis's birth with the sky's production of rain might suggest a symbolic link between the goddess and the life-giving properties of water. Isis, as a deity closely connected with fertility, regeneration, and the Nile inundation[439], is fittingly paired with the sky's capacity to bring forth rain.

Having examined the mythological and divine associations of *ḥw.t* in the context of the birth of Isis, we now turn our attention to another significant passage that features the role of other divine entities in controlling weather phenomena. The following excerpt, sourced from the Book of the Amduat, a funerary text whose earliest known copies originate from the 18th dynasty[440], underscores the ancient Egyptian belief in the interconnectedness of the divine, celestial, and terrestrial realms.

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[437] Helck, *Historisch-Biographische Texte Der 2. Zwischenzeit Und Neue Texte Der 18. Dynastie*, 78, 113.

[438] Anthony Spalinger, 'Some Remarks on the Epagomenal Days in Ancient Egypt', *Journal of Near Eastern Studies* 54, no. 1 (1995): 33–47.

[439] Heinrich Schäfer, 'Isis Regengöttin ?', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 66 (1931): 139; Israel Santamaria Canales, 'How Does a Goddess of the Earth Became the Mistress of the Sea?', *Acta Classica Universitatis Scientiarum Debreceniensis* 54 (2018): 35–48.

[440] Concerning the dating of the text, see Florence Mauric-Barbério, 'Le Premier Exemplaire Du Livre de l'Amdouat', *Bulletin de l'Institut Français d'Archéologie Orientale* 101 (2001): 315–50.

ḥw.t ex. 7. *ntsn sṯȝ.w nṯr pn ʿȝ m sšm sw r wȝ.wt ḥr.t, ntsn ỉrr.w ḫpr.t m p.t m ṯȝw m ḥtp.w m ḏʿ m ḥwj.t*

They are those who tow this great god guiding him on his ways of the sky. They are those who make what happened in the sky, like the wind, the calmness, the storm and the rain.

(Amduat, 12th hour, Middle Register, 831) [441]

In the context of the 12th hour of the book of the Amduat, the final stage of the sun god Ra's nocturnal journey through the underworld, this passage focuses on the profound connection between the divine realm and the human world, linked by the celestial sphere. As Ra emerges from the depths of the netherworld through the passage made by the arms of Shu, the divine entities who have guided and supported him throughout his journey continue to play a crucial role in shaping the sky and the weather phenomena experienced by mortals.

The independent pronoun *ntsn* "they" refers to the deities or spirits who assist the sun god, described as *nṯr pn ʿȝ* "this great god", on his journey through the underworld. The verb *sṯȝ* "to pull, to drag" is used to convey their active role in guiding and supporting the sun god on his path. The text emphasizes the active participation of these deities, in towing and guiding the sun god, through the challenges of the netherworld. This assistance ensures the successful completion of Ra's journey and his triumphant rise at dawn, marking the transition from the realm of the dead to the world of the living.

The second sentence elaborates on the additional responsibilities of these divine entities, using the phrase *ntsn ỉrr.w ḫpr.t* "They are those who make what happened" to introduce their influence on various aspects of the sky and weather. The marked participle of the verb *ỉrỉ* "to do, to make" highlights their active role in bringing about these phenomena. The impact of these divine entities on the celestial and meteorological events unfolds in the sky, the space that bridges the two worlds.

In this passage, we observe a deliberate and perhaps logically structured enumeration of atmospheric phenomena: *ṯȝw* "wind", *ḥtp.w* "calmness", *ḏʿ* "wind storm", and *ḥwj.t* "rain" – couple already seen in the specific example above. This sequence appears to follow a progression of increasing intensity and potential impact on the terrestrial realm. The specific ordering of these

[441] Abdel-Aziz Fahmy Sadek, *Contribution à l'étude de l'Amdouat: Les Variantes Tardives Du Livre de l'Amdouat Dans Les Papyrus Du Musée Du Caire*, Orbis Biblicus et Orientalis 65 (Freiburg (Schweiz); Göttingen: Universitätsverlag; Vandenhoeck & Ruprecht, 1985), 63; Erik Hornung, *Texte Zum Amduat. Teil 3: Langfassung, 9. Bis 12. Stunde*, Aegyptiaca Helvetica 15 (Genève: Éditions de Belles Lettres, 1994), 831.

phenomena is not arbitrary. It appears to follow a logical progression that reflects the dynamic nature of atmospheric conditions. This sequence might represent a cyclical pattern of weather changes, beginning with wind (*ṯzw*), transitioning through a period of calmness (*ḥtp.w*), escalating to a storm (*ḏꜥ*), and culminating in rain (*ḥwj.t*).

As evidenced by their linguistic expressions and the specific sequence in which weather phenomena are enumerated, the ancient Egyptians demonstrated a developed understanding of meteorological patterns; the progression of terms used to describe atmospheric conditions attentively mirrors the sequence of events associated with the passage of a cold front[442].

The text began by mentioning the wind "*ṯzw*", which typically increases in strength and may change direction as a cold front approaches. This initial stage sets the scene for the impending weather changes. Following the wind, they noted a period of calmness "*ḥtp.w*", which corresponds to the brief lull often experienced just before the front passes. This calm is then abruptly shattered by the arrival of the wind storm "*ḏꜥ*", characterized by strong, gusty winds and marking the actual passage of the cold front itself. Finally, the sequence culminates with the mention of rain "*ḥwj.t*", representing the heavy precipitation that typically follows the frontal passage, often manifesting as rain or thunderstorms.

The choice to present these terms in such a specific order suggests once more an attentive scrutiny of the natural world and a clear understanding of the cause-and-effect relationships between various meteorological phenomena. This interpretation may be further supported by the observation that the four terms are displayed in climatical enumeration, in an intensifying and antithetic parallelism, with *ṯzw* "wind" paired with *ḏꜥ* "wind storm" and *ḥtp.w* "calmness" paired with *ḥwj.t* "rain"[443].

The divine entities' role in orchestrating these weather conditions is emphasized through this linguistic structure of the phrase. It is noteworthy that these phenomena, rarely encountered in conjunction, are described as occurring within the celestial sphere. The use of the preposition *m* to situate these events might underscore their transient nature and the sky's mutable state.

The inclusion of *ḥwj.t* "rain" in this list is particularly significant. Its placement among other well-established atmospheric phenomena elevates its status, highlighting rain as a distinct and crucial weather event. This linguistic choice serves to bridge the actions of the deities in the underworld with

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[442] See, Arthur Birtwistle, 'The Khamsin in Northern Egypt', *Geography* 31, no. 2 (1946): 59–62.

[443] In addition to the enumeration, another stylistic device that merits consideration is the use of alliteration. This rhetorical figure is evident in the repetition of the consonantal sounds *ṯ* and *ḏ*, as well as *ḥ* and *ḫ*.

the tangible experiences of the living, reinforcing the interconnectedness of the cosmic realms in Egyptian thought.

The connection between the divine realm and the natural world, as mediated by the sky, reflects the ancient Egyptian belief in the interconnectedness of all aspects of the cosmos. The passage suggests that the deities' successful guidance of Ra through the underworld directly impacts the stability and continuity of the world order, ensuring the regular rising of the sun and the occurrence of vital weather patterns, such as rain, which sustain life on earth.

The funerary but also cosmographic[444] context of this text adds another layer of significance to the description of the deities' roles. The control over celestial and meteorological events reassures the deceased that the forces governing the cosmos are being effectively managed by divine entities, ensuring the stability and continuity of the world order[445]. Having surveyed the connections between rain, divine entities, and celestial phenomena in various contexts, let us now turn our attention to a royal inscription that directly links the abundance of rainfall to the prosperity of the kingdom.

This next example, taken from a 25th Dynasty inscription of King Taharqa at Karnak, demonstrates how the concept of *ḥw.t* was integrated into royal ideology and used to legitimize the pharaoh's rule. The text presents a vivid depiction of the relationship between the sky, rain, and the Nile inundation, all framed within the context of the king's reign:

ḥw.t ex. 8. *ḥ ʿpj ʿꜣ n p(ꜣ)j.ỉ hꜣw ỉmỉ n.ỉ tꜣ p.t ỉw.s n ʿḏ ỉw.s ʿšꜣ [m ḥw.t]*

A great inundation in my time, give me the sky when it is murky, when it is abundant with rain.

(Taharqa's inscriptions, peristyle court at Karnak, eastern end of the wall, column 9,10)[446]

[444] Silvia Zago, 'A journey through the Beyond: the development of the concept of Duat and related cosmological notions in Egyptian funerary literature' (Colombua, Georgia, Etats-Unis d'Amérique: Lockwood Press, 2022), 182–83.

[445] Laura Parys, *L'Égyptien Dans La Tourmente: Le Concept d'isfet Dans La Littérature Dite 'Pessimiste' de l'Égypte Ancienne*, Connaissance de l'Égypte Ancienne 23 (Bruxelles: Safran, 2024), 22–24.

[446] Pascal Vernus, 'Inscriptions de La Troisième Période Intermédiaire (I): Les Inscriptions de La Cour Péristyle Nord Du VIe Pylône Dans Le Temple de Karnak', Bulletin de l'Institut Français d'Archéologie Orientale 75 (1975): 29–31.

This passage not only reinforces the examined connections between *ḥw.t* and other natural phenomena but also introduces a new dimension by explicitly tying these concepts to royal power and divine favour. The phrase *ḥꜥpy ꜥꜣ* "great inundation" emphasizes the magnitude of the flood, which is described as occurring *n p(ꜣ)j.ỉ hꜣw* "in my time", linking the prosperity of the land to the king's rule. The imperative verb *ỉmỉ* "to give" is used to request a particular state of the sky (*p.t*) to be given to the king. The use of the imperative might suggest a level of divine control over the sky and its meteorological phenomena, with the king having the authority to request such a gift.

The sky is further described using two adverbial phrases: *ỉw.s n ꜥḏ* "when it is murky lit. it is of or belonging to murkiness" and *ỉw.s ꜥšꜣ m ḥw* "when it is abundant with rain". The use of *n ꜥḏ* (to be agitated lit. hacked) and *ꜥšꜣ* (to be abundant) accentuates the ongoing state of the sky's condition and abundance, potentially alluding to a specific atmospheric phenomenon preceding rainfall[447].

This phraseology exhibits a significant association with the expression *ꜥḏ p.t*[448] "The sky is churned up", the atmospheric phenomenon *ꜥḏ.wt*[449] and, by extension, the verb *ꜥḏ*[450], which encompasses a semantic field including "to chop up", "to stir up", and "to massacre".

It is remarkable that the same root could also have generated the term *ꜥḏ*[451]"fat from animal", the term *ꜥḏ*, attested from the earliest depictions of butchery scenes, denoting the fat of slaughtered

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The restoration of the lacuna *m ḥw.t* in this passage is supported by a similar expression, *p.t ꜥšꜣ m ḥw.t*, which appears in the Demotic astrological papyrus P. Caire 31222 1.1012. The occurrence of this analogous phrase in the Demotic text might suggests the persistence of this collocation pattern and its association with meteorological phenomena, thereby strengthening the argument for the restoration of *m ḥw.t* in the current passage, see Vernus, 42–43; George R. Hughes, 'A Demotic Astrological Text', Journal of Near Eastern Studies 10, no. 4 (1951): 263.

[447] Vernus, 'Inscriptions de La Troisième Période Intermédiaire', 42–43.

[448] *Wb* 1, 238.22. TLA ID 42080.

[449] This term appears only once in CT VII,205b, see Meeks, *AL II*, s.v. 78.0834. TLA ID 42180.

[450] *Wb* 1, 238.17-22. TLA ID 41940.

[451] *Wb* 1, 239.8-16. TLA ID 41980. Basma Koura, *Die '7-Heiligen Öle' Und Andere Öl- Und Fettnamen: Eine Lexikographische Untersuchung Zu Den Bezeichnungen von Ölenn, Fetten Und Salben Bei Den Alten Ägyptern von Der Frühzeit Bis Zum Anfang Der Ptolemäerzeit (von 3000 v.Chr. - ca. 305 v.Chr.).*, Aegyptiaca Monasteriensia 2 (Aachen: Shaker, 1999), 216f.

animals, bovine fat in particular, possibly conceptualized as a piece of solid fat from chopped-up meat[452].

Its etymology likely stems from the root *ʿḏ*, meaning "to be intact, whole, safe"[453]. Intriguingly, this root might exhibit enantiosemy, also giving rise to the seemingly contradictory meanings "to chop up", "to stir up", and "to massacre". This semantic range exemplifies, as we have seen in other previous examples on page 112, a single term can encompass both the concept of wholeness and the act of division or destruction.

Furthermore, the verb *ʿḏ*'s co-occurrence with the noun *mw* "water"[454], yielding the meaning "choppy water", could further reinforce the metaphorical link between the sky's condition and the agitation of water. This association suggests that the ancient Egyptians conceptualized atmospheric turbulence through the lens of familiar earthly experiences, such as the churning of water. The use of the same verb, *ʿḏ*, to describe both the agitation of water and the disturbance of the sky emphasizes the connection between these two phenomena.

Moreover, the contrast between *ʿḏ* "fat" and *mrḥ.t*[455] "oil, unguent" could find a possible typological parallelism in the opposition of the ancient Greek lexemes στέαρ and πιμελή, the former indicating solid fat of animal origin and the latter referring to melt liquid fat usually of vegetal origin[456]. This typological parallel features a shared categorization of fats in ancient languages and implies that a clear lexical distinction between different types of fats based on their origin and consistency. The use of *ʿḏ* to denote solid animal fat, particularly in the context of butchery scenes, reinforces the idea that this term was associated with the physical act of chopping or separating flesh from fat. Besides, this connotation of animal fat and the agitation of water could provide the metaphorical connection between the churning of the sky and the physical world.

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[452] Wolfgang Helck and Wolfhart Westendorf, eds., *Lexikon Der Ägyptologie II: Erntefest-Hordjedef* (Wiesbaden: Otto Harrassowitz, 1977), 204–5. For a circumstantial examination of sources of animal fat in ancient Egypt, refer to Margaret Serpico and Raymond White, 'Oil, Fat and Wax', in *Ancient Egyptian Materials and Technology*, ed. Paul T. Nicholson and Ian Shaw (Cambridge: Cambridge University Press, 2000), 407–8.

[453] 'TLA 2', √*ʿḏ* (Lemma ID 864275). For a comparative analysis with other Semitic languages, refer to Schneider, 'Beiträge Zur Sogenannten "Neueren Komparatistik"', 197.

[454] The Teachings of Kheti, vso,5.

[455] *Wb* 2, 111.1-10. TLA ID 72840.

[456] Hildegard von Deines and Wolfhart Westendorf, *Zur Ägyptischen Wortforschung V: Proben Aus Den Wörterbüchern Zu Den Medizinischen Texten*, Abhandlungen Der Deutschen Akademie Der Wissenschaften Zu Berlin, Klasse Für Sprachen, Literatur Und Kunst 6 (Berlin: Akademie-Verlag, 1957), 29–30.

The use of the root *ʿḏ* suggests that the sky is metaphorically chopped up or divided into distinct parts, resulting in a murky or agitated state before the onset of rain. This imagery points to a conceptualization of the sky as a dynamic and mutable entity, subject to transformations reminiscent of the turbulence and upheaval observed in bodies of water prior to precipitation.

The juxtaposition of the terms *n ʿḏ* and *ʿšȝ m ḥw* within the adverbial clauses underscores the inherent relationship between the sky's murkiness and its abundance of rain. The agitated state of the sky, as conveyed by the root *ʿḏ*, is thus intrinsically linked to the impending arrival of copious rainfall. This connection highlights the ancient Egyptian understanding of atmospheric phenomena as interconnected and mutually indicative.

The request for the sky to be given to the king when it is thick and abundant with rain suggests a belief in the direct relationship between the state of the sky and the occurrence of precipitation. It also implies that the king has the power to influence or request these favourable meteorological conditions from the divine realm. The linking of the abundant rainfall to the great inundation during Taharqa's reign could emphasize the perceived connection between celestial and terrestrial water sources. The rain, originating from the sky, is seen as contributing to the overall abundance of water in the form of the inundation, which in turn brings prosperity to the land.

The examined texts reveal a profound conviction in the divine control over meteorological phenomena, with the gods and goddesses wielding the power to grant or withhold auspicious weather conditions.

This perception is further exemplified in a passage from the Late Period correspondence of the older Ethiopian kings, which highlights the direct intervention of the god Amun in bestowing the gift of beneficial rainfall upon the monarch:

ḫw.t ex. 9. *dỉ n.k pȝ mw nfr dỉ n.k p.t mw ḥwỉ nfr*
(Amon says to Harsiotef:) I will give you good water, I will give you a sky of water and good rain.
(Urk. III, 118, 14)[457]

In this excerpt, the god Amun is portrayed as making a personal promise to the king Harsiotef, pledging to grant him a sky filled with "water and good rain" (*p.t mw ḥwỉ nfr*). The aforementioned

[457] Peust Carsten, *Das Napatanische : ein ägyptischer Dialekt aus dem Nubien des späten ersten vorchristlichen Jahrtausends : Texte, Glossar, Grammatik*, Monographien zur ägyptischen Sprache 3 (Göttingen: Peust und Gutschmidt, 1999), 24–33, 53–57; Roberto B. Gozzoli, 'Kawa V and Taharqo's Byȝwt: Some Aspects of Nubian Royal Ideology', *Journal of Egyptian Archaeology* 95 (2009): 243.

verb *rdỉ* "to give" in its modal form of the subjective future – subjunctive[458] *(dỉ)*, is used to convey Amun's action of granting the sky (*p.t*) with good rain (*mw ḥwỉ nfr*) to Harsiotef. The use of the second-person singular suffix pronoun *n.k* (to you) emphasizes the direct and personal nature of this divine bestowal.The phrase *ḥwỉ nfr* "good rain" employs the adjective *nfr* "good, perfect" to describe the quality of the rain, indicating its beneficial and life-sustaining properties[459].

In this particular instance, it is significant to observe that the lexeme *ḥwỉ*  is uniquely determined by the Z9 sign , a determinative conventionally associated with concepts of breaking and dividing[460]. This atypical orthography merits closer examination, as it may help us understand the semantic nuances or conceptual associations of *ḥwỉ* in this specific context.

The employment of the Z9 determinative could potentially be interpreted as a deliberate semantic extension, aligning with the previously discussed metaphorical conceptualization of the sky as a turbulent or "choppy" body of water in relation to rainfall on page 181. This orthographic choice might serve to reinforce the cognitive link between the act of raining and the notion of dividing or agitating the celestial waters.

Alternatively, the unusual spelling could be attributed to the text's foreign provenance. If composed or transcribed by a non-native scribe, it may reflect a misinterpretation or creative adaptation of the hieroglyphic script, resulting from cross-cultural transmission of Egyptian concepts and writing practices[461].

The association of the sky (*p.t*) with the provision of good rain underscores the belief in the divine control over the natural world and the importance of favourable weather conditions for the well-being of the kingdom. The god Amun, as a prominent deity in the Egyptian here pantheon, is portrayed as having the power to influence the sky and grant the gift of beneficial rain to the king.

The royal context of this passage highlights the significance of divine favour in ensuring the prosperity and stability of the kingdom. The promise of good rain from Amun to Harsiotef suggests a reciprocal relationship between the divine and the pharaoh, with the god providing support and legitimacy to the king's rule in exchange for proper veneration and offerings. The passage reflects the

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[458] Malaise and Winand, *Grammaire*, paras 606–611.

[459] Posener, 'À Propos de La "Pluie Miraculeuse"'.

[460] Gardiner, *EG*, 538; Winand, Stella, and Neven, *Lexique Du Moyen Égyptien: Avec Une Introduction Grammaticale et Une Liste Des Mots Présentés Selon Le Classificateur Sémantique*, 175–76. The employment of the Z9 determinative could also be linked to the verb *ḥwỉ* in the sense of striking, which could justify its usage and whose spelling could have influenced here the orthography of *ḥw.t*.

[461] Carsten and Peust, *Das Napatanische : ein ägyptischer Dialekt aus dem Nubien des späten ersten vorchristlichen Jahrtausends : Texte, Glossar, Grammatik*, 84–87.

cultural and political ties between Egypt and its southern neighbours, as well as the adaptation and incorporation of Egyptian religious concepts into the ideology of foreign rulers.

While divine promises of propitious weather conditions offer insight into the religious and geopolitical dimensions of rainfall, the ancient Egyptians also recognized the complex influences between various atmospheric phenomena. This understanding is clarified in a Ptolemaic-Roman period temple inscription, which presents a poetic depiction of the west wind's role in orchestrating an interaction of meteorological events:

ḥw.t ex. 10. *ṯ3w nfr n ỉmn.tt ntf sḫp(r) ḥ(w)j(.t) ḥꜥpỉ n(.j) p.t r sṯḥn t3 m rnp.wt sḫp(r) ḥrr.wt nb.w(t) n Wsỉr Wn-nfr nswt-nṯrw 3s.t wr.t mw.t-nṯr ḥnw.t-nṯrw-nbw*

The good west wind. It is he who brings forth the flood and the inundation from heaven to make the earth shine with the first fruits, he who brings forth all the flowers for Osiris Onnophris, the king of the gods, and (for) Isis the great, the divine mother, The lady of all the gods.

(Karnak Opet Temple, Central Hall VII, frieze on the west wall, west wind, Opet 101)[462]

In this excerpt, the west wind *ṯ3w n ỉmn.tt* is personified and praised for its role in bringing forth the inundation and the growth of vegetation. Once again, the adjective *nfr* qualifies the west wind, emphasizing its beneficial nature. This extract may exhibit a sort of intertextuality with other ancient Egyptian texts that mention the winds, such as the "Song of the Four Winds" in the Coffin Texts.

The "Song of the Four Winds" (Coffin Texts Spell 162)[463] is a liturgical composition that invokes the four cardinal winds - the north, south, east, and west winds - and their associated deities. Each wind is praised for its specific attributes and its role in the cosmic order. The specific connection between the west wind and rain in the Opet Temple inscription is intriguing, as it may allude to a particular weather phenomenon. The mention of the west wind bringing forth the inundation and the growth of vegetation could suggest that the ancient Egyptians observed a correlation between westerly winds and rainfall, which contributed to the Nile's flooding and agricultural fertility. This association contrasts with the more common phraseology in which the north wind is often referred to in connection with the Nile inundation[464].

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[462] Constant de Wit, *Les Inscriptions Du Temple d'Opet, à Karnak*, Bibliotheca Aegyptiaca 12 (Bruxelles: Édition de la Fondation égyptologique Reine Élisabeth, 1958), 101–4.

[463] Raymond Faulkner, *The Ancient Egyptian Coffin Texts* (Oxford: Aris & Phillips, 2004), vol. I, 140–141.

[464] Plas, *L'hymne à La Crue Du Nil*, vol. I, 80.

Furthermore, the inscription's portrayal of the west wind as *nfr* echoes a similar epithet used in the Spell 148 of the Book of the Dead[465]. In this passage, the four steering oars of the sky, which are associated with the four cardinal winds, are described as *nfr*. This shared terminology could suggest a tighter conceptual link between the winds, their beneficial attributes, and their role in the cosmic order.

From a syntactic perspective, the independent pronoun *ntf* "he" refers to the west wind, which is described as the one who *sḫp(r)* "to create; to bring into being" the *ḥ(w)j(.t)* "rain" and the *ḥꜥpj* "inundation" from the sky (*p.t*). The use of the causative verb *sḫp(r)* highlights the wind's active role in generating these phenomena. The phrase *ḥ(w)j(.t) ḥꜥpj n p.t* links the rain and the inundation to their celestial origin, emphasizing the sky as the source of these life-giving waters[466].

The purpose of the rain and inundation is to *sṯḥn*[467] *tȝ m rnp.wt* "make the earth shine with the first fruits", a metaphorical expression describing the agricultural abundance and fertility resulting from these events. The west wind is also credited with bringing forth *ḥrr.wt nb.w* "all the flowers" for the gods Osiris and Isis, further emphasizing its role in promoting the growth of vegetation and the regeneration of life.

2.1.9.2. Earth as a Recipient of Rain

Having examined the connection between rain and the celestial realm, let us now turn our attention to how *ḥw.t* is associated with terrestrial features, particularly cultivated land (*ȝḫ.t*). This relationship highlights the ancient Egyptian understanding of rain's vital role in agriculture and land fertility, it also highlights the ancient Egyptian perception of the earth as a recipient of rainfall, emphasizing the terrestrial impact of this celestial phenomenon. An example of this association comes from a magical ostracon dating to the 19th or 20th dynasty:

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[465] Thomas George Allen, *The Book of the Dead or Going Forth by Day: Ideas of the Ancient Egyptians Concerning the Hereafter as Expressed in Their Own Terms*, ed. Elizabeth Blaisdell Hauser, Studies in Ancient Oriental Civilization 37 (Chicago: The University of Chicago Press, 1974), 139–40.

[466] Roberto B. Gozzoli, 'Inondazione e Pioggia Come Segno Di Predilezione Divina Durante La XXV e XXVI Dinastia', in *Acqua Nell'antico Egitto: Vita, Rigenerazione, Incantesimo, Medicamento. Proceedings of the First International Conference for Young Egyptologists: Italy, Chianciano Terme, October 15-18, 2003. - (Egitto Antico; 3)*, ed. Alessia Amenta, Maria Michela Luiselli, and Maria Novella Sordi (Roma: 'L'Erma' di Bretschneider, 2005), 141–49; Gozzoli, 'Kawa V and Taharqo's Byȝwt: Some Aspects of Nubian Royal Ideology'.

[467]  "to make bright; to make dazzling" *Wb* 4, 359.14-360.14. TLA ID 149370, we have already explored the semantic conflation between the signs N4 S15 on page 97.

ḥw.t ex. 11. *swrỉ ⸢tw⸣ ⸢tȝ⸣ ⸢ȝḥ.t⸣ ỉrỉ tm sȝỉ.w m mw n(.j).w ḥ(w)[.t] [...] [__] n(.j) Pȝ-Rʿ*

Let the field drink you, which is not sated with rainwater (?) [...] of Re.

(oStrasbourg H. 115, ro 2)[468]

In this excerpt, the relationship between rain (*ḥw.t*) and the cultivated land (*ȝḥ.t*) is explored. Although the passage is fragmentary, the available elements offer valuable insights into the conceptual associations between rain and the earth in ancient Egyptian thought.

Within the context of an incantation against the *Samanu* disease[469], the verb *swr* to drink" appears in the subjunctive form, addressing the harmful entity and urging it to be consumed or absorbed by the subject, which is likely the earth or land. The personification of the earth, which is attributed the ability to actively consume or absorb the disease as it would water, suggests an evolving conceptualization of the earth as a living, receptive entity, connected to the nourishing qualities of rain. The use of this particular verb in the context of the earth consuming or absorbing the disease draws a parallel between the role of rain in nourishing the land and the potential of the earth to neutralize or absorb harmful entities.

The noun *ȝḥ.t* "field" further specifies the type of land being referred to, indicating an agricultural context. The relative clause[470] *ỉrỉ tm sȝỉ.w m mw n(.j).w ḥ(w)[.t*] "which is not saturated with rainwater" modifies the field, describing its state of dryness or lack of saturation with rainwater. The negative construal *ỉrỉ tm* with the verb *sȝỉ* "to be sated; to sate" emphasizes the absence of moisture in the field, while once again the preposition *m* (with) introduces the means by which the field could be saturated, namely *mw n(.j).w ḥ(w).t* "water of rain". This construction highlights the direct connection between rainwater and the saturation of the earth, underscoring the importance of rain for agricultural fertility.

It is crucial to underline that, based on the textual evidence analysed so far, there is no explicit connection between the concept of rain (*ḥw.t*) and the cognitive idea of beating or striking the earth,

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[468] Yvan Koenig, *Les Ostraca Hiératiques Inédits de La Bibliothèque Nationale et Universitaire de Strasbourg*, Documents de Fouilles de l'Institut Français d'archéologie Orientale 33 (Cairo: l'Institut français d'archéologie orientale, 1997), pl. 51.

[469] Susanne Beck, *Sāmānu: Ein Vorderasiatischer Dämon in Ägypten*, Ägypten Und Altes Testament 83 (Münster: Ugarit-Verlag, 2015); Susanne Beck, 'Disease Demons in Mesopotamia and Egypt: Sāmānu as a Case Study', *Journal of Ancient Egyptian Interconnections* 25 (2020): 20–33.

[470] For the paraphrased relative phrases, namely auxiliary (*ỉrỉ*) infinitive (*tm*) and negative complement *(sȝỉ.w)*, see Junge, *Late Egyptian Grammar: An Introduction*, 96–97.

derived from the verb *ḥwi* "to beat, to strike". It seems important to consider again that the meaning of *ḥwi* could be more closely related to the primary reflexive nuance we reconstructed of "to throw itself, to pour itself", in the section concerning *the* etymology of *ḥw.t*, suggesting a possible conceptual link between the verb and the idea of rain falling or pouring onto the earth. As we mentioned, this interpretation would align with the natural phenomenon of rainfall and its impact on the land, without necessarily implying a violent or destructive action.

Nevertheless, it is essential to base our analysis and conclusions on the available textual data and to acknowledge the limitations of our current understanding. The lack of explicit evidence connecting rain to the action of beating the earth does not preclude the existence of such a connection in the broader ancient Egyptian conception.

2.1.9.3. Rain in Foreign Land, Desert

The occurrence of rain in foreign lands and desert regions (*ḫȝs.t*) was noteworthy to the Egyptians, as these areas were typically arid. Examples connecting *ḥw.t* to *ḫȝs.t* may provide evidence for the Egyptian perception of rain as a transformative force capable of altering even harsh landscapes.

ḥw.t ex. 12. *khȝ ḥ(w).jt ḥr ḫȝs.wt r ḫrw qrr.t ỉm.j ȝbw*
Louder raged the rain on the mountains than the noise of the cave (=Nile springs) Which is in Elephantine.
(Ahmose Storm stele, ro 8)

In this excerpt from the already mentioned famous Storm stele, the focus is on the intensity of the rain *(ḥ(w).jt)* falling on the mountains or hill country *(ḫȝs.t).* The passage compares the sound of the rain to the noise of the cave or Nile springs at Elephantine, emphasizing the loudness and force of the rainfall.

The verb *khȝ*[471] "to rage, to be loud" at the beginning of the sentence, suggests that the rain is not only falling but also raging or making a loud noise. The comparison indicates that the sound of the rain on the mountains is louder than the noise of the cave or Nile springs at Elephantine[472]. This assessment serves to emphasize the intensity and volume of the rainfall, suggesting that it is a powerful and potentially destructive force.

[471] *Wb* 5, 136.10-12. TLA ID 165180.

[472] Ritner and Moeller, 'The Ahmose "Tempest Stela", Thera and Comparative Chronology', 6.

The semantic connection between *ḥw.t* "rain" and *ḫȝs.t* is significant in this context. The hill country or mountains are portrayed as the location where the rain is falling with great intensity, suggesting that these areas are particularly susceptible to heavy rainfall and its effects. The use of the term *ḫȝs.t*, which can also refer to foreign lands or deserts, may indicate that the rain is falling in regions that are typically dry or arid. The fact that the rain is raging louder than the noise of the Nile springs at Elephantine, a location known for the source of Nile flood and its powerful and noisy cataracts, further emphasizes the exceptional nature of the rainfall.

The passage's description of the rainstorm's intensity in the foreign lands is enhanced by the use of the term *ḫrw* "voice, sound, noise", which merits further examination, since the term is employed in the metaphorical expressions *ḫrw hmhm.t*[473] "sound of roar" and *ḫrw Stš*[474] "voice of Seth" for thunder concerning atmospheric phenomena. In these expressions, *ḫrw* is used to describe the auditory qualities of tumultuous and powerful natural phenomena.

The first expression likens the sound of thunder to the disruptive noise of roar connected to the atmospheric event. The use of *ḫrw* in this context emphasizes the overwhelming and frightening nature of thunder, drawing a parallel between the auditory experience of chaos and the sound of a thunderstorm. The term *hmhm.t* "roar" specifically adds a further acoustic dimension to the description of meteorological phenomena, highlighting the evident sensitivity to the sounds associated with intense weather events.

In the second expression, *ḫrw Stḫ* "voice of Seth", thunder is metaphorically described as the voice of the god Seth, who is associated with chaos, storms, and violence[475]. The use of *ḫrw* to describe Seth's voice highlights the divine and fearsome aspects of thunder, reinforcing the idea of thunder as a manifestation of Seth's chaotic and powerful nature. These metaphorical expressions suggest that the ancient Egyptians conceptualized thunder as a powerful, chaotic, and potentially divine

[473] CT IV, 160,b.

[474] P. Leiden I 349, saying 4 x+2.9 - x+2.9; P. Berlin 3038, ro21,2.

[475] Herman te Velde, *Seth, God of Confusion: A Study of His Role in Egyptian Mythology and Religion*, Probleme Der Ägyptologie (Leiden: E. J. Brill, 1967); Jan Zandee, 'Seth Als Sturmgott', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 90, no. 1 (1963): 144–88; McDonald, 'A Metaphor'; Thomas Schneider, 'A Theophany of Seth-Baal in the Tempest Stele', *Ägypten Und Levante / Egypt and the Levant* 20 (2010): 405; Christian Cannuyer, 'Seth l'égyptien, Puissant Dieu de l'Orage, Défenseur de La Barque Solaire et Ravisseur de Voix', in *Dieu de l'Orage Dans l'Antiquité Méditerranéenne*, ed. R. Lebrun, Homo Religiosus 17 (Turnhout: Brepols Publishers, 2017), 155–91; Christian Cannuyer, 'Seth, Ba'al et Yhwh, Dieux Des Nuées Si Proches En Leurs Espaces Célestes: Du Seth Pharaonique Au Seth Gnostique', in *Dieux, Génies, Anges et Démons Dans Les Cultures Orientales*, ed. Christian Cannuyer et al. (Bruxelles: Société royale d'études orientales, 2017), 16–46.

phenomenon, drawing parallels between its aural qualities and the unsettling forces associated with turmoil and the god Seth.

In addition to the metaphorical use of *ḫrw*, the root √*khȝ*[476], from which the verb *khȝ* "to rage" derives, also warrants closer inspection: it is noteworthy that the root √*khȝ* exhibits the meaning of "to drive out" or "to eject". This semantic nuance is particularly thought-provoking when considered in relation to other verbs that share similar semantic features and are used in connection with atmospheric phenomena, such as *ḥwi̯* "to throw" and *sti*[477] "to shoot; to throw; to pour; to shine" *wbn*[478]"to rise; to overflow" *wpš*[479] "to shine, to scatter". The use of these verbs in the context of atmospheric events like radiance and hydrometeors may suggest that the ancient Egyptians conceptualized certain weather phenomena, like rain or storms or sunbeams, as being forcefully expelled or ejected from the sky.

This linguistic association is further reinforced by the fact that the root √*khꜣ* and its related verbs are consistently used in reference to atmospheric phenomena throughout the textual evidence examined. The recurrent use of verbs denoting forceful expulsion or projection in relation to weather events underscores the ancient Egyptians' conception of the dynamic spreading nature of these phenomena.

Moreover, the image of rain or storms being thrown or shot down from the sky aligns with the metaphorical expressions discussed earlier, such as *ḫrw hmhm.t* and *ḫrw Stḫ*, which associate thunder with the disruptive and chaotic forces of the god Seth. The linguistic parallels between these expressions and the verbs related to the root √*khȝ* suggest a coherent conceptual background in which atmospheric phenomena could be perceived as powerful, expulsive forces originating from the celestial realm through divine intervention.

This passage suggests a cognitive link between rain and the transformation of the landscape, particularly in areas that are usually dry or barren. The intense rainfall on the mountains or hill country has the potential to alter the environment, causing floods, erosion, and other significant changes.

The context of this royal stela from the 18th dynasty highlights the importance and formality of the text. The inscription serves as an official record and commemoration of a meteorologically significant event, specifically an intense storm accompanied by heavy precipitation. This textual documentation of extreme weather phenomena holds multifaceted importance in ancient Egyptian

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[476] 'Thesaurus Linguae Aegyptiae v2.1.2', 15 December 2022, https://thesaurus-linguae-aegyptiae.de,Lemma ID 877250.

[477] *Wb* 4, 326.1-327.14. TLA ID 147570.

[478] *Wb* 1, 292.9-294.3; 294.13. TLA ID 45050.

[479] *Wb* 1, 305, 11-19. TLA ID 45820.

culture. From a political perspective, it demonstrates the pharaoh's role as a reporter of notable occurrences within the realm, reinforcing his position as a mediator between cosmic forces and his subjects. The religious aspect is equally prominent, as unusual meteorological events were often interpreted as divine manifestations or omens.

2.1.9.4. Interconnection of Celestial and Terrestrial Waters

The lake or pool (*š*) is another geographical feature linked to *ḥw.t*, underscoring the ancient Egyptian understanding of the connection between celestial and terrestrial water sources.

ḥw.t ex. 13. *gm pȝ sfḫ.w ḥʿ.w sʿḥʿ n.f š wn n.f ʿfd.t m ȝbḏ.w swȝ [n][.f] pḫȝ n[.f] wsḫ.t ḥwỉ n.f ḥwj.t š*

He who "dissolves bodies" will be found when the lake (= flood) will be brought to a standstill for him, when the coffin (of Osiris) in Abydos will be opened for him, when the plank of the (sun) bark will be broken for him, when rain and flood will pour out for him. Once He is found, it will be crushed.

(P. Berlin 3038, ro 21,6) [480]

As formerly mentioned, this excerpt comes from a magical spell against fever in the 19th dynasty medical papyrus Berlin 3038[481]. The spell invokes a series of mythological events associated with the malevolent entity *pȝ sfḫ.w ḥʿ.w* "He who dissolves bodies", linking the occurrence of rain and flood (*ḥwj.t*) with the disruption of the cosmic order and the symbolic death of Osiris. To better understand the implications of this passage, let us delve into its syntactic structure.

The passage employs a sequence of accomplished V-passive *sḏm.f*[482] forms to express future events with a strong modal effect. These forms include *gmỉ* "to find", *sʿḥʿ* "to bring to a standstill", *wn* "to open", *zwȝ* "to break", and *ḥwỉ* "to pour out, to surge". The first verb, *gmỉ*, specifically refers to the malevolent entity *pȝ sfḫ.w ḥʿ.w*. Is later found at the end of this part of the spell. This initial verb sets the context for the subsequent actions described in the passage. The following four verbs – *sʿḥʿ*,

[480] Wreszinski, *Der Grosse Medizinische Papyrus Des Berliner Museums (Pap. Berl. 3038): In Facsimile Und Umschrift Mit Übersetzung, Kommentar Und Glossar*, 21.

[481] See also the interpretation by Borghouts, *Ancient Egyptian Magical Texts: Translated*, 46.

[482] The perfective V-passive form can be employed to convey future events with a strong modal effect due to its perfective aspect, see Andréas Stauder, *The Earlier Egyptian Passive: Voice and Perspective*, Lingua Aegyptia, Studia Monographica 9 (Hamburg: Widmaier, 2014), 233–34.

wn, *zwʒ*, and *ḥwi̯* – are all accompanied by the dative prepositional construal *n.f* "for him: on his account". This repeated use of the dative preposition resembles a *dativus incommodi*[483]*,* indicating that these actions are performed to the disadvantage or harm of the subject, which in this case is the aforementioned malevolent entity.

The syntax of this passage is particularly noteworthy. The consistent use of the perfective V-passive *sḏm.f* form for all verbs may create a cohesive structure that emphasizes the future-oriented nature of the described events. This grammatical choice imparts a sense of inevitability or certainty to the actions, despite their future occurrence.

The enumeration of the verbs in this sequence serves to build tension and produce a narrative progression. Each verb adds a new action or consequence related to the malevolent entity, gradually constructing a more complete picture of the events to come. The use of semantically strong verbs like "to bring to a standstill", "to break", and "to surge" further intensifies the studied effect of the passage.

The dative construction with *n.f* following the last four verbs creates a parallel structure that reinforces the focus on the malevolent entity. This repetition not only maintains syntactic consistency but also emphasizes the entity as the recipient or target of these actions.

The asyndetic coordination of *ḥwj.t* "rain" and *š* "lake, flood" as the subject in this passage exposes the conceptualization of water sources in ancient Egyptian thought. This syntactic construction, characterized by the juxtaposition of two nouns without a coordinating conjunction[484], suggests a close semantic relationship between celestial and terrestrial waters. The paratactic structure implies a conceptual blending of rain and flood, potentially indicating their perceived interconnectedness in the Egyptian mindset.

The text's description of the malevolent entity's manifestation during a period of hydrological stasis, followed by the surge of both rain and flood, might suggest a perceived causal relationship between these phenomena. This connection between rain and the flood involves the ancient Egyptian understanding of the Nile's annual flood cycle and its mythological significance.

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[483] The *Dativus commodi* (*incommodi*), also known as the "dative of benefit (or harm)", is a grammatical case used to indicate the advantage or disadvantage of something for an individual, see Benjamín García Hernández, 'Los nombres del dativo y la función de destinatario', in *Theory and Description in Latin Linguistics: Selected Papers from the XIth International Colloquium on Latin Linguistics, Amsterdam, June 24-29, 2001, 2002, ISBN 90-5063-358-7, págs. 139-152*, 2002, 139–52, https://dialnet.unirioja.es/servlet/articulo?codigo=3951112.

[484] Malaise and Winand, *Grammaire*, para. 86.

The lake flood (*š*) could represent the Nile itself and its low waters after the flood – in the text is followed by 𓇋 (G7) used to determine divine entities[485]. This interpretation could find support in an excerpt from the Herdsman tale, which describes a conceivable similar situation, it reads

(...)rnp.t ḥꜥpj (...) n tnỉ š r ỉtrw

(...) In a year of high Nile, (...) when the pool cannot be distinguished from the river.

(Herdsman x+15-17)[486]

This suggests that the lake and the river were seen as intently interconnected, with the lake representing the Nile's low water state. In this context, the malevolent entity's actions suggest a disruption of the natural order and a threat to the life-sustaining properties of the Nile.

Moreover, the juxtaposition of the rain (*ḫw.t*) with other cosmically significant events, such as the opening of Osiris's coffin and the breaking of the sun bark's plank, could underscore the perceived power and potential danger of this demonic illness in the context of Egyptian mythology. The association of the malevolent entity's actions with the lake and the rain may also be linked to the ancient Egyptian concept of the "yearly plague" (*ỉḏ.t rnp.t*) and its connection to the low water period of the Nile and the symbolic death of Osiris[487]. The ancient Egyptians possibly observed a correlation between the low Nile, the emergence of diseases such as fever, and increased mortality rates.

In this passage, the malevolent entity's disruption of the lake and the surging of the rain and flood could be interpreted as a metaphorical representation of the low Nile period and its associated challenges, including the increased prevalence of disease and the temporary cessation of the life-giving flood. The opening of Osiris's coffin in Abydos further reinforces this connection, as it symbolizes the god's death and the subsequent decline in fertility and abundance.

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[485] Winand, Stella, and Neven, *Lexique Du Moyen Égyptien: Avec Une Introduction Grammaticale et Une Liste Des Mots Présentés Selon Le Classificateur Sémantique*, 148.

[486] Schneider, 315.

[487] Susanne Bickel, 'Creative and Destructive Waters', in *Acqua Nell'antico Egitto: Vita, Rigenerazione, Incantesimo, Medicamento. Proceedings of the First International Conference for Young Egyptologists: Italy, Chianciano Terme, October 15-18, 2003. - (Egitto Antico; 3)*, ed. Alessia Amenta et al. ('L'Erma' di Bretschneider, 2005), 198–200; H. Győry, 'JAdt Rnpt or the "Pestilence of the Year"', in *Pharmacy and Medicine in Ancient Egypt: Proceedings of the Conferences Held in Cairo (2007) and Manchester (2008)*, ed. Jenefer Cockitt and Rosalie David (Archaeopress, 2010), 81–84; Federico Contardi, 'Disasters Connected with the Rhythm of the Nile in the Textual Sources', in *Egyptian Curses 2 : A Research on Ancient Catastrophes*, ed. Giuseppina Capriotti Vittozzi (CNR Edizioni, 2015).

The same collocation of the disease *šmm.t* "fever" in the excerpt from Papyrus Berlin 3038 and the yearly plague, connected to the low waters of the Nile and the death of Osiris, is further reinforced by another text from the Leiden Magical Papyrus:

ḥr-n.tt ỉr rḫ rn.sn n ḫr.n.f n ỉm.j ḫ.t Sḫm.t n šmm.t n.t ꜥ.t rnp.t

For he who knows their names cannot fall into the company of Sekhmet or into the heat of the influence of the year.

(P. Leiden I 346, Col. 3.4-3.12, Saying III,3,6) [488]

In this context, Sekhmet, a powerful and destructive goddess often associated with disease and pestilence[489], is explicitly linked to the yearly plague and the "heat of the influence of the year", which likely refers to the challenging conditions and increased prevalence of disease during the low Nile season.

Two additional passages, one from the formerly examined Papyrus Berlin P. 3038 (19th Dynasty, New Kingdom) and another from a later text, P. Brooklyn 47.218.48+85 (26th Dynasty, Late Period), provide further indication of the significant role played by rainwater in ancient Egyptian medical practices. These excerpts highlight the use of rainwater as a fundamental ingredient in the treatment of two distinct ailments: fever and venomous snake bites, providing significant knowledge about how the ancient Egyptians perceived the healing characteristics associated with this heavenly water resource.

The first excerpt presents a concise recipe for a medicinal preparation:

ḥw.t ex. 14. *k.t bỉȝ.t n(.j) p.t ḫȝ ḥr mw n.w ḥ(w)j(.t)*

Another (recipe): Iron of the sky will be pounded with water of the rain.

(Papyrus Berlin P. 3038, ro 8,1)[490]

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[488] Martin Bommas, *Die Mythisierung Der Zeit: Die Beiden Bücher Über Die Altägyptischen Schalttage Des Magischen pLeiden I 346*, Göttinger Orientforschungen, 4. Reihe: Ägypten 37 (Wiesbaden: Harrassowitz, 1999), 111–15.

[489] Heinz Engelmann and Jochen Hallof, 'Der Sachmetpriester: Ein Früher Repräsentant Der Hygiene Und Des Seuchenschutzes', *Studien Zur Altägyptischen Kultur* 23 (1996): 103–46; Bickel, 'Creative and Destructive Waters', 199–200.

[490] Wreszinski, *Der Grosse Medizinische Papyrus Des Berliner Museums (Pap. Berl. 3038): In Facsimile Und Umschrift Mit Übersetzung, Kommentar Und Glossar*, 8.

The main ingredients are "iron of the sky" (*bỉʒ.t n p.t*)[491] and "water of the rain" *mw n.w ḥ(w)j.t)*. The passage consists of a single clause featuring the passive prospective form of the verb *ḫʒ* "to pound, to grind", followed by the preposition *ḥr* "on, in" and the noun phrase *mw n.w ḥ(w)j.t)* "water of the rain". The utilization of the passive voice in this context could serve multiple functions. Primarily, it allows for the omission of the agent performing the action, which is a common feature in instructional or prescriptive texts where the focus is on the procedure rather than the individual carrying it out[492]. This grammatical choice effectively directs attention to the action itself and the materials involved, rather than the practitioner. While the passive construction may secondarily emphasize the action performed on the "iron of the sky", with the "water of the rain" functioning as the medium or instrument, it is important to note that this emphasis is not the primary purpose of the passive voice in this context. Rather, any such emphasis is a consequential effect of the agent's omission, which allows for a more direct focus on the process and ingredients.

The noun phrase *mw n.w ḥ(w)j.t* employs an indirect genitive construction, this choice of construction is significant, as it explicitly identifies the origin or source of the water as being derived from rain, implying that rainwater possesses unique qualities that make it particularly suitable for this medicinal application.

As we have previously seen on page 163, the use of rainwater in this medical context points to the ancient Egyptian belief in its special properties and purity. The association of rainwater with the treatment of ailments, possibly fever or inflammation, suggests that the Egyptians attributed cooling, soothing, or purifying effects to this celestial water. The fact that rainwater is specified as the liquid to be used in the pounding process, rather than a more readily available, but not necessarily unpolluted, water source, might underscore its perceived efficacy and significance in the realm of healing.

Moreover, the connection between rainwater and the "iron of the sky" in this recipe hints at a symbolic or metaphysical dimension to the use of these ingredients. The celestial origin of both the "iron" and the water could create a conceptual link between the heavenly realm and the earthly process of healing. This connection between the sky and the medicinal preparation may have enhanced the perceived efficacy of the remedy.

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[491] *Wb* 1, 436.14-17. TLA ID 54450.

[492] Stauder, *Passive*, 165.

The second excerpt, from the 26th Dynasty Brooklyn Papyrus 47.218.48+85, is part of a handbook dealing with remedies for venomous snake bites:

ḫw.t ex. 15. *pḫr.t n.(j). pgs n ḫr.j dm.wt nb(.t) mw n(.j).w {s} ⟨ḥ⟩ wj(.t)*

Remedy for spitting out for someone who has suffered any kind of bite: rain water. (Brooklyn Papyrus 47.218.48+85, §84, 5,16)[493]

This passage begins with the "title" of the prescription: the noun *pḫr.t* "remedy" followed by the indirect genitive construction *n.(j)* preceding the infinitive of the verb *pgs* "to spit out", the genitive adjectival marker *n.(j)* serves the function of denoting purpose, interpreted as an objective genitive[494]. This construction specifies the purpose of the remedy as treating the act of spitting out, likely referring to the expulsion of venom or the manifestation of symptoms related to venomous snake bites.

The second part *n ḫr.j dm.wt nb(.t)* further clarifies the intended beneficiary of the remedy. Here, the indirect genitive adjectival marker *n.(j)* is followed by the prepositional *nisba*[495] *ḫr.j* "one who has suffered", literally "one who is under", which then modifies the direct object construction *dm.wt nb(.t)* "any kind of bite". This specifies the condition and the patient for which the remedy is intended.

The first ingredient of the remedy is simply stated as *mw n ḥwj.t* (rain water). The orthography of *ḥwj* appears to be peculiar as it was initially written as *s* but it seems likely to be corrected to *ḥ*. This revision implies that the scribe might have momentarily mistaken the visually similar hieratic symbols for *s* and *ḥ*. Moreover, the term is followed by the determinatives Y1 𓏛 (representing a papyrus scroll denoting an abstract idea) and Z3a 𓏞 (depicting three strokes indicating plurality).

The use of rainwater as the primary ingredient in this remedy for venomous bites underscores the ancient Egyptian belief in its potent medicinal properties. The association of rainwater with the treatment of venom may indicate a belief in its purifying or neutralizing effects.

The passage once again delineates a clear semantic linkage between the lexeme *ḥwj.t* "rain" and the concept of water (*mw*) within the context of ancient Egyptian medicine. The explicit reference to rainwater as a remedy for venomous bites may imply that the ancient Egyptians ascribed unique properties to this type of water, distinguishing it for its purity from other sources such as the Nile or groundwater. Besides, the use of rainwater in treating the effects of venomous bites may reflect a

[493] Sauneron, *Un traité égyptien d'ophiologie*, 113.

[494] Malaise and Winand, *Grammaire*, 95.

[495] Malaise and Winand, para. 120.

broader belief in the celestial origin of certain medicinal substances. The association of rain with the sky and the divine realm could have imbued rainwater with a perceived virtue or sacred quality, making it particularly suitable for combating the potentially deadly effects of venom. The passage also sheds light on the ancient Egyptian understanding of the symptoms and treatment of venomous bites. The reference to spitting out (*pgs*) suggests that the expulsion of venom or the manifestation of certain symptoms was a recognized consequence of such bites.

This practice, along with archaeological evidence dating back from the Old Kingdom[496], suggests that the Egyptians not only acknowledged the medicinal value of rainwater but also actively collected and stored it. Undeniably, Ancient Egyptians employed a variety of techniques to collect and manage this precious resource, protecting their monumental structures from potential water damage while also harnessing its benefits. These techniques often involved channelling water into basins, either covered or uncovered, for storage[497]. One such example can be found in the pyramid complex of Niuserre[498], dating back to the Old Kingdom (circa 2400 BCE). The columned courtyard of this complex featured a sandstone basin strategically placed at the lowest point of the courtyard. The surrounding floor sloped downwards towards the basin, effectively guiding rainwater into it. This basin, possibly covered by a perforated lid, facilitated water collection while minimizing debris accumulation. A covered drain located underneath the basin then channelled the collected water away from the structure.

Beyond basins, ancient Egyptians also utilized other methods for rainwater storage. For instance, at the Pyramid of Khufu in Giza, constructed around 2620-2580 BCE, rainwater was directed through stone channels into covered or uncovered basins, or allowed to seep into the ground[499]. The collection of rainwater in basins suggests a deliberate intention to contain and potentially utilize this

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[496] We extend our gratitude to Dr. Heidi Köpp-Junk for her invaluable materials and considerations on water drainage and collection, shared through private correspondence.

[497] Manfred Bietak et al., 'Ausgrabungen in Dem Palastbezirk von Avaris: Vorbericht Tell El-Dab'a/'Ezbet Helmi 1993-2000', *Ägypten Und Levante* 11 (2001): 50–55; Kate Liszka, 'Water Basins in Middle Kingdom Planned Settlements', in *Current Research in Egyptology 2008: Proceedings of the Ninth Annual Symposium Which Took Place at the KNH Centre for Biomedical Egyptology, University of Manchester, January 2008*, ed. Vicky Gashe and Jacky Finch (Rutherford Press, 2008), 65.

[498] Köpp-Junk, 'Wasserwirtschaft Im Niltal: Abwassertechnik Für Regen Und Gebrauchtwasser Im Pharaonischen Ägypten'', 3; Köpp-Junk, 'Rain, Rain, Go Away: Dealing with Wastewater and Rain in Ancient Egypt', 11; Köpp-Junk, 'Dewatering Systems in Ancient Egyptian Temples and the Question of Reuse.', 217.

[499] Köpp-Junk, 'Rain, Rain, Go Away: Dealing with Wastewater and Rain in Ancient Egypt', 11.

resource. This is further corroborated by the observation that these basins were often fitted with features like covered drains to manage the outflow, indicating a level of control over the stored water.

Furthermore, the existence of sophisticated drainage systems leading to these basins implies that the collected rainwater served a purpose beyond merely safeguarding the structural integrity of the buildings. The effort invested in directing rainwater from rooftops via slopes, gutters, and water spouts, as seen in structures like the Chapelle Blanche of King Senwosret I at Karnak, indicates the value placed on rainwater harvesting[500]. It is plausible that the collected rainwater was used not only for practical purposes such as irrigation or cleaning, but also for various ritual and liturgical applications, particularly in the medical domain.

The combination of evidence from medical texts and architectural features may suggest that the ancient Egyptians not only recognized the significance of rainwater but also actively sought to collect and store it for diverse purposes. The use of rainwater in medical preparations hints at its perceived purity and beneficial properties. In a ritual context, this celestial water may have been regarded as a potent ingredient in healing ceremonies, purification rites, or libations to deities associated with health and regeneration.

2.1.9.5. Mountains, Rain and the Inundation

The semantic range of the lexeme *ḥw.t* is exemplified in the context of geographical features, particularly mountains (*ḏw*). The well-known following passage from The Great Hymn to the Nile exemplifies how the term *ḥw.t* is employed to convey the transformative power of the Nile's annual inundation, highlighting its dual meaning and its profound impact on the landscape[501].

The passage from this poetic composition, dating back at least from the 18th Dynasty of the New Kingdom[502], conveys the transformative power of the Nile's flood, which is portrayed as "seizing" the mountains and bringing renewal and fertility to the land. This metaphorical portrayal of the

[500] Köpp-Junk, 'Wasserspeier in Tuna El-Gebel: Dachentwässerungstechniken an ‚Tempelgräbern' Ptolemäisch-Römischer Zeit', 424.

[501] Plas, *L'hymne à La Crue Du Nil*, vol. I, 11–18.

[502] The dating of this text has been a subject of scholarly debate. While it is attested on a writing board from the early 18th Dynasty, as discussed by F. Hagen, the composition's origins may be earlier. Some scholars argue for a Middle Kingdom date, while others propose a timeframe closer to the early 18th Dynasty, see Plas, vol. I,18-19; Fredrik Hagen, 'An Eighteenth Dynasty Writing Board (Ashmolean 1948.91) and the Hymn to the Nile', *Journal of the American Research Center in Egypt* 49 (2013): 73–91.

inundation as a form of celestial water emphasizes its life-giving and transformative properties, establishing a conceptual link between the river's flood and the notion of abundant water.

ḥw.t ex. 16. *i̯ṯ.t(w) ḏw.w ḥr ḥw.(j)t.f nn gmḥ.tw.f*

The mountains are taken thanks to its flood, and it will not be observed.

(The Great Hymn to Nile, 5,5)[503]

In the first clause, we find the the preposition *ḥr* "thanks to" introducing the reason for the mountains being possessed, namely *ḥw(j).t.f* "its flood". The suffix pronoun *f* "its" refers back to the Nile, the subject of the hymn.

The possible use of the passive form *j̯ṯ.t(w)* is significant, as it emphasizes the impact of the Nile's flood on the mountains. The passive construction shifts the focus to the mountains as the recipient of the action, highlighting their transformation due to the flood. This syntactic choice underscores the power and influence of the Nile's flood in affecting the landscape.

However, a second interpretation could be considered as the passage could be translated as "He who seizes the mountains through its rain, without being seen".

This interpretation considers *i̯ṯt* as an active participle rather than a passive form, shifting the focus to the Nile as the active agent. The term *ḥw.(j)t.f* is translated as "rain" instead of "flood", emphasizing the celestial aspect of the water cycle. This reading suggests a more direct connection between the Nile and the mountains, implying that the river's influence extends beyond its visible course. The use of "rain" instead of "flood" creates a metaphorical link between the river and the sky, portraying the Nile as a divine force that affects the landscape through rainfall. Again, the preposition *ḥr* followed by the noun *ḥw.(j)t.f* forms an adverbial phrase of reason, but here, this construction emphasizes the causal relationship between the phenomenon of rain and the transformation of the mountains.

The second clause, *nn gmḥ.tw.f*, is introduced by the negative particle *nn*, which negates the passive prospective form[504] of the verb *gmḥ* (to observe). This clause presents a contrasting idea to the first clause, suggesting that despite the Nile's and rain profound impact on the mountains, the river itself cannot be directly observed, possibly due to its surreptitious and precipitous nature.

[503] Plas, *L'hymne à La Crue Du Nil*, vol. I 30-31.

[504] Malaise and Winand, *Grammaire*, para. 680; Stauder, *Passive*, 300–301.

The juxtaposition of the two clauses through the use of the negative particle *nn* might create a sense of paradox and mystery. It highlights the idea that the Nile's influence is evident in its effects on the landscape, even though the river's true nature remains hidden from human perception[505].

The lexeme *ḥw.t* directly connects the Nile's influence to the mountains (*ḏw.w*). The mountainous areas are as we have seen connected in Egyptian text to rain and hydrometeors[506], in this context, *ḥw.t* could be arguably used in the sense of "flood" rather than its primary meaning of "rain" or perhaps a more nuanced meaning as "release , downpour". This polysemy highlights the term's semantic range, encompassing both the celestial phenomenon of rain and the terrestrial event of the Nile's annual inundation.

The use of the term *ḥw.t* establishes a conceptual link between the river's inundation and the idea of abundant water. The semantic extension of *ḥw.t* suggests a metaphorical understanding of the Nile's flood as a form of celestial water, emphasizing its life-giving and transformative properties.

[505] This passage may also establish a link between the Nile and the rain that hits the mountains by implying that the Nile is an invisible source of rain, even if we cannot directly observe a connection *(nn gmḥ.tw.f)* between the terrestrial and celestial streams. The text suggests a hidden hydrological cycle where the Nile's waters, though unseen, rise to the sky and return as rain upon the mountains. This conceptualization bridges the gap between the visible effects of the Nile's flood on the landscape and the seemingly separate phenomenon of rainfall, proposing an interconnected system that transcends immediate human perception.

[506] As noted in the same source (1, 7-8), the term *ỉʒd.t* is used to refer to either "rain" or "dew", a concept that will be explored further later on page 387, see Plas, *L'hymne à La Crue Du Nil*, vol. I, 70–76. For an alternative perspective that uses the metaphor of Nile falling on mountains to represent rain, see Étienne Drioton, 'La Cryptographie Par Perturbation', *Annales Du Service Des Antiquités de l'Égypte* 44 (1944): 30–31.

2.1.9.6. Road, Way, Path

One last prominent geographical feature linked to *ḥw.t* is the noun *wȝ.t*, meaning "path" or "way". This association, in the context of a metaphorical expression, is demonstrated in a renowned passage from the Middle Kingdom literary text The Dialogue of a Man with His Ba:

ḥw.t ex. 17. *ỉw m(w).t m ḥr.ỉ mỉn mỉ wȝ.t ḥwj.t mỉ ỉwỉ s m mšʿ r pr.sn*
Death stands before me today like the passing of the rain, as when a man comes home from an expedition.
(P. Amherst 3 + P. Berlin P 3024, col., 137)[507]

From a syntactic perspective, the passage consists of two adverbial phrases introduced by the preposition *mỉ*. The first phrase, *mỉ wȝ.t ḥwj.t* "like the passing of the rain", compares the presence of death to the transient nature of rainfall. The second phrase, *mỉ ỉwi s m mšʿ r pr.sn* "as when a man comes home from an expedition", further elaborates on this comparison by drawing a parallel between the passing of rain and the return of an individual from a journey.

The term *wȝ.t*, meaning "path, way", is used in the first adverbial phrase to describe the movement of the rain (*ḥw.jt*). The choice of *wȝ.t* in this context is significant, as it emphasizes the temporal and spatial aspects of the rainfall's progression. Our suggestion for the interpretation of the term "passing" in the translation of *wȝ.t ḥwj.t* seemed to us appropriate, as it could capture the active quality of the rainfall. The word "passing" implies a particular movement through a particular point or period, which aligns with the metaphorical comparison of death's presence to the dynamic nature of rain.

In contrast, translating *wȝ.t ḥwj.t* as "path of the rain" would place more emphasis on the trajectory or route of the rainfall itself, rather than on its nature as experienced by an observer. While this translation is not unfitting, it may not fully capture the intended metaphorical meaning of the passage, which seems to focus on the journey of both death and rainfall.

The excerpt also draws a parallel between the passing of rain and the return of a man from an expedition (*mỉ ỉwi s m mšʿ r pr.sn*). The act of coming home from a journey implies a sense of

[507] Richard B. Parkinson et al., *Four 12th Dynasty Literary Papyri (Pap. Berlin P. 3022-5): A Photographic Record*, Ägyptische Und Orientalische Papyri Und Handschriften Des Ägyptischen Museums Und Papyrussammlung Berlin (Berlin: Akademie Verlag, 2012), 15–17; 54–59; James P. Allen, *The Debate between a Man and His Soul: A Masterpiece of Ancient Egyptian Literature*, Culture and History of the Ancient Near East 44 (Leiden: Brill, 2011), 103–6.

completion, achievement, and a return to a familiar and comforting place. Comparing death to this homecoming, the text may be suggesting that death was seen as a journey's end, a return to a metaphysical "home", or a reunion with the divine[508].

This interpretation could be further supported by the parallel structure in the line following the previous one:

> *ỉw m(w).t m ḥr.ỉ mỉn mỉ kfỉ.t p.t*
> *mỉ s sḫt.{ỉ} ỉm r ḫm.tn.f*
> Death stands before my eyes today like the clearing of the sky,
> like a man who thereby captures/acquires (some) of (?) that which was (previously) unknown to him.
> (P. Amherst 3 + P. Berlin P 3024, line 138)

In this verse, death is compared to the "clearing of the sky" (*kfỉ.t*[509] *p.t*), which suggests a transition from a state of obscurity or cloudiness to one of clarity[510]. The dissipation of clouds and the emergence of clear skies is a universally appreciated phenomenon, often associated with feelings of relief, renewal, and clarity. Through this parallel between death and the clearing of the sky, the ancient Egyptians may have been expressing a belief in the transformative and potentially enlightening nature of death. This metaphorical use of atmospheric imagery to describe a change in perception or understanding parallels the idea of the "passing of the rain" in the previous excerpt.

The parallel structure of the two verses, each employing a simile introduced by *mỉ*, creates a poetic resonance that enhances the emotional impact of the passage. The repetition of this syntactic pattern underscores the thematic link between the two metaphors and encourages the audience to consider their implications in tandem.

Just as the passing of the rain represents a fleeting moment or experience, the clearing of the sky symbolizes a sudden shift in perspective or the acquisition of new knowledge. The simile "like a man who thereby captures/acquires (some) of that which was (previously) unknown to him" reinforces this idea of gaining insight or understanding through a transformative experience.

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[508] Jan Assmann, *Death and Salvation in Ancient Egypt*, trans. David Lorton (Ithaca: Cornell University Press, 2005), 177.

[509] *Wb* 5, 119.4-19. TLA ID 164200.

[510] Allen, *The Debate between a Man and His Soul: A Masterpiece of Ancient Egyptian Literature*, 103–6.

The clearing of the sky also implies a transition from a state of obscurity or uncertainty to one of brightness and revelation. This could be interpreted as a metaphor for the journey of the deceased after death[511], as it sheds the burdens and limitations of the physical world and attains a higher state of consciousness. The use of atmospheric phenomena as metaphors for existential concepts like death and knowledge acquisition highlights the ancient Egyptian tendency to draw connections between the natural world and the human experience.

The following excerpt from Kaiemtjenenet's autobiography, dating to the 5th Dynasty of the Old Kingdom, provides another example of the connection between the terms *wȝ.t* "path, way" and an atmospheric phenomenon, in this case, *ḏꜥ* "storm". This passage reinforces the idea that the conception of atmospheric events as having a path or trajectory, and it further supports the interpretation of *wȝ.t ḥwj.t* as "the passing of the rain" in the Dialogue of a Man with His Ba. The relevant passage reads

n gm.n(.i) z nb šm.sn m wȝ.wt n(.t) ḏꜥ
I cannot find any man who would follow during the passings of the storm.
(Urk. I, 182, 15-16)

The phrase *wȝ.wt n ḏꜥ* "the passing of the storm" employs the same syntactic structure as *wȝ.t ḥwj.t* "the passing of the rain" in the Dialogue of a Man with His Ba. The noun *wȝ.wt*, the plural form of *wȝ.t* "path, way", is followed by the genitival adjective *n(.t)*, linking it to the noun *ḏꜥ* "storm". This construction suggests that the storm, like the rain, is conceived as having a path or trajectory and a passage. The use of the plural form *wȝ.wt* "paths" in this context may indicate that the storm's movement is perceived as more complex or multidirectional compared to the singular path of the rain in the "Dialogue" akin to the informal "comings and goings". This nuance could reflect the understanding of the difference between the localized nature of rainfall and the more widespread impact of storms.

The verb *šm* "to go, to follow, to leave" is used in the clause *šm.sn* "who would follow", referring to the absence of people willing to accompany Kaiemtjenenet during the storm. This suggests that the "passing of the storm" was seen as a challenging or perilous time, probably like the "passing

[511] Jan Zandee, *Death as an Enemy According to Ancient Egyptian Conceptions*, trans. W. F. Klasens, Studies in the History of Religions 5 (Leiden: E. J. Brill, 1960), 52–56; Hsu, 'The Ancient Egyptian Idea of "Death" in Conceptual Metaphor Theory', 104.

of the rain" in the Dialogue is used as a metaphor for the inevitable pivotal moment of apprehending death. This interpretation is predicated upon the observation that the verbal lexeme *šm*, when collocated with the nominal element *wȝ.t*, consistently selects either the preposition *ḥr* as its syntagmatic partner or exhibits transitive behaviour, eschewing the usage of the preposition *m* in such constructional environments[512]. Conversely, *wȝ.t* displays a marked propensity to be succeeded by a genitival construction, whether direct or indirect in nature, or to co-occur with the preposition n, which serves to introduce the dative case.

Kaiemtjenenet's autobiography, with its innovative configuration[513], demonstrates the use of meteorological metaphors in a well-constructed language. The passage might demonstrate that the conceptualization of atmospheric events as having a path or trajectory as a part of the broader ancient Egyptian worldview. Moreover, the autobiography's context, which partly focuses on Kaiemtjenenet's abilities and achievements, might suggest that the metaphorical use of the "passing of the storm" serves to highlight his resilience in the face of adversity. This usage of the storm metaphor is noteworthy, as it appears in a context which seems to be the first instance where a dignitary's eminence is directly connected to their specific actions in the face of adversity[514].

Having explored the associations between *ḥw.t* and various geographical features, it seems patent that the ancient Egyptians perceived rain as a transformative force involving both the celestial and terrestrial realms. This understanding naturally extends to the broader spectrum of atmospheric conditions, where rain interacts with other natural phenomena.

[512] For a comprehensive account of the combinatorial properties evinced by this bipartite lexical constellation, the reader is referred to the relevant data amassed personally and within the purview of 'TLA'.

[513] Julie Stauder-Porchet, *Les Autobiographies de l'Ancien Empire Égyptien: Étude Sur La Naissance d'un Genre*, Orientalia Lovaniensia Analecta 255 (Leuven: Peeters, 2017), 121–39; Julie Stauder-Porchet, Elizabeth Frood, and Andréas Stauder, *Ancient Egyptian Biographies: Contexts, Forms, Functions*, Wilbour Studies in Egyptology and Assyriology 6 (Atlanta: Lockwood, 2020), 107.

[514] Stauder-Porchet, *Les Autobiographies de l'Ancien Empire Égyptien: Étude Sur La Naissance d'un Genre*, 134–35.

2.1.10. Natural phenomena:

This section examines the frequent associations between *ḥw.t* and key terms related to atmospheric conditions, such as *ṯzw* "wind" and *ḏʿ* "wind storm", *qb(b)* "cold wind" and *srq* "snow". These collocations demonstrate the relationship between rain and other weather phenomena, highlighting how hydrometeors and particularly precipitation were conceptualized in relation to wind patterns, temperature changes, visual atmospheric effects, and extreme weather events.

As we have observed, more often the north wind and once the west wind, are praised for their role in bringing forth the inundation and the growth of vegetation, highlighting the perceived link between wind, rain, and agricultural fertility. Since the connections between wind, wind storms, and rain have been extensively explored, our focus will now shift to examining the relationships between the concepts of *qb(b)* "cold wind" and *srq* "snow" in the context of ancient Egyptian texts.

2.1.10.1. Rain, Cold Wind, and Snow as Co-occurring Phenomena

Also well known as the Marriage Stela of Ramesses II, the Facade Stela of Year 34 at Abu Simbel Great Temple, commemorates the diplomatic marriage between the Egyptian pharaoh and a Hittite princess[515]. This union was a crucial step in solidifying the peace treaty between Egypt and the Hittite Empire, marking a significant shift in the political landscape of the ancient Near East. The stela is exemplified in five versions at various locations, including Abu Simbel and Karnak's temple. Additionally, a manuscript of miscellanies references this historical document, underscoring its importance in ancient Egyptian records[516].

The text provides a detailed account of the events surrounding the marriage, with a particular focus on the challenges faced by the Egyptian delegation sent to escort the Hittite princess from her homeland to Egypt. The journey took place during the winter season (*pr.t*), a time, in this context, when the region was prone to harsh weather conditions, including heavy rainfall (*ḥw.t*), cold wind (*qb*), and even snowfall (*srq.w*).

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[515] K. A. Kitchen, *Ramesside Inscriptions, Historical and Biographical, II* (Oxford: B. H. Blackwell, 1979), 233–56.

[516] Chloé Ragazzoli, '"The Pen Promoted My Station": Scholarship and Distinction in New Kingdom Biographies', in *Problems of Canonicity and Identity Formation in Ancient Egypt and Mesopotamia*, ed. Gojko Barjamovic and Kim Ryholt (Museum Tusculanum Press; Department of Cross-Cultural and Regional Studies, University of Copenhagen, 2016), 165.

In the text, Ramesses II expresses his apprehension about the well-being of the envoys, who were tasked with navigating through the treacherous weather in the foreign land of *Jahi* (a region in Palestine). The pharaoh's concern is evident in his rhetorical question:

ḥw.t ex. 18. *ỉw.w mỉ m nn hb.n.ỉ šmỉ.j m wpw.t r ḏʒh m nʒ.w hrw.w n(.t) ḥwj.(t) srq.w ḫpr.w m pr.t*
How are these (literally: how what are they, these) whom I sent out, those who went with orders to Jahi (= area in Palestine) in these days of rain, when it (even) snowed in the *peret* season?
(Abu Simbel Great Temple, Facade Stele Year 34, line 36)[517]

The passage begins with an interrogative clause[518] *ỉw.w mỉ m nn* "How are these", followed by an accomplished relative form introduced by the demonstrative pronoun *nn* "these" *hb.n.ỉ* "whom I sent out". The following phrases, *šmỉ.j m wpw.t r ḏʒh* "those who went with orders to Jahi" and *m nʒ.w hrw.w n ḥwj.(t)* "in these days of rain", provide additional information about the envoys and the circumstances of their journey.

The adverbial phrase *m nʒ.w hrw.w n ḥwj.(t)* "in these days of rain" is a significant construction that establishes a direct temporal and contextual connection between the lexeme *ḥwj.(t)* "rain" and the specific circumstances of the envoys' mission. From a syntactic perspective, the phrase is composed of several elements that work together to create a precise and emphatic temporal reference. The demonstrative adjective *nʒ.w* "these" plays a crucial role in specifying and emphasizing the days. The attention is drawn to the specific period in question, suggesting that these days are distinct and noteworthy in the context of the narrative[519].

The noun *hrw.w* "days" is in the plural form, indicating that the period of rainfall extends over multiple days rather than being a single, isolated event. This plural form underscores the duration and potential impact of the rainy conditions on the envoys' journey.

The indirect genitival construction *n(.t) ḥwj(.t)* "of rain" may identify the days in question as being characterized by rainfall, leaving no doubt about the specific weather conditions encountered

[517] Charles Kuentz, 'La "Stèle Du Mariage" de Ramsès II.', *Annales Du Service Des Antiquités de l'Égypte* 25 (1925): 181–238.

[518] For interrogative introduced by *mỉ m* (how), see Malaise and Winand, *Grammaire*, para. 201a.

[519] Concerning demonstratives employed to substitute general expressions with specific references, thereby underscoring a transition towards emphasizing distinct entities or time periods, see Maxim N. Kupreyev, *Deixis in Egyptian: The Close, the Distant, and the Known*, Harvard Egyptological Studies 18 (Leiden; Boston: Brill, 2023), 43.

by the envoys. The genitive relationship could be best classified as a *genitivus attributivus* (attributive genitive)[520]. This construction is employed to describe a quality or characteristic of the head noun, with *n(.t) ḥwj(.t* serving to characterize the nature of the *hrw.w* "days". The use of the *genitivus attributivus* may create a tight semantic bond between the temporal concept (days) and the meteorological phenomenon "rain". This linguistic choice emphasizes that the rain is not merely an incidental occurrence during these days but a defining characteristic of the time.

The subordinate clause *srq.w ḫpr.w m pr.t* "when it (even) snowed in the *peret* season" further elaborates on the extreme weather conditions encountered. The use of the stative form *ḫpr.w* "has occurred" in the subordinate clause[521] is significant from a syntactic and semantic perspective. The stative, functioning as a pseudo-verbal construction, creates an unmarked temporal clause that emphasizes the unusual and unexpected nature of the event described. In this context, the stative *ḫpr.w* conveys a sense of completed action or resulting state, indicating that the snowfall has already taken place during the *pr.t* season. The use of the stative, rather than a more common verbal form, draws attention to the extraordinary circumstances surrounding the event.

The lexeme  *srq* or *srq.w*[522], meaning "snow", is a Semitic loan word in the ancient Egyptian language, likely derived from some West-Semitic language. This borrowing is especially relevant when it comes to describing unusual and severe weather events that were more frequently experienced in these foreign lands compared to Egypt itself.

Comparative linguistic evidence suggests that the Akkadian terms *šalgu*[523] can be traced back to the reconstructed Proto-Semitic root *ṯalg-[524]. This root as realizations attested in various Semitic languages, such as Biblical Hebrew שֶׁלֶג (sheleg) and Aramaic תַּלְגָּא (talgā), both meaning

[520] Peter Beylage, *Middle Egyptian*, Languages of the Ancient Near East 9 (University Park, PA: Eisenbrauns, 2018), 56.

[521] Malaise and Winand, *Grammaire*, para. 759; Junge, *Late Egyptian Grammar: An Introduction*, 115–18.

[522] *Wb* 4, 204.14. TLA ID 139820.

[523] Robert D. Biggs, *The Assyrian Dictionary : Of the Oriental Institute of the University of Chicago Vol. 17, S [Shin]* (Chicago: Oriental institute, 1989), 241–42.

[524] James E. Hoch, *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period* (Princeton, NJ: Princeton University Press, 1994), s.v. 375; Leonid Kogan, 'Proto-Semitic Phonetics and Phonology', in *The Semitic Languages*, Handbücher Zur Sprach Und Kommunikationswissenschaft 36 (Berlin, Boston: De Gruyter Mouton, 2011), 55.

"snow"[525]. The widespread occurrence of these cognates across the Semitic language family indicates that the root and its associated meaning were part of the shared linguistic heritage of Semitic languages. The borrowing of the Akkadian term into Egyptian likely occurred during periods of intense cultural contact and exchange, such as the New Kingdom period when Egypt expanded its influence into the Levant[526].

The loan word *srq.w*, meaning "snow", is an extremely rare occurrence in ancient Egyptian texts. Although it appears in five different versions of the "Marriage Stele" of Ramesses II, these are essentially copies of the same text. Consequently, the term *srq.w* is effectively attested only twice in the entire corpus of ancient Egyptian writing.

This scarcity of attestations underscores the exceptional nature of snowfall within the Egyptian climate and environment. The infrequent use of the word *srq.w* in Egyptian texts reflects the rarity of snow in Egypt, as the country's climate is generally characterized by hot, arid conditions with minimal precipitation. The fact that the Egyptians adopted a foreign term to describe this phenomenon likely underscores the lack of a native Egyptian word for "snow", indicating once more that it was not a regular event in their environment.

The passage establishes a semantic connection between the lexemes *ḥwj.t* "rain" and *srq.w* "snow", presenting them as co-occurring meteorological phenomena. The juxtaposition of these terms emphasizes the severity and rarity of the weather conditions encountered by the envoys during their journey. The reference to snow (*srq.w*) in the context of the *peret* season also highlights the ancient Egyptian perception of this phenomenon as an anomaly. The *peret* season, associated with the winter months and the time of sowing, was not typically characterized by snowfall in the Egyptian climate[527]. The mention of snow forming during this season underscores the extraordinary nature of the weather events and their potential impact on the envoys' mission.

Just after the explored excerpt, we find the invocation of the god Seth to calm the stormy weather, which further emphasizes the perceived supernatural influence on meteorological

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[525] Hoch, *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period*, s.v. 375; Kogan, 'Proto-Semitic Phonetics and Phonology', 55.

[526] Thomas Schneider, 'Language Contact', *UCLA Encyclopedia of Egyptology* 1, no. 1 (31 March 2022): 7–9.

[527] Christopher J. Eyre, 'The Agricultural Cycle: Farming, and Water Management in the Ancient Near East', in *Civilizations of the Ancient Near East*, ed. John Baines et al. (New York: Charles Scribner's; Macmillan Library Reference; Simon & Schuster Macmillan, 1995), 175–89; Mary Anne Murray, 'Cereal Production and Processing', in *Ancient Egyptian Materials and Technology*, ed. Paul T. Nicholson and Ian Shaw (Cambridge: Cambridge University Press, 2000), 513–15.

phenomena. As we have mentioned, Seth, often associated with chaos, storms, and foreign lands, is called upon to restore order and ensure the safe passage of the envoys and the betrothed princess.

The passage appears to reinforce the earlier discussed connections between *ḥw.t* and other natural phenomena. It may also underscore the ancient Egyptian belief in the divine control over weather events and their impact on human activities. This interpretation will be further supported by the subsequent contextual analysis.

ḥw.t ex. 19. *wḏn.k pw ḫpr.wt nb mỉ tm.k ỉr.t ḥwj.t qb srq.w r spr n.ỉ bjȝ.wt wḏ.k n.ỉ*

What you have commanded is fully accomplished (lit.: is all that happens), just as you shall not create rain, cold and snow until the miracles, which you assign to me, have reached me.

(Abu Simbel Great Temple, Facade Stele Year 34, line 37,38)[528]

This part of the invocation of the god Seth consists of three clauses connected by the two prepositions-conjunctions *mỉ* "just as" and *r* " until". The first nominal predicate clause A *pw* B[529], *wḏn.k pw ḫpr.wt nb* "What you have commanded is what is fully accomplished", employs a relative construction with *wḏn.k* "what you have commanded" as the subject and a passive participle *ḫpr.wt nb* "is all that happens" as the predicate. The use of the second-person singular suffix pronoun *.k* "you" refers to the addressee, the god Seth.

The second clause, introduced a comparative clause, almost with a causal nuance, introduced by *mỉ*, contains a negated prospective *sḏm.f* form[530], *tm.k ỉr.t* "you shall not create", followed by the direct objects *ḥwj.t* "rain", *qb(b)*[531] "cold wind", and *srq.w* "snow". The use of the negative verb *tm* with the prospective form expresses a strong prohibition or injunction against creating these weather phenomena.

The last clause *r spr n.ỉ byȝ.wt* "until the miracles have reached me" specifies the temporal extent of the prohibition, indicating that the divinity Seth should refrain from creating rain, icy wind, and snow until the speaker has experienced the miracles assigned to them. The relative clause *wḏ.k n.ỉ* "which you assign to me" further clarifies the nature of these miracles as being decreed by the addressee.

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[528] Kuentz, 'La "Stèle Du Mariage" de Ramsès II.'

[529] Malaise and Winand, *Grammaire*, paras 471–489.

[530] Malaise and Winand, para. 647.

[531] *Wb* 5, 24.13-14. TLA ID 160190.

This passage reinforces the semantic connections between the lexemes *ḥwj.t* "rain", *qb* "cold wind" and *srq.w* "snow" presenting them as a triad of interconnected meteorological phenomena that the speaker wishes to avoid. The inclusion of *qb* "cold wind" alongside *ḥwj.t* "rain" and *srq.w* "snow" adds a new dimension to the description of the adverse weather conditions. The term *qb* specifically denotes the cold temperatures of the air, emphasizing the chilling effect it would have on those exposed to it. This explicit mention of cold further strengthens the implicit connection between rain, snow, and low temperatures established in the previous passage.

It is essential to examine the determinatives used in this passage, in order to understand better how the ancient Egyptians categorized atmospheric phenomena. The term *ḥwj.t* "rain" is followed by the determinative  (N35a), as we have previously seen on page 135, indicating that the ancient Egyptians conceptualized rain primarily as a liquid substance. This classification may suggest that they understood the physical properties of rain and its connection to water sources, such as rivers and canals.

In contrast, the term *qb* "cold wind" is accompanied by the determinative  (P5), which depicts a sail or a cloth being blown by the wind. This determinative choice emphasizes the atmospheric and temperature-related aspects of cold wind, focusing on its movement and the sensation it creates. The root *qbb*[532], meaning "to be cold", further denotes its intrinsic nature, emphasizing the chilling effect of the wind.

Interestingly, the term *srq.w* "snow" stands out as the only one in this group that is classified using the determinative  (N4), which, as we have seen, represents falling particles of snow or rain. This unique determinative choice underscores the ancient Egyptians' understanding of snow as a unique meteorological event with its own set of characteristics and implications. The use of the N4 determinative, specifically associated with weather perturbations, might highlight the exceptional nature of snow in the Egyptian environment and its potential to cause distress or disruption.

This analysis of determinative usage supports the argument that the ancient Egyptians had a distinctive understanding of atmospheric phenomena and employed specific cognitive categories in their classification. The choice of determinatives might reflect their perception of the physical properties, sensory experiences, and potential impact of each phenomenon.

Furthermore, the use of the N4 determinative for snow, denoting a falling particle and implying distress, suggests that the ancient Egyptians recognized the disruptive nature of this rare phenomenon in their environment. This determinative choice may also reflect their experiences with the challenges posed by snowfall, such as its impact on agriculture, transportation, or daily life.

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[532] For the roots *√qbb and qbḥ* ,see 'TLA 2',(Lemma ID 866057; 873893).

The request for the god Seth to refrain from creating these weather phenomena suggests a belief in the divine control over meteorological events. The passage implies that the addressee, the god Seth, has the power to generate or withhold rain, icy wind, and snow and that their absence is necessary for the speaker to experience the promised miracles.

The reference to miracles (*bjȝ.wt*), portrayed as divinely ordained events that are contingent upon the absence of adverse weather conditions, proves the ancient Egyptian belief in the interconnectedness of natural phenomena and divine intervention. An additional textual example providing an intriguing addition to our understanding of the collocation between *bjȝ.t* "miracle, wonder" in connection with the noun *ḥw.t*, likely meaning "rain" comes the following passage from the 11th Dynasty inscription of Wadi Hammamat:

ḥw.t ex. 20. *wḥm bỉȝ.t ỉr.t ḥw[.t] mȝȝ ḫpr.w n.w nṯr pn*
Renewing the miracle: making rain and seeing the manifestations of this god.
(Inscription of Wadi Hammamat, M 191, 2)[533]

These inscriptions report the miracles performed by the god Min in favour of King Mentuhotep IV during his quarrying expeditions in the Eastern Desert. The context of these inscriptions is both religious and political[534]. The miracles attributed to the god Min serve to underscore the divine support for the king's rule and his expeditions. Min, being associated with fertility and the desert[535], is portrayed as facilitating the king's success in the harsh environment of

[533] Jules Couyat and Pierre Montet, *Les Inscriptions Hiéroglyphiques et Hiératiques Du Ouâdi Hammâmât*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 34 (Le Caire: L'institut français d'archéologie orientale, 1912), 97–98; Alan B. Lloyd, 'Once More Hammamat Inscription 191', *Journal of Egyptian Archaeology* 61 (1975): 59.

[534] Jan Assmann, 'State and Religion in the New Kingdom', in *Religion and Philosophy in Ancient Egypt*, ed. Anonymous (New Haven: Yale Egyptological Seminar, Department of Near Eastern Languages and Civilizations, Graduate School, 1989), 69–70.

[535] Alexander Badawy, 'Min, the Cosmic Fertility God of Egypt', *Mitteilungen Des Instituts Für Orientforschung* 7 (1960 1959): 163–79.

Wadi Hammamat. Additionally, the inscriptions might function as a form of royal propaganda[536], reinforcing the king's divine right to rule and his close relationship with the gods, thereby legitimizing his authority and achievements.

The excerpt consists of two main clauses. They are composed with labelling infinitives[537] with *wḥm bỉȝ.t* "renewing the miracle" as the subject and *ỉr.t ḥw.t* "making rain" as the predicate. The infinitive form *ỉr.t* "making" is used to express the action of creating rain as a miraculous event, a quite recurrent collocation.

The final clause *mȝȝ ḫpr.w n.w nṯr pn* "seeing the manifestations of this god" further reinforces the divine nature of the event. The infinitive of the verb *mȝȝ* "to see" is used to describe the observation of the manifestations *(ḫpr.w)* of the god Min *(nṯr pn)* associated with this miracle. The noun *ḫpr.w,* deriving from the verb *ḫpr*, meaning "to come into existence, to manifest", emphasizes the tangible and observable nature of the god's presence and power. The creation of rain is presented as a miraculous event, emphasizing the divine power and intervention of the god Min in the context of the king's expedition.

As previously observed **Error! Bookmark not defined.**, the use of the term *bỉȝ.t* "miracle" highlights the extraordinary and eery depiction of the rainfall in the desert environment. The ability to bring forth rain in such a harsh and arid setting is portrayed as a clear manifestation of the god's power and favour towards the sovereign.

The connection between *ḥw.t* "rain" and *bỉȝ.t* "miracle" in this context suggests that rain is not seen as a mere meteorological event but rather as a direct result of the god's will and action. The morphological and cognitive connection between the terms *bỉȝ.t* "miracle" and *bỉȝ* "meteoritic iron" is particularly intriguing in the context of the passage's association of rain (*ḥw.t*) with divine intervention. The shared root *bỉȝ* in the lexemes suggests a profound semantic link that illuminates the ancient Egyptian conceptualization of celestial phenomena and their connection to the divine

[536] For the interconnectedness of literature, cult, and politics, and a nuanced understanding of how inscriptions, like other textual forms, could have served to reinforce royal authority and legitimize the king's rule, see, Jan Assmann, 'Literatur Zwischen Kult Und Politik: Zur Geschichte Des Textes Vor Dem Zeitalter Der Literatur', in *Literatur Und Politik Im Pharaonischen Und Ptolemäischen Ägypten: Vorträge Der Tagung Zum Gedenken an Georges Posener, 5.-10. September 1996 in Leipzig*, ed. Jan Assmann and Elke Blumenthal (Le Caire: Institut français d'archéologie orientale, 1999), 3–22.

[537] Malaise and Winand, *Grammaire*, para. 697.

realm. This linguistic association has been the subject of extensive scholarly analysis[538], revealing important insights into Egyptian cosmology and religious thought.

Research has demonstrated that the root *bỉʒ* carries connotations of both celestial origin and divine power. The term *bỉʒ*, often translated as "meteoritic iron", was understood by the ancient Egyptians as a material of celestial origin, literally "metal from the sky". This concept underscores the Egyptians' belief in a direct connection between celestial bodies and earthly substances. The association of this material with the sky reinforced its perceived divine nature and extraordinary properties.

[538] Erhart Graefe, *Untersuchungen Zur Wortfamilie bjA-: Inaugural-Dissertation Zur Erlangung Des Doktorgrades Der Philosophischen Fakultät Der Universität Zu Köln* (Köln, 1971); Gozzoli, 'Kawa V and Taharqo's Byɜwt: Some Aspects of Nubian Royal Ideology'; M. Victoria Almansa-Villatoro, 'The Cultural Indexicality of the N41 Sign for Bjʒ: The Metal of the Sky and the Sky of Metal', *Journal of Egyptian Archaeology* 105, no. 1 (2019): 73–81.

A further excerpt from the Stele of Dafenneh provides another apposite instance of the collocation of *bỉȝ.t* "miracle" and *ḥw.t* "rain".

ḥw.t ex. 21. *(...)bȝw.k, nswt nḏ.t ỉtj mrj nṯr.w nb(.w) bỉȝ.t ꜥȝ.t ḫpr[.tỉ] m rk ḥm.f*
[nn] mȝȝ nn, nn sḏm nn, ḥw.t p.t r ḏw n(.j) Pwntꜥnd pw ḥw.t m spȝ.wt rsw
[…] ỉgr ȝbd pn ḥwj.s ỉm.f, nn tr.s ỉs pw m nỉw.wt Tȝ-Mḥw
[…] n mw.t.k N.t N.t ỉn.t{.s} n.k ḥꜥpj r sꜥnḏ mšꜥ.k
(...)Your power, mighty king, sovereign beloved of all the gods, for a great wonder has taken place in the days of your majesty.
[Never] had such a thing been seen or heard of rain from heaven had fallen on the mountain of Punt, whereas rain is rare in the southern regions.
[...] But this month, when it rained in it, it was not its season (for rain) in the northern cities.
[...] to your mother, Neith of the province of Saïs, who brought you the flood in order to keep your troop alive'.
(Stele of Dafenneh, x + 12-15)[539]

In this passage, the unusual occurrence of rainfall in the southern regions, particularly on the mountain of Punt, is described as a great wonder (*bỉȝ.t ꜥȝ.t*) that took place during the reign of the king. The text emphasizes the extraordinary nature of this event, stating that such a thing had never been seen or heard of before.

This example further reinforces the conceptual link between the lexemes *bỉȝ.t* and *ḥw.t,* highlighting the ancient Egyptian perception of rain as a miraculous and divine phenomenon, especially when it occurred in unexpected locations or times. The passage also emphasizes the connection between rainfall and the Nile flood (*ḥꜥpj*), which is attributed to the goddess Neith's intervention on behalf of the king.

[539] F. Ll. Griffith, A. S. Murray, and W. M. Flinders Petrie, *Tanis. Part II. Nebesheh and Defenneh*, 2 vols, Memoir of the Egypt Exploration Fund 4 (London: Trübner, 1885), pl. XLII; Georges Posener, 'L'or de Pount', in *Ägypten Und Kusch: Fritz Hintze Zum 60. Geburtstag*, ed. Erika Endesfelder et al., Schriften Zur Geschichte and Kultur Des Alten Orients 13 (Berlin: Akademie Verlag, 1977), 162–63; Dimitri Meeks, 'Locating Punt', in *Mysterious Lands*, ed. David O'Connor and Stephen Quirke, Encounters with Ancient Egypt (London: UCL Press, 2003), 70–71; Raphaël Cavasin, 'Tell Defenneh et La Route de l'encens', *Égypte Nilotique et Méditerranéenne* 12 (2019): 8–9.

However, to maintain the coherence and flow of the current analysis, this example will be examined in greater detail in the final section of the study on page 362, which focuses on the contextual associations of the lexeme *ỉʒd.t* "dew". The inclusion of this passage in the later discussion will allow for a more coherent exploration of the interconnections between various terms related to moisture and their significance in ancient Egyptian religious and royal ideology.

Having explored the connection between miracles and rainfall, let us now turn our attention to another significant text that shares a similar theme – the divine influence on meteorological phenomena, particularly the occurrence of the lexeme *ḥw.t*. The Metternich Stele, a healing statue dating to the 30th Dynasty of the Late Period, provides a notable parallel to the Marriage Stele in its use of *ḥw.t* and its association with divine intervention.

The stele is inscribed with a series of spells and incantations aimed at protecting against snake bites and other venomous creatures. The passage in question is part of Spell 8, which invokes the power of the sun god to counteract the effects of a snake bite. The context of this inscription is both magical and religious, thus it could be defined iatromagical[540], as it seeks to harness the divine power of the sun god to heal and protect the afflicted individual. The use of a healing statue as the medium for these spells underscores the importance of divine intervention in the ancient Egyptian understanding of health and well-being.

ḥw.t ex. 22. *ḥw{ỉ.t} ḫft wḏ.f*
The rain (happens) according to his command.
(Metternich Stele New York MMA 50.85, Spell 8,83)[541]

The excerpt consists of a single clause with a nominal subject and an adverbial predicate. The subject is *ḥw{ỉ. t}*, and the predicate is the prepositional phrase *ḫft wḏ.f* "according to his command".

Akin to the Marriage stela, the lexeme *ḥw.t* is directly connected to the noun *wḏ* "command" in this excerpt. The rain is portrayed as a phenomenon that occurs in response to the divine command

[540] The term "iatromagical" refers to the combination of medical and magical practices in ancient Egyptian healing traditions, where the boundaries between the two were often blurred, see Ivan Guermeur, 'Un Faucon et Une Chatte Dans Une Recette Iatromagique Du Papyrus de Brooklyn 47.218.2 (Col. + IV, 2-7)', in *Apprivoiser Le Sauvage / Taming the Wild*, ed. B. Mathieu, F. Rouffet, and M. Massiera (Montpellier: Université Paul Valéry Montpellier 3, 2015), 165–81; Ivan Guermeur, 'Le Papyrus Hiératique Iatromagique N° 47.218.2 Du Musée de Brooklyn', *Bulletin de La Société Française d'Égyptologie* 193–194 (2016): 10–28.

[541] Sander-Hansen, *Die Texte Der Metternichstele*, 47–48.

of the sun god, highlighting the deity's power over the natural world. The use of the term *wḏ* in this context emphasizes the idea of divine authority and control. The sun god's command is presented as the driving force behind the occurrence of the rain, suggesting that the deity has the power to initiate and regulate this natural event. The connection between *ḥw.t* "rain" and *wḏ* "command" implies a hierarchical relationship between the divine realm and the natural world. The rain is not seen as a random or autonomous occurrence but rather as a manifestation of divine will and power.

The decision to interpret *ḥw.t* as "rain" in this context could be supported by the presence of the term *kk.w*[542] "darkness: in the sentence preceding the excerpt we have just analysed:

wn.f ỉr.t.f ḫpr šw ʿḫn.f s ḫpr kk(.w)
When he opens his eye, light appears, when he closes it, darkness arises.
(Metternich Stele New York MMA 50.85, Spell 8,83)

The mention of *kk(.w)* as dark clouds immediately preceding the *ḥw.t* clause could suggest a meteorological context rather than a reference to the Nile flood. This interpretation could be further strengthened by a parallel formulation found in the Magic Papyrus of Turin[543].

The presence of *kk.w* "darkness" suggests a possible reference to dark clouds that precede a downpour. The juxtaposition of the sun god's actions of opening and closing his eyes, resulting in the appearance of light and darkness, respectively, may be understood as a metaphorical representation of the natural cycle of day and night, as well as the changing weather conditions.

The following passage from the Book of the Dead provides additional evidence for the association between darkness (*kk.w*) and atmospheric disturbances. It reads

ỉw ḫsr.n.(ỉ) kk.w kfȝ.n.ỉ šnʿ
I have removed the darkness, I have dissolved the storm.
(P. London BM 9901 : pHunefer, Tb 183, 43-44)[544]

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[542] *Wb* 5, 142-143.15. TLA ID 165680.

[543] Alessandro Roccati and Giuseppina Lenzo, *Magica Taurinensia: Il Grande Papiro Magico Di Torino e i Suoi Duplicati*, Analecta Orientalia 56 (Roma: Gregorian & Biblical Press, 2011), 70,142; Nadine Grässler, *Konzepte Des Auges Im Alten Ägypten*, Studien Zur Altägyptischen Kultur, Beihefte 20 (Hamburg: Buske, 2017), 236.

[544] Allen, *The Book of the Dead or Going Forth by Day: Ideas of the Ancient Egyptians Concerning the Hereafter as Expressed in Their Own Terms*, 202.

In this text, the removal of darkness is directly linked to the dissolution of a storm (*šnʿ*), establishing a clear conceptual connection between the two phenomena. This lexical pairing suggests that the ancient Egyptians recognized the interaction between dark skies and turbulent weather conditions.

The use of the verbs *ḫsr* "remove" and *kfȝ* "to dissolve, to dispel" in relation to darkness and the storm clouds *šnʿ* could further emphasize the idea of darkness as a manifestation of atmospheric disturbance, with its dissipation being linked to the calming of the storm. This conceptual association between the removal of darkness and the abatement of turbulent weather strengthens the interpretation of *kk.w* as possible dark clouds in the context of the Metternich Stele passage.

The sequence of events described in these texts—the sun god's closing of his eye, the emergence of darkness, and the occurrence of rain or flood in response to divine command—suggests a causal relationship between the deity's actions and the manifestation of atmospheric phenomena.

The metaphorical use of darkness (*kk.w*) to represent the presence of rain-bearing clouds could add depth to the ancient Egyptian understanding of the interconnectedness between celestial and terrestrial events. The sun god's command (*wḏ*) is portrayed as the ultimate trigger for the onset of rainfall, with the darkening of the sky serving as a visible sign of the impending precipitation.

2.1.10.2. Downpour

As we have noticed, the ancient Egyptian lexicon reveals a definite vocabulary for describing the intensity and destructive power of atmospheric phenomena, with the term *snm* "downpour" serving as a particularly evocative example. This lexeme, though rare in the corpus, is employed in metaphorical expressions that draw parallels between the overwhelming force of nature and the devastating impact of human conflict. The following passage from the Tombos Stela of Thutmose I exemplifies the dramatic use of *snm* to capture the aftermath of a battle, equating the flow of the enemy's blood to the unstoppable deluge of a torrential downpour.

ḥw.t ex. 23. *ȝ(ỉ)s.sn bʿḥỉ.f ỉn.wt.sn ṯr.w.sn mỉ snm.w ḥwj.t*
Their entrails, it floods their valleys, their red blood is like downpours of rain
(Thutmose I Tombos Stela, 8)[545]

[545] Klug, *Königliche Stelen in Der Zeit von Ahmose Bis Amenophis III*, 73;552.

In the second clause, we find the subject *ṯr.w.sn*[546] "their red blood", blood meant as red gore, flowing from a wound, and the predicate as an adverbial phrase introduced by the preposition *mỉ* "like", followed by the noun phrase *snm.w ḥwj.t* "downpours of rain". It indicates a simile, comparing the flow of the enemies' blood to a flood of rain.

The lexeme *ḥwj.t* "rain" is used in this passage in connection with the noun *snm* "downpour". The combination of these two terms creates a powerful image of a heavy shower, emphasizing the intensity and volume of the slaughter on the field.

The term *snm* "downpour" is found only three times in the ancient Egyptian corpus. Beside this passage, it appears in collocation with atmospheric phenomena such as *ṯzw* "wind", in the example that we have already explored on page 175, and natural elements like *mw* "water" and the aforementioned *wȝ.t* "path" or as passing in the following excerpt:

> *P(ȝ)ḫ.t wr.t ḫns.t ỉn.wt. ḥr(.j).t-ỉb ỉȝb.t(j)t w[ḫȝ] [.s] wȝ.wt snm nn ỉbḥ.w ỉr(.ỉ) ḫnp mw*
> Pachet, the Great One, who traverses the valleys (i.e., wadis), who dwells in the East, [she was seeking] the passing of the downpour, for there was no libation for her, nor offering of water. (Speos Artemidos, Historical inscription of Hatshepsut, col. 19-20) [547]

The determinatives used in the spelling of *snm* in these inscriptions are helpful to deeply understand the ancient Egyptian conceptualization of storms. The spelling of this term in the former text  the latter  includes the determinatives  (N4), representing a falling particle of rain or storm, and (N35), depicting flowing water rivulets. These determinatives clearly connect the term to the notions of perturbation and liquid outpouring, reinforcing its semantic association with powerful and impactful natural phenomena.

The noun phrase *snm.w ḥwj.t* is further connected to the verb *bʿḥỉ* "to flood", which is often associated with the terms *ḥʿpj* "Nile flood" and *nw.w* "primaeval waters" in ancient Egyptian corpora[548]. The use of this verb in the first clause, describing the entrails flooding the valleys, creates a conceptual

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[546] *Wb* 5, 386.13. TLA ID 176230. For this reading, see Hans Goedicke, 'The Thutmosis I Inscription near Tomâs', *Journal of Near Eastern Studies* 55, no. 3 (1996): 169; Beylage, *Aufbau Der Königlichen Stelentexte Vom Beginn Der 18. Dynastie Bis Zur Amarnazeit: Teil 1: Transkription Und Übersetzung Der Texte. Teil 2: Methodik Und Analyse Der Texte*, 214–15.

[547] James P. Allen, 'The Speos Artemidos Inscription of Hatshepsut', *Bulletin of the Egyptological Seminar* 16 (2002): 4,9.

[548] For the collocations analysis of the term *bʿḥỉ*, see 'TLA'.

link between the flow of blood and the inundation of the Nile, both being powerful and transformative liquid forces.

Moreover, the specific term *ṯr* (gore, flowing blood) is used to describe the red colour of the blood of the enemies. This term is semantically linked to the idea of colourful liquid substances and impactful flowing, further reinforcing the images of the blood as an overwhelming force, akin to a flood or a rainstorm. The metaphorical use of *snm.w ḥwj.t* "downpours of rain" to describe the flow of the enemies' blood highlights the extent of the carnage and the complete defeat suffered by the opposing force. The image of a flood suggests a vast and unstoppable flow, covering and engulfing everything in its path. The passage draws upon the common human experience of witnessing the power and intensity of a severe rainstorm, with its ability to flood valleys and sweep away everything in its path. The use of the storm metaphor in the context of a royal inscription serves to emphasize the might and prowess of the Egyptian king and his army[549].

2.1.11. Time and Seasonal Term

As we have seen in the previous semantic sections, particularly in connection with *ȝḫ.t* "field", the lexeme *ḥw.t* is often associated with time and seasonal terms, highlighting its significance in the ancient Egyptian understanding of the natural world and its rhythms. In this section, we will explore the last collocations of *ḥw.t* with nouns related to time, such as *tr* "time" and *rnp.t* "year", as well as its connections to seasonal terms, including those related to agriculture and the cycles of nature.

2.1.11.1. Cyclical Nature of Rainfall

The known Khartoum Stele 2678, dating to the time of king Taharqa, illustrates the occurrence of precipitations into the early reign of this Kushite pharaoh, connected to his building activities, restoration work at the Kawa temple in Nubia, devotion to the god Amun, and efforts to legitimize Kushite rule over Egypt. Two excerpts from this source clarify the semantic connections between the lexeme *ḥw.t* "rain" and the terms *tr* "time", *rnp.t* "year", and *snḏ* "fear".

The first one reads

[549] Shih-Wei Hsu, *Bilder Für Den Pharao: Untersuchungen Zu Den Bildlichen Ausdrücken Des Ägyptischen in Den Königsinschriften Und Anderen Textgattungen*, Probleme Der Ägyptologie 36 (Leiden; Boston: Brill, 2017), 199–200; 426–28.

ḥw.t ex. 24. *pḥ.n qȝȝ.t ỉr.w tp-ḥw.t.s (ȝ)ʿ m ȝḫ.t r tr n(.j) rnp.t snḏ n ḫpr ḥw.t*

(Sand) drifts reached his roof, covered over with earth until the time of year dreading The occurrence of the rain.

(Taharqa Khartoum Stela 2678, Kawa IV,10-11)[550]

The main clause *pḥ.n qȝȝ.t ỉr.w tp-ḥw.t.s* describes the physical state of the temple structure using the accomplished *sḏm.n.f* form of the verb *pḥ* "to reach" with *qȝȝ.t* "drifts" as the subject. The adverbial phrase with the pseudo-participle *(ȝ)ʿ m ȝḫ.t* "covered over with earth" modifies the main clause, providing additional information about the condition of the roof.

The participle *snḏ* followed by the indirect genitival construction *n ḫpr ḥw.t* "dreading the occurrence of the rain" functions as an adjective, modifying the noun phrase *tr n(.j) rnp.t* "time of the year". The term *ḥw.t*, is the key lexeme in this analysis, emphasizing the potentially destructive nature of the rainfall. The noun *tr* "time" combined with the genitival adjective construal *n(.j) rnp.t* "of the year" situates the event within the annual cycle and suggesting that certain periods were particularly associated with heavy rainfall. The verb *snḏ* "to dread, fear" personifies the time of year as experiencing dread or fear in anticipation of the potentially destructive rainfall. The excerpt establishes a clear connection between *ḥw.t* "rain" and the temporal expressions *tr* "time" and *rnp.t* "year", this could probably indicate that the ancient Egyptians recognized a cyclical pattern in the occurrence of heavy rainfall.

Moreover, the association of *ḥw.t* with *snḏ* "to dread, fear" suggests that rainfall could be perceived as a potentially destructive force capable of causing significant damage to structures like the temple roof. This cognitive link between rain and fear or dread highlights the ancient Egyptians' keen awareness of the power of divine intervention, natural phenomena and their potential impact on human life and, in particular for this context, infrastructure. This dread is not merely a reaction to the physical discomfort caused by rain but also to its potential to disrupt agricultural activities, damage infrastructure, and threaten livelihoods.

The association of *ḥw.t* with *snḏ* could be extended to the mentioned concept of *šmm.t* "fever", particularly in the context of the ancient Egyptian understanding of disease and environmental conditions. The cyclical nature of the Nile's inundation and the resulting changes in the environment were believed to influence the prevalence of diseases, including fevers. As we have seen

[550] Macadam, *The Temples of Kawa I*, 14–21, pl. 7–8; Robert K. Ritner, *The Libyan Anarchy: Inscriptions from Egypt's Third Intermediate Period*, ed. Edward Wente, Writings from the Ancient World 21 (Atlanta; Leiden: Society of Biblical Literature; Brill, 2009), 535–39.

the term *šmm.t* is often linked to periods of environmental stress[551], such as the high and then low Nile season, which is associated with stagnant water and increased disease outbreaks.

2.1.11.2. The Divine Influence on Rainfall

The second excerpt from the Kawa Stelae of Taharqa delivers further insights into the ancient Egyptians' belief in the divine influence on natural phenomena:

ḥw.t ex. 25. *wnn nṯr pn m s.t tn n rḫ ỉrỉ.t.n ḥwj.t*
This god is in this place, what caused the downpour is not known.
(Taharqa Khartoum Stela 2678, Kawa IV,15)[552]

In this excerpt, the main clause *wnn nṯr pn m s.t tn* "This god is in this place" is an existential clause, while the negative clause with an accomplished relative form as subject *n rḫ ỉrỉ.t.n ḥwj.t* "what caused the downpour is not known" provides supplementary information about the cause of the downpour. The term *ḥwk.t* emphasizes the intensity of the rainfall event. The negative accomplished construal of the verb *rḫ* "come to know", usually rendered by a present tense[553], expresses the uncertainty surrounding the cause of the downpour.

This excerpt highlights the divine influence on natural phenomena, particularly intense rainfall events. The presence of the god in the temple, mentioned in close proximity to the statement about the unknown cause of the downpour, suggests a potential link between divine actions and the occurrence of heavy rain. The use of *n rḫ* "it is not known" may indicate that the ancient Egyptians acknowledged the limits of human understanding when it came to the forces behind natural events, emphasizing the role of deities in controlling and influencing the natural world, including heavy rainfall

[551] Pascal Vernus, 'Omina Calendériques et Comptabilité d'offrandes Sur Une Tablette Hiératique de La XVIIIe Dynastie', *Revue d'égyptologie* 33 (1981): 96.

[552] Macadam, *The Temples of Kawa I*, 14–21, pl. 7–8; Ritner, *The Libyan Anarchy: Inscriptions from Egypt's Third Intermediate Period*, 535–39.

[553] Malaise and Winand, *Grammaire*, para. 635; Junge, *Late Egyptian Grammar: An Introduction*, 155.

2.1.11.3. The Impact of Rainfall on Religious and Architectural Practice

The nomarch Sarenput I stela 9, dating back to the 12th dynasty, presents a narrative that reiterates themes found in the discussed Kawa stela. This inscription recounts the restoration of a shrine within the Sanctuary of Heqaib at Elephantine. Like its counterpart, this stela showcases the Egyptian thought concerning rainfall and its consequences, particularly in the context of architectural preservation and religious structures.

Although the Sarenput I stela is temporally distant from the Kawa stela, it is presented here due to the similar context it provides. Both stelae similarly share the cultural and environmental factors influencing ancient Egyptian society, emphasizing the recurring theme of rainfall and its impact on religious and architectural practices. We seek to better understand the continuity and evolution of ancient Egyptian beliefs and responses to natural phenomena across different periods.

ḫw.t ex. 26. *ꜥ.t nb.(t) mḥ.t m ḫm.(w) ḫpr ỉs ḥ(w).t mḥ.t [m mw]*
All its rooms were filled with rubble, but as rains happens, then they were filled [with water].
(Sarenput stela n.9,7)[554]

From a syntactic perspective, the passage consists of several clauses with the nominal subject *ꜥ.t nb.(t)* "all rooms", preceding the verbal construction of the verb *mḥ* "be full, fill", used alone[555], without an enunciation auxiliary, together with the prepositional phrase *m ḫm.w* "with rubble". The stative verb derived from the verb *mḥ* describes the state of the rooms being filled or full. The choice of the stative form, rather than an active verb form may imply that the rooms are in a state, either primary or resulting from some previous event[556]. The prepositional phrase *m ḫm.w* "with rubble" specifies the substance that has filled the rooms. The noun *ḫm.w*[557], which translates as "dust", here

[554] Labib Habachi et al., *Elephantine IV: The Sanctuary of Heqaib*, Archäologische Veröffentlichungen, Deutsches Archäologisches Institut, Abteilung Kairo 33 (Mainz: Philipp von Zabern, 1985), 36; pl. 24; Detlef Franke, *Das Heiligtum Des Heqaib Auf Elephantine: Geschichte Eines Provinzheiligtums Im Mittleren Reich*, Studien Zur Archäologie Und Geschichte Altägyptens 9 (Heidelberg: Heidelberger Orientverlag, 1994), 155,165; pl. I.

[555] Malaise and Winand, *Grammaire*, 757.

[556] Stauder, *Passive*, 280.

[557] *Wb* 3, 277.15-278.2. TLA ID 117160.

contextually stands for "rubble", "ruin", or "destruction", and it underscores the extent of the damage and the state of disrepair in which the temple was found.

The passage's focus on the temple's state of disrepair sets the stage for the subsequent clause, which introduces the impact of rainfall: *ḫpr ỉs ḥ(w).t mḥt (m mw)* "but as rains happens, then is full (with water)". The juxtaposition of these two clauses creates a cause-and-effect relationship, highlighting the role of rain in exacerbating the already deteriorated condition of the temple.

Syntactically, *ḥw.t* functions as the subject of the unaccomplished for of the verb *ḫpr* "to happen, to occur". This syntactic construction may suggest that rain was conceptualized as an event or phenomenon that takes place, rather than an agent actively performing an action. The use of the particle *ỉs* in the second clause marks a contrastive effect[558], indicating that, not as before, the occurrence of rain is the reason for the rooms becoming filled with water. This linguistic construction emphasizes the direct impact of rainfall on the temple's structural integrity and the insistence of the restoration efforts.

Lexically, it is noteworthy that the term *ḥw.t* is directly associated with the notion of water "*mw*" in this context. The rooms are described as being filled first with rubble, but then with water as a consequence of the rain. This association might again suggest that *ḥw.t* specifically denotes liquid precipitation, as opposed to other meteorological phenomena.

Moreover, the repetition of the verb *mḥ* in both clauses, first in reference to the rubble and then to the water, creates a parallel structure that reinforces the idea of the temple being overwhelmed by external forces. This repetition also climaxes the compounding effect of the rainfall on the already damaged structure. The nomarch's dedication to restoring the temple, as recorded in the stela, reflects the religious and political significance of these structures and the role of local officials in ensuring their upkeep.

In essence, the excerpt provides insight into the perceived impact of rainfall in ancient Egypt. The fact that the rooms were filled with water as a result of the rain suggests that rainfall was considered significant enough to cause flooding or water damage. This aligns with the idea that, although infrequent, rainfall in ancient Egypt could be heavy and impactful when it did occur.

[558] Oréal, *Les Particules*, 141–42.

A further collocation that elucidates the relationship between the concepts of time and flood caused possibly by rain can be found in the Foundation ritual stele of Thutmosis III from Karnak (Cairo CG 34012).

This stele, dating to the 18th Dynasty of the New Kingdom, provides an explicit context that parallels the themes of temple shrine construction, divine presence, and the interconnectedness of temporal and natural phenomena.

ḥw.t ex. 27. *ỉrỉ.j.ỉ n.f s(j) ḥr p(ỉ) n(.j) rwd.t sq(ʒ)ỉ sʿʒỉ.w wr.t ḏr-ntt ḥ[__] [ʔḥj?].t r ḥw.t-nṯr (ỉ)n Nw.w m ỉỉ[.t] r ỉ[t]r.w.f*

I will build it for him on a pedestal of solid stone, by making it very high and big, for [... The flood] to the temple by Nun when he comes in his times.

(Foundation ritual stele from Karnak Cairo CG 34012, 3)[559]

This passage is part of a longer inscription detailing the construction of a shrine for the god Amun-Re at Karnak. The text employs a first-person singular narrative voice, with the king (Thutmosis III) as the speaker, emphasizing his role as the primary agent in the building process and his direct involvement in the ritual dedication of the shrine.

The main clause of the excerpt, *ỉrỉ.j.ỉ n.f s(ỉ)* "I will build it for him", uses the prospective *sḏm.f* form of the verb *ỉrỉ* "to make, to do" to express the king's intention to construct the shrine. The subsequent clause *sq(ʒ)ỉ sʿʒỉ.w wr.t* "by making it very high and big" further describes the king's plans for the shrine's erection. The stative form of the causative verbs *sqʒỉ* "to make high" and *sʿʒỉ*"make big" are used to express the desired height and stature of the shrine.

The following lacuna in the text makes the exact reading of the next phrase uncertain, but based on the surviving traces and context, it is plausible to reconstruct it as the conjunction *ḏr-ntt* "because", with a verb in *lacuna* starting with the sign *ḥ,* it could be the verb *ḥwỉ*, and possibly referring to *ḥwj.t* here as "flood, inundation". If this reconstruction is accurate, the phrase could be translated as "because the flood flows", suggesting a connection between the shrine's construction and the Nile inundation. Given the semantic context of the passage, which focuses on the construction of a shrine in relation to the Nile inundation, it is permissible to suggest that this verb could be *ḥwỉ*, meaning "to

[559] Kurt Sethe, *Urkunden Der 18. Dynastie*, 2nd ed., Urkunden Des Ägyptischen Altertums, IV (Berlin; Graz: Akademie-Verlag ; Akademische Druck- und Verlagsanstalt, 1961), vols 3, 833–838; Beylage, *Aufbau Der Königlichen Stelentexte Vom Beginn Der 18. Dynastie Bis Zur Amarnazeit: Teil 1: Transkription Und Übersetzung Der Texte. Teil 2: Methodik Und Analyse Der Texte*, 91; Klug, *Königliche Stelen in Der Zeit von Ahmose Bis Amenophis III*, 122.

flow" or "to pour out". This interpretation is reinforced by the aforementioned frequent use of *ḥwỉ* in connection with the inundations.

The prepositional phrase *r ḥw.t-nṯr* "to the temple" specifies the location where the flood waters are directed, namely the temple complex. The agent responsible for this action is introduced by the preposition *ỉn* "by" followed by the divine name *Nw.w* "Nun", referring to the primaeval waters or the god personifying them. This construction emphasizes Nun's role in the annual inundation and its significance for the temple.

The final clause *m ỉỉ.t r ỉtr.w.f* "when he comes in his times" provides the temporal context for Nun's actions. The use of the preposition *m* "in" and the infinitive form of the verb *ỉỉ* "to come" expresses the timing of Nun's arrival. The plural noun *ỉtr.w* "times, seasons" is linked to Nun through the suffix pronoun *.f* "his", indicating that the inundation occurs according to a divinely ordained schedule.

The association of the term *ḥwj.t* "flood" with the phrase *r ỉtr.w.f* "in his times" in this context could suggest a strong connection between the concept of time and the occurrence of the Nile flood. The text implies that the inundation is not an accidental event but rather a cyclical phenomenon linked to the divine realm, with Nun as the driving force behind its regularity.

Moreover, the juxtaposition of the flood waters reaching the temple and the construction of the shrine on a high pedestal may indicate an awareness of the potential destructive power of the inundation and the need to protect sacred structures from its impact. The king's emphasis on the shrine's elevation and solid foundation could be seen as a precautionary measure to ensure its longevity in the face of the periodic flood waters, also with symbolic connotations, as the temple raised above the flood waters like the primordial mound above the primaeval waters.

The analysis of *ḥw.t*'s collocations with time and seasonal terms, even if found just in few examples, might underscore the ancient Egyptians' recognition of the temporal patterns associated with flood and rainfall. The lexeme *ḥw.t* appears in contexts that link it to specific times of the year and the annual cycle, suggesting an awareness of the seasonal nature of precipitation.

2.1.12. Divine and mythological associations

2.1.12.1. Divine Action and Rainstorms

The lexeme *ḥw.t* is frequently found in connection with names of deities, particularly those related to the sky, weather, and might. This section explores these divine and mythological associations, offering insights into how rain was conceptualized as a divine phenomenon and its significance in religious and mythological narratives. Therefore, we now turn our attention to supplementary examples that clarify the complex nature of this term and its role in ancient Egyptian cosmology, religion, and language.

In the first excerpt from the Middle Kingdom literary text the Teaching of the P. Ramesseum II, the lexeme *ḥw.t* "rainstorm" appears in a description of a divine entity's actions:

ḥw.t ex. 28. *[...] nṯr ḥr(.j)? nšnỉ.f r pḥ.tj?.[f] [...] m ḥwj.t*
[...] the superior (?) god (?), he rages with all his might [...] with a rainstorm".
(P. BM EA 10755, ro I, 6)[560]

The fragmentary nature of the text makes full syntactic analysis challenging, but we can observe several key elements. The noun phrase *nṯr ḥr.j*[561] "superior god" serves as the subject of the clause. The unaccomplished form of the verb *nšnỉ* "he rages" follows, with the suffix pronoun *.f* referring back to the god. The prepositional phrase *r pḥ.tỉ.f*[562] "with all his might" modifies the verb, intensifying the action.

The passage's use of evocative language is particularly striking, as it effectively conveys the god's intense and turbulent actions. The verb *nšnỉ*, meaning "to rage" or "to storm", emphasizes the violent and disruptive nature of the god's behaviour, while the prepositional phrase *r pḥ.tj?.[f]* further underscores the deity's exertion of full strength and power.

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[560] Alan Gardiner, *The Ramesseum Papyri* (Oxford: Oxford University Press for Griffith Institute, 1955), pl. III, ro 1, 6.

[561] For further discussion and attestations of this divine epithet, Leitz et al., *LGG*, vol. IV, 436.

[562] The interpretation of *r pḥ* in this passage merits further consideration. Given the frequent collocation of *nšnỉ* with the preposition *r*, denoting opposition or hostility, an alternative analysis presents itself. The form in question may represent an unmarked active participle of the verb *pḥ*, signifying "to reach" and in this specific context "to attack". This reading would yield the translation, "the superior god, he rages against those who attack with a rainstorm". For a comprehensive collocation analysis of these lexical items, consult 'TLA'.

Moreover, the use of the preposition *m* followed by the noun *ḥwj.t* "rain(storm)" establishes a straight connection between the god's actions and the meteorological phenomenon. The rainstorm is portrayed as an instrument or manifestation of the god's rage, underlining the association between divine power and natural forces. The choice of the lexeme *ḥwj.t*, with its connotations of intensity and abundance, could reinforce the idea of the god's actions being overwhelming and potentially destructive.

Two lexical choices within the passage are especially remarkable and contribute to the overall meaning and significance of the text. Firstly, the use of the *nisba* adjective *ḥr.j*, meaning " uppermost" in the phrase *nṯr ḥr(.j)*, or "the superior god", adds a crucial layer of meaning to the passage by reinforcing the connection between the divine, the sky, and the natural phenomenon of rain. The adjective *ḥr.j* is morphologically related to the noun *ḥr.t*[563], which means "sky" and is one of the most fundamental and ubiquitous terms in the Egyptian language related to the celestial realm, appearing frequently in religious and cosmological texts from the earliest stages of the language. The term is attested from the earliest stages of the Egyptian language, appearing frequently in religious and cosmological genres. The text not only emphasizes the deity's elevated status but also establishes a direct link between the god and the celestial realm. This connection is further reinforced by the use of the term *ḥwj.t* "rain" in the same passage, as rain was understood to originate from the sky and to be under the control of the gods who resided there.

Secondly, the lexical choice of the verb *nšnỉ* itself is relevant, as it belongs to the same semantic field and root as the aforementioned noun *nšnj*[564] "storm, rage". This noun, accompanied by the determinative of the Sethian animal  (E20)[565], is one of the primary metaphorical terms used to describe violent and disruptive natural phenomena in the Egyptian language. The use of the verb *nšnỉ* in connection with the term *ḥwj.t* "rain" in this passage, therefore, evokes a powerful image of divine wrath manifested through the intense and potentially destructive forces of nature.

In light of the preceding analysis, it is noteworthy to revisit the enantiosemous root √*nš*, which exhibits the dual meanings of "throw out" and "gather". This root appears to be morphologically related to the verb and noun *nšnỉ*. The semantic connection can be elucidated by a gloss in the Edwin

[563] *Wb* 3, 144.8-17. TLA ID 88790.

[564] *Wb* 2, 341.1-16. TLA ID 88790.

[565] McDonald, 'Animal Metaphor', 135–36; McDonald, 'A Metaphor'; Soler, 'Los Orígenes'.

Smith Papyrus[566], which suggests a conceptual link to the act of "throwing out", "pouring out", or "releasing", particularly in the context of atmospheric phenomena. This semantic range aligns with the earlier discussion of meteorological associations and reinforces the complex nature of this lexical item in ancient Egyptian linguistic thought.

Furthermore, this excerpt demonstrates how the lexeme *ḥwj.t* was integrated into religious and literary contexts to create powerful imagery and reinforce theological concepts. Linking divine action directly to a rainstorm, the text highlights the belief in the gods' control over natural forces and the potential for these forces to serve as expressions of divine will or punishment.

2.1.12.2. Divine Entity and the Concept of Rain

The second excerpt comes from the 18th dynasty religious text known as the Book of the Heavenly Cow. This text, found in several royal tombs of the New Kingdom, including those of Tutankhamun, Seti I, and Ramesses III, presents a mythological account of the destruction of humanity and the creation of the current cosmic order. The narrative describes how the sun god Ra, angered by humanity's rebellion, sends his daughter Hathor, in the form of the goddess Sekhmet, to punish mankind. After the slaughter, Ra regrets his decision and devises a plan to stop Sekhmet's rampage by tricking her into drinking beer dyed red to resemble blood. Within this complex mythological context, the passage offers a concise yet intriguing opportunity to explore the semantic connections of the lexeme *ḥw.t* within its syntactic and lexical context:

[566] A. McDonald offers a conceivable argument for the metaphorical connection between the concepts of "storm" and "rage" as they relate to the term *nšnj*: "In a gloss from P. Edwin Smith, Case 41 (14, 15-16, Gloss E), the morphologically related term *nš* is defined as synonymous with *pr*, which, in turn, elucidates the significance of *nšnj* in relation to storms: it represents the complete release of water from the sky. This interpretation is further supported by the occasional fusion of the Seth animal with water symbols, either emerging from the animal itself or from the *pt*-sign on which it rests. The presence of the Seth animal infuses the descent of water from the sky with aggression, transforming *nšnj* from a mere representation of "rain" into a powerful "storm". Similarly, this aggressive connotation extends to the expression of strong emotion, allowing *nšnj* to denote "rage". Paraphrased from McDonald, 'Animal Metaphor', 135–36.

ḥw.t ex. 29. *bȝ pw n Ḥḥw ḥw.t*

The Ba of Heh is the flow.

(KV 9, S86, line 6)[567]

From a syntactic perspective, the sentence follows the A *pw* B nominal sentence pattern, this construction establishes a direct relationship between the divine entity *Heh*[568] and the concept of rain or flowing water, with the *ba* of *Heh* being equated with or manifested through this natural phenomenon. The use of the term *ba*[569] in this context is significant, as it refers to a fundamental aspect of ancient Egyptian conceptions of the soul and divine power. The *ba* was understood as a manifestation of a deity's power and essence, often associated with the ability to transform and move freely between the earthly and divine realms. The text suggests that the divine power and presence of this deity is made manifest through the natural phenomenon of falling or flowing water.

The divine name *Heh* itself is also laden with meaning, as it could be connected to the aforementioned verb *ḥwỉ* "to flood, to flow" and thus also to *ḥw.t*[570]*,* in the text as a pun[571]. *Heh* was a primordial deity associated with the concept of infinity, eternity, and the endless flow of time and water[572].

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[567]Erik Hornung et al., *Der Ägyptische Mythos von Der Himmelskuh: Eine Ätiologie Des Unvollkommenen*, Orbis Biblicus et Orientalis 46 (Freiburg Schweiz; Göttingen: Universitätsverlag; Vandenhoeck & Ruprecht, 1982), 26.

[568] *Wb* 3, 152.11. TLA ID 109300. Leitz et al., *LGG*, vol. V p. 468f.

[569] For an in-depth examination of the *ba*'s evolution, its various manifestations, and its significance in Egyptian religion and philosophy. see Jiří Janák, 'Ba', in *UCLA Encyclopedia of Egyptology*, ed. Jacco Dieleman and Willeke Wendrich (Los Angeles, Cal, 2016), https://escholarship.org/uc/item/9tf6x6xp.

[570] Alternatively, P. Wilson suggests potential connection between the term *Ḥḥw* and the verb *ḥḥ*, which denotes the concepts of being "far" or "remote". While this proposed etymological link is intriguing, it is important to approach such assertions with caution. The suggestion that *Ḥḥw* may refer to the distant sources of the Nile flood is an interesting hypothesis, as it would imbue the term with geographical and cosmological significance within ancient Egyptian thought, see Wilson, *Ptolemaic Lexikon*, 674; Filip Coppens, 'Heh(u) ("infinity"): A Personification of an Aspect of the Nile Inundation in the Temples of Dendara and Edfu', *Anthropologie: International Journal of Human Diversity and Evolution* 56, no. 3 (2018): 176.

[571] Hornung, *Texte Zum Amduat. Teil 3: Langfassung, 9. Bis 12. Stunde*, 69.

[572] Kurt Sethe, *Amun Und Die Acht Urgötter von Hermopolis: Eine Untersuchung Über Ursprung Und Wesen Des Ägyptischen Götterkönigs*, Abhandlungen Der Preußischen Akademie Der Wissenschaften Zu Berlin 4 (Berlin: Verlag der Akademie der Wissenschaften; Walter de Gruyter, 1929), 64–65.

The use of the lexeme *ḥw.t* in this context is intriguing, as it seems to be employed in a more abstract sense compared to its usual meaning of "rain" or "rainstorm". Here, *ḥw.t* appears to denote a "flow" or "outpouring", possibly referring to the creative or generative power associated with the god *Hehu*. The choice of this term may be a deliberate attempt to evoke the life-giving and fertilizing properties of water, drawing a parallel between the divine power of Huh and the nourishing effects of rainfall.

The association of *ḥw.t* with the *Ba* of *Hehu* suggests a symbolic link between the concept of rain and the creative forces of the primaeval deities. In ancient Egyptian cosmology, the Ogdoad represented the fundamental elements and forces that existed before the creation of the ordered world[573]. The text may be alluding to the role of these primaeval deities in setting the stage for the emergence of life and the cyclical processes of nature, including the vital phenomenon of rainfall.

These identifications establish how abstract cosmic principles manifest through natural phenomena, with *Hehu*'s manifestation specifically being rainfall or flowing water (*ḥw.t*), while creating a crucial theological distinction between different types of primordial water: Huh represents flowing, dynamic water (including rain and streams), while Nun represents the static, primordial waters of creation[574]. This differentiation between *Hehu* as a flowing primordial body of water in contrast to Nun as a standing primordial body of water reflects sophisticated Egyptian theological understanding of water's various manifestations and roles in cosmic order. The systematic enumeration of these divine correspondences demonstrates how ancient Egyptian cosmology provided a framework for understanding the relationship between divine forces and natural phenomena, positioning rain (*ḥw.t*) within a broader theological context that encompasses the full spectrum of cosmic manifestations from magic and time to atmospheric conditions and primordial waters.

[573] Sethe, 74–78; Christiane Zivie-Coche, 'L'Ogdoade à Thèbes à l'époque Ptolémaïque et Ses Antécédents', in *Documents de Théologies Thébaines Tardives (D3T 1)*, ed. Christophe Thiers (Montpellier: Université Paul Valéry, Institut d'Egyptologie François Daumas, 2009), 167–225.

[574] Winfried Barta, 'Die Bedeutung Der Personifikation Huh Im Unterschied Zu Den Personifikationen Hah Und Nun', *Göttinger Miszellen* 127 (1992): 7–12.

2.1.12.3. Early Attestations of *ḥw.t* in Religious Texts

In order to expose the fundamental characteristics of the lexeme *ḥw.t* and its role in the ancient Egyptian conceptualization of hydrometeors, we have decided to analyse the earliest known attestation of this term as the final excerpt in our analysis. Despite the inherent risks associated with projecting later conceptions onto earlier periods, this approach seems justified here by the small number of occurrences and the consistency of the collocations observed. We think that the exploration of this example at the end of our section, could resume the conceptual basis for the other attestations, to gain a more ample understanding of the term's orthographic elaboration, its mythological and magical associations, and its connection to the ancient Egyptian perception of meteorological events.

The following passage, sourced from the Old Kingdom Pyramid Texts (Unas PT 285), offers a window into the earliest attestation of the lexeme, through a meticulous analysis of this early attestation, we seek to uncover the foundational elements that shaped the subsequent evolution and application of the term *ḥw.t* in the context of atmospheric phenomena. It reads

ḥw.t ex. 30. *Sšȝ.w ḥw.t ḫzi̯.j ḏ.t twr ḥt(j.)t-i̯b.i̯*
Seshau, rain. The cobra is weak, my windpipe is pure.
(PT 285 § 426 b-c)

From a syntactic perspective, the utterance exhibits a paratactic structure, consisting of three distinct clauses without explicit connectives. This arrangement is typical of the terse, formulaic nature of magical utterances against feral creatures in the Pyramid Texts[575], where each clause carries significant semantic weight despite the lack of elaborate grammatical structures.

Syntactically, the utterance is composed of three primary clauses, each carrying significant meaning and interconnected through their semantic relationships. The first clause, *Sšȝ.w*[576]*, ḥw.t,* could be considered a nominal sentence that likely functions as an invocation. It translates as "Seshau,

[575] The concise nature of snake-related spells probably stems from the urgency of unexpected encounters, where individuals have limited time to react before the snake either attacks or retreats, see Christian Leitz, 'Die Schlangensprüche in Den Pyramidentexten', *Orientalia* 65, no. 4 (1996): 385.

[576] *Hapax legomenon,* see *Wb* 4, 280.12-13. TLA ID 144630.

rain" invoking the deity Seshau, who is likely an early form of the goddess Seshat. This structure might suggest an imperative or declarative call to the deity to protect from rainfall[577].

The second clause *ḫzi̯.j ḏ.t* presents an adjectival predicate with a nominal subject. The predicate *ḫzi̯*[578] is a verb meaning "to be weak", and the subject *ḏ.t* is a noun referring to the cobra. The use of an adjectival predicate here emphasizes the state or quality of the subject, in this case, the weakness of the cobra.

Similarly, the third clause, *twr ḥt(j.)t-i̯b.i̯* also presents an adjectival predicate with a nominal subject. The predicate *twr* is a verb meaning "to be pure", and the subject *ḥt(j.)t-i̯b.i̯*[579] is a Noun phrase referring to the speaker's throat, or possibly windpipe. Again, the use of an adjectival predicate emphasizes the state or quality of the subject, in this case, the purity of the speaker's throat.

It is important to note that the predicates in both clauses might be in the subjunctive form of the suffix conjugation. In this context, the use of this form could imply that the weakness of the cobra and the purity of the speaker's throat are not merely statements of fact but rather aspirations or desired outcomes.

These clauses are semantically linked, forming a cohesive invocation. The call for rain to be averted by the deity Seshau is deeply connected to the desire for the cobra to be weakened and for the speaker's throat to be purified. This likely reflects a protective spell against snake venom, where the rain symbolizes a both a danger and a purifying force capable of neutralizing the venom's effects. This spell appears to be using sympathetic or analogic magic[580], where the natural phenomena are used to influence the behaviour of the snake and its venom.

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[577] An alternative interpretation considers the presence of the negative particle *w* – *Wb* 1, 243.8, TLA ID 42360, typically preceding a direct object to denote a negative context. In this case, it might suggest an impediment to rain due to the intervention of the deity Seshau. However, given the complex syntactic structure, this interpretation remains mere proposition. For a detailed discussion of the negative particle *w*, see Elmar Edel, *Altägyptische Grammatik II*, Analecta Orientalia 39 (Roma: Pontificium Institutum Biblicum, 1964), 1100 f.

[578] *Wb* 3, 398-399.10. TLA ID 124600.

[579] Compound noun is composed by "throat" –*Wb* 3, 181.4-16, TLA ID 111160, and *i̯b* "heart" frequently in collocation with the verb *srq* "to let breathe; to breathe; to open" *Wb* 4, 201-203.10. TLA ID 139770.

[580] Ritner, *The Mechanics*, 9–10.

Lastly, the mention of the windpipe (throat and heart) *ḥt(j.)t-ỉb.ỉ* in the final line of the excerpt may allude to the cardiac and respiratory failure often caused by snake venom[581]. The assertion of the organ's purity could be interpreted as a plea for protection against the lethal effects of the venom, with the rain serving as a metaphorical agent of cleansing or purification. This underscores the associations between bodily fluids, natural phenomena, and the magical practices aimed at countering the destructive forces of snake venom in ancient Egyptian tradition.

As we have previously observed, this passage is quite remarkable as it shows the peculiar writing of the word determined only in this instance by  (N4) instead of the common (N35a). This unusual choice of determinative is significant, as it suggests a more specific focus on the act of precipitation itself, rather than the general notion of water or liquid. The (N4) determinative could here emphasize the dynamic and turbulent nature of the downpour, with the falling particle symbolizing the intensity and force of the rainfall. Such a representation may suggest that the ancient Egyptians perceived a causal link between intense rainfall and an increased incidence of snake bites[582].

The excerpt's inclusion in a formula against snakes highlights the ancient Egyptian understanding of the relationship between heavy rainfall and increased reptilian activity. As previously discussed on page 159, during floods and downpours, snakes and other venomous creatures are forced to abandon their burrows and seek higher ground, leading to more frequent encounters with humans and a higher incidence of bites. The invocation of Seshau in this context may serve as a plea for divine intervention and protection of the house against the dangers associated with both the rain and the snakes it displaces.

The god Seshau, potentially identified with Seshat, is particularly intriguing. Seshat, often associated with the safety and protection of houses during inclement weather (CT IV, 50a, V, 2b), is not typically linked to rain in ancient Egyptian theology. Her presence in this passage suggests a hidden

[581] Tarek M. Abd El-Aziz et al., 'Comparative Study of the in Vivo Toxicity and Pathophysiology of Envenomation by Three Medically Important Egyptian Snake Venoms', *Archives of Toxicology* 94, no. 1 (January 2020): 335–44; A. S. Averin and Yu. N. Utkin, 'Cardiovascular Effects of Snake Toxins: Cardiotoxicity and Cardioprotection', *Acta Naturae* 13, no. 3 (2021): 4–14.

[582] Additional spells that establish a connection between rain, water, and snakes can be found in Papyrus Leiden V, XXV, 1, 2, providing further evidence of the symbolic and ritualistic associations between these elements in ancient Egyptian texts, see Susanne Beck, *Exorcism, Illness and Demons in an Ancient Near Eastern Context: The Egyptian Magical Papyrus Leiden I 343 + 345*, Papers on Archaeology of the Leiden Museum of Antiquities 18 (Leiden: Sidestone, 2018), 104–5.

symbolic connection between the goddess and the concept of rainfall, perhaps as a means of divine protection of the house or purification.

The analysis of the language employed in the entire spell (PT 285 § 246a-d) exposes semantic associations that shed light on magic, cosmology, and the symbolic significance of bodily fluids in ancient Egyptian thought. The use of verbs related to spitting, such as *bšỉ*[583] "to spit, to spew", along with nouns denoting poisonous substances, including *nšs*[584] "poison drop", *šz*[585] "poison gland", and *mwj*[586] "poison", builds upon a well-documented aspect of Egyptian magic[587], in which the act of spitting and the expulsion of venomous substances are saturated with powerful figurative meanings.

The symbolic link between spitting, snake venom, and rain in the spell can be interpreted as a manifestation of the belief in the inherent power of spittle, which, when charged by the incantation, is thought to counteract the deleterious effects of snake venom. This interpretation is further supported by the concept of sympathetic magic[588], whereby the ritualistic act of spitting, mimicking the expulsion of venom, is believed to produce a corresponding effect in reality – namely, the expulsion of the poison from the victim's body. The parallel drawn between the act of spitting and the natural phenomenon of rain serves to reinforce this interpretation, as rain, in Egyptian cosmology and, as we have seen so far, cognitive background, embodies the concept of "release" or "pouring out", and is associated with cleansing and purification. Just as rain cleanses the earth, the ritual spitting, imbued with the spell's power, is intended to cleanse the victim of the snake's venom.

The conceptual connection between emitted bodily substances and their various prophylactic, purifying, and destructive functions is further developed and emphasized in ancient Egyptian funerary

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[583] *Wb* 1, 477.14-478.4. TLA ID 57600.

[584] *Wb* 2, 342.9. TLA ID 88870.

[585] *Wb* 4, 529.11. TLA ID 156910.

[586] The term "semen, seed" – *Wb* 2, 53.4; TLA ID 69210, is here metaphorically employed to signify poison, conceptualized as an emitted substance, see Leitz, 'Die Schlangensprüche', 417–18.

[587] Karola Zibelius-Chen, 'Zu "Speien" Und "Speichel" in Ägypten', in *Studien Zu Sprache Und Religion Ägyptens : Zu Ehren von Wolfhart Westendorf, Überreicht von Seinen Freunden and Schülern*, ed. Friedrich Junge, vol. 1, 2 vols (Göttingen: F. Junge, 1984), 399–407; Ritner, *The Mechanics*, 78–88.

[588] The law of similarity was a cornerstone of Egyptian magic, postulating that similar entities could exert influence and interact with each other, thereby enabling actions performed on one object to have a corresponding effect on another object with shared characteristics, see Yvan Koenig, 'Magic and Religion in Ancient Egypt: Performativity and Analogy', in *Studies on the Ancient Egyptian Cultures and Foreign Relations*, ed. P. Kousoulis (Rhodes, 2007), 58–60.

texts, particularly within a cosmogonical context[589]. This symbolic association is especially evident in the Pyramid Texts, where phrases such as

ỉsd pr m rʒ Stš
Spittle emitted from the mouth of Seth
(PT 455 § 849c)

ỉsd Stš
Spittle of Seth
(PT 247 § 261a)

are employed to refer to rain[590]. The use of these specific terms suggests a strong metaphorical link between the bodily emissions of deities and the manifestation of natural forces[591].

The attribution of rain to the spittle of Seth, a deity closely associated with storms and chaos, further reinforces this symbolic connection. Seth's epithet *nb qrỉ* "lord of the storm" (PT 247 § 261a), later identified as "the Spewer" *ỉššj*[592], underscores his role as a divine entity capable of unleashing powerful and potentially destructive natural phenomena. The imagery of Seth's spittle being equated with rain emphasizes the perceived potency and significance of these divine emissions in the ancient Egyptian worldview.

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[589] Susanne Bickel, *La Cosmogonie Égyptienne Avant Le Nouvel Empire*, Orbis Biblicus et Orientalis 134 (Freiburg (Schweiz); Göttingen: Universitätsverlag; Vandenhoeck & Ruprecht, 1994), 76–78.

[590] For the interpretation of *ỉsd* "saliva" –*Wb* 1, 134.7-8. TLA ID 31870, denoting rain, also refer to Erik Hornung, *Das Totenbuch Der Ägypter*, Goldmann Esoterik (München: Goldmann, 1993), 516; Wilson, *Ptolemaic Lexikon*, 113; Mathieu, *Les Textes de La Pyramide de Pépy Ier: Traduction*, 286.

[591] The concept of rain as divine spittle aligns with broader Near Eastern mythological traditions. In Mesopotamian mythology, for instance, In the Babylonian creation myth, the *Enuma Elish*, Enūma (V 53-58), Marduk is described as using parts of the slain goddess Tiamat's body to create various elements of the natural world. Specifically, Tiamat's saliva is used to create mists and clouds, while her tears become rivers such as the Tigris and Euphrates, see W.G. Lambert, *Babylonian Creation Myths*, Mesopotamian Civilizations (Penn State University Press, 2013), 100–101; Francesca Rochberg, 'Mesopotamian Cosmology', in *A Companion to the Ancient Near East* (Hoboken, NJ, USA: John Wiley & Sons, Inc, 2020), 308; Anna Perdibon, '"Between the Mouth of the Two Rivers". The Agency of Water, Springs, Rivers and Trees in Ancient Mesopotamian Cosmology and Religion', *Etnološka Tribina* 51, no. 44 (2021): 44.

[592] Attested at least from the 20th dynasty, see *Wb* 1, 136.3. TLA ID 32110.

This metaphorical association between bodily fluids and natural phenomena can be understood as a means of conceptualizing and explaining the origins and mechanisms of the natural world within the ancient Egyptian cosmogony.

The conceptual connection between bodily fluids and powerful natural phenomena is further developed in the later Coffin Texts, extending to other deities while maintaining the use of the term "spittle" (*ỉsd*). Spell 527 (CT VI, 119i) explicitly connects purification with "the spittle emitted from the mouth of Atum" *ỉsd pr m rȝ n Rʿ-Ỉtm*. Interestingly, the same spell draws a parallel between this cathartic spittle and the sky and earth, stating:

bw.ỉ ʿbw p.t tȝ wʿb.t n Rʿ n Gb
My purification is the purification of sky and earth which were purified for Re and for Geb.
(CT VI, 119p)

Here the saliva of the creator god Atum is given an essential role in the purification of the cosmos for other major deities like Ra, the sun god, and Geb, the earth god. The corporal fluids of the gods, by virtue of their divine nature, take on powerful cleansing and restorative capabilities that maintain order and purity in the universe.

This passage can be arguably interpreted as an allusion to hydrometeors and rainfall in particular, where the purification of the sky and earth metaphorically represents the cleansing effect of rain. The spittle of Atum, a divine element, descending from the sky, parallels the natural process of rain falling from the sky, thereby purifying the earth.

The implicit conceptual relation with rain can be justified through several lines of reasoning. First, the ancient Egyptians often viewed the sky and earth as interconnected entities, with the sky acting as a reservoir for water that would eventually fall as rain to nourish the earth. The purification of the sky and earth, as mentioned in the Coffin Texts, can thus be seen as a metaphorical reference to the cleansing and renewing effects of rainfall. Rain, in this and other contexts, serves as a natural purifier, washing away impurities and bringing fertility and renewal to the land.

Second, the use of divine spittle as a metaphor for rain can be understood in ancient Egyptian cosmology, where bodily fluids of deities were believed to possess transformative and regenerative properties. Just as the spittle of Seth is linked to rain and storm, the spittle of Atum, a creator god, is associated with the purification and renewal of the cosmos. This parallel suggests that rain, as a life-giving and purifying force, is conceptually linked to the divine emissions that sustain and regenerate the universe.

Conclusion

The analysis of the ancient Egyptian lexeme *ḥw.t,* presented in the provided section, demonstrates that this term played a significant role in the conceptualization of rain, flood, and related hydrometeors within the ancient Egyptian language and culture. The lexeme *ḥw.t* appears in a wide range of textual genres, including literary, religious, mythological, and historical inscriptions, spanning from the Old Kingdom to the Ptolemaic period.

The contextual analysis reveals that *ḥw.t* frequently collocates with nouns from various semantic domains, such as geographical features (sky, mountains, fields), natural phenomena (wind, storms, cold, snow), time and seasonal terms (year, season), and divine and mythological entities. These collocational patterns suggest that *ḥw.t* carried a complex set of connotations that extended beyond the mere notion of precipitation, reflecting the ancient Egyptians' understanding of meteorological events.

Syntactically, *ḥw.t* appears in diverse constructions, functioning as a subject, object, or adverbial modifier, and occurring in various morphological forms, including singular, plural, and derived forms. The lexeme is found in nominal phrases, prepositional phrases, and verbal predicates, often in association with verbs denoting movement, transformation, or divine action. The analysis of determinatives used with *ḥw.t* provides insights into the ancient Egyptian categorization of the term, with the prevalent use of the N35A sign () indicating its association with liquid and the sky, and the less frequent determinative N4 sign () suggesting a connection to atmospheric disturbances and potential disruption.

The study also sheds light on the metaphorical use of *ḥw.t*, particularly in literary and poetic contexts, where the lexeme is employed to convey notions of divine power, destruction, and transformation. The comparison of the destructive force of rainfall to the devastation of battle highlights the symbolic significance of *ḥw.t* in representing the overwhelming power of natural phenomena and their potential to effect change on both the physical and metaphysical levels.

Moreover, the analysis of *ḥw.t* in relation to time and seasonal terms reveals the ancient Egyptians' knowledge of the cyclical patterns of precipitation and its impact on agriculture, religious practices, and the overall functioning of society. The lexeme's association with specific times of the year and the annual inundation cycle underscores the importance of integrating meteorological phenomena into the ancient Egyptian understanding of time and the natural world. Finally, the examination of *ḥw.t* in divine and mythological contexts illuminates the ancient Egyptian perception of rain and flood as manifestations of divine will and power.

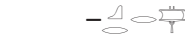
3. LEXICAL ANALYSIS OF THE SECOND CASE STUDY: LEXEME *ỉgp* "cloud"

The lexeme  *ỉgp* "rain cloud" stands out as a key term referring to the visible manifestation of atmospheric moisture and a harbinger of rainfall, it occupies a central position in the Egyptian precipitation vocabulary. This section aims to explore the etymological, contextual, and syntactic dimensions of this lexeme, positioning it within the Egyptian meteorological vocabulary and cosmology.

While this analysis focuses primarily on *ỉgp*, systematic comparison with related atmospheric vocabulary (*wtn.w, kʒp.t, sṯs.w)* provides essential semantic context. These comparative lexemes are excluded from detailed treatment not due to lesser significance, but because their semantic profiles indicate distinct conceptual categories: *wtn.w* emphasizes static water bodies, *kʒp.t* foregrounds covering/concealment functions, while *ỉgp* uniquely bridges dynamic atmospheric processes with divine agency. This differentiation, evidenced through determinative usage and collocational patterns, justifies focused analysis while acknowledging the broader lexical network.

Motivation of the Case Study's Selection

The choice to focus on *ỉgp*, rather than other cloud-related terms such as

–  "cloud, storm cloud" *qr, qrr, qrỉ*[593],
–  "cloudiness" *ḥʒtj*[594],
–  "storm cloud" *šnʿ*[595],

is grounded in several linguistic factors. Unlike *qr, qrr,* and *qrỉ*, which are closely associated with perturbations and wind storms, *ỉgp* appears to have a more specific connection to rain and hydrometeors. This distinction is essential, as it allows for a more focused examination of the Egyptian understanding of rain-bearing clouds as distinct from other atmospheric disturbances. Furthermore, while *ḥʒtj* indicates cloudiness in terms of darkness or obscured vision, and *šnʿ* refers specifically to

[593] *Wb* 5, 57; 61; 58.6-8. TLA ID 161770. Similarly to *ỉgp*, this term exhibit some continuity in Coptic as κλοολє, see Crum, *Coptic Dictionary*, 104a; Westendorf, *Koptisches Handwörterbuch*, 61.

[594] *Wb* 3, 35.8-12. TLA ID 101690.

[595] *Wb* 4, 507.3-9. TLA ID 155760.

storm clouds, *ỉgp* seems to occupy a unique semantic space that bridges the concepts of clouds and rain.

Brief Introduction to the Corpus and Time Periods Covered

The continuity of *ỉgp* in the Coptic lexeme бнпє[596] provides an additional layer of significance, offering observations into the long-term stability and evolution of this meteorological concept in Egyptian language. This diachronic perspective may enhance our understanding of how the ancient Egyptians conceptualized rain clouds over time, potentially revealing shifts in hydrometeors' perception or linguistic representation across different periods of Egyptian history.

The lexeme *ỉgp* could serve as a linguistic link between *ḥw.t* "rain" and *ỉʒd.t* "dew", since this supposed connection might imply that *ỉgp* may have been understood as part of a conceptual structure of atmospheric humidity, encompassing various forms of hydrometeors. From a physical assessment, the formation of rain requires the condensation of water vapour in clouds, while dew forms when water vapour condenses directly on surfaces, typically during the cooler hours of the night.

From a semantic perspective, the verb *(ỉ)gp*[597], morphologically connected to with *ỉgp,* through a posited primary meaning "to soar" or "to glide", and its secondary meaning of "to cloud, to cover as a cloud", acts as a conceptual bridge between the notions of rain (*ḥw.t*) and dew *(ỉʒd.t)*. The verb *(ỉ)gp*'s association with the movement of clouds in the sky and its metaphorical extension to

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[596] Crum, *Coptic Dictionary*, 825b; Westendorf, *Koptisches Handwörterbuch*, 462; Černý, *Coptic Etymological Dictionary*, 334; Vycichl, *Dictionnaire Étymologique*, 345.

[597] The ancient Egyptian verb *gp* – *Wb* 5, 165; TLA ID 167130, carries several identified meanings related to the behaviour and appearance of clouds. While not intended to be an exhaustive list, the following references provide salient examples of these nuances.

According to D. Meeks, one meaning of *ỉgp* is "to fly over, cover as a cloud", Meeks, *AL I*, s.v. 77.0491 *jgp*. It suggests the action of a cloud moving across the sky or spreading out to cover an area, emphasizing the dynamic, motion-oriented aspect of the verb.

R. Faulkner provides another nuance, *ỉgp* "to be overcast or to soar cloudwards", Faulkner, *CDME*, 32. It focus on the state of the sky being cloudy or overcast, as well as the upward movement of clouds or objects towards the clouds, highlighting both the stationary and directional aspects of the verb.

The *Wörterbuch der ägyptischen Sprache* offers a third meaning, "to cloud over or to be cloudy", *sub verbo ỉgp Wb* 1, 141.1-2, It emphasizes the process of the sky becoming cloudy or the state of being cloudy, drawing attention to the transitional nature of the verb and the resulting atmospheric condition.

describe the state of the sky as cloudy or overcast establishes a well-defined link to the formation and presence of atmospheric moisture.

Preview of the Upcoming Chapters

In the imminent chapter, we will delve into the potential semantic and morphological connections between the ancient Egyptian lexemes *ỉgp* "rain cloud" and the verb *(ỉ)gp* and its possible derivational relationship. The subsequent contextual and syntactic analysis of the verb *(ỉ)gp* usage across various genres and time periods will further illuminate its semantic field and potential associations with other meteorological phenomena. Our investigation will also explore if textual evidence suggests that the ancient Egyptians may have recognized the commonalities between rain, dew, and the formation of clouds as manifestations of atmospheric water undergoing phase changes.

Structure of the Analysis

Our analysis will be structured into several key sections. We will begin with the case study's distribution according to diachrony and literary genre, morphological investigation, exploring the roots and semantic development of the verb *(ỉ)gp*. This will be followed by a detailed contextual and syntactic analysis, examining the term's usage in various textual sources and its grammatical behaviour. Special attention will be paid to the following metaphorical expressions associated with clouds, particularly the phrases:

 *sṯs.w* "liftings" as "clouds"[598] and

 *sṯs.w-Šw* "air space; clouds (lit. liftings of Shu)"[599].

It is worth noting that this study and the one for the next lexeme *ỉʒd.t*, will not encompass a dedicated section on graphic analysis due to the consistent use of the determinative  (N4), and only few times (N1), in the hieroglyphic and hieratic representations of *ỉgp*. The uniformity observed across these attestations suggests that a detailed graphic analysis would provide minimal additional

[598] *Wb* 4, 361.15-362.2. TLA ID 149470.

[599] *Wb* 4, 361.8-14. TLA ID 851537.

understanding. Despite this limitation, the graphemic representation of *ỉgp* will be examined in detail within the contextual analysis section, where relevant. This approach will allow for a more integrated understanding of the term's graphemic, semantic, and contextual aspects, without necessitating a separate section dedicated solely to graphemic analysis.

Overview of Distribution According to Diachrony

The examination of *ỉgp* occurrences across ancient Egyptian textual sources provides an outline into the documentation patterns of atmospheric phenomena, though this survey represents only an initial exploration of the term's basic form. The corpus of 15 identified attestations, distributed from the Old Kingdom through the Late Period, reveals notable concentrations that may deepen our understanding of how clouds were conceptualized in ancient Egyptian texts.

Genre	**Old Kingdom**	**First Intermediate Period**	**Middle Kingdom**	**New Kingdom**	**Late Period**	**Total**
Funerary/Religious Texts	2	0	5	1	1	9
Magical/Medical Texts	0	0	2	1	0	3
Autobiographical Texts	0	1	0	0	0	1
Wisdom Literature	0	0	1	0	0	1
Hymns	0	0	0	0	1	1
Total per Period	2	1	8	2	2	15

Table 9: Frequency of *ỉgp* by Genre and Time Period

The temporal dimension of *ỉgp* attestations presents a distinctive pattern cantered on the Middle Kingdom, which accounts for nearly half of the documented instances (8 attestations). This Middle Kingdom florescence merits particular attention, as it coincides with broader developments in Egyptian religious literature and theological expression. The attestations begin in the Old Kingdom with two examples from the Pyramid Texts, establishing the term's early integration into religious discourse.

When examining textual categories, religious and funerary compositions emerge as the primary vehicle for *ỉgp* usage, encompassing more than half of the attested examples (9/15). This marked preference for religious contexts suggests that clouds held particular significance in Egyptian theology. The secondary presence in magical-medical texts (3 attestations) indicates an additional specialized application within ritual and healing contexts. The sporadic appearances in autobiographical texts, wisdom literature, and hymnic compositions (collectively 3 attestations) hint at the term's potential range beyond purely religious spheres.

This preliminary survey, while instructive, necessarily excludes variations and related forms that will be explored later. The patterns observed here should be understood as a foundation for the following investigation of the lexeme's full semantic development.

Several methodological considerations inform this analysis. To maintain analytical clarity, this survey counts each unique textual passage only once, even when it appears in multiple sources or parallel versions, thus avoiding redundant counting of the same attestation. The varying preservation rates across different periods and genres may influence our understanding of actual usage patterns.

Morphological analysis

3.1.1. The verb *(ỉ)gp* in the Ancient Egyptian Corpus

This section aims to explore the etymology and semantic nuances of the term *ỉgp*, focusing on its connection to the verb *(ỉ)gp*, which, as we said, carries the meanings of "soar, glide" and "cloud, overcast", associated with a sense of a voluminous mass in movement. The verb *(ỉ)gp* possesses a range of meanings across various contexts. For instance, in the medical domain[600], it is employed metaphorically to describe a heart condition, with the sense of being "clouded". This figurative usage might draw upon the verb's meaning of "to cloud or overcast" evoking the notion of impaired clarity or function.

In later Ptolemaic texts, *(ỉ)gp* acquires the additional nuances of "to overflow" or "to inundate"[601], this semantic extension probably stems from the conceptual association between the obscuring effects of clouds and the engulfing nature of floodwaters also related with the root *gp/gb*[602]. The verb's polysemous character once again might reflect the ancient Egyptians' perception of the proximal nexus between atmospheric and hydrological phenomena, as well as their propensity for employing metaphorical language to convey abstract concepts.

Interestingly, the verb *(ỉ)gp* could be typologically and conceptually linked to the English verb "to billow", which describes a swelling, rolling motion, especially of smoke or clouds[603]. This parallel suggests that the metaphorical association between clouds and flooding is not unique to ancient Egyptian thought, but rather reflects a possible shared human tendency to draw connections between atmospheric and hydrological phenomena through language.

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[600] For its occurrence in medical context, see *Wb* 5, 166.3; Hildegard von Deines and Wolfhart Westendorf, *Wörterbuch Der Medizinischen Texte*, Grundriss Der Medizin Der Alten Ägypter 7 (Berlin: Akademie-Verlag, 1961), vol. II, 913.

[601] *Wb* 5, 166.1-2, see Wilson, *Ptolemaic Lexikon*, 1098f.

[602] Concerning *ỉgp* and the root *gp/gb*, see William A. Ward, 'The Biconsonantal Doublet Gp/Gb, "Overflow"', *Journal of Egyptian Archaeology* 59 (1973): 228–31.

[603] 'Merriam-Webster', s.v. billow.

The verb (*i̯)gp*, which exhibits a remarkable polysemy, we will soon explore how this semantic range may suggest a deep-rooted connection between the movement of birds in the sky and the ancient Egyptian perception of clouds as a voluminous mass in movement and atmospheric conditions.

The verb (*i̯)gp* is attested from the Old Kingdom onwards, with its earliest occurrences found in the Pyramid Texts. In these religious and funerary texts, (*i̯)gp* is frequently used to describe the ascent of the deceased king to the sky, often likened to the soaring flight of birds, particularly the heron (*ʿḥʿ.w*)[604] and the falcon (*bi̯k*)[605].

In the following analysis, we will explore the following hypothesis: the ancient Egyptians may have perceived a conceptual link between the soaring flight of birds and the behaviour of clouds in the sky. This connection, as we will demonstrate through textual evidence, could have arisen from acute observations of the natural world and a tendency to draw metaphorical associations between seemingly disparate phenomena.

The effortless gliding of birds through the sky might have been interpreted as a manifestation of divine transcendence, a power that allowed these creatures to traverse the boundaries separating the earthly and celestial realms. Concurrently, the presence of clouds, with their ability to obscure the sun and transform the appearance of the sky, could have been seen as a parallel to this avian "soaring" or "gliding", a form of atmospheric movement that mirrored the birds' ethereal journeys.

In the examples that follow, the potential presence or absence of the prefix *i̯-* in the verb *(i̯)gp* warrants consideration for its linguistic implications. This prefix likely functions as a prosthetic element, serving to resolve an initial consonant cluster[606]. As a non-etymological initial vowel, it does not appear to significantly alter the verb's semantic or functional properties. Rather, the *i̯-* prefix acts as an additional segment that facilitates pronunciation without modifying the core meaning or grammatical function of the verb.

This interpretation could imply that the verb *(i̯)gp* could be phonologically and semantically related to other Egyptian roots with similar consonantal structures, such as the biconsonantal doublet

[604] *Wb* 1, 222.11. TLA ID 40440.

[605] *Wb* 1, 444.13-445.8. TLA ID 54680.

[606] Andréas Stauder, 'Interpreting Written Morphology: The sDm.N=f in the Pyramid Texts', *Journal of Near Eastern Studies* 73, no. 2 (2014): 257 n° 24.

gp/gb, meaning "overflow", and the root *ʒgbỉ*[607], meaning "to overflow, flood"[608]. The close phonetic proximity of these roots, characterized by the presence of the consonants *g* and *b/p*, supports the idea that they may share a common semantic field related to the movement and abundance of water or fluid-like substances. The potential phonological and semantic connections between *(ỉ)gp, gp/gb*, and *ʒgb* will be explored soon in this study.

3.1.2. Semantic Analysis of the verb *(ỉ)gp*

The verb *(ỉ)gp* and Avian Imagery in the Pyramid Texts

To explore the semantic nuances of *(ỉ)gp* and its connection to bird behaviour and weather phenomena, let us examine a selection of textual examples from the Pyramid Texts and the First Intermediate Period.

ex.28. *gp.n Ppj pn ỉr p.t m ꜥḥꜥ.w*
It is as a heron that this Pepy soared to heaven.
(PT 467 § 891b)

In this passage, the syntactic structure employs an emphatic construction featuring the accomplished *sḏm.n.f* form[609] *gp.n*, which serves to foreground the manner of motion described in the simile "as a heron". This grammatical choice highlights the completeness and decisiveness of the action of soaring, drawing the audience's attention to the metaphorical comparison at the heart of the passage.

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[607] Concerning the Egyptian root *ʒgbỉ*, meaning "to overflow", and its related derivative forms, refer to 'TLA 2', Lemma ID 863981.

[608] For the semantic connection between the lexemes *gp/gb* and *ʒgbỉ*, initially proposed by R.O. Faulkner, refer to Raymond Faulkner, 'The "Cannibal Hymn" from the Pyramid Texts', *Journal of Egyptian Archaeology* 10, no. 2 (1924): 99.

For an arguable explanation of *gp/gb* as a dialectal variant and the use of *ʒ* as a method to augment biconsonantal roots, refer to Ward, 'The Biconsonantal Doublet Gp/Gb, "Overflow"', 229–31.

[609] Malaise and Winand, *Grammaire*, para. 576.

The use of the preposition *r* "to" following the *sḏm.n.f* form further emphasizes the direction and goal-oriented nature of the movement, reinforcing the sense of purpose and intentionality behind the action of soaring. The comparison itself is introduced by the preposition *m* "as", which functions here as a marker of similitude, explicitly signalling the metaphorical nature of the description.

The choice of the heron as the bird of comparison is significant, as this species was closely associated with themes of creation, regeneration, and the journey between the earthly and celestial realms in ancient Egyptian mythology[610]. The heron's aptitude to ascend through the sky and its association with the Nile and its annual inundation[611] may also have contributed to its symbolic connection with the king's ascent to the sky and his regeneration in the afterlife.

Besides, the ancient Egyptians likely noticed the connection between the soaring flight of birds like herons and falcons and the presence of clouds in the sky. Soaring birds utilize thermals and air currents[612], which are closely linked to cloud formations. Thermals are columns of rising warm air generated by the uneven heating of the Earth's surface by the sun. As this warm air rises, it cools and contributes to cloud development and subsequently possibly rain. These thermals are essential for facilitating energy-efficient flight in many large soaring birds[613], such as raptors, vultures, and storks. Birds utilize these thermals to gain altitude without expending much energy by flapping their wings, allowing them to soar for extended periods.

Consequently, this posited link may have been metaphorically extended to describe the movement, behaviour and formation of clouds in the sky. Just as soaring birds appear to float effortlessly on air currents, clouds seem to drift, spread and billow across the sky, carried by the wind. This metaphorical understanding of cloud behaviour could strengthen the semantic link between the primary and secondary meanings of the verb *(i)gp*.

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[610] Pascal Vernus and Jean Yoyotte, *Bestiaire Des Pharaons* (Paris: Agnès Viénot; Perrin, 2005), 380–82.

[611] Philippe Germond and Jacques Livet, *Bestiaire Égyptien* (Paris: Citadelles & Mazenod, 2001), 169.

[612] See Graeme D. Ruxton and David C. Houston, 'Obligate Vertebrate Scavengers Must Be Large Soaring Fliers', *Journal of Theoretical Biology* 228, no. 3 (2004): 431–36; Hannah J. Williams et al., 'Vultures Respond to Challenges of Near-Ground Thermal Soaring by Varying Bank Angle', *The Journal of Experimental Biology* 221, no. Pt 23 (3 December 2018): jeb174995.

[613] Grady J. Koch, 'Using a Doppler Light Detection and Ranging (Lidar) System to Characterize an Atmospheric Thermal Providing Lift for Soaring Raptors', *Journal of Field Ornithology* 77, no. 3 (2006): 315–18.

The possible ancient Egyptian conceptualization of the king's ascent to the sky as a form of soaring, likened to the flight of the heron, suggests a deep appreciation for the interconnectedness of atmospheric phenomena and divine regeneration, as we can find in the following excerpt, which reads

ex.29. *gp.f rf ỉr p.t m ꜥḥꜥ.w swʒỉ.f ḫnk.wt p.t*

May he therefore soar to heaven as a heron when he passes the pigtails of heaven.

(PT 582 § 1560a-b)

The clause begins with the verb *(ỉ)gp* in the subjunctive *sḏm.f* form, which expresses a wish or exhortation for future action. The subject is represented by the suffix pronoun *.f*, referring to the deceased king. The use of the prospective here is significant, as it conveys the aspirational nature of the king's ascension, framing it as a desired outcome.

The directional phrase *r p.t* indicates once again the goal or destination of the king's movement. This prepositional phrase is crucial in establishing the celestial context of the king's journey, explicitly linking the act of the verb *(ỉ)gp*, possibly conceived as a motion verb, with the divine realm. We find again the comparative phrase *m ꜥḥꜥ.w* "as a heron" introduces a simile that likens the king's ascension to the flight of a heron. The preposition *m* here functions to establish equivalence or manner, effectively equating the king's movement with that of the bird.

The second half of the sentence, *swʒỉ.f ḫnk.wt p.t*, presents a temporal clause that further elaborates on the circumstances of the king's ascension. Similar to the first clause, the verb *swʒỉ* "to pass" could also be considered as a subjunctive *sḏm.f* form, indicating a subordinate action that coincides with or follows the main action of soaring.

The object of *swʒỉ* is the phrase *ḫnk.wt p.t* "the pigtails of heaven", a metaphorical expression that likely refers to celestial phenomena, possibly the four winds or other atmospheric features[614]. The use of this image suggests that his ascension involves navigating or transcending specific celestial landmarks.

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[614] Erik Hornung, *Das Amduat: Die Schrift Des Verborgenen Raumes, Herausgegeben Nach Texten Aus Den Gräbern Des Neuen Reiches. Teil 1, 2*, Ägyptologische Abhandlungen 7 (Wiesbaden: Otto Harrassowitz, 1963), vol. II 44, n.15.

K. Sethe proposes also to link *ḫnk.t(ỉ)w* with the souls of Pe and Nekhen, see Kurt Sethe, *Übersetzung Und Kommentar Zu Den Altägyptischen Pyramidentexten* (Glückstadt; Hamburg: Augustin, 1935), vol. II 40-41, 70.

Lexically, this passage is replete with terms that evoke motion, transformation, and celestial imagery. The verb *(i̯)gp*, in this context, it carries connotations of effortless, elevated movement, appropriate for describing both the flight of a heron and the divine ascension of the king.

The comparison with the heron (*ḥꜥ.w*) is particularly noteworthy. Herons, with their ability to stand motionless in water before swiftly taking flight, embodied qualities of patience, precision, and the capacity for sudden, graceful movement[615]. This metaphorical association imbues the king's ascension with these attributes, suggesting a transition that is both deliberate and swift, grounded yet aerial.

The phrase *ḥnk.wt p.t* "pigtails of heaven" exemplifies the ancient Egyptian propensity for concrete, bodily metaphors in describing celestial phenomena. This creates a peculiar image of the cosmic landscape through which the king must navigate. The term *ḥnk.t*[616], typically referring to braided hair, when applied to the sky, could evoke notions of structure, pattern, and perhaps the visible streaks or bands sometimes observed in the atmosphere as *cirri*[617].

Semantically, this passage exposes several important patterns and trends in the conceptualization of *(i̯)gp* "rain cloud" and related phenomena. Firstly, there is a clear association between the act of soaring and divine ascension, suggesting that the ancient Egyptians perceived a fundamental connection between atmospheric movement and elevation. The verb *(i̯)gp,* while not explicitly referring to clouds in this instance, carries connotations of loftiness and ethereality that align closely with the nature of clouds.

Furthermore, the juxtaposition of *(i̯)gp* with celestial imagery *p.t* "sky" and *ḥnk.wt p.t* "pigtails of the sky" reinforces the conceptual link between clouds, sky, and the divine realm. This association might suggest that clouds, and by extension the verb *(i̯)gp,* were understood as mediators between the earthly and celestial spheres, facilitating movement and transformation between these domains. The comparison to the heron's flight introduces an element of liminality to the verb *(i̯)gp*. Just as the heron moves between water, land, and sky, the king's act of soaring represents a transition between states of being.

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[615] Vernus and Yoyotte, *Bestiaire Des Pharaons*, 380–82.

[616] *Wb* 3, 120.10. TLA ID 107220.

[617] Yau and Rogers, *A Short Course in Cloud Physics*, 63.

Cognitively, the use of *(i)gp* in this context likely reveals a conceivable conceptual metaphor of ASCENSION AS SOARING. This metaphor maps the physical properties of bird flight onto the more abstract concept of divine elevation. The following example is useful to further explore this image as it presents a series of three parallel clauses–tricolon, each describing, the ascent of King using different verbs of flight and bird comparisons. It reads

ex.30. *gp Ppj m bỉk-nṯr(.j) qbḥ Ppj m ꜥḥꜥ.w ỉṯṯ Ppj Nfr-kȝ-Rꜥ m smn*

Pepy soars as a divine falcon, Pepy flies up as a heron, Pepy Neferkare flutters like a goose". (PT 682 § 2042c)

We find the verb *gp* opening the first clause, likening the king's soaring to that of a divine falcon (*bỉk-nṯr.j)*, in the second clause the verb *qbḥ* "to fly up"[618] is employed, spelled , and it compares the king to a heron (*ꜥḥꜥ.w*), while the third clause uses the verb *jṯṯ* "to flutter"[619], , and it likens the king to a goose (*smn*). This graduated lexical selection progresses from vertical ascension to constant aerial prowess, using avian referents to conceptualize divine kingship through detailed kinetic images.

The verb *qbḥ*, a hapax in this context describing avian flight, morphologically close to the root √*qb(b)* "to be cool, cold"[620]. This root is graphically and morphologically connected with the verb *qbḥ* "to pour a libation"[621] and the noun *qbb* "cold wind"[622], which we have previously discussed on page 212. The semantic and conceivable morphological link between these terms may suggest a conceptual association between the action of flying and rising up and the notion of coolness and the release of liquid substances.

Following this line of reasoning, it is plausible that the ancient Egyptians perceived a relationship between the upward motion of flight, the cooling effect of air currents, and the release or dispersal of moisture. The verb *qbḥ*, may reinforce this association, as it connects the action of flying with the concept of coolness and outpouring. Similarly, as previously discussed on page 113, the verb *ḥwỉ*, meaning "to pour out" or "to overflow", links the rising motion of flight with the release or dispersal of liquids. This semantic network might suggest that the ancient Egyptians understood and

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[618] *Wb* 5, 30.10. TLA ID 160290.

[619] *Wb* 1, 151.6. TLA ID 33740.

[620] 'Thesaurus Linguae Aegyptiae v2.1.2', 15 December 2022, https://thesaurus-linguae-aegyptiae.de, Lemma ID 873893.

[621] *Wb* 5, 27.2-4. TLA ID 160260.

[622] *Wb* 5, 24.13-14. TLA ID 160190.

likely conceptualized avian flight as a dynamic process involving the interaction of air currents, temperature, and moisture, reflecting their empirical observations of the natural world and their ability to draw connections between seemingly disparate phenomena.

Further support for this interpretation may be found in later textual records, which we will briefly explore, the passage from a magical text dating to the 26th dynasty reads

nn ḥwỉ Ḥʿpj r [tr.f] nn qbḥ.tw mw [...] ỉm ỉw psḏ.t.f m-ḫt.f

Hapy will not flow in [his due time], no water will be liberated [...] there, his ennead is behind him.

(P. Berlin P 13487c-e and P 14393a, Remnant of a summoning against demons, ro x+4)[623]

Here, the verb *qbḥ* is used in the negative future construction *nn qbḥ.tw mw*, indicating that water will not be "liberated" or "poured out". The juxtaposition of the verbs *ḥwỉ* "to pour out" and *qbḥ* in relation to the Nile flood (*Ḥʿpy*) underscores once more the conceptual link between the outpouring of water and natural phenomena.

Similarly, this association is evident also in the following example from the Book of the Dead:

ỉṯṯ.ỉ ỉm bỉk pwj ḥr smȝ.w ỉȝd.t Ḥr.w

I fly as that falcon over the crown and the dew of Horus.

(P. London BM EA 10477 : P. Nu, BD 098, 3)[624]

In this passage, the verb *ỉṯṯ* "glide" is connected with the falcon *bỉk* and the polysemic noun *ỉȝd.t* "emanation, dew", which is unambiguously related to the notion of atmospheric phenomena. The verb *ỉṯṯ,* here spelled , is used to describe the action of the deceased flying as a falcon over the crown and the dew of Horus. The juxtaposition of *ỉṯṯ* with *ỉȝd.t* "dew" highlights the connection between the fluttering motion and the presence of atmospheric moisture, which relates to the idea

[623] Hans-W. Fischer-Elfert, *Magika Hieratika in Berlin, Hannover, Heidelberg Und München*, Ägyptische Und Orientalische Papyri Und Handschriften Des Ägyptischen Museums Und Papyrussammlung Berlin 2 (Berlin: de Gruyter, 2015), 115-118;123.

[624] W. V. Davies, T. Schneider, and G. Lapp, *The Papyrus of Nu (BM EA 10477)*, Catalogue of the Books of the Dead in the British Museum 1 (London: British Museum Press, 1997), chap. 098; Stephen Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, GHP Egyptology 20 (London: Golden House, 2013), 217.

of fluttering as a gentle, spreading action, akin to the dispersion of dew or mist, emphasizing the posited interaction between avian motion and atmospheric conditions.

It is also worth noting that the verb *ḥwi̯* is frequently associated with the falcon *bi̯k* in ancient Egyptian corpus, describing the way the bird flies[625]. As we have observed with the verb *qbḥ*, while the crucial meaning of *ḥwi̯* is "to throw" or "to pour out", it is plausible that the verb could also convey the specific motion action of "swooping" when used in the context of a falcon's flight.

Falcons are known for their swift, agile, and precise movements when hunting or descending from great heights: the action of "swooping" or "stooping"[626], accurately captures the falcon's ability to rapidly dive down onto its prey or target. This swooping motion involves a sudden and forceful downward movement, which could align with the semantic range of the verb *ḥwi̯*.

When a falcon swoops, it essentially "throws" itself through the air, using gravity and its powerful wings to accelerate and control its descent. This action of throwing oneself downward could be conceptually linked to the idea of pouring out or releasing, as the falcon's body is rapidly propelled towards the ground. This connection could reinforce the idea that the ancient Egyptians perceived a strong link or played on the possible analogy between the motion of certain birds, particularly the falcon, and the outpouring or release of substances, whether liquid or atmospheric. The use of these verbs in these passages, with comparisons to the heron (*ꜥḥꜥ.w*) and the goose (*smn*), can be understood as a logical extension of their semantic associations. The heron and the goose, like the falcon, are birds known for their ability to fly and soar.

From a perspective external to the immediate analysis of these textual passages, it is pertinent to note that the identified linguistic choices may also reflect observable atmospheric phenomena related to the movement and phase transitions of water[627]. The dynamic qualities of avian flight, as depicted in the texts, could be interpreted as a parallel to the physical processes governing atmospheric water, which manifests in forms ranging from invisible vapor to visible clouds and precipitation. The ascent and descent described in these texts mirror the vertical movement of water in the atmosphere. As water vapor rises due to convection or evaporation, it cools and condenses to form clouds. Conversely, when water droplets in clouds become heavy enough, they descend as precipitation. This cyclical process of water rising and falling in the atmosphere bears a possible striking resemblance to the described motions of birds soaring upwards and then descending.

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[625] For the collocations analysis of these lexemes see 'TLA'.

[626] Robin Mills et al., 'Physics-Based Simulations of Aerial Attacks by Peregrine Falcons Reveal That Stooping at High Speed Maximizes Catch Success against Agile Prey', *PLoS Computational Biology* 14, no. 4 (12 April 2018): e1006044, https://doi.org/10.1371/journal.pcbi.1006044.

[627] Yau and Rogers, *A Short Course in Cloud Physics*, 84–86.

Beside these peripheral observations, the deliberate choice of these specific verbs, with their connections to coolness, libation, and dew, may only serve to evoke the idea of the king's ascent being accompanied by a sense of refreshment, purification, or divine blessing. The use of multiple verbs of flight and bird comparisons in this example creates a sense of progression and intensification, emphasizing the king's dynamic motion through the sky.

The following passage from the tomb of Nay at Qurnet Mura'i provides a further significant example of the connection between avian flight and atmospheric phenomena. Dating to the 18th Dynasty of the New Kingdom, the tomb's decorative program includes various religious and mythological scenes, reflecting the prevalent beliefs and concepts of the time. The excerpt reads

> *[ḫp]r.w m bỉk nṯr.j ḏȝ.t r tȝ ḥr sṯs.w Šw*
>
> [Transforma]tions into a divine falcon, crossing (the space) to earth on the clouds (lit. uprisings) of Shu.
>
> (The Tomb of Nay (no 271), Archway over the entrance to the vault, Text A, col. 5)[628]

This example employs evocative language to describe the deceased's transformation, on the form of a mentioned divine hawk (*bỉk nṯr*.j) and his movement between the celestial and terrestrial realms. The verb *ḏȝỉ* "to cross" describes the deceased's movement through space, traversing the distance between the sky and the earth. Notably, the motion is described as occurring *ḥr sṯs.w Šw* "on the clouds (lit. uprisings) of Shu". The noun *sṯs.w*, derived from the verb *sṯsỉ* "to raise up, to uplift", is used metaphorically to refer to clouds, conceptualized as the "uprisings" or "elevations" of the god Shu. As we have previously seen on page 157, Shu, the god of air and sunlight, is closely associated with the atmosphere and the space between the earth and the sky. The use of the preposition *ḥr* "on" to describe the king's movement on the clouds emphasizes their role as a surface or pathway for the king's journey. The association of clouds with the god Shu and the idea of "uprisings" or "elevations" underscores the perceived connection between atmospheric phenomena and divine activity.

This excerpt complements the theory explored in the discussed passages, which establishes the metaphorical links between the king's ascent, avian flight, cloud behaviour and formation. The verbs of flight, such as *(ỉ)gp* "to soar", *qbḥ* "to fly up", and *ỉṯṯ* "to flutter", along with the comparisons

[628] Serge Sauneron, Labib Habachi, and Pierre Anus, *Le Tombeau de Naÿ à Gournet Mar'eï (No 271)*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 97 (Le Caire, Egypte: Institut français d'archéologie orientale, 1977), 25–26; fig. 17.

to powerful birds like the divine falcon, heron, and goose, emphasize the king's dynamic movement and the fluid nature of his transition between realms.

The passage's imagery of the king drifting on the clouds of Shu adds a new dimension to this conceptual framework, showcasing the role of atmospheric phenomena as a means of facilitating the king's movement and the direct involvement of deities in controlling these elements. The clouds, as manifestations of Shu's power, serve as a bridge between the celestial and terrestrial realms, enabling the king's transformation. This concept resonates with the examined passages from the Pyramid Texts, where the king's ascent to the sky is likened to the soaring of birds, particularly the heron (*ꜥḥꜥ.w*).

The connection between the divine hawk and the clouds of Shu in this passage also evokes the imagery of the falcon (*bỉk*) in the Book of the Dead, where the deceased is described as flying over the crown and dew of Horus[629]. The juxtaposition of avian flight and atmospheric moisture in these contexts highlights the interplay between divine transformation, movement through the sky, and the presence of celestial waters or emanations.

Moreover, the use of the term *sṯs.w* "uprisings" to refer to clouds in this passage may also be linked to the notion of the release or outpouring of substances, as discussed in relation to the verbs *ḥwỉ* "to throw, pour out" and *qbḥ* "to libate". The upward motion of the clouds, as the elevations of Shu, is conceptually associated with the idea of rising, fluttering, or spreading, much like the movement of birds or the dispersion of atmospheric moisture.

[629] Refer to the formula 78 in the Book of the Dead: *m ḫpr.w n bỉk nṯr.j*.

Interconnectedness of Smoke, Ascension, and Flight

One concluding passage from the Pyramid Texts provides a connection between avian imagery, smoke, and celestial ascension. The passage describes the pharaoh's ascent to the sky, employing metaphorical language that draws parallels between the rising smoke of incense and the flight of birds.

prr.f ḥr ḥtj n(.j) ỉd.t wr.t (ỉ)pȝ Wnỉs pn m ȝpd
If he rises on the smoke of the great emanation, Unas will fly up as a bird.
(PT 267 § 365b-366a)

In this passage, the use of the *mrr.f* form in emphatic construction[630], therefore here *prr.f* serves to foreground the manner of motion described in the prepositional phrase "on the smoke of the great emanation" (*ḥr ḥtj n(.) ỉd.t wr.t*), possibly in a Wechselsätze construal[631] , which serves to create a strict correlation with the following clause, also drawing attention to the medium through which the ascension takes place.

The term *ḥtj*[632], typically translated as "smoke" or "vapour", is crucial to our understanding of this passage. The genitive construction *n(.) ỉd.t wr.t* specifies the source of the smoke as "the great emanation". The aforementioned term *ỉd.t*[633] is particularly interesting here, as it demonstrates the polysemic nature of Egyptian vocabulary. While in this context it clearly refers to incense, the same root *ỉd*[634] is also used in the word *ỉ(ȝ)d.t*, meaning "dew". This semantic connection between incense smoke and dew is noteworthy, as both concepts involve the idea of a substance emanating or rising from a source— soon to be explored in the next chapter. This nuance is significant when considering the connection between the rising smoke and the king's ascension.

The use of *ỉd.t* to describe both incense and dew reflects the ancient Egyptian tendency to perceive connections between seemingly disparate phenomena. The rising smoke of incense and the

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[630] Malaise and Winand, *Grammaire*, 622.

[631] Malaise and Winand, paras 619; 977; 995.

[632] *Wb* 3, 182.9-11. TLA ID 111130.

[633] *Wb* 1, 152.7-12; *Wb* 1, 36.1-7. TLA ID 33840, 21180.

[634] 'TLA 2' √*ỉd*(Lemma ID 866129. This root will be explored in greater depth in the chapter specifically devoted to its analysis and implications.

formation of dew could be seen as parallel processes, both involving the transformation of a substance from one state to another.

Moving to the second part of the spell, we see a clear parallel between the king's ascension and avian flight. The verb *pȝỉ* meaning "to fly", is a second *mrr.f in* emphatic construction and Wechselsätze construal, emphasizing the active nature of Unas's movement. The comparison to a bird (*ȝpd*) is explicit, drawing a direct link between the king's journey and the flight of birds. This juxtaposition exposes a complex network of associations in ancient Egyptian thought. The smoke of the censing, the king's ascension, and avian flight are all interconnected, suggesting a unified concept of upward movement.

The connection between smoke and dew might seem tenuous at first, but in the context of ancient Egyptian cosmology, it becomes more plausible, and it will be further discussed later on. Both phenomena were seen as liminal substances, existing at the boundary between earth and sky, visible and invisible. Just as the smoke of offerings was thought to carry offerings to the gods, dew was often considered a gift from the sky, a tangible manifestation of the gods.

3.1.3. Reinterpretation of *(ỉ)gp* in Ancient Egyptian Cosmology

(ỉ)gp as Dynamic Cloud Movement

In the previous examples we explored, the verb *(ỉ)gp* is primarily associated with the meaning "to soar" or "to glide", often in the context of describing the flight of birds. This primary meaning suggests a sense of effortless, fluid motion through the air. However, in this passage of the Pyramid Texts[635], *(ỉ)gp* appears to take on a different meaning when in collocation with *p.t* "the sky":

ex.31. *gp p.t ỉḥj sbȝ.w nmnm pḏ.wt sdȝ qs.w ȝkr.w grr.sn gnm.w*

The sky clouds over, the stars pour (down)?, the expanse (lit. vastness of the sky) sways, the bones of the Akeru (earth gods) tremble and the movements? become still".

(PT 273-274 § 393a)

[635] The same spell is also found in CT VI, 177b.

Here, (*i̯)gp* is usually interpreted as "to be cloudy"[636], describing the sky becoming overcast. However, this interpretation may not fully capture the nuances of the verb's meaning and its implications for the ancient Egyptian understanding of the sky. Instead, we propose that the verb should be understood with this more engaged nuance than the mere "to cloud over", possibly involving the nuance of "floating", "soaring" or "scudding[637] as a cloud, such as "to billow over" or "to swell like a billow", which enriches the idea of a dynamic motion and connects it to the meanings explored in the previous section.

The interpretation, focusing on the motion dimension of the verb explored so far, seems to present a more inclusive understanding of the sky as a complex, dynamic system rather than a static setting. It posits that the sky is not merely a passive surface obscured by clouds but rather an expansive, active entity comprising the clouds themselves. This conceptualization emphasizes the inherent mentioned dynamism and mutability of the sky, acknowledging its constant state of flux as clouds form, move, and dissipate.

Syntactically, this passage consists of a series of clauses with little varying structures: the clauses, as *gp p.t*, are in an unaccomplished form, suggesting an ongoing, dynamic process rather than a static state, with *p.t* as the subject and *gp* as the verb. The second clause, (*i̯)ḥj sbȝ.w*, follows the same pattern, with *sbȝ.w* "stars" as the subject and the verb (*i̯)ḥj*[638]interpreted here as "to pour down".

[636] The verb appears in the Pyramid Texts (PT) and is translated as "to be cloudy", as noted by Allen, *Grammar of the Ancient Egyptian Pyramid Texts. Volume 1: Unis*, 340–41. Kurt Sethe, *Übersetzung Und Kommentar,* vol. II p. 143-4. This formulation also occurs in the Coffin Texts (CT) VI, 177b.

[637] James P. Allen, *The Inflection of the Verb in the Pyramid Texts*, Bibliotheca Aegyptia 2 (Malibu: Undena, 1984), 547.

[638] The verb  (*i̯)ḥy* is commonly translated as "darken" *Wb* 1, 121.8; TLA ID 30540. As we discussed, the prefix *i̯-* does not seem to carry a semantic value but rather a euphonical device to avoid a cluster of consonants.

The swaying of the expanse (*pḏ.wt*) and the trembling of the earth gods' bones (*qs.w ȝkr.w*)[639] suggest a state of agitation or disturbance in the cosmic realm. The use of the verbs *nmnm* "to sway" and *sdȝ* "to tremble" in conjunction with the polysemy of *(ỉ)gp* and the potential semantic links between *(ỉ)ḥy* and *ḥwỉ* paint a vivid picture of the ancient Egyptian perception of the sky as a dynamic and active space where celestial bodies and atmospheric elements interact.

The consistent use of these constructions throughout the passage emphasizes the active role of the celestial bodies and atmospheric elements in the cosmic realm. This syntactic structure supports the idea that the ancient Egyptians perceived the sky and its components as dynamic entities capable of action and interaction, rather than passive objects.

Lexically, as mentioned earlier, the core meaning could be that of *(ỉ)gp*, "to soar", since it is often found in collocation with the preposition *r* (to) and the noun *p.t* (sky), indicating the action of soaring towards or in the sky. However, in the passage under consideration, *(ỉ)gp* appears to take on a secondary meaning, "to cloud", with *p.t* (sky) as its subject. This semantic shift suggests a metaphorical extension of the verb's meaning, from the action of soaring to the state of filling up and clouding.

We propose that the meaning "to cloud", "to billow" could be interpreted as an extension of the primary meaning "to soar" or "to float", with the idea that the sky is metaphorically soaring or floating like a cloud itself, rather than above a layer of clouds. The polysemous use of the verb *(ỉ)gp*, as the lexeme *ỉgp* "cloud″ could suggest that the sky itself is soaring or floating like a cloud, reinforces the Egyptian cosmological background.

Moreover, the verb *(ỉ)ḥj* also merits a reinterpretation based on its determinatives and semantic context. We propose that *(ỉ)ḥj* should be read as "to pour (down)" or "to overflow", a meaning which could be supported by the study of the determinatives that follow this verb:

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[639] The term *ȝkr.w* "Akeru" refers to a group of ancient Egyptian earth deities that are often subsumed under the singular name "Aker", *Wb* 1, 22.6. TLA ID 307. Aker, as a singular entity, is depicted as the horizon and the junction between the eastern and western borders of the underworld. He plays a protective role, guarding the sun god Ra during his nightly journey through the underworld. However, the Akeru in their plural form are portrayed as more threatening and dangerous chthonic beings. In the Pyramid Texts, the Akeru are described as earth gods who could potentially seize and attack individuals, with the hope expressed that the deceased king would escape their grasp. See F. Bisson de la Roque, 'Notes Sur Aker', *Bulletin de l'Institut Français d'Archéologie Orientale* 30 (1931): 575–80; Jorge R. Ogdon, 'Some Notes on the Name and the Iconography of the God Akr', *Varia Aegyptiaca* 2 (1986): 127–35; Joshua Aaron Roberson, *The Ancient Egyptian Books of the Earth*, Wilbour Studies in Egypt and Ancient Western Asia 1 (Atlanta, GA: Lockwood, 2012), 147; Mathieu, *Les Textes de La Pyramide de Pépy Ier: Traduction*, 286.

–  (N2) present in Neith's version, but absent in Unis' version of the Pyramid Texts, and

–  (Q7) and (A24) in two versions of the Coffin Texts (CT VI, 177b).

The determinative  (N2) may specify the moment of occurrence, suggesting a more dynamic event, while  (Q7) could imply the action of stars dispensing (light). The determinative  (A24) morphologically and graphically connects *(ỉ)ḥj* to the verb *ḥwỉ*, which means "to throw" or "to pour ". These determinatives, along with the semantic context of the passage, align more closely with the dynamic idea of overflowing or pouring out rather than darkening.

The reinterpretation of *ỉgp* as "to cloud" in the sense of "to float" or "to soar" and *(ỉ)ḥj* as "to pour (down)" or "to overflow" reveals a semantic connection between these two verbs. Both terms convey a sense of dynamic movement and flow, which is consistent with the ancient Egyptian conception of the sky as an active, fluid space.

Additionally, as we announced before, the semantic connection between the verb *(ỉ)gp* and the concept of overflowing can be further elucidated by examining related linguistic elements in the ancient Egyptian language. O. Faulkner's connection between the lexemes *gp/gb* and *ʒgbỉ* and W. Ward's analysis of the biconsonantal doublet *gp/gb*[640], meaning "overflow", bestow helpful possible framework into this semantic field. The phonetic and semantic similarity between *gp/gb* and *(ỉ)gp* suggests that the fundamental meaning of *(ỉ)gp* may be more closely tied to the notion of flowing or overflowing than formerly recognized. This semantic overlap reinforces the interpretation of *(ỉ)gp* as "to cloud" in the sense of "to float" or "to soar", implying a dynamic, fluid motion rather than a static condition.

The potential and still arguable phonetic and more conceivable semantic link to the root √*ʒgbỉ*[641], which carries the meaning "to overflow" or "to flood", could introduce an additional dimension to this semantic network. The presence of these related linguistic elements, sharing similar phonetic and semantic properties, strengthens the argument for a conceptual association between the action of clouding and the idea of overflowing or flooding in ancient Egyptian thought.

These linguistic connections support the broader conceptualization of atmospheric phenomena in ancient Egyptian thought. The idea of precipitation as liquid emissions from a celestial source aligns well with the ancient Egyptian cosmological view of the sky like a vast watery expanse

[640] Ward, 'The Biconsonantal Doublet Gp/Gb, "Overflow"'. For the semantic connection between the lexemes *gp/gb* and *ʒgbỉ*, also proposed by R.O. Faulkner, refer to Faulkner, 'The "Cannibal Hymn"', 99.

[641] Ward, 'The Biconsonantal Doublet Gp/Gb, "Overflow"'.

or a celestial ocean. In this context, rain and other hydrometeors could be understood as overflowing or flooding from a celestial floating reservoir: the clouds.

In the Pyramid Texts, two passages, could provide the linguistic and conceptual associations that could corroborate these connections in the ancient Egyptian perception of atmospheric phenomena and abundance. These textual records present a complex semantic net that connects the lexeme *ỉgp* "rain cloud" with related terms such as *ʒgbỉ*, *š*, and *ḥj*, all of which are linked to the overarching themes of flooding, clouds and precipitation. The first passage reads

> *ỉnỉ n.k ỉrṯ.t (ʒ)st n Ttj ʒgbỉ(.w) Nb(.t)-ḥw(.t) pḫr.w š ḥj n(.j) wʒḏ-wr ꜥnḫ wḏʒ snb nḏm-ỉb tʾ ḥ(n)qt ḥbs(.w) ỉḫ.t ꜥnḫ Ttj ỉm*
>
> Bring for you for Teti the milk of Isis, the abundance of Nephthys, the overflow of the lake, the flood of the Great Green, life, salvation, health, happiness, bread, beer, clothing, sacrifices, so that Teti may live from it.
>
> (PT 406 § 707a-b)

The imperative of the verb *ỉnỉ* "to bring" introduces the passage emphasized by the self-benefactive dative construal *n.k* [642], setting the tone for the bestowal of sustenance and nourishment upon the deceased king Teti. From a rhetoric perspective, it is quite remarkable that these series of noun phrases, each linked by the genitive adjective *n(.j)*, create a cumulative effect that emphasizes the abundance and variety of the offerings.

The lexical choices in this passage are equally significant, as it links the concepts of flooding, water bodies, and abundance. The terms *ʒgbỉ* "abundance" and *š* "lake" are juxtaposed with *ḥj* "flood" and *wʒḏ-wr* "the Great Green"[643] – a term encompassing the Mediterranean Sea, the Red Sea and the

[642] Malaise and Winand, *Grammaire*, para. 839.

[643] For a discussion of the term *wʒḏ-wr* "the Great Green" – *Wb* 1, 269.12-16; *Wb* 1, 269.18; TLA ID 43820, and its association with the lush, flourishing vegetation along the banks of the Nile Delta, see Claude Vandersleyen, 'Keftiou = Crète? Objections Préliminaires', *Göttinger Miszellen* 188 (2002): 109; Claude Vandersleyen, *Le Delta et La Vallée Du Nil: Le Sens de Ouadj Our (wAD Wr)*, Connaissance de l'Égypte Ancienne 10 (Bruxelles: Safran, 2008). Vandersleyen's analysis unveils interesting perceptions into the symbolic and cultural significance of the term within the context of ancient Egyptian geography and mythology.

ocean at large. However, this term may also evoke the verdant and flourishing vegetation that thrives along the banks of the Nile River, particularly in the fertile region of the river's estuary. The lush greenery, nourished by the life-giving waters of the Nile, stands in stark contrast to the arid desert landscape that dominates much of Egypt. This association suggests that the ancient Egyptians perceived a strong connection between the inundation of the Nile, the fertility of the land, and the overall well-being and prosperity of the country.

The presence of the term *ʒgbỉ* "abundance" in this context is particularly noteworthy, as it relates to the potential semantic link between the lexeme *ỉgp* "rain cloud" and the root √*ʒgbỉ* "to overflow" or "to flood". This connection, as discussed earlier, reinforces the idea that abundance and fertility were conceptualized in terms of overflowing and flooding, not only in the context of the Nile inundation but also in the realm of atmospheric phenomena.

Moving on to the second extract, we find another instance of the connection between flooding, the concept of mass profusion and a close correlation with atmospheric waters:

> *ḥ(ʿ)p(j)-wr p ⸢Ppj⸣ pn sʒ [...] ḥj p Ppj pn prỉ m ḏw q[ʒ]*
> This Pepy is the high flood, son of [...]; this Pepy is the flood that comes out of the high mountain.
> PT 710A §2212d

In this passage, the deceased king Pepy is identified with the *ḥ(ʿ)p(j)-wr* "high flood" and the *ḥj* "flood". The use of the term *ḥj* is particularly significant, as it is a morphologically linked with the verb *ḥwỉ* "to pour (down)" or "to throw". This association could suggest a deeper, perhaps more subtle connection between the concept of flooding and the idea of hydrometeors and precipitations, particularly in the form of rain (*ḥw.t*).

It is also essential to consider the potential biases present in the critique of Vandersleyen's position. J. F. Quack addresses these biases in his review of Vandersleyen's later work, see Joachim Friedrich Quack, 'Review: Vandersleyen, Claude 2008. Le Delta et La Vallée Du Nil: Le Sens de Ouadj Our (wAD Wr). Connaissance de l'Égypte Ancienne 10. Bruxelles: Safran.', *Orientalistische Literaturzeitung* 105, no. 2 (2010): 153–62. In this review, Quack examines Vandersleyen's interpretations and the broader implications for understanding the cultural and historical context of the Nile Delta.

The phrase *prỉ m ḏw q[ʒ]* "that comes out of the high mountain" adds a spatial and mythological dimension to the flood, implying that it originates from a celestial or divine source. This imagery resonates with the previously discussed ancient Egyptian cosmological view of the sky as a vast watery expanse on page 156, with the clouds serving as a celestial reservoir from which precipitation and flooding originate. The use of the participle *prỉ* "that comes out" emphasizes the dynamic and generative nature of the flood, reinforcing its role as a source of abundance and renewal.

The identification of the deceased king with the flood in this passage highlights the regenerative and life-giving properties associated with the inundation of the Nile and, by extension, with the concept of precipitation and flooding in ancient Egyptian thought. The flood is portrayed as a source of abundance, fertility, and renewal, essential for the sustenance and well-being of both the living and the deceased.

The lexeme *ỉgp* "rain cloud" and related terms such as *ʒgbỉ, š,* and *ḥj* are integral to a peculiar semantic network, highlighting the conceptualization of atmospheric phenomena as a source of liquid release and abundance. The syntactic structures employed in these passages, with their repetition and parallelism, underscore the accumulation of resources and the identification of the deceased king with the generative forces of the flood, which are intrinsically linked to the notion of liquid emission from celestial or otherworldly sources.

These passages provide a potential interface into the ancient Egyptian understanding of the relationship between atmospheric phenomena, the inundation of the Nile, and the concept of liquid emission and abundance. The lexical and syntactic analysis of these texts supports the conceptual association between the action of clouding, as represented by the lexeme *ỉgp*, and the idea of overflowing or flooding, as conveyed by terms such as *ʒgbỉ, š*, and *ḥy*.

The ancient Egyptians viewed the emission of liquids from celestial sources as a vital aspect of the cosmic cycle, essential for the sustenance of life on earth. The clouds, represented by the lexeme *ỉgp*, were seen as the vessels that carried this precious liquid, releasing it upon the earth in the form of rain and precipitation. This liquid emission was not only crucial for the fertility of the land but also for the overall abundance and prosperity of the country, as it replenished the Nile and enabled the inundation that sustained agriculture and life itself.

The following passage from the Osireion of Seti I at Abydos, provides an illustration of the ancient Egyptian conceptualization of celestial motion and its involved connection to the cloud's conception. The Osireion, dating to the 19th Dynasty of the New Kingdom, is a significant source of religious and cosmological texts that discloses crucial observations into the complex belief systems of ancient Egypt.

It reads:

ex.32. *sqdd.sn m-ḫt.f ḥr sṯs.w Šw*

It is after him on the supports of Shu that they (the stars) sail.

(Osireion of Seti I, pl. 84 col. 2) [644]

The clause begins with the verb *sqdd*, a geminated form of the verb *sqd* "to sail", in the *mrr.f* imperfective form, again in an emphatic construal. This construal highlights the adverbial complements: *m-ḫt.f* "after him and *ḥr sṯs.w Šw* "on the supports of Shu". The emphasis on "the supports of Shu" underscores the importance of this divine structure, possibly the clouds, in the celestial domain.

Similarly to the example from Tomb of Nay on page 253, the final element of the clause, *ḥr sṯs.w Šw* "on the supports of Shu", is particularly intriguing. The preposition *ḥr* "on, upon" introduces the location or medium through which the stars are sailing. The term *sṯs.w* is used metaphorically to denote "supports" or "uplifted things", conceptually similar to the "clouds" or "uprisings" we encountered in previous examples.

In the example from the Tomb of Nay, we observe a downward trajectory, with the transformed divine hawk descending towards the earth (*r tȝ*). The verb *ḏȝi̯* "to cross" emphasizes the traversal of space, while the preposition *r* indicates the directional goal. The clouds serve as the medium for this descent, highlighting their role as a bridge.

Contrastingly, the passage from the Osireion of Seti I presents a lateral or possibly upward movement. The verb *sqdd* "to sail" evokes a sense of horizontal motion, while the adverbial phrase *m-ḫt.f* "after him" suggests a following or pursuit. Here, the *sṯs.w Šw* are characterized as "supports", emphasizing their function as a foundational element for celestial navigation.

Both examples employ the term *sṯs.w* in relation to Shu, the god of air, underscoring the consistent association of clouds with divine atmospheric phenomena. The linguistic parallelism between *ḥr sṯs.w Šw* in both passages is noteworthy, suggesting a standardized phraseology for describing celestial movement in relation to atmospheric elements. This consistency across different textual sources and time periods reinforces the significance of this concept in Egyptian cosmology. This interpretation aligns with and further supports our earlier analysis of the verb *i̯gp* and its semantic field. The notion of stars "sailing" on the "supports of Shu" parallels the idea of the sky itself "clouding" or "floating" like a vast, dynamic entity.

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[644] Henri Frankfort, *The Cenotaph of Seti I at Abydos*, Memoir of the Egypt Exploration Society 39 (London: Egypt Exploration Society, 1933), 83, pl. 84.

Building upon our previous analysis, we can further explore the nuanced usage of the term *ỉgp* and its related forms in ancient Egyptian texts by examining two additional passages from the autobiography of the First Intermediate Period (ca. 2181-2055 BCE), specifically the inscriptions of Ankhtifi. These textual records furnish comprehension into the conceptualization of atmospheric phenomena and their connection to socio-political conditions during a period of posited significant upheaval in ancient Egyptian history.

ỉgp ex. 1. *p.t <m> ỉgp tʒ m ṯʒw [s nb mt] n ḥḳr ḥr ṯs pn n ʿpp*

When the sky was overcast and the land in the wind [and every man dead] of hunger on this sand bank of Apep.

(Ankhtifi 10, IV, 8-10) [645]

In this excerpt, the phrase *p.t <m> ỉgp* presents an intriguing construction where *ỉgp* appears to function as a noun rather than a verb, here followed by the determinative 𓌅 (N1). The reconstruction of the preposition *m* before *ỉgp* suggests that in this context, *ỉgp* is being used to mean "cloud" or "cloudiness". The parallel construction *tʒ m ṯʒw* "the land in wind" reinforces this interpretation, as it follows the same pattern of "noun + *m* + noun". This parallelism suggests that both the sky and the land are being described in terms of their atmospheric conditions, with *ỉgp* representing the cloudy state of the sky and *ṯʒw* representing the windy state of the land, we will explore soon a similar phraseology.

In the later Egyptian text (P. Brooklyn 47.218.138, Part 2, 35 x+11,10)[646], we encounter a parallel construction to the one discussed earlier: *tʒ m sʒdd p.t m ỉgp* "The earth trembles, the sky is cloudy", in a similar context concerning the attack of the divinity Apep. This phrase exhibits a similar syntactic structure and semantic parallelism to the example from the inscriptions of Ankhtifi, where the earth (*tʒ*) and sky (*p.t*) are described in terms of their respective states or conditions. However, in

[645] Vandier, Khafaga, and Vandier-d'Abbadie, *Mo'alla*, 220-225;232-234; Mathieu, *La Littérature de l'Égypte Ancienne, I: Ancien Empire et Première Période Intermédiaire. Textes Des Pyramides, Autobiographies, Lettres Aux Morts, Hymnes, Eulogies Royales*, 238–40.

[646] See Jean-Claude Goyon, *Le Recueil de Prophylaxie Contre Les Agressions Des Animaux Venimeux Du Musée de Brooklyn: Papyrus Wilbour 47.218.138*, Studien Zur Spätägyptischen Religion 5 (Wiesbaden: Harrassowitz, 2012), 77.

this later text, the verb associated with the earth is *sʒdd*, meaning "to tremble" or "to quake". This choice of the verb draws a connection to the concept of *nwr*, "to tremble", which is more frequently attested in the Pyramid Texts. On the other hand, the description of the sky as being "cloudy" (*m ỉgp*) is consistent with the earlier example, reinforcing the idea that *ỉgp* was a well-established term for referring to the presence of clouds or a state of cloudiness in the sky.

We can also consider phonetic parallelism to strengthen the syntactic and semantic connections. The repetition of sounds in these constructions, such as the /*p*/ in *p.t m ỉgp* and the repetition of *tʒ* and *ṯʒ* in *tʒ m ṯʒw,* suggests a deliberate phonetic pattern that might complement the syntactic structure.

The phrase *[s nb mt] n ḥḳr* "every man dead of hunger" further contextualizes the atmospheric description, linking the cloudy, windy conditions to a state of famine. This connection reinforces the idea that celestial and atmospheric phenomena were seen as directly impacting human affairs, particularly in relation to agricultural productivity and food availability.

The reference to *ṯs pn n ʿpp* "this sand bank of Apep" adds a mythological dimension to the passage. Apep, the serpent deity associated with chaos and opposition to the sun god Ra, is often depicted as a threat to cosmic order. The inclusion of Apep[647] in this context may suggest that the adverse weather conditions and resulting famine were perceived as manifestations of cosmic disorder or divine displeasure[648].

Atmospheric Implications of the Epithet *nb ỉgp*

Connected also to the god Apep, the serpent of chaos, we find the following passage from the Book of the Dead (BD 99 B), presenting the title *nb ỉgp* "Lord of "rain"cloud" within a highly symbolic and mythological context. The text presents a series of invocations and epithets directed towards a divine figure, highlighting his power over natural phenomena and their role in the cosmic battle against Apep. Also, the sandbank of Apep (*ṯs pwj n ʿʒpp*) mentioned in this passage echoes the reference to *ṯs pn n ʿpp* "this sand bank of Apep" in Ankhtifi's inscriptions.

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[647] This passage from Ankhtifi's inscriptions contains one of the earliest known references to the deity Apep (also known as Apophis) in ancient Egyptian literature. For further discussion on the early attestations and development of Apep in Egyptian religious thought, see: Ludwig D. Morenz, 'Apophis: On the Origin, Name, and Nature of an Ancient Egyptian Anti-God', *Journal of Near Eastern Studies* 63, no. 3 (2004): 201–5.

[648] Mathieu, *La Littérature de l'Égypte Ancienne, I: Ancien Empire et Première Période Intermédiaire. Textes Des Pyramides, Autobiographies, Lettres Aux Morts, Hymnes, Eulogies Royales*, 246.

ỉgp ex. 2. *ỉ nb ỉns sḫm m ȝw.t-ỉb ỉ nb ỉgp ṯȝy sqd.wt ỉ sqdd ḥr ṯs pwj n ʿȝpp ỉ ṯs tp.w smn wsr.wt m prỉ.t m nsp.w ỉ ỉr.ỉ mḫn.t štȝ.t sȝȝ ʿȝpp ỉnỉ n.ỉ mḫn.t*

Oh Lord of the red cloth who possesses joy, oh Lord of the cloud, Male of the crossing, oh He who sails over that sandbank of Apophis, oh He who attaches the heads and fastens the necks in escape from the wounds, oh Guardian of the secret ferry who guards Apophis, bring me the ferry!

(Book of the Dead 99,3)[649]

The lexeme *ỉgp* appears in the epithet *nb ỉgp* "Lord of the cloud", which is part of a sequence of titles and appellations that describe the deity's attributes and domains of influence. The syntactic structure of this epithet follows the common pattern of "noun + *nb*" (lord/master of), with *ỉgp* functioning as a noun in the direct genitive construction. The epithet suggests that the deity has power over or dominion over the clouds, reinforcing the idea that atmospheric phenomena were seen as manifestations of divine influence.

The passage elaborates on the deity's role in the context of the mythological battle against Apep, as evidenced by the epithets *ṯȝy sqd.wt* "Male of the crossing" and *sqdd ḥr ṯs pwj n ʿȝpp* "He who sails over that sandbank of Apophis". These epithets present the deity as actively navigating and overcoming the challenges posed by Apep, a serpent residing in the underworld or on sandbanks, threatening the progress of the sun god's barque.

The interjection *ỉ* "oh" appears multiple times in this passage, preceding each epithet or invocation. The use of ỉ serves to intensify the vocative function of the epithets, drawing attention to the deity being addressed and emphasizing the speaker's reverence and appeal for divine intervention. This repetition also contributes to the ritual and incantatory nature of the text, as it builds up a sense of urgency and entreaty. As we said, after the first occurrence in the inscription of Ankhtifi, the sandbank of Apep becomes a recurring motif in ancient Egyptian literature. The defeat of Apep was seen as a prerequisite for the maintenance of cosmic order and the continuation of the solar cycle, and the deity's ability to overcome this adversary was a testament to their power and significance.

The passage also includes references to the deity's role in the afterlife and the judgment of the deceased, as indicated by the epithets *ṯs tp.w smn wsr.t* "He who attaches the heads and fastens the necks" and *ỉr.ỉ mḫn.t štȝ.t sȝȝ ʿȝpp* "Guardian of the secret ferry who guards Apophis". These

[649] W. V. Davies, T. Schneider, and G. Lapp, *The Papyrus of Nu (BM EA 10477)*, Catalogue of the Books of the Dead in the British Museum 1 (London: British Museum Press, 1997), pl.62; Stephen Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, GHP Egyptology 20 (London: Golden House, 2013), chap. 99.

epithets suggest that the deity has the power to grant safe passage and protection to the deceased in the afterlife, particularly in the face of the threats posed by Apep.

From a semantic and cognitive perspective, the use of *ỉgp* in this passage reinforces the connection between atmospheric phenomena and divine power, as well as the role of the deity in maintaining cosmic order and ensuring the well-being of the deceased in the afterlife.

The verb *(ỉ)gp* as "Filled"

Returning to the inscriptions of Ankhtifi, we find a second passage that offers meaningful observations into the usage of the verb *(ỉ)gp* in ancient Egyptian texts. This excerpt provides additional context and complementary information that enriches our analysis of the term's semantic and syntactic aspects.

ỉgp ex. 3. *ỉw ḫ.t.f m p.t ỉw.s gp.t<ỉ> m sbȝ.wt*
(I made a door as high as the sky, since it is the lintel of Ta-wer) its ceiling (lit. belly) is the sky when it is covered with constellations.
(Ankhtifi 11, V, 3)[650]

The verb *(ỉ)gp*, which appears in this context without a determinative, demonstrates a semantic extension from its primary meaning of "to soar" or "to overflow" to a stative sense of being "filled" or "abundant". This semantic shift is linguistically significant and can be explained through the concept of metaphorical extension.

The pseudo-participial form *gp.t<ỉ>* indicates a stative rather than an active process. In this case, it describes the sky's condition as being "full" or "overflowing" with stars, from being "scattered" or "strewn". This interpretation could align more closely with the possible semantical link of "overflow" or "abundance". The preposition *m* before *sbȝ.wt* should be understood as indicating the means or manner by which the sky is filled, possibly implying a spreading action. Thus, the sky is "filled by means of constellations" or "abundant with constellations"[651].

This interpretation is supported by the semantic connection between "soaring", "overflowing", and "fullness". Typologically [652], concepts of upward movement (soaring) and abundance (overflowing) are linguistically linked. The Egyptian *(ỉ)gp* appears to encompass this

[650] For a detailed analysis and commentary on inscription 11, see Eric Doret, 'Ankhtifi and the Description of His Tomb at Mo'alla', in *For His Ka: Essays Offered in Memory of Klaus Baer*, ed. David P. Silverman, Studies in Ancient Oriental Civilization 55 (Chicago: Oriental Institute of the University of Chicago, 1994), 82.

[651] For a comparable celestial ceiling description, refer to David Klotz, 'Triphis in the White Monastery: Reused Temple Blocks from Sohag', *Ancient Society* 40 (2010): 204 n. a.

[652] 'Merriam-Webster', s.v. to soar; to lift; 'CNRTL Centre National de Ressources Textuelles et Lexicales', s.v. s'élever; monter.

semantic range, allowing it to describe both the action of rising-overflowing and the resultant state of fullness or abundance.

The metaphorical comparison between the ceiling of a lintel[653] and the star-filled sky reflects a common perceptive process in which abstract or vast concepts (like the night sky) are understood through more concrete, tangible experiences (like architectural features). The comparison of the ceiling (*ḫ.t*, literally "belly") of a constructed door to the star-filled sky demonstrates the Egyptian tendency to draw analogies between earthly and celestial realms. This metaphorical language reinforces the idea that architectural elements could be imbued with cosmic significance[654], reflecting the perceived order and beauty of the celestial sphere.

(ỉ)gp as a Motion Verb

This analysis of the ancient Egyptian verb *(ỉ)gp* , including its morphology, primary meaning, metaphorical extensions, and contextual usages, provides conceivable evidence for its classification as a possible yet peculiar motion verb. The textual examples could demonstrate that this specific verb consistently appears in linguistic contexts involving motion, either literally or metaphorically.

From a linguistic standpoint, motion verbs are characterized by their ability to express the conceptual components of a motion event, which include the THEME (the moving entity), the AREA (the reference point or path of motion), the PATH (the trajectory followed by the figure), and the MODE (the way in which the motion is carried out)[655]; they can also include, and are not limited to, the SOURCE and the GOAL of the motion. Motion verbs can also describe metaphorical movement, such as the way that clouds 'billow' or smoke 'rises', extending their application to abstract concepts and atmospheric

[653] The term *hʒw.t* probably refers to the door frame or architrave, refer to Vandier, Khafaga, and Vandier-d'Abbadie, *Mo'alla*, 233–34; Mathieu, *La Littérature de l'Égypte Ancienne, I: Ancien Empire et Première Période Intermédiaire. Textes Des Pyramides, Autobiographies, Lettres Aux Morts, Hymnes, Eulogies Royales*, 247.

[654] Concerning the temple seen as a microcosm, where the ceiling often symbolized the sky, adorned with stars to represent the sky, displaying a broader tendency in Egyptian culture to integrate cosmic symbolism into architectural design, refer to Erika Meyer-Dietrich, 'Der Tempel Als Körper: Das Verhältnis Zwischen Architektonischer Und Religiöser Praxis', in *7. Ägyptologische Tempeltagung: Structuring Religion. Leuven, 28. September - 1. Oktober 2005*, ed. René Preys (Wiesbaden: Harrassowitz, 2009), 173–89.

[655] Winand, 'The Case of Pḥ and Spr', 1240–42.

phenomena. The usage of *(ỉ)gp* in the examined textual examples could align with these conceptual components.

In the Pyramid Texts, *(ỉ)gp* frequently co-occurs with lexical elements that specify the figure (*Ppj* "Pepy"), the path (*ỉr p.t* "to heaven"), and the manner (*m ꜥḥꜥ.w* "as a heron") of the motion event. Similarly, in the Book of the Dead, the juxtaposition of *ỉgp* with nautical imagery (e.g., *sqd.wt* "crossing") suggests a conceptualization of the sky as a ground or reference point for the motion of celestial entities.

Moreover, *(ỉ)gp* exhibits distinct syntactic behaviours that are characteristic of motion verbs: it can be associated with prepositions and other adverbial modifiers, that specify the SOURCE and the GOAL of the action, thus reinforcing its semantic role as a motion verb. In this context, it appears in constructions with directional prepositions (*ỉr* "to", *ḥr* "on, upon") and participates in specific argument structure constructions, such as the combination of a figure with a motion verb and a path or ground (*Ppj pn* "this Pepy" + *gp* "soars" + *ỉr p.t* "to heaven").

The metaphorical extensions of *(ỉ)gp*, such as its use to describe atmospheric states like the sky being "overcast" or "cloudy", and its association with the idea of a cloud billowing, further demonstrates its adherence to the cognitive linguistic principles governing motion verbs. These metaphorical usages rely on the conceptual mapping of motion properties onto non-motion domains, a common feature of motion verbs[656]. The classification of *(ỉ)gp* as a motion verb not only sheds light on its syntactic and semantic properties but also on Its ability to describe both literal movement (bird flight) and metaphorical movement (cloud formation) is a unique feature that further cements its status as a motion verb.

The textual examples from the Pyramid Texts and the First Intermediate Period demonstrate the versatile use of *(ỉ)gp* in both religious and secular contexts. In the Pyramid Texts, the verb *(ỉ)gp* is frequently employed to describe the ascent of the deceased king to the sky, likened to the soaring flight of birds such as the heron and the falcon. These comparisons highlight the symbolic significance of these bird species in ancient Egyptian mythology and their association with themes of regeneration, divine kingship, and the journey between the earthly and celestial realms.

In contrast, the use of *(ỉ)gp* to describe the sky as cloudy in the Pyramid Texts and the historical-biographical literature of the First Intermediate Period reveals the ancient Egyptian understanding of the connection between atmospheric conditions and the behaviour of celestial and terrestrial elements. The clouding of the sky is portrayed as a powerful and transformative event,

[656] Omid Khatin-Zadeh et al., 'The Role of Motion Concepts in Understanding Non-Motion Concepts', *Behavioral Sciences* 7, no. 4 (14 December 2017): 84.

capable of altering the appearance and stability of the sky and the earth, and serving as a metaphor for social and political upheaval.

The semantic shift of *(ỉ)gp*, from its meaning of "to soar" or "to overflow" to encompass states of abundance or fullness, as seen in the description of star-filled skies, illustrates a mental process that links concepts of upward movement, abundance, and celestial phenomena, yielding fruitful recognition into the ancient Egyptian conceptualization of the cosmos.

The polysemy of *(ỉ)gp* and its association with both bird behaviour and atmospheric conditions underscore the ancient Egyptian tendency to draw metaphorical connections between different domains of experience. The soaring flight of birds and the movement of clouds in the sky were perceived as related phenomena, reflecting the dynamic and transformative nature of the natural world and its impact on the human sphere.

Soaring birds, such as herons and falcons, are known for their ability to soar and glide effortlessly in the sky, often riding on thermals and air currents, which are strictly related to the presence of clouds. The ancient Egyptians, as profound observers of natural phenomena, would have noticed the similarity between the smooth, fluid motion of these birds and the way clouds appear to drift and spread across the sky. This could also be associated with the idea that clouds billow, or swell as they move through the atmosphere.

This observation likely led to the metaphorical extension of the verb *(ỉ)gp* from its primary meaning of "soar, glide" to the secondary meaning of "to cloud". Just as the English verb 'to billow' suggests a swelling, flowing motion of clouds or smoke, *(ỉ)gp* captures the sense of clouds as dynamic entities moving through the sky with their own flow and momentum, not just as a static cover over it. The formation of clouds and their movement across the sky may have been conceptualized as a form of "soaring" or "gliding", as the way they seem to billow effortlessly in the air.

Contextual and Syntactic Analysis

In this chapter, we will delve into the contextual and syntactic analysis of the lexeme *ỉgp*, "cloud", in ancient Egyptian corpus. Our investigation will focus on the occurrences of the term, spanning various genres and historical periods. We aim to expose the diverse semantic nuances and syntactic patterns associated with *ỉgp*, shedding light on how the ancient Egyptians conceptualized and represented clouds in their language and thought.

Our analysis will be structured into three main semantic categories, each reflecting a distinct yet permeable conceptual domain in which the notion of "cloud" is employed. These categories have been carefully arranged in a logical and coherent manner, based on the contextual evidence provided by the selected passages. The semantic categories we have identified include:

– Cloud as Vehicle in celestial journeys
– Cloud as Obstacle or hindrance
– Cloud as Metaphor of power and military conquest

3.1.4. Identified semantic categories of *ỉgp*

The first category, "Vehicle in celestial journeys", explores the role of *ỉgp* in religious and mythological contexts. In these instances, clouds serve as a means of transportation for divine beings or the deceased as they traverse the celestial realms. This category highlights the ancient Egyptian belief in the permeability between the earthly and heavenly spheres, with clouds acting as a bridge or conduit between the two.

In the second category, "Atmospheric phenomenon as an obstacle or hindrance", we will examine instances where *ỉgp* is portrayed as a physical barrier or impediment. In these contexts, clouds are often associated with darkness or obscurity, requiring divine or royal intervention to clear them away. This usage underscores the perceived power of clouds to disrupt human activities and the authority of deities or rulers to restore order.

In the third category, "Metaphor of military conquest", we encounter *ỉgp* used as a figurative device to convey notions of dominance, power, and victory. Clouds, in these contexts, are likened to armies or weapons, emphasizing their potential to overwhelm and conquer. This metaphorical usage of *ỉgp* reveals how the ancient Egyptians drew parallels between atmospheric phenomena and human experiences of conflict and triumph.

It is important to note that the contextual and syntactic analysis of *ỉgp* differs from that of the lexeme *ḥw.t*, which we have formerly examined. While both terms relate to hydrometeors and atmospheric conditions, they exhibit distinct semantic ranges and syntactic behaviours. The aforementioned term *ḥw.t*, is more frequently associated with the physical act of rainfall and its direct consequences on the landscape. In contrast, *ỉgp* encompasses a different spectrum of meanings and associations, extending beyond the literal notion of clouds to include metaphorical and symbolic dimensions.

3.1.5. Clouds as Celestial Vehicles: Traversing the Liminal Space

Although the number of attestations of *ỉgp* is relatively limited, a close examination of its frequent collocations with other nouns and the semantic domains they represent will grant astute understanding into the ancient Egyptian conceptualization of clouds and their role in the cosmic landscape.

3.1.5.1. The role of *ỉgp* as a medium

As we have seen with the verb *(ỉ)gp*, in a similar way, one of the most prominent contexts in which the lexeme *ỉgp* appears is that of celestial journeys, where it is associated with the movement of deities or the deceased through the sky. This connection further highlights the ancient Egyptian understanding of clouds as a means of transportation in the celestial realm, facilitating the ascent and descent of divine entities and the souls of the deceased. To illustrate this role of clouds, consider the following passage from the Pyramid Texts:

ỉgp ex. 4. *pr.n Ppj pn ḥr ỉgp.w hȝ.n.f ḥr ỉ(ȝ)ḫḫ.w*
This Pepy ascended on the clouds, he descended onto the radiance.
(PT 627 § 1777c) [657]

The close association between *ỉgp* and celestial luminosity is another salient feature of this semantic category, as evidenced by the lexeme's co-occurrence with terms denoting radiance and brightness. In this passage, the verb *prỉ* "to ascend", rather than the more traditional "emerge", is used once more in collocation here not with the verb *(ỉ)gp* as we have seen, but with the noun *ỉgp* in the

[657] Mathieu, *Les Textes de La Pyramide de Pépy Ier: Traduction*, 371.

mrr.f form in Wechselsätze construal, emphasizing Pepj's movement. The subject of the clause is the pharaoh referred to as *Ppj pn* "this Pepy", emphasizing his individual identity and the specificity of his celestial journey. The preposition *ḥr* "on, upon" is followed by the plural form of *ỉgp*, *ỉgp.w* "clouds", specifying the means by which Pepy ascends. The use of the plural form here suggests that clouds were conceptualized in this context as a collective entity, forming a pathway or platform for the pharaoh's ascent.

The second clause features the verb *ḥʒi* "to descend", similarly in the accomplished form *ḥʒ.n.f*, with the suffix pronoun *.f* referring back to Pepj. The use of the accomplished form *sḏm.n.f* in both clauses emphasizes the completion of the actions and the successful transition of the pharaoh from one celestial location to another. The preposition *ḥr* is used again, this time followed by *ỉ(ʒ)ḫḫ.w* "the radiance"[658], a term associated with celestial beings or stars.

The collocation of *ỉgp.w* with *ỉ(ʒ)ḫḫ.w* might suggest a close semantical relationship between clouds and other celestial entities in the ancient Egyptian cosmological setting, or a possible contrast between darkness and light. The conceptual link between clouds, light, and moisture is further reinforced by the discussed semantic connections between *ỉgp* and other lexemes related to inundation and fertility. While analysing this passage, it is noteworthy that *ỉ(ʒ)ḫḫ.w*, denoting sunlight, could possibly exhibit semantic connections to the lexemes such as

ʒḫ[659], referring to the Akh-spirit, and
ʒḫ.t[660], signifying "the horizon".

Upon previous examination of the Egyptian conceptualization of atmospheric phenomena as an overflowing emission of light and fluid, it is pertinent to consider potential semantic connections to additional lexemes such as

ʒḫ.t[661] "the flood season",

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[658] In the Pyramid Texts, the term *ỉ(ʒ)ḫḫ.w* (*Wb* 1, 33.3-5; TLA ID 20880) frequently appears in conjunction with verbs of movement, such as *ḥfdỉ* meaning "to climb" or "to fly" (*Wb* 3, 75.6-9; TLA ID 104560), and *ỉʒd* "to climb", (*Wb* 1, 35.5; TLA ID 21130), particularly in passages like PT 421 § 751a. Kurt Sethe, *Übersetzung Und Kommentar,* vol. III p. 392-3.

[659] Leitz et al., *LGG*, vol. I, 35 ff; Jíří Janák, 'Akh', *UCLA Encyclopedia of Egyptology* 1, no. 1 (20 February 2013), https://escholarship.org/uc/item/7255p86v.

[660] *Wb* 1, 17.12-23. TLA ID 227.

[661] *Wb* 1, 13.2. TLA ID 216.

ʒḫʒḫ[662] "to be verdant; to be inundated",

i̯ʒḫi̯[663] "to be flooded", and

wʒḫi̯[664] "to flood; to make verdant; to rejoice".

We need to specify that even if the two roots are distinct, √*i̯ʒḫ* and √*ʒḫ*, they seem to exhibit semantic contamination despite their etymological independence. The root √*i̯ʒḫ* pertains to the domain of light and illumination, while √*ʒḫ* is associated with the manifestation or actualization of a force or power which is not immediately perceptible. It is possible that they undergo a process of secondary contamination, resulting in a degree of semantic overlap and influence between them[665]. This linguistic relationship might suggest a shared semantic cognitive contamination expressing the concepts of shine and brightness deeply connected to both terms.

Conceptual Metaphor of LIGHT AS FLUID or LIGHT AS FLOOD: Bidirectional Substance Flow

This linguistic analysis could lead to a plausible hypothesis that the term *i̯(ʒ)ḫḫ.w* "sunlight" may have conveyed an overarching idea of a downpour of light, akin to a "flood of light" or "that which floods". This interpretation finds parallels in other Egyptian lexemes related to light emission, such as

stw.t[666] "beams, rays", derived from the root *sti̯* "pour out", and

wbn.w[667] "sunrays", stemming from the verb *wbn*[668],

which encompasses both the meanings of "to shine" and "to flood".

The verb *wbn* in ancient Egyptian has been interpreted as representing two distinct actions: "to shine; to rise (of the sun)" and "to rise up; to overflow"[669]. However, a closer examination of these

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[662] *Wb* 1, 18.16-20. TLA ID 244.

[663] *Wb* 1, 33.2. TLA ID 20870.

[664] *Wb* 1, 258.13-259.9. TLA ID 43260.

[665] Klaus Koch, 'Erwägungen Zu Den Vorstellungen Über Seelen Und Geister in Den Pyramidentexten.', *Studien Zur Altägyptischen Kultur* 11 (1984): 429; Karl Jansen-Winkeln, '"Horizont" Und "Verklärtheit": Zur Bedeutung Der Wurzel Ax.', *Studien Zur Altägyptischen Kultur* 23 (1996): 203.

[666] *Wb* 4, 331.2-18. TLA ID 147910.

[667] *Wb* 1, 294.7. TLA ID 45160.

[668] For a detailed analysis of the meanings and usages of the Egyptian verb *wbn*, refer to Pierre Lacau, 'Les Verbes Wbn, "Poindre" et psD, "Culminer"', Bulletin de l'Institut Français d'Archéologie Orientale 69 (1971): 1–9.

[669] *Wb* 1, 292.9-294.3. TLA ID 45050, 854500.

interpretations cloud suggests that they might not be separate verbs, but rather different facets of the same verb[670].

The commonality between these interpretations lies in the fundamental concept of rising as overflowing, whether it pertains to the sun's ascent in the sky or the upward movement and expansion of water. This shared conceptual basis indicates that *wbn* might function as a single verb with a broad semantic range, encompassing both the celestial phenomenon of the sun's rise and the terrestrial action of rising or overflowing.

The semantic and arguably morphological similarities between these terms might hint at a consistent conceptual background in which atmospheric phenomena, as either light-related or water-related, were perceived as entities that are "poured" or "flooded" from a source. This linguistic evidence could support the notion that the ancient Egyptians' understanding of sunlight and related atmospheric phenomena was closely intertwined with their conceptualization of the cyclical overflowing of the Nile, which was essential to their agricultural and religious life.

The linguistic evidence suggests that ancient Egyptians employed a conceptual metaphor of LIGHT AS FLUID or LIGHT AS FLOOD. As we discussed previously concerning the methodology for this study on page 40, this cognitive mechanism allows for the mapping of concrete, physical experiences (flooding) onto more abstract concepts (light emission). Such metaphorical thinking is a fundamental aspect of human cognition, enabling the comprehension of complex phenomena through more familiar, tangible experiences. This allows for the transfer of properties from the more concrete domain (fluid) to the more abstract domain (light).

The connection between light-related terms and flooding vocabulary could also indicate an embodied understanding of atmospheric phenomena. The ancient Egyptians' lived experience with the Nile's annual inundation likely served as a cognitive scaffold for conceptualizing other natural occurrences, including the behaviour of light. This embodied approach to cognition suggests that their physical environment played a crucial role in shaping their abstract thinking and linguistic expressions.

Furthermore, this concept can be extended to encompass the notion of substance emanating from a source, with an evident bidirectionality in motion. The ancient Egyptian conceptualization of light and water as substances flowing from celestial or divine sources aligns with their observations of natural phenomena. Just as the Nile's waters rise and recede annually, celestial bodies like the sun and moon appear to ascend and descend in the sky.

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[670] Faulkner, *CDME*, 58.

This conceptual background of bidirectional substance flow may have influenced their understanding of other phenomena, such as the movement of clouds or the spread of light. It potentially provided a basis for explaining various natural processes and cosmic cycles, contributing to the development of their religious, philosophical, and scientific thought. The embodied nature of this conceptualization, grounded in the tangible experience of the Nile's inundation and the daily solar cycle, demonstrates the profound impact of environmental factors on the formation of abstract concepts and linguistic expressions in ancient Egyptian culture. Besides, this passage portrays the pharaoh's journey through the celestial realm as a two-part bidirectional process, with clouds serving as a means of ascent and the radiance as a destination for descent. The use of *ỉgp.w* in this context emphasizes the role of clouds in facilitating movement within the sky and their importance in the posthumous journey of the pharaoh.

Continuing with the theme of celestial movement, the Coffin Texts provide another example of clouds facilitating travel, once again in a bidirectional motion:

ỉgp ex. 5. *pr.t hȝ.t m p.t hȝ.n N tn ỉm.ṯ m ỉgp*
Ascending and descending from the sky; this N came down from you (= the sky) in a Cloud.
(CT VI, 346h)

This passage consists of two clauses that work together to convey the idea of bidirectional movement between the earth and the sky. The first clause features the labelling infinitives *pr.t* "to ascend" and *hȝ.t* "to descend", used in a construction to express the already seen contrasting binary concept of ascending and descending. The prepositional phrase *m p.t* "from the sky" follows, indicating the direction of movement and the starting point of the journey. The use of infinitives in this clause might accentuate the cyclical pervasiveness of the concept of celestial travel, applicable not only to the specific individual mentioned in the spell but also to the broader context of ancient Egyptian funerary beliefs[671].

The second clause begins with the *sḏm.n.f* form of the verb *hȝi* "to descend" in an emphatic construction, foregrounding the adverbial adjunct *ỉm.ṯ* "from you" and placing the demonstrative feminine pronoun *tn* "this" together with the name of the deceased *N* as the subject. The adverbial

[671] Harco Willems, *Les Textes Des Sarcophages et La Démocratie: Éléments d'une Histoire Culturelle Du Moyen Empire Égyptien*, ed. Christiane Zivie-Coche (Paris: Cybele, 2008), 205–6.

adjunct *ỉm.t* refers to the sky, conceivably personified as a feminine entity through the use of the second-person feminine singular suffix pronoun *.t*. This personification of the sky adds an intimate and dynamic dimension to the relationship between the deceased and the celestial sphere, suggesting a complementary bidirectional interaction and communication between them.

The prepositional phrase *m ỉgp* "in a cloud" is also foregrounded in the emphatic construction, specifying the means by which the deceased descends from the sky. The use of the singular form *ỉgp* here, in contrast to the plural *ỉgp.w* that we found earlier, suggests that the focus is on the individual journey of the deceased rather than the collective nature of clouds as a celestial pathway. The collocation of *ỉgp* with the verb *hʒi* and the personified sky in this emphatic construal emphasizes the role of the cloud as a mediator between the divine realm and the individual experience of the deceased.

3.1.5.2. Clouds as Liminal Spaces

The association of clouds with the divine realm and the pharaoh's celestial journey is also evident in the following passage from the Coffin Texts:

ỉgp ex. 6. *sḫtp.ỉ Rʿ m-ḫn.w bʿḥ wtnw wỉʒ.ỉ sqd.f m-ḫn.w ỉgp.t*
May I satisfy Re within the flood of the celestial flow, when my boat sails inside the Cloud.
(CT 320, IV 144n)

This sentence consists of two main clauses connected by a temporal relationship. In the first clause, the verb *sḫtp* "to satisfy" appears in the subjunctive form, indicating a wish or desire. The prepositional phrase *m-ḫn.w bʿḥ wtnw* "within the flood of the celestial flow" provides the location of the action, where the noun *bʿḥ* "flood" is followed in direct genitival construal by *wtnw* (celestial flow)[672].

In the second clause, the noun *wỉʒ.ỉ* "my boat" is followed by the verb *sqd* "to sail" in the circumstantial unaccomplished form with the suffix pronoun *.f* referring back to the boat. The prepositional phrase *m-ḫn.w ỉgp.t* "inside the cloud" indicates the location of the boat's journey.

[672] *Wb* 1, 381.1-2. TLA ID 51190. For an analysis of the semantic relationship between the term *wtnw* and various manifestations of the Nile inundation, refer to see Ramadan el-Sayed, 'À Propos Des Spells 407 et 408 Des Textes Des Sarcophages', *Revue d'égyptologie* 26 (1974): 75 n.12.

Here, *ỉgp.t* refers to a cloud or cloudy expanse through which the boat travels. The unusual spelling with *.t* ending could suggest it might be understood as a collective noun[673], perhaps indicating an expanse of clouds rather than a single cloud.

The juxtaposition of *bʿḥ* and *ỉgp.t* in this passage suggests a conceptual link between celestial waters and clouds in ancient Egyptian thought. This association reinforces the idea of clouds as vehicles for divine or otherworldly travel, blurring the distinction between liquid and vaporous forms of water in the celestial realm.

The use of the same prepositional phrase *m-ḫn.w* with both *bʿḥ wtnw* and *ỉgp.t* creates a parallel structure that emphasizes the similarity between these two celestial media. This parallelism might suggest that the ancient Egyptians conceptualized clouds as a form of celestial moisture, navigable in much the same way as a flood or celestial ocean.

The conceptualization of clouds as liminal spaces, facilitating transition and communication between earthly and celestial spheres, is further exemplified by this passage from the Coffin Texts:

ỉgp ex. 7. *ỉnk nb.t fȝ.w m wȝ.wt ỉgp*
I am the Lady of Prestige on the paths of the overcast sky.
(CT IV, 177g)

In this instance, the deceased identifies themselves as the "Lady of Prestige" and associates their presence with the "paths of the overcast sky". The syntactic structure of this passage consists of a nominal sentence with a pronominal subject. This sentence begins with the independent pronoun *ỉnk*, followed by the noun phrase *nb.t fȝ.w* "Lady of Prestige". The term *fȝ.w*[674] can be translated as "splendour", "prestige", or "magnificence", possibly alluding to the divine power over natural phenomena.

The prepositional phrase *m wȝ.wt ỉgp* "on the passings of the overcast sky" provides the location or domain of the speaker's authority. The noun *wȝ.wt* appears in the plural form, indicating multiple routes or passings through the cloudy sky. In contrast, the term *ỉgp* is employed here as a singular noun, probably denoting an overcast or cloudy sky. Furthermore, as previously explored in the passage from Dialogue of the Man and his Ba on page 203, the term *wȝ.wt*, particularly in its plural form, can be interpreted as "passings" rather than merely "ways" or "paths". This interpretation adds

[673] Malaise and Winand, *Grammaire*, para. 66.

[674] *Wb* 1, 575.3-15. TLA ID 63640.

depth to the concept of celestial passings, suggesting not merely static routes but dynamic movements or transitions through the cloudy sky.

The use of *wȝ.wt* in conjunction with *ỉgp* suggests a conceptualization of the cloudy sky as a traversable space, reinforcing the notion of clouds as a medium for celestial movement. This evokes the idea of a divine or deceased individual navigating through a cloudy realm as part of a journey in the afterlife. The interpretation of *wȝ.wt* as "passings" in this context is further supported by the aforementioned analysis of the term in the Dialogue, where it appears in collocation with the term *ḥw.t* "rain". The semantic nuance of *wȝ.wt* as denoting a transitory movement or passage through a space, rather than a fixed path, aligns well with the dynamic nature of atmospheric phenomena like rain and clouds.

3.1.5.3. Clouds as Dynamic and Mutable Entities

The claim to authority over these celestial paths implies that knowledge of or power over cloudy conditions was considered a divine and celestial characteristic. This could reflect the importance of weather phenomena in Egyptian religious and magical thought, where control over atmospheric conditions might be seen as a sign of divine power. The perception of clouds as dynamic and mutable entities, responsive to divine influence, is captured in this passage from the Coffin Texts:

ỉgp ex. 8. *p.t m ỉ[g]p tȝ m sỉm*
The sky covered (and) the earth in mist.
(CT VI, 220l)

As in the passage of the inscriptions of Anktifi, we find here two parallel clauses: both clauses follow the structure of noun + *m* + noun. In the first clause: *p.t m ỉ[g]p*, *p.t* (sky) is the subject, and *ỉ[g]p* functions as the adverbial predicate, connected by the preposition *m*. This construction can be translated as "the sky is in clouds" or "the sky is cloudy". The use of *m* in this context indicates a situation or condition rather than a location. We have also previously explored the similar syntactic structure for the term *ḥw.t* on page 179. The second clause: *tȝ m sỉm*, follows the same structure, with *tȝ* (earth) as the subject and *sỉm* (mist) as the predicate. The parallelism between these clauses suggests a broad description of atmospheric conditions, with clouds above and mist below.

The term *sỉm*[675]  , meaning "mist" or "fog", is semantically related to *ỉgp* but refers to a lower-altitude phenomenon. This semantic relationship highlights a conceivable understanding of the correlation between clouds and mist, both being forms of atmospheric moisture[676]. This linguistic choice may reflect an underlying cosmological belief system that views the sky and earth as interconnected or mirroring entities.

Moreover, the parallelism in this construction emphasizes the totality of the described weather condition, suggesting a world completely encompassed by atmospheric moisture. This could be interpreted as a description of primordial conditions, a state of cosmic transition, or simply a poetic depiction of heavy weather.

Semantic Connection with the atmospheric conditions of *ʿḏ.wt* "murkiness" *ʿḏ p.t "murky sky"*

The next passage portrays a dynamic scene, with the murkiness of the sky clearing and the clouds shaking, it reads

ỉgp ex. 9. *kf ʿḏ.wt nwr ỉgp*
The murky sky clears, the clouds shake.
(CT VII, 205b)

This sentence comprises two clauses, in the first clause, *kf ʿḏ.wt*, we encounter the aforementioned verb *kf(ỉ)*, frequently associated with atmospheric vocabulary, which carries the primary meaning "to uncover" or "to reveal". In this context, it adopts the more specific sense of "to clear", particularly apt when describing atmospheric conditions. The subject of this verb, *ʿḏ.wt*  or followed by  [677] is a possible collective noun derived from the previously discussed root *ʿḏ*

[675] *Wb* 4, 37.6. TLA ID 128300. A parallel expression of this term appears in a hymn dating back to the 19th dynasty, see Hermann Kees, 'Ein Alter Götterhymnus Als Begleittext Zur Opfertafel', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 57 (1922): 104–5.

[676] For a comprehensive analysis of the colexification patterns between the concepts of "cloud" and "fog" in Tibeto-Burman languages, as well as the potential influence of elevation on the semantic similarity between these terms, refer to Hongdi Ding and Sicong Dong, 'Elevation and Fog-Cloud Similarity in Tibeto-Burman Languages', *Humanities and Social Sciences Communications* 10, no. 1 (3 July 2023): 375, https://doi.org/10.1057/s41599-023-01877-7.

[677] Molen, *DCT*, 81.

on page 181, which could denote "turbulence" or "murkiness". The plural form *ʿḏ.wt* could be employed to refer to the sky in a state of overcast or cloudiness. Thus, this initial clause presents a well-defined image of a cloudy or overcast sky beginning to clear.

The second clause, *nwr ỉgp*, introduces our focal lexeme *ỉgp*. Here, *ỉgp* functions as the subject of the verb *nwr*, also frequently associated with atmospheric vocabulary, which carries the meaning "to tremble" or "to shake". This verb choice is particularly intriguing, as it attributes an additional dynamic, almost bodily quality to the clouds. The singular form of *ỉgp* in this context likely represents clouds in their entirety rather than individual cloud formations.

The juxtaposition of these two clauses creates a powerful meteorological image. The clearing of the troubled sky (*kf ʿḏ.wt*) is immediately followed by, or perhaps concurrent with, the shaking of the clouds (*nwr ỉgp*). This sequence suggests a dynamic process of atmospheric change, possibly alluding to the dissipation of cloud cover or the transition from overcast conditions to clearer skies.

From a lexical perspective, the passage expresses the distinctive vocabulary available in Ancient Egyptian for describing various states of the sky and cloud formations. The term *ʿḏ.wt*, used here to denote a murky or overcast sky, provides a semantic counterpoint to *ỉgp*. While *ʿḏ.wt* seems to describe a peculiar state of the sky, *ỉgp* refers to cloud formations capable of movement or change. Both the murky sky (*ʿḏ.wt*) and the clouds (*ỉgp*) are presented not as passive backdrops but as entities capable of action or change.

In terms of semantic and cognitive patterns, the use of *ỉgp* in this passage reveals several noteworthy trends. The association of *ỉgp* with the verb *nwr* ("to shake") suggests a conceptualization of clouds as dynamic, potentially corporeal entities. This attribution of movement to clouds seems a common cognitive pattern across ancient and modern cultures[678], reflecting the observable behaviour of cloud formations. The cognitive link between the clearing of the sky (*kf ʿḏ.wt*) and the movement of clouds (*nwr ỉgp*) also suggests an understanding of atmospheric processes, where the dissipation of overall cloudiness is connected to the movement or change in individual cloud formations.

[678] Typologically, the noun 'cloud' frequently collocates with motion verbs such as drift, float, hang, hover, loom, move, pass, race, roll, scud, and swirl. This linguistic pattern reflects a widespread cognitive tendency to attribute motion to clouds. For further examples, refer to 'Online OXFORD Collocation Dictionary of English', Oxford dictionary, s.v. cloud, accessed 4 September 2024, https://m.freecollocation.com/.

The conceptualization of the sky and clouds as dynamic entities finds parallels in various passages, some already explored, from different textual sources, emphasizing the atmospheric phenomena and their effects on the natural world.

In the formerly mentioned passage from Taharqa's inscriptions:

ḥʿpj ʿȝ n p(ȝ)j.ỉ hȝw ỉmỉ n.ỉ tȝ p.t ỉw.s n ʿḏ ỉw.s ʿšȝ [m ḥw.t]

A great inundation in my time, give me the sky when it is murky (lit. it belongs to murkiness) and full of rain.

(Taharqa's inscriptions, peristyle court at Karnak, eastern end of the wall, column 9,10)[679]

The association between the murkiness of the sky and the abundance of rain demonstrates a clear recognition of the link between atmospheric conditions and precipitation. This connection is further reinforced by the use of the term *ʿḏ* to describe the sky's state, which, as previously discussed on page 181, denotes a sense of turbulence or disturbance.

Similarly, the passage from the Pyramid Texts reads

ʿḏ p.t nwr tȝ

The sky is murky, the earth trembles.

(PT 477 § 956a)

Semantically, this passage draws a parallel between the condition of the sky and the reaction of the earth, suggesting a perceived connection between atmospheric and seismic phenomena. The verb *nwr*, is used to describe the earth's response, indicating a state of agitation or instability. The juxtaposition of *ʿḏ* and *nwr* in this passage creates a powerful image of a world in flux, with the sky's murkiness and the earth's trembling reflecting a broader theme of instability and change.

When compared to the passage *kf ʿḏ.wt nwr ỉgp* from the Coffin Texts, several lexical and semantic parallels emerge. Both passages employ the term *ʿḏ* or its variant *ʿḏ.wt* to describe the murkiness of the sky, reinforcing the consistency of this term's usage across different ancient Egyptian corpora.

Moreover, both passages use the verb *nwr* to describe the shaking or trembling motion, albeit applied to different subjects. In the Pyramid Texts, it is the earth that trembles in response to the

[679] Vernus, 'Inscriptions de La Troisième Période Intermédiaire', 29-31,42-43.

murky sky, while in the Coffin Texts, it is the clouds themselves that shake as the sky clears. This parallel use of *nwr* highlights the ancient Egyptians' perception of the dynamic nature of both celestial and terrestrial elements.

However, there is also a notable contrast between the two passages. While the Pyramid Texts passage focuses on the correlation between the sky's murkiness and the earth's trembling, the Coffin Texts passage describes a process of atmospheric change, with the murky sky clearing and the clouds shaking.

Another parallel coming from the passage from the Book of the Dead, could expose the meaning of these expressions, it reads

ʿḏ.n.i p.t wbȝ.n.i ȝḫ.t

I have troubled the sky, I hacked open the horizon.

(P. London BM 10793, BD 010 and 048, 20,15)[680]

We find two parallel clauses, each featuring a verb in the perfective form followed by a direct object. The first clause, the use of the accomplished form *ʿḏ.n.i* suggests a completed action, emphasizing the speaker's role in actively affecting the state of the sky. The second clause introduces the verb *wbȝ*, which means "to open" or "to pierce", in graphically connected to its logogram (U26), which represents the action of a drill penetrating a bead, creating an opening or passage through the object[681]. Again, the accomplished form *wbȝ.n.i* indicates a completed action, with the speaker claiming to have actively opened or penetrated the horizon[682].

The choice of verbs in this passage is particularly remarkable, as they both correspondingly imply a forceful and transformative action. The verb *ʿḏ* suggests a disturbance or disruption of the sky's normal state, while *wbȝ* denotes a quite analogous aggressive action of opening or penetrating

[680] Irmtraut Munro, *Der Totenbuch-Papyrus Des Hohenpriesters Pa-Nedjem II. (pLondon BM 10793/pCampbell)*, Handschriften Des Altägyptischen Totenbuches 3 (Wiesbaden: Harrassowitz, 1996), pl.21.

[681] Gardiner, *EG*, 519.

[682] Interestingly, one of the most frequent co-occurrences of the Egyptian terms *wbȝ* "open" and *p.t* in the funerary context is the formula BD 161, which is designed to create an opening in the sky, see Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, 392–93. This formula is commonly inscribed on the shoulders of coffins, making it relatively visible. The prominence of this formula, combined with the linguistic evidence of the frequent collocation of "open" and "sky", might suggest a potential connection between the attribution of movement to clouds and the cultural belief in the ability to create openings in the sky.

the horizon. This forceful language stands in contrast to the more observational tone found in other passages discussing atmospheric phenomena. Rather than simply describing the sky's appearance or behaviour, this passage presents the speaker as an active agent, capable of influencing and altering the celestial vault.

The juxtaposition of the sky and the horizon in this passage is also noteworthy. The horizon, *ȝḫ.t*, represented the liminal space between the earth and the sky[683], the point where the sun rose and set. The speaker suggests a breach of this boundary, a possible contravention of the natural order, by claiming to have "hacked open" the horizon.

From a linguistic perspective, these passages demonstrate the versatility of the ancient Egyptian language in describing atmospheric phenomena. The use of the term *ʿḏ* and its variants across different texts and contexts focuses on the importance of this concept in the ancient Egyptian understanding of the sky and its various states. The clearing of the sky and the movement of clouds are indicative of changes in atmospheric conditions, such as variations in air pressure, humidity, and wind patterns. The ancient Egyptian mindset, as reflected in these texts, appears to have acknowledged the potential for atmospheric disturbances to impact not only weather patterns but also geological processes.

From a meteorological standpoint, the dissipation of clouds and the transition from overcast to clear skies are governed by factors such as air temperature, humidity, and vertical motion in the atmosphere[684]. As air rises and cools, water vapor condenses into clouds, while descending air warms and causes clouds to evaporate. The "shaking" or movement of clouds described in the passage can then be attributed to wind currents and atmospheric turbulence, similar to the *ʿḏ* phenomenon, which cause clouds to change shape, merge, or dissipate.

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[683] Charles Kuentz, 'Autour d'une Conception Égyptienne Méconnue: L'akhit Ou Soi-Disant Horizon.', *Bulletin de l'Institut Français d'Archéologie Orientale* 17 (1920): 121–90; Joshua Aaron Roberson, 'The Iconicity of the Vertical: Hieroglyphic Encoding and the Akhet in Royal Burial Chambers of Egypt's New Kingdom', in *Seen Not Heard: Composition, Iconicity, and the Classifier Systems of Logosyllabic Scripts*, ed. Ilona Zsolnay (Chicago: Institute for the Study of Ancient Cultures, 2023), 31–62, https://isac.uchicago.edu/research/publications/isacs/isacs14.

[684] For a comprehensive discussion on cloud dissipation, including the role of turbulence, refer to Yau and Rogers, *A Short Course in Cloud Physics*, 146-147;217.

3.1.6. Obstacle or Weather Hindrance

While the previous examples have highlighted the positive and enabling aspects of clouds as vehicles in celestial journeys, the ancient Egyptian conception of *ỉgp* also encompassed a more problematic dimension, as evident in the second semantic category: clouds as obstacles or hindrances. One of the earliest attestations of *ỉgp* can be found in the Pyramid Texts, in this passage, the divine entity addresses the deceased king, declaring:

ỉgp ex. 10. *nfˁ(.ỉ) n.k šȝp.t ḫsr(.ỉ) n.k ỉgp ỉ.sḏ.(.ỉ) n.k šnỉ.t*
I will take away the deluge for you, I will dispel the clouds for you, and break up the rain-cloud for you.
(PT 311 § 500 a-b)

Syntactically, this passage consists of three parallel clauses, each featuring a first-person singular subject (the speaker) and a second-person singular indirect object (the addressee). The parasynonymous verbs used in these clauses —*nfˁ* "to blow away", *ḫsr* "to expel", and *sḏ* "to break up"— are all transitive, taking direct objects that refer to various meteorological phenomena: *šȝp.t* "deluge", *ỉgp* "cloud", and *šnỉ.t* "hail; storm".

The use of personal suffix pronouns emphasizes the personal relationship between the speaker and the addressee, suggesting that the act of dispelling the rain clouds is performed as a favour or service from the divine entity. This implies that the ancient Egyptians perceived rain clouds as potentially disruptive or undesirable, and the ability to control or eliminate them was seen as a sign of power and benevolence.

The choice of verbs in this passage is significant, as they all convey a sense of forceful removal or dissipation of the meteorological phenomena. The verb *nfˁ* "to take away" suggests a strong, wind-like action that can disperse the deluge, while *ḫsr* "to expel" implies a more direct and targeted removal of the clouds. The verb *sḏ* "to break up", used in reference to the storm (*šnỉ.t*), indicates a physical disruption or dissolution of the perturbation structure.

This emphasis on the active removal of rain clouds might stress the ancient Egyptian perception of these phenomena as obstacles or hindrances that needed to be overcome. The fact that the speaker, the divine entity protecting the king, is portrayed as having the ability to perform these actions suggests that the power to control weather phenomena was seen as a divine or royal prerogative, further strengthening the idea that rain clouds were considered in this context disruptive elements that required intervention from higher authorities.

3.1.6.1. The atmospheric phenomenon *šꜣp.t* "deluge"

The use of three different terms for atmospheric phenomena in this passage —*šꜣp.t* "deluge", *ỉgp* "cloud", and *šnỉ.t* "hail, storm"— highlights the nuanced understanding of meteorological conditions in ancient Egyptian thought. While *ỉgp* appears to be a more general term for clouds, *šnỉ.t* specifically refers to the destructive storm, and *šꜣp.t* denotes a more intense or destructive downpour. This linguistic differentiation suggests that the ancient Egyptians recognized various types and intensities of rain-related events and their potential impact on the natural and cosmic order.

The enumeration and parallel structure of the three clauses, each featuring a verb of removal or dissipation followed by a meteorological term, creates a sense of escalation and emphasis. The progression from *šꜣp.t* "deluge" to *ỉgp* "cloud" and finally to *šnỉ.t* "storm" might indicate a growing specificity and focus on the hail storm as the ultimate obstacle to be overcome. This structural choice reinforces the central role of *ỉgp* and its related terms as significant hindrances in the ancient Egyptian worldview.

The morphological and possibly morphological[685] relationship between the term *šꜣp.t* and the lexeme *šꜣpỉ*[686], which denotes the action "to surge (of water)", may indicate that the semantic scope of *šꜣp.t* extends beyond merely referring to a deluge or downpour, but also captures the dynamic motion and force associated with surging liquid phenomena. This linguistic association reflects the conception of atmospheric phenomena in ancient Egyptian conception.

The link between *šꜣp.t* and *šꜣpỉ* underscores the destructive potential inherent in the concept of *šꜣp.t*. The metaphorical extension of the surging motion of water to the movement and impact of *šꜣp.t* imbues the latter with connotations of powerful, destructive force. This destructive aspect of *šꜣp.t* is further reinforced by the perceived necessity to remove or dissipate it, as evidenced in various textual sources.

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[685] 'TLA 2',Ɐḫꜣpi̯ (Lemma ID 874487. It is pertinent to consider the proposed potential morphological relationship between the lexeme *šꜣp.t* and the posited root *šꜣ*, denoting the semantic notion of "to break up", see Satzinger and Stefanović, *Egyptian Root Lexicon*, 317. This proposed etymological connection may find a potential support in the conceptual parallel with the mentioned lexeme *ʿḏ*, which encompasses the meanings "to hack" and "to slaughter".

[686] *Wb* 3, 362.7. TLA ID 122530.

3.1.6.1. The atmospheric phenomenon *šnỉ.t* "hail, storm"

Similarly, the morphological and semantic connections between the ancient Egyptian term *šnỉ.t*, denoting a type of storm or atmospheric disturbance[687], and the lexical roots *šnỉ*[688] and the mentioned *nš* could explain the cultural perceptions and symbolism associated with meteorological phenomena.

The root *šnỉ*, which conveys notions of conflict, dispute, and discord, bears a morphological resemblance to *šnỉ.t*, suggesting a metaphorical link between the storm and the concept of antagonism or disruption[689]. This linguistic association underscores the ancient Egyptian view of the storm as a disruptive and hostile force, capable of upending the natural order and social harmony.

Furthermore, the potential relationship between *šnỉ.t* and *nšn* root, probably connected through a process of possible double decomposition and semantic association[690], might add another layer of meaning to the understanding of this atmospheric phenomenon. As we discussed previously, a possible reconstructed mentioned *nš* root, might align with the characteristics of the storm, perceived as a physical, emotional and atmospheric discharge that weighed heavily upon the land and its inhabitants.

The lexical relationship between extreme weather events and emotional states, particularly anger, is evidenced in Ancient Egyptian as early as the Old Kingdom period. This semantic connection is manifested through the polysemy of two notable lexemes: *nšn.j* and *sšn*. Both terms exhibit a dual meaning, encompassing the concepts of "anger" and "storm". This linguistic phenomenon reflects the ancient Egyptians' conceptualization of severe weather phenomena as potentially life-threatening or property-damaging occurrences, associating them with the intense and potentially destructive nature of anger.

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[687] Corpus analysis indicates that *šnỉ.t* is more accurately rendered as "storm" rather than "hail", with the latter interpretation likely influenced by earlier discussed graphemic features of the N4 sign. This reading is further supported by its consistent collocational association with violence and disorder terminology, as well as by the absence of Coptic derivatives—contrasting with the clear diachronic continuity observed in our core selection. These factors suggest that *šnỉ.t* aligns more closely with the perturbation domain than with direct precipitation vocabulary.

[688] This root also exhibits possible morphological connection with the term *šnʿ* "storm cloud" (Lemma ID 155760), see 'TLA 2',√šnj (Lemma ID 875321).

[689] For further exploration of this semantic relationship and its attestations, see Köhler, *Rage*, 177–80.

[690] Christian Cannuyer, 'Les Formes Dérivées Du Verbe En Ancien Égyptien: Essai de Systématisation', *Göttinger Miszellen* 63 (1983): 26.

The idea that the storm, as represented by *šnỉ.t*, must be broken apart (*sḏ*) to restore order and clarity to the atmosphere further reinforces the ancient Egyptian perception of this phenomenon as an oppressive and disruptive force. The act of breaking or dispersing the storm can be interpreted as a symbolic triumph over chaos and a restoration of the natural balance.

In conclusion, the placement of this utterance within the broader context of the Pyramid Texts, Coffin Texts and Book of the Dead, which primarily focus on the afterlife and the journey of the deceased king, suggests that the ability to control weather phenomena was not only relevant to the earthly realm but also extended to the cosmic spheres. The power to dispel rain clouds and alleviate their disruptive effects can be seen as a metaphor for his ability to maintain order and stability in the face of cosmic challenges, ensuring his successful transition and integration into the afterlife.

3.1.6.2. Cloud as Weather Hindrance in Magical Texts

The theme of clouds as hindrances persists in later magical texts, as evidenced by the following passage, from the magical papyrus P. Ramesseum XVI, here we encounter a fragmentary spell that invokes an entity responsible for removing clouds:

ỉgp ex. 11. *dr.jw ỉgp s (?) mḥḥ.jw mȝ wỉ sp-2(?)*
O you who remove the clouds, who... (?), look at me, look at me (?)!
(P. Ramesseum XVI = P. BM EA 10769, 16,2)[691]

Despite the lacunae and uncertainties in the text, the key elements relevant to our analysis seem well preserved. The spell begins with a vocative construction, addressing an entity described as *dr.jw ỉgp* "the one who removes the clouds". The participle *dr.jw*, derived from the verb *dr.* "to remove, to drive away", frequently occurrent with atmospheric perturbation, serves as a substantive, identifying the addressee by their ability to eliminate clouds. The use of the verb *dr.* in this context is significant, as it connotes a forceful and purposeful removal of the clouds, much like the verbs employed in the previous passage from the Pyramid Texts. This reinforces the notion that storm clouds were seen as obstacles or hindrances that required active intervention to be dispelled.

[691] Pierre Meyrat, *Les Papyrus Magiques Du Ramesseum: Recherches Sur Une Bibliothèque Privée de La Fin Du Moyen Empire*, Bibliothèque d'étude 172 (Le Caire: Institut français d'archéologie orientale; The British Museum, 2019), vol. I 115-16; II 359.

The final part of the spell features a repeated imperative *mȝ wi̯* "look at me", maybe underscoring the speaker's plea for attention and assistance from the cloud-removing entity[692]. This urgent request for intervention emphasizes the importance of controlling or mitigating the effects of rain clouds, particularly in the context of magical spells aimed at ensuring protection and well-being.

The occurrence of *i̯gp* in this magical context features the significance of rain clouds not only as physical phenomena but also as symbols of potential danger or disruption in the ancient Egyptian magical conception. The invocation of a divine or supernatural entity capable of removing these clouds suggests that the Egyptians sought to harness the power of magic to control and alleviate the negative effects of meteorological hindrances.

In a passage from the magical papyrus P. Ramesseum VIII, which contains spells for treating the aforementioned *šmm.t* fever[693], considered to be a form of demon, the lexeme *i̯gp* appears in a simile construction that compares the passing of an unspecified entity, possibly evil or the fever itself, to the movement of clouds:

i̯gp ex. 12. *swȝi̯ ḥr.k mi̯ swȝi̯ i̯gp ḥr [___] [m] [m] [hrw] pn dwȝ rnp.t(?)*
(That is the) passing (lit. of evil?) before(?) you, as the clouds pass by on [---] [on] this [day], the morning of the year.
(P. Ramesseum VIII: P. BM EA 10761, 12,7-8)[694]

The syntactic structure of this passage consists of two juxtaposed clauses, each featuring the verb *swȝi̯* "to pass by, to pass". The first clause, *swȝi̯ ḥr.k*, describes the passing of an implied subject, possibly referring to the *šmm.t* fever or its associated demonic influence, before or in relation to the

[692] For an in-depth analysis of divine visibility and sight, see Jan Assmann, 'Ocular Desire in a Time of Darkness: Urban Festivals and Divine Visibility in Ancient Egypt.', in *Ocular Desire*, ed. Jan Assmann and Aharon R. E. Agus (Berlin: Akademie-Verlag, 1994), 13–29.

For discussions on personal devotion in ancient Egypt, refer to Pascal Vernus, 'La Piété Personnelle à Deir El-Médineh: La Construction de l'idée de Pardon', in *Deir El-Médineh et La Vallée Des Rois: La Vie En Egypte Au Temps Des Pharaons Du Nouvel Empire. Actes Du Colloque Organisé Par Le Musée Du Louvre, Les 3 et 4 Mai 2002*, ed. Guillemette Andreu (Paris: Khéops; Musée du Louvre, 2003), 309–47; Maria Michela Luiselli, 'Personal Piety in Ancient Egypt', *Religion Compass* 8, no. 4 (2014): 105–16.

[693] Meyrat, *Les Papyrus Magiques Du Ramesseum: Recherches Sur Une Bibliothèque Privée de La Fin Du Moyen Empire*, vol. I 74.

[694] Meyrat, vol. I 49; II 319.

addressee (*ḥr.k* "before you").The second clause, introduced by the preposition *mỉ,* establishes a simile that equates the movement of the implied subject to the passing of clouds (*swʒỉ ỉgp*).

This transitory movement of the verb *swʒỉ* in collocation with *ỉgp* could be linked to the explored example in the Dialogue of the Man and his Ba[695], where *wʒ.t* and *ḥw.t* appear in collocation, proving once again the polysemic and more nuanced meaning of *wʒ.t* and its probable more precise translation with "passing" in this context, instead of the mere "way, path". This connection supports the idea that the movement of clouds was perceived as a transient and dynamic phenomenon, mirroring the transitory nature of the fever or its associated evil.

The use of the verb *swʒỉ* in both clauses creates a parallel structure that emphasizes the similarity between the two actions. This syntactic parallelism reinforces the conceptual link between the passing of the unspecified entity, in this case, the *šmm.t* fever or its demonic impact, and the movement of clouds, suggesting that the ancient Egyptians perceived a cognitive association between the transient nature of clouds and the idea of the fever or evil passing by or being removed.

Given the context of this passage within this iatromagical[696] papyrus aimed at treating the *šmm.t* fever, the comparison of the passing of the fever or its associated evil to the movement of clouds takes on additional significance. The simile construction implies that the Egyptians drew a symbolic connection between the transient nature of clouds and the idea of the fever or evil passing by or being dispelled.

This interpretation is possibly reinforced by the temporal reference in the fragmentary[697] text following the simile, which mentions "[on] this [day], the morning of the year". Although the exact meaning is unclear due to the lacunae, the presence of a temporal marker suggests that the passing

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[695] *ỉw m(w).t m ḥr.ỉ mỉn mỉ wʒ.t ḫwj.t mỉ ỉwỉ s m mšʿ r pr.sn*

"Death stands before me today like the passing of the rain, as when a man comes home from an expedition"

(P. Amherst 3 + P. Berlin P 3024, col., 137).

[696] Guermeur, 'Un Faucon et Une Chatte Dans Une Recette Iatromagique Du Papyrus de Brooklyn 47.218.2 (Col. + IV, 2-7)'; Guermeur, 'Le Papyrus Hiératique Iatromagique N° 47.218.2 Du Musée de Brooklyn'.

[697] The proposed reconstructions for the lacunae are primarily based on the findings of J. F. Quack, who conducted a thorough examination of the original papyrus. Quack's analysis and suggested restorations are presented in the online database 'TLA 2', sentence/ICICRePOvqhEWU6hkWMCcRoIRfg.

The incorporation of these reconstructions into the text aims to provide a more complete and coherent reading of the passage, while acknowledging the uncertainties inherent in the fragmentary nature of the source material.

of clouds and, by analogy, the passing of the fever or evil, was associated with a specific time or occasion, possibly linked to the cyclical nature of the fever and the ritual performance of the spell.

From a semantic and cognitive perspective, the use of *ỉgp* in this passage reinforces the patterns observed in other textual sources, such as the Pyramid Texts and the Coffin Texts. The concept of rain clouds as potentially disruptive or harmful entities that need to be controlled or dispelled is a recurring theme. The metaphorical link between the movement of the clouds and the passing of metaphysical forces or influences reflects the ancient Egyptian tendency to conceptualize abstract concepts and intangible phenomena through concrete, observable images drawn from the natural world.

Moreover, the association of the clouds' movement with a specific temporal reference, such as the morning of the New Year or the beginning of the agricultural season, a critical time previously discussed for this association on page 176, suggests that the ancient Egyptians recognized the cyclical nature of meteorological phenomena and their potential impact on human activities and the natural order.

Another example of *ỉgp* as a hindrance can be found in the New Kingdom magical papyrus Harris, dated to the 20th dynasty. The passage is the last of three hymns to Shu, the ancient Egyptian god of air and sunlight, which were intended to ward off crocodiles. This context is significant, as it suggests that the invocation of Shu's power to control weather phenomena was believed to have a protective function against the dangers posed by crocodiles. It reads

ỉgp ex. 13. *dr.k šnʿ.tỉ sḫḏ.n.k ỉgp m rn.k pwj n(.j) dr. šnʿ.tỉ*

May you drive away the storm after you have illuminated the clouds, in your name "Driver of the storm"!

(P. Harris 501: P. BM EA 10042, ro 2,5)[698]

The passage exhibits a syntactic structure that emphasizes the relationship between the divine entity and the meteorological phenomena. The use of the second-person singular suffix in *dr.k* and *sḫḏ.n.k* establishes a direct address to the deity, highlighting the speaker's appeal for divine intervention. The verb forms used in the passage also contribute to its syntactic structure. The subjunctive form *dr.k* "may you drive away" expresses a kind of subtle request or command, while the accomplished form *sḫḏ.n.k* "you have illuminated" implies a completed action with enduring results.

[698] Christian Leitz, *Magical and Medical Papyri of the New Kingdom*, Hieratic Papyri in the British Museum 7 (London: The British Museum Press, 1999), 33; pl. 13.

The use of these verb forms underscores the urgency of the speaker's appeal and the expected efficacy of the divine intervention.

The prepositional phrase *m rn.k pwj* "in this your name" serves to equate the deity's epithet *dr. šnʿ.tỉ* "Driver of the storm" with their essential nature or identity. This syntactic construction reinforces the idea that the ability to control storms and clouds is an inherent characteristic of the deity. In this passage, the speaker implores the divine entity, Shu, to perform two actions: driving away the storm (*dr. šnʿ.tỉ*) and illuminating the clouds (*sḫḏ ỉgp*). The use of the causative verb *sḫḏ* "to make bright, to illuminate" in reference to clouds is interesting, as it suggests that the ancient Egyptians associated the dissipation of clouds with the emergence of light or clarity. This connection indicates that the ability to control and dispel storms and clouds was seen as a defining characteristic of this particular deity, further emphasizing the ancient Egyptian belief in the divine governance of weather phenomena. The incorporation of the divine name *dr. šnʿ.tỉ* into the spell itself can be seen as a form of invocation or activation of the deity's power, aiming to enlist their aid in overcoming the obstacles posed by storms and clouds.

The close association between the terms *ỉgp* "cloud" and *šnʿ.tỉ* "storm" in this passage highlights the ancient Egyptian understanding of the interrelationship between different meteorological phenomena. Clouds, particularly rain-bearing clouds, were seen as precursors or components of storms, which were perceived as disruptive and potentially destructive forces. The need to dispel both clouds and storms underscores the ancient Egyptian desire to maintain a state of cosmic balance and order, free from the hindrances posed by adverse weather conditions.

Furthermore, the term *šnʿ.tỉ* could potentially be analysed in a similar manner to the previously examined term *šnỉ.t* on page 287, which may be morphologically related to the root *šni*[699]. Alternatively, as we have suggested, *šnʿ.tỉ* might instead be derived from the root *nš*. If this latter hypothesis is correct, the term *šnʿ.tỉ* would carry broader connotations of a release or discharge, whether in a physical, emotional, or even atmospheric sense, since the root *nš* seems to semantically imply an expulsion or emission of this sort.

[699] 'TLA 2', √šnj (Lemma ID 875321).

3.1.6.3. Storm clouds as hindrances to the solar barque, the sun god's daily journey

The Late Period tomb of Pabasa (TT 279), datable to the reign of Psamtik I of the 26th dynasty, contains a reference to warding off storm clouds in a copy of the ritual of the twelve hours of the day (*Stundenritual*)[700].

ỉgp ex. 14. *dr.n.f ꜥj ꜣ ꜥg ꜣpw m wꜣ.wt Rˁ*

He has warded off the storm cloud on the passings of Re.

(TT 279, Pillar Hall, western row of pillars, 2nd hour of day, 8)[701]

This passage employs the accomplished *sḏm.n.f* form of the verb *dr.* "to drive away, to ward off", emphasizing the completed action performed by the tomb owner, Pabasa. The object of this action is the *ỉgp* "storm cloud", which is described as being located *m wꜣ.wt Rˁ* "on the passings of Re".

The reference to the "passings of Re" alludes to the sun god's daily journey across the sky, suggesting that the ancient Egyptians perceived storm clouds as potential obstacles or hindrances to the smooth progression of the solar barque. The deceased is portrayed as playing a crucial role in maintaining the cosmic order and ensuring the uninterrupted flow of solar energy, specifically when he performs the action of warding off the clouds.

Once more, the use of the verb *dr.* in this context, as in the previous passages, stresses the active and purposeful removal of the storm clouds as obstacles or impediments to the sun god's

[700] This hymn can be traced back to the New Kingdom period (ca. 1550-1070 BCE), is attested in several funerary contexts from the Saite era (664-525 BCE), including multiple burial sites in Saqqara and Thebes. Furthermore, this religious hymn is partially inscribed in temples dating to the Ptolemaic dynasty (305-30 BCE), such as those at Edfu, Dendara, and Philae, see Jan Assmann, *Ägyptische Hymnen Und Gebete: Übersetzt, Kommentiert Und Eingeleitet*, 2nd rev. and extended, Orbis Biblicus et Orientalis (Freiburg (Schweiz); Göttingen: Universitätsverlag; Vandenhoeck & Ruprecht, 1999), 76; Mirosław Barwik, 'The So-Called "Stundenritual" from Hatshepsut's Temple at Deir El-Bahari', in *Proceedings of the Seventh International Congress of Egyptologists, Cambridge, 3-9 September 1995*, ed. C. J. Eyre (Leuven: Peeters, 1998), 109–17; Christophe Thiers and Youri Volokhine, *Ermant I: Les Cryptes Du Temple Ptolémaïque; Étude Épigraphique*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 124 (Le Caire: Institut français d'archéologie orientale, 2005), 68.

[701] This composition of the *Stundenwachen* is currently under study by E. Graefe and remains unpublished. For the purposes of this analysis, we have utilized the version available in 'TLA 2', https://thesaurus-linguae-aegyptiae.de/text/47D5Q2LG5FASHG6FF24WORMHCM.

journey. The tense of the verb (*sḏm.n.f*) emphasizes the completion and effectiveness of the action, suggesting that his role in dispelling the clouds was not merely symbolic but had tangible consequences for the maintenance of cosmic stability.

It is worth noting that the verb *dr.*, as we have seen, is often used in religious and mythological texts to describe the actions of deities or other powerful beings in overcoming obstacles or vanquishing enemies. The use of this verb in association with Pabasa suggests that his role in warding off the storm clouds was seen as a significant and powerful act, comparable to the actions of divine beings in maintaining the stability of the cosmos.

The association of *ỉgp* with the solar journey in this passage highlights the ancient Egyptian conception of the sky as a liminal space, where the forces of order and chaos could potentially collide. The sun god's daily passage across the sky was seen as a critical moment of transition and regeneration, and any obstacles or hindrances encountered along the way, such as storm clouds, were perceived as threats to the cosmic balance.

Furthermore, the inclusion of this passage in the context of the *Stundenritual* (ritual of the twelve hours of the day) suggests that the warding off of storm clouds was not an isolated event but rather a recurring and necessary action that was performed as part of a larger cosmic cycle. The association of this act with a specific hour of the day highlights the concept of time as a cyclical and regenerative force, with each day representing a microcosm of the eternal cosmic order.

Having explored the dual aspects of clouds as enablers and obstacles in the celestial and terrestrial realms, let us now turn to the third semantic category, relatively worldly compared to the preceding ones, which showcases the metaphorical extension of *ỉgp* to the domain of military conquest and power.

3.1.7. Metaphor of power

3.1.7.1. *ỉgp* as a Metaphor for Military Power

The lexeme *ỉgp*, serves as an evocative metaphor for military conquest and domination in Ancient Egyptian corpus. The most informative instance of *ỉgp* employed as a conquest allegory is found in the following passage from the Teaching for Merikare:

ỉgp ex. 15. *ḥss.ỉ Ṯn(w) Mqỉ? tʒš.s rs.j.t r Tʒ-.t? ỉṯỉ.n.ỉ s(j) mỉ gp n(.j) mw*
It is (after) I had conquered them like a cloud of water that I favour This and Mqj (?), (when) their southern border was at Tʒ-t (?).
(Teaching for Merikare, 72, 5-9)[702]

In this sentence, the clause *ḥss.ỉ Ṯn(w) Mqỉ* "I favour *This* and *Mqj*", which employs the imperfective active *mrr.f* form of the verb *ḥsỉ* "to favour", serves as the main clause, with *Ṯn(w)* and *Mqỉ* as objects[703]. The use of the *mrr.f* form here functions to foreground the subsequent clause *ỉṯỉ.n.ỉ s(j) mỉ gp n(.j) mw* "I had conquered them like a cloud of water".

The adverbial phrase *mỉ gp n(.j) mw* "like a cloud of water" modifies the verb *ỉṯỉ*, adding a metaphorical dimension to the act of conquering. The text emphasizes the temporal and causal relationship between the two actions: the favouring of *Ṯn(w)* and *Mqỉ* is presented as a consequence or aftereffect of their conquest, which is likened to the enveloping and overwhelming nature of a cloud heavy with water. The adverbial clause *tʒš.s rs.j.t r Tʒ-.t?* "(when) their southern border was at

[702] W. Golénischeff, *Les Papyrus Hiératiques N° 1115, 1116 A et 1116 B de l'Ermitage Impérial à St.-Pétersbourg* (St. Pétersbourg: n. publ., 1913), pl. XI; Joachim Friedrich Quack, *Studien Zur Lehre Für Merikare*, Göttinger Orientforschungen 23 (Wiesbaden: Harrassowitz, 1992), 43;179.

[703] For an analysis of the concept of border expansion potentially alluded to in this context and its complex philological issues, refer to Quack, *Studien Zur Lehre Für Merikare*, 179; José M. Galán, *Victory and Border: Terminology Related to Egyptian Imperialism in the 18th Dynasty*, Hildesheimer Ägyptologische Beiträge 40 (Hildesheim: Gerstenberg, 1995); Pascal Vernus, *Essai Sur La Conscience de l'histoire Dans l'Égypte Pharaonique*, Bibliothèque de l'École Des Hautes Études, Sciences Historiques et Philologiques 332 (Paris: Honoré Champion, 1995), 108–10; Dimitri Meeks, 'Franchissement et Transgression de La Frontière: Expansion et Risques à l'époque Pharaonique', in *Les Sociétés Méditerrnéennes Face Au Risque: Espaces et Frontières*, ed. Christian Velud (Le Caire: Institut Français d'Archéologie Orientale, 2012), 15.

Tȝ-t (?)" provides additional context, specifying the geographical extent of the conquered regions at the time of their conquest and the subsequent favouring. The strategic use of the *mrr.f* form in the main clause to foreground the *sḏm.n.f* form in the subordinate clause creates a rhetorical emphasis on the king's military prowess and the scale of his victory.

The simile *mỉ gp n(.j) mw* "like a cloud of water" reinforces this emphasis by evoking the image of an all-encompassing, irresistible force. The lexeme *ỉgp* "rain cloud" serves an adverbial function, modifying the verb *ỉṯỉ* "to conquer, to take possession of". This simile construction directly compares the act of conquering to the action or qualities of a rain-cloud, evoking a powerful mental image.

The lexical choices in this passage further reinforce the metaphorical link between conquest and the forces of nature. The verb *ḥsỉ* "to favour" suggests a divine sanction for the king's actions[704], as if he possesses the same ability as the clouds to grant or withhold favour, to allow the rains of beneficence to fall or to keep them at bay.

The cognitive impact of the cloud metaphor lies in its conceptualization of military conquest as an overwhelming, irresistible force of nature. Just as a massive raincloud dominates the sky and releases a deluge of water, engulfing and saturating all that lies beneath it[705], so too does the Egyptian king exert complete control and authority over the lands and peoples he subjugates. The cloud serves as an ideal source domain for this metaphor due to its connotations of power, size, elevation, and inundation.

This metaphorical mapping is not limited to the Merikare passage but can be detected in other texts as well[706], revealing a broader pattern in the Egyptian conceptual system. Clouds are consistently associated with the divine realm and the pharaoh, and the power to unleash or restrain them—to bring forth the rains or to hold them back—is seen as a hallmark of supreme authority over the natural world. As we have previously explored on page 184, this power is then metaphorically extended to the socio-political sphere, equating mastery over the environment with military might and political control.

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[704] For a detailed examination of the king's approval or reward (*ḥsỉ)* and its narrative structure in particular in Old Kingdom autobiographical texts, see Stauder-Porchet, *Les Autobiographies de l'Ancien Empire Égyptien: Étude Sur La Naissance d'un Genre*, 244–55.

[705] John Coleman Darnell, 'The Message of King Wahankh Antef II to Khety', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 124 (1997): 106–7.

[706] Variations on this pattern can be found in N.-C. Grimal, *La Stèle Triomphale de Pi('ankh)y Au Musée Du Caire: JE 48862 et 47086-47089*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 105 (Le Caire: Institut français d'Archéologie Orientale, 1981), ll. 27; 93; 96.

The spelling of *ỉgp* in this particular instance is noteworthy:  *gp n(.j) mw* "cloud of water". The use of the less common determinative sign (N35a) after *ỉgp*, rather than its more usual N4 seems to emphasize the watery, liquid nature of this cloud – specifically a raincloud rather than just any cloud. This nuance may further be reinforced by the addition of the very lexeme *mw*  "water" itself directly after *ỉgp*, linked by the indirect genitive *n(.j).* The repetition of the  sign, both as a determinative for *ỉgp* and as the ideogram for *mw*, visually stresses the watery essence of this cloud.

Together, these orthographic choices underscore the image of a cloudburst, a sudden and violent outpouring of liquid – an especially apt metaphor for the overwhelming force of the pharaoh's conquering armies as they sweep over the enemy lands. The emphasis on the watery aspect heightens the sense of inescapability and transformative power: just as one cannot hold back the flood from a cloudburst, so too is the enemy helpless before the pharaoh's military might, which drenches the land and dissolves old boundaries.

3.1.7.2. Conceptual Mapping of CONQUEST as NATURAL FORCE

The use of *ỉgp* "rain cloud" as a metaphor for military conquest could draw upon the conceptual mapping of CONQUEST as NATURAL FORCE. The sudden, overwhelming power of a cloudburst, vividly evoked by the orthography *gp n(.j) mw* with its repeated water determinatives, is mapped onto the swift, total subjugation of an enemy territory by a superior military force.

This metaphor may highlight several among the following salient features of the source domain (raincloud/cloudburst) that could be conceptually transferred to the target domain (conquest), and which may be accentuated by the specific linguistic choices in this passage:

Suddenness and speed: The emphasis on the watery, cloudburst nature of this cloud through the use of the determinative and the addition of *mw* "water" stresses the rapidity and abruptness with which the downpour can appear and drench the land, paralleling the speed of a powerful army's advance.

Overwhelmingness and totality: A cloudburst releases a huge volume of water that floods a wide area, leaving nothing untouched. This total inundation is reinforced by the repetition of water signs in the orthography, and maps onto the complete envelopment of a region by conquering forces.

Uncontrollability and inevitability: The sheer volume of water released in a cloudburst, as highlighted by the spelling, cannot be contained or resisted, just as a weaker enemy is helpless before the pharaoh's armies. Surrender is as inevitable as getting drenched when caught in a downpour.

Transformative power: The violent outpouring of a cloudburst, so vividly evoked by the orthographic choices, can reshape the landscape through erosion and flooding. In the same way, military conquest radically alters borders and power structures.

The watery, cloudburst aspect of the rain-cloud through the specific spelling *gp n(.j) mw*, heightens the metaphorical potency of *ỉgp* in conveying the pharaoh's conquering might. The orthography itself iconically enacts the conceptual mapping, reinforcing the sense of conquest as a sudden, overwhelming, irresistible natural force.

The use of the less common determinative  N35a and the repetition of *mw* "water" seems to emphasize the cloudburst aspect - the sudden, violent outpouring of water. Mapped onto the target domain of conquest, these orthographic choices vividly evoke the speed, totality, irresistibility and transformative power of the pharaoh's armies as they overrun enemy lands.

In essence, the lexeme *ỉgp* "rain cloud" operates as a striking and conceptually loaded metaphor for military conquest in this excerpt, condensing the very essence of Egyptian royal power—a power that is at once awe-inspiring, life-sustaining, and inescapable, much like the mighty rain clouds that hold sway over the earth below. The Merikare passage exemplifies how syntactic structures, lexical selections, and orthographic strategies converge to strengthen and enrich this underlying conceptual metaphor, transforming it into a formidable literary and rhetorical tool.

3.1.7.3. Divine Power Over Hydrometeors

The inclusion of the lexeme *ỉgp* in the hymn to Ptah from Papyrus Berlin 3048 can be contextualized within the structure of Egyptian ritual practices, particularly the "morning song" or "awakening hymn"[707]. This genre of religious text plays a crucial role in the daily temple liturgy, serving as a means to reanimate the divine statue after its nocturnal repose in the sanctuary's darkness.

The semantic and syntactic features of the passage describing Ptah's control over atmospheric phenomena, including the use of *ỉgp*, can be understood as elements of this reanimation process. The text attributes to Ptah the power to manipulate celestial waters, generate rain clouds, and cause floods, this not only emphasizes his creative abilities but also metaphorically "awakens" these natural forces. This interpretation aligns with the conception of the diurnal cycle as a microcosm of the eternal struggle between order and chaos, where the god's daily awakening represents the renewal of creation and the maintenance of cosmic equilibrium.

Ptah's power extends over atmospheric phenomena and his ability to bring forth water from various sources, drawing semantic links between the sky, bodily fluids[708], and floods on the mountains.

In the first passage, the text reads

ỉgp ex. 16. *pḥ.tj.k ʿḫ mw r ḥr.t hmh ỉmj rʒ.k m (ỉ)gp nft fnd.k [...]wt sʿbj n.k ḥr-tp ḏw.w š.w*

Your strength which lifts the waters to the sky, the saliva that is in your mouth is a rain cloud. Release the breath of your nose [...], (the water) which pours out over the mountains for you is the lakes.

(P. Berlin 3048, E. V, 7-8)[709]

The syntactic structure of this passage is characterized by a series of nominal sentences, each highlighting a different aspect of Ptah's power. The first clause, *pḥ.tj.k ʿḫ mw r ḥr.t*, uses a participial

[707] Nadine Guilhou, 'Hymne d'éveil à Ptah', *Égypte, Afrique & Orient* 91 (2018): 16.

[708] In Egyptian mythology, the universe is often depicted in anthropomorphic terms, reflecting a broader tendency in human cultures to conceptualize the universe in human terms. For a discussion on the anthropomorphic nature of the universe in various mythologies, including ancient Egyptian beliefs, see motif B2C: "The Earth as an anthropomorphic body" on 'Thematic Classification and Distribution of Folklore and Mythological Motifs by Area', accessed 5 September 2024, https://www.mythologydatabase.com/bd/.

[709] Georg Möller, *Hymnen an Verschiedene Götter. Zusatzkapitel Zum Totenbuch*, Hieratische Papyrus Aus Den Königlichen Museen Zu Berlin 2 (Leipzig: J. C. Hinrichs, 1905), 39; Walther Wolf, 'Der Berliner Ptah-Hymnus (P 3048, II-XII)', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 64, no. 1 (1929): 24.

form of the verb (*ʿḫ*) and a prepositional phrase (*r ḥr.t*) to describe Ptah's strength (*pḥ.tj*), this might over rain was examined previously on page 217, as the force that raises (*ʿḫ*) the waters (*mw*) to the sky (*r ḥr.t*). This sets the stage for the subsequent clauses, which elaborate on the various ways in which Ptah brings forth water.

The second clause, *hmh ỉmj r.k m (ỉ)gp*, employs a nominal sentence with an adjectival predicate (*ỉmỉ r.k*) and a prepositional phrase (*m (ỉ)gp*) to equate the saliva (*hmh*) in Ptah's mouth (*ỉmj rȝ.k*) with a rain cloud (*gp*). This metaphorical language, already explored on page 237, suggests that even Ptah's bodily fluids have the power to create and sustain life, much like the life-giving rain from the clouds.

The third clause, *ntf fnd.k [...] wt*, is fragmentary, but it appears to continue the theme of Ptah's creative power of releasing *(ntf),* semantically close to the following verb *sʿb*, something from his nose (*fnd.k*), the missing text likely elaborated on the role of Ptah's breath in the creation or sustenance of some natural phenomena.

The final clause, *sʿby n.k ḥr-tp ḏw š.w*, uses an active participle form of the causative verb *sʿb*[710] to describe the water (*mw*, implied) that poured out (*sʿby*) on behalf of Ptah (*n.k)* over the mountains (*ḥr-tp ḏw*) as the lakes (*š.w*), same term to possibly refer to flood and rain, as we found previously on page 192. This image appears to reinforce Ptah's potential ability to create and control water sources, possibly extending to mountainous regions far from the Nile Valley.

From a lexical standpoint, the passage is rich in terms related to water and its movements, with the verb *ʿḫ* "to lift" and the lexeme *ỉgp* "rain cloud" standing out as key elements in the depiction of Ptah's role in the water cycle. The verb *ʿḫ* is particularly significant[711], as it bears a close semantic relationship to the concept of *sṯsỉ* "to raise; to lift up", which is found in the explored term *sṯs.w-Šw*

[710] Regarding the causative verb *sʿb*, meaning "to cleanse" or "to purify" (*Wb* 4, 43; TLA ID 128750), which is etymologically related to the root *ʿb* and the concept of "to release", it is also semantically connected to the notion of liquid expulsion, as discussed in Stefan Grunert, 'Nicht Nur Sauber, Sondern Rein: Rituelle Reinigungsanweisungen Aus Dem Grab Des Anchmahor in Saqqara', *Studien Zur Altägyptischen Kultur* 30 (2002): 146–51.

[711] The phrase *ʿḫ p.t*, also linked to the god Shu, is employed to denote the creative powers of various deities and Ptah in particular, see Jocelyne Berlandini, 'Ptah-Démiurge et l'exaltation Du Ciel', *Revue d'égyptologie* 46 (1995): 10–12; Maria Michela Luiselli, *Der Amun-Re Hymnus Des P. Boulaq 17 (P. Kairo CG 58038)*, Kleine Ägyptische Texte 14 (Harrassowitz, 2004), 54; Andreas Dorn and Stéphane Polis, 'The Hymn to Ptah as a Demiurgic and Fertility God on O. Turin CGT 57002: Contextualising an Autograph by Amennakhte Son of Ipuy', in *Deir El-Medina: Through the Kaleidoscope. Proceedings of the International Workshop, Turin 8th-10th October 2018*, ed. Paolo Del Vesco et al. (Museo Egizio; Franco Cosimo Panini, 2022), 430.

"air space; clouds "liftings of Shu". This connection underscores the idea of elevating water in sky as a key concept for cloud and rain, with Ptah's strength serving as the agent of this upward movement.

Equally noteworthy is the god's saliva (*hmh*), a bodily emission that is both semantically and morphologically linked to hydrometeors, as we have seen previously on page 237. The passage emphasizes the cyclical nature of water, with the god's emanations, including the waters (*mw*) he raises and releases, being portrayed as manifestations of his power over the element. The reference to lakes or floods (*š.w*) as the earthly receptacles of these divine outpourings further underscores the link between the sky and the earth, with water serving as the vital connective tissue between the two domains.

In the second passage the text reads

snḥp Nww n(.j) p.t sprr mw tp ḏw.w š.w

He who creates Nu of the sky "rain", who makes water come from over the mountains and floods.

(P. Berlin 3048, E. VIII, 4) [712]

This passage consists of two participial clauses that further emphasize Ptah's role as a creator god. The first clause, *snḥp Nww n(.j) p.t*, uses a reconstructed causative verb *snḥp*[713] to describe Ptah as the one who creates (*snḥp*) the celestial waters (*Nww n(.j) p.t*), which can be understood as the rain. The second clause, *sprr mw tp ḏw.w š.w*, employs once more a reconstructed causative verb in a marked form (*sprr*) to portray Ptah as the one who makes water *(mw)* come forth (*sprr*) from over the mountains (*tp ḏw.w*), and from the lakes as floods or high-Nile (*š.w*).

Semantically, this passage resonates with the first, presenting Ptah as the fundamental source of the life-giving waters that descend from the sky and flow from the mountains. The association of the primaeval *Nww* with rain (*Nww n(.j) p.t*) might parallel the equation of divine saliva with rain clouds in the first passage, emphasizing the celestial origin of precipitation. Similarly, the image of floods emanating from the mountains echoes the notion of lakes (*š.w*) fed by the waters poured out by the god.

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[712] Möller, *Hymnen an Verschiedene Götter. Zusatzkapitel Zum Totenbuch*, 42; Wolf, 'Der Berliner Ptah-Hymnus', 31.

[713] Both verbs, *snḥp* and *sprr*, appear here as hapax legomena. It is appropriate to reconstruct them as causative forms of the verb *nḥp*, meaning "to shape" (see *Wb* 2, 295.1-6; TLA ID 86370), and *prỉ*, meaning "to go, come forth".

The use of the term *Nww* in the second passage is particularly significant, as it refers to the primordial waters that existed before creation in Egyptian cosmology. Associating Ptah with the *Nww* and describing him as the one who creates the celestial waters (i.e., rain), the text emphasizes Ptah's role as a primaeval creator god who has power over the fundamental elements of the cosmos.

Contextually, these passages from the Hymn to Ptah offer a theologically charged account of the water cycle, with the god's creative power and bodily emanations serving as the driving forces behind the movement of moisture from the sky to the earth. The lexeme *ỉgp* "rain cloud" plays a crucial role in this conceptualization, linking divine saliva to precipitation and establishing rain as a generative force alongside the Nile inundation.

Conclusion

In conclusion, this analysis of the lexeme *ỉgp* "cloud" in ancient Egyptian texts exposes a multidimensional conceptualization of clouds and their role in Egyptian cosmology, religion, and royal ideology. The examination of its occurrences across various genres and historical periods has uncovered three primary yet permeable semantic categories: clouds as vehicles in celestial journeys, as obstacles or hindrances, and as metaphors for military conquest.

The use of *ỉgp* in the context of celestial journeys highlights the ancient Egyptian belief in the permeability between earthly and heavenly realms. Clouds serve as a means of transportation for divine beings and the deceased, facilitating their movement through the cosmic landscape. This conceptualization is evident in passages from the Pyramid Texts and Coffin Texts, where clouds are described as platforms or pathways for ascent and descent. The syntactic structures in these texts, particularly the use of prepositions like *ḥr* "on, upon" and *m* "in", reinforce the idea of clouds as concrete, traversable entities in the celestial sphere.

The analysis also reveals a strong association between clouds and light phenomena, as exemplified by the collocation of *ỉgp* with terms like *ỉ(ȝ)ḫḫ.w* "radiance". This linguistic connection suggests a conceptual link between clouds and celestial luminosity, possibly reflecting the ancient Egyptian understanding of atmospheric phenomena. Furthermore, the morphological relationships between terms for light, flooding, and verdancy point to a communal conceptual background in which atmospheric phenomena are perceived as emanations or outpourings, akin to the annual Nile inundation.

The second semantic category, clouds as obstacles or hindrances, is particularly prominent in magical and religious texts. Here, *ỉgp* is often associated with verbs of removal or dispersion, indicating that clouds were perceived as potential threats to cosmic order. This conceptualization is especially evident in solar theology, where clouds are seen as impediments to the sun god's journey. The ability to control or dispel clouds is portrayed as a divine or royal prerogative, emphasizing the pharaoh's role in maintaining cosmic stability.

The second semantic category, the metaphorical use of *ỉgp* is exposed in the context of military conquest represents a particular aspect of ancient Egyptian conception. The passage from the Teaching for Merikare employs a simile, comparing the act of conquest to the overwhelming force of a rain cloud. This metaphorical mapping draws upon the conceptual domains of natural forces and military might, highlighting shared attributes such as suddenness, totality, and transformative power. The orthographic choices in this passage, particularly the use of water determinatives, visually reinforce the metaphorical link between rain clouds and conquering armies.

Linguistically, the analysis reveals significant patterns in the syntactic and lexical environment of *ỉgp*. The term frequently collocates with verbs of motion and verbs denoting control or manipulation. These collocations reflect the dynamic nature of clouds in Egyptian thought and their susceptibility to divine or royal influence. The use of *ỉgp* in various grammatical constructions, including nominal sentences, participial phrases, and similes, demonstrates its versatility as a lexical item and its integration into diverse rhetorical strategies.

From a wider cognitive perspective, the analysis of ỉ*gp* reveals underlying conceptual metaphors and metonymies that structure ancient Egyptian thought about atmospheric phenomena. The recurrent association of clouds with divine bodily fluids in religious texts suggests a conceptual mapping of CLOUDS AD DIVINE EMANATIONS. Similarly, the use of *ỉgp* in contexts of celestial journeys points to a conceptualization of CLOUDS AS VEHICLE or PATHS. These cognitive patterns reflect the ancient Egyptians' embodied understanding of abstract cosmological concepts through more concrete, experiential domains.

The diachronic aspect of this study, spanning texts from the Old Kingdom to the Late Period, allows for observations on the semantic of *ỉgp*. While the core meanings remain relatively stable, there is evidence of semantic extension and metaphorical elaboration over time. The development of *ỉgp* as a metaphor for military conquest, for instance, represents a sophisticated abstraction from its primary meteorological sense.

The collocations of *ỉgp* with various verbs of motion, illumination, and dispersion supplies profitable acumen into the ancient Egyptian conceptualization of atmospheric dynamics. These linguistic patterns suggest an acute perception of cloud behaviour, including formation, movement, and dissipation. The frequent association of *ỉgp* with verbs of illumination, such as *sḫḏ* "to illuminate", points to an awareness of the link between clouds and sunlight, possibly reflecting observations of phenomena like silver linings or the lighting effects often seen during stormy weather.

The analysis of *ỉgp*'s role in iatromagical texts, particularly those aimed at controlling crocodiles or treating fevers, highlights the term's significance in ancient Egyptian medical and apotropaic practices. The ability to manipulate clouds and weather phenomena is presented as a powerful magical skill, suggesting that mastery over atmospheric conditions was seen as indicative of broader supernatural abilities.

The semantic range of *ỉgp*, encompassing both beneficial and potentially harmful aspects of clouds, reflects the ambivalent nature of many natural phenomena in ancient Egyptian conception. Clouds could be seen as sources of life-giving rain, vehicles for divine travel, or obstacles to cosmic order, depending on the context. This multifaceted conceptualization highlights the ancient Egyptians'

recognition of the complex and sometimes contradictory roles that natural forces play in the world, a perspective that informed their religious, magical, and scientific understanding of the environment.

The analysis of *ỉgp* in relation to other meteorological terms, such as *šnỉ.t* "storm" and *šzp.t* "downpour", reveals the precision of ancient Egyptian weather vocabulary. The distinctions between these terms and their specific contexts of use demonstrate a sophisticated categorization of atmospheric phenomena, likely based on careful observation and cultural significance. This lexical diversity challenges simplistic views of ancient meteorological knowledge and invites further investigation into the ancient Egyptian understanding of weather patterns and their impacts on society.

The study of *ỉgp*'s usage in hymns and religious texts, particularly those addressing creator deities like Ptah, illuminates the role of clouds in ancient Egyptian creation mythology and cosmogony. The association of clouds with divine creative acts, such as the raising of primordial waters or the emission of divine bodily fluids, situates *ỉgp* within a broader network of symbols and concepts related to the origins and maintenance of the cosmos.

4. LEXICAL ANALYSIS OF THE THIRD CASE STUDY: LEXEME *ỉ3d.t* "dew"

Lexicographical Data: Overview and Preliminary Observations

In this chapter, we delve into the semantic analysis of the lexeme *ỉ3d.t.* This lexeme presents an intricate case for semantic analysis, particularly next to the seemingly related lexemes *ỉd.t* "perfumed oil" and *ỉdỉ*[714] "to fumigate". To better understand if these terms, besides semantic connections, share a morphological relationship, we will conduct a thorough examination of the available evidence, starting with dictionary entries and successively focusing on textual attestations.

A preliminary survey of dictionary entries shows the semantic density and potential polysemy[715] of *ỉ3d.t* and its related terms. The *Wörterbuch* (*Wb*) presents the following definitions for *ỉ3d.t* and *ỉd.t*:

 *ỉ3d.t*[716]:

I "Tau-Wasser des Himmels" (dew-Water of the sky);

II "Tau eines Gottes bildlich für Wohlgeruch" (dew of a god, figurative for fragrance);

III "Bildlich für göttliche Kraft" (figurative for divine power)

 *ỉd.t* [717]:

I "Spende (von wohlriechendenKörnern)?, räucherung" (Donation of fragrant grains, fumigation)?;

II "Wohlgeruch" (fragrance)

The *Wörterbuch* draws attention to the evolution of new uses and spellings, stating that the lexeme *ỉ3d.t* coincided early on with *ỉd.t* 'fragrance' and can no longer be separated from it in many cases[718]. Since the Middle Kingdom, the two terms were often interchanged in writing, with *ỉ3d.t* being

[714] *Wb* 1, 152.5-6. TLA ID 33900.

[715] For the semantic categories, follow 'WordNet - A Lexical Database for English'.

[716] *Wb*. 1, 36.1-7. TLA ID 21180.

[717] *Wb.* 1, 152.7-12. TLA ID 33840.

[718] Paraphrased from *Wb*. 1, 36.1-7

used to signify "dew of a god" figuratively for fragrance[719]. However, most of the passages where this figurative usage occurs probably belong to *ỉd.t* "fragrance" rather than *ỉʒd.t* "dew"[720].

4.1.1. Research Questions

4.1.1.1. Semantic Connections and convergence between *ỉʒd.t* and *ỉd.t*

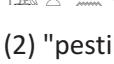
These observations raise questions concerning the increasing semantic intersection between *ỉʒd.t* and *ỉd.t* over time, particularly in the metaphorical domain of divine fragrance, as we will explore later. The interchangeability of the two terms in certain contexts suggests a gradual blurring of boundaries between the literal and figurative meanings, as well as a semantic overlap in metaphorical usage.

However, it's important to note that at this stage, based solely on the lexicographical data, this remains an introductory assumption rather than a definite deduction. To substantiate this idea, we will carefully examine concrete textual examples, analysing their specific contexts, syntactic structures, and conceptual implications. Only through this detailed contextual and syntactic analysis can we determine the extent and nature of any semantic overlap between *ỉʒd.t* and *ỉd.t,* and whether the lexicographical indications of proximity reflect a possible semantic shift or merely a surface-level phenomenon of conflation.

[719] Paraphrased from *Wb*. 1, 36.1-7

[720] Paraphrased from *Wb*. 1, 36.1-7

As part of our introductory review of lexicographical sources, Faulkner's dictionary offers a notable perspective on the semantic range of *ỉʒd.t* in Middle Egyptian:

 *ỉʒd.t*[721] :
(1) "dew; pouring rain in thunderstorm"
 *ỉʒd.t*:
(2) "pestilence; affliction; influence"

 *ỉd.t* [722]:
(1) "censing, incense-burning"; "savour, fragrance, sweet savour"; "influence"

The first entry in Faulkner's dictionary maintains the primary meaning of *ỉʒd.t* as "dew" while also extending its semantic range to include "pouring rain in thunderstorm". This extension suggests a conceptual link between dew and other forms of hydrometeors, particularly in the context of intense meteorological phenomena.

As we said, this proposed semantic extension must be approached with caution, since it stems from a secondary lexicographical source rather than direct textual evidence. Only through the next granular analysis of primary data can we hope to determine whether Faulkner's suggested expansion truly captures an authentic semantic development or merely reflects an interpretive conjecture.

The second entry introduces an entirely new semantic domain for *ỉʒd.t*, connecting it with "pestilence", "affliction", and "influence". This association, which will be explored later, is reinforced by the presence of the classifier  (N35a) [723], which typically denotes water and liquids but, in this case, appears to be metaphorically linked to the notion of pervasive or overwhelming forces possibly the previously mentioned passage connected with low stagnating flood on page 194, causing disease and influence. This new factor that connects water conceptually linked to diseases is not trivial

[721] Faulkner, *CDME*, 9–10.

[722] Faulkner, 35.

[723] For the probable correlation between the determinative  (N35a) and the excess sweat of the forehead (or also of the body) during fever, see Massimiliano Franci, 'Quelques considérations sur le champ sémantique du determinatif mw', in *Acqua nell'antico Egitto: vita, rigenerazione, incantesimo, medicamento. Proceedings of the first International conference for young egyptologists: Italy, Chianciano Terme, October 15-18, 2003. - (Egitto antico; 3)*, ed. Alessia Amenta, Maria Michela Luiselli, and Maria Novella Sordi (Roma: 'L'Erma' di Bretschneider, 2005), 368.

because affections were perceived as another divine emanation that could be controlled by appeasing the divinity[724], as we will explore later.

The separate entries to *ỉʒd.t* and *ỉd.t,* in Faulkner's dictionary, suggest a clearer distinction between the two lexemes. However, the presence of the shared determinative 𓉔 (N4) in both entries points to a possible underlying semantic connection, particularly in the domains of fragrance and influence.

As we will observe later, the use of the determinative 𓉔 (N4) in *ỉd.t*, associated with meanings such as "censing", "incense-burning", "savour", "fragrance", and "influence", merits particular attention. This determinative, depicting water droplets or moisture falling from the sky, may be metaphorically linked to the notion of pervasive or emanating substances, as previously discussed on page 116, whether in the form of atmospheric moisture (as in *ỉʒd.t*) or in the form of scent and influence (as in *ỉd.t*).

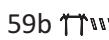
This semantic nexus is further elaborated by Rami van der Molen in *A Hieroglyphic Dictionary of Egyptian Coffin Texts*, where a wide range of variants, with textual references, and classifiers for *ỉʒd.t* and *ỉd.t* are similarly attested:

[724] Yvan Koenig, 'L'eau et La Magie', in *Acqua Nell'antico Egitto: Vita, Rigenerazione, Incantesimo, Medicamento. Proceedings of the First International Conference for Young Egyptologists: Italy, Chianciano Terme, October 15-18, 2003. - (Egitto Antico; 3)*, ed. Alessia Amenta, Maria Michela Luiselli, and Maria Novella Sordi (Roma: 'L'Erma' di Bretschneider, 2005), 101.

, *ỉ3dw*[725]

CT I, 59b(B6c), III, 126c , VII, 412c 

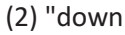
, *ỉ3dw.t* [726] *ỉ3d(w.)t* [727]

CT I, 59b , VII, 412c 

, *ỉ3d.t*[728] :

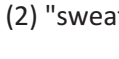
V, 273a 

(1) "pestilence";

(2) "downpour" (connected to the verb  *ỉd* "to swamp")

, , , , *ỉd.t*[729]:

(1) "sweet savour, fragrance, incense-smoke";

(2) "sweat"; (3) "influence" (connected to the lexeme  *ỉd.t* "wrath")

The Coffin Texts dictionary exposes a noteworthy semantic extension of *ỉd.t*, the term more commonly associated with "fragrance" and "incense-smoke", to include meanings such as "sweat", and "influence". The association of *ỉd.t* with "wrath" in this context is particularly striking, as it suggests a metaphorical understanding of divine anger or power as a permeating and potentially destructive force, not unlike the pervasive influence of scent or the overwhelming nature of a downpour.

[725] Molen, *DCT*, 16.

[726] Molen, 16.

[727] Molen, 16.

[728] Molen, 16.

[729] Molen, 61–62.

4.1.1.2. Shared determinatives 𓉔 (N1) and 𓊪 (N4)

The use of shared determinatives, such as 𓉔 (N1) and 𓊪 (N4), across these various attestations is crucial to understanding the semantic nexus that underlies the link between *ỉʒd.t* and *ỉd.t*, without implying a direct morphological link. The determinative 𓉔 (N1), typically associated with the celestial domain, appears in connection with both "pestilence" and "downpour", likely suggesting a conceptual link between these phenomena and the notion of a pervasive or inundating substance.

Similarly, the determinative 𓊪 (N4), depicting water droplets or moisture falling from the sky, is used not only in relation to atmospheric phenomena like "dew" and "rain" but also in connection with more abstract notions such as "fragrance", "sweat", and "influence".

The shared determinative 𓊪 (N4) across these various attestations, examples also taken from primary sources, suggests that both words may relate to a broad, overarching domain involving the diffusion or pervasion of substances, whether tangible or abstract. The use of the same determinative for seemingly unrelated semantic fields like atmospheric moisture, scent, and influence could point to an underlying conceptual connection in how the ancient Egyptians perceived and categorized these phenomena.

At a basic level, the N4 classifier appears to embody the common thread of emanation, spreading, or permeation that links these disparate notions. Just as dew and moisture physically manifest by condensing and spreading across surfaces, scent and influence can be understood metaphorically as intangible entities that diffuse and permeate their surroundings. The shared determinative thus potentially reflects a cognitive structure that recognizes the similar dynamic qualities of these phenomena, despite their superficial differences.

This conceptual link suggests that the ancient Egyptians may have understood various forms of atmospheric moisture, smell, and power as fundamentally related through their ability to flow, spread, and affect the environment or individuals in pervasive ways. The use of N4 could therefore represent a sophisticated mapping of abstract ideas onto the concrete, observable characteristics of water-related phenomena, revealing a nuanced understanding of how ostensibly distinct domains can be connected through common experiential patterns.

This conceptual overlap might further be reinforced by the shared meaning of "influence" between *ỉʒd.t* and *ỉd.t*, as well as their connection to the verb *ỉd* "to swamp". The notion of "swamping" or "inundating" appears to serve as a metaphorical bridge between the literal sense of water-related phenomena and the more abstract idea of pervasive or overwhelming influence. This semantic extension, even if preliminarily found in the quoted dictionary its primary sources, might suggest that the ancient Egyptians perceived a fundamental similarity between the way moisture spreads and

permeates the environment and the way certain intangible forces, such as divine power or sensory experiences, can pervade and affect various aspects of life.

The growing semantic convergence between *ỉʒd.t* and *ỉd.t* in the Middle Kingdom, as evidenced by the use of common determinatives in the Coffin Texts sources, may be attributed to several factors. One possible explanation is the metaphorical extension of the notions of moisture, fragrance, and pervasiveness, which could have facilitated the increasing overlap between these lexemes. As the boundaries between literal and figurative meanings became more fluid, the terms *ỉʒd.t* and *ỉd.t* may have begun to be used more interchangeably, reflecting a broader conceptual merger.

In our analysis, we will focus on the posited persistence of this semantic nexus across different stages of the Egyptian language suggests that the conceptual association between *ỉʒd.t, ỉd.t*, and the notion of emanation remained deeply ingrained in the Egyptian worldview.

The continuity of the lexeme *ỉʒd.t* can be traced through its later attestations in various stages of the Egyptian language. In Late Egyptian, the term appears in the possible spelling *ʒwd.t*, as documented in the textual corpus of Amenemope's Onomasticon from the late 20th to the 22nd dynasty. The spelling *ʒwd.t* is notably positioned adjacent to *ỉʒd.t* within a semantic domain of hydrological terminology, suggesting a potential lexical convergence between the two forms[730].

The lexeme further evolves in the Demotic stage of the language, with attestations such as *yʿṯʒ.t, ytʒ.t*, and *yʿtj.t*[731]. These forms demonstrate the phonetic and orthographic changes that the term underwent while maintaining its semantic core. Finally, in Coptic, the lexeme is attested as ⲉⲓⲱⲧⲉ in the Sahidic dialect and ⲓⲱϯ[732]. in the Bohairic dialect, showcasing its persistence and adaptation into the latest stage of the Egyptian language.

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[730] The lexeme *ʒwd.t* emerges exclusively within the textual corpus of Amenemope's Onomasticon, documented in palaeographic sources such as the Golénischeff Papyrus (pMoscou 169, 1,7) and the Hood Papyrus (P. BM EA 10202, 1,7). A. Gardiner hypothesizes a potential lexical convergence between these two lexemes, see Alan H. Gardiner, *Ancient Egyptian Onomastica* (Oxford: Oxford University Press, 1947), vol. I, p. 6*.

[731] Johnson, *CDD*, sec. Y, p. 7; Erichsen, *DG*, 49.

[732] Crum, *Coptic Dictionary*, 87; Westendorf, *Koptisches Handwörterbuch*, 53; Černý, *Coptic Etymological Dictionary*, 49; Vycichl, *Dictionnaire Étymologique*, 68.

Morphological considerations: Examination of the presence of the element *ꜣ*

The diachronic development of *ỉꜣd.t*, from its earliest attestations in the Coffin Texts to its Demotic and Coptic counterparts, highlights the enduring significance of the concept it represents.

However, the morphological relationship between *ỉꜣd.t*, *ỉd.t,* and *ỉdỉ* remains problematic due to the presence of the element *ꜣ*  in *ỉꜣd.t*. While the phonetic and semantic similarities between these lexemes could hint at a possible common origin, the varying presence of *ꜣ* raises questions about the exact nature of their historical development, leaving the relationship between these terms primarily semantic rather than morphological.

The fact that *ꜣ* is almost always present in *ỉꜣd.t* but only sporadically in *ỉd.t*, only in Ramesside attestations[733], suggests that it may not represent an unstable weak consonant[734], but rather a more resistant element marking a distinct lexeme.

The hypothesis is that the *ꜣ* in *ỉꜣd.t* could be a derivational morpheme that was affixed to the base *ỉd* to convey a specific semantic function. However, the evidence for this proposed derivational process remains indecisive[735], as the infix *ꜣ* has not been definitively established as a productive morphological element in Egyptian.

In conclusion, while the precise nature of the morphological relationship between *ỉꜣd.t, ỉd.t,* and *ỉdỉ* remains open to further investigation, their conceptual connections are plausible. However, their conceptual connections appear to reflect a complex interchange of ideas related to moisture, scent, and divine emanation in ancient Egyptian thought. It is crucial to recognize that this interpretation is primarily based on a tertiary translation, providing only an introductory outline. To confirm or challenge this proposed semantic expansion, we plan to examine concrete examples from primary sources.

The semantic nexus and the use of common determinatives, particularly  (N4), across a wide range of attestations could point to a deep conceptual link between the domains of atmospheric phenomena, emanations, and abstract notions of influence and power. The semantic convergence

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[733] 'TLA 2'.

[734] Elmar Edel, *Altägyptische Grammatik I*, Analecta Orientalia 34 (Roma: Pontificium Institutum Biblicum, 1955), para. 132; Gardiner, *EG*, para. 20; Malaise and Winand, *Grammaire*, para. 23.

[735] Concerning the use of *ꜣ* as a method to augment biconsonantal roots, refer to Ward, 'The Biconsonantal Doublet Gp/Gb, "Overflow"', 229–31.

between *ỉʒd.t* and *ỉd.t* in the Middle Kingdom, as evidenced by the Coffin Texts, may be attributed to a combination of factors, including metaphorical extension, linguistic innovation, and the fluid nature of the Egyptian language during this transitional period.

Further research into the diachronic development of these lexemes and the arguable productive role of the element *ʒ* in Egyptian morphology seems thus necessary to shed more light on their precise historical relationship. Nevertheless, the persistence of the semantic core associated with emanation-type substances across different stages of the language testifies to the enduring significance of this concept.

4.1.1.3. Morphological Connections with Afro-Asiatic Languages

To situate our findings within a broader linguistic context, we will now explore potential connections between *ỉʒd.t* and cognates in other Afro-Asiatic languages. This comparative approach will shed light on the possible semantic and morphological connections of the term and its development within the language family.

The presence of the element *ʒ* in *ỉʒd.t* has drawn the attention of scholars seeking to establish etymological links with cognates in related languages. One notable hypothesis, proposed by Vycichl and Vergote[736] suggests a connection between *ỉʒd.t* and the Semitic root √YRD[737], which conveys the notion of descending, as attested in various Afro-Asiatic languages:

Hebrew yā́reḏ "to descend",
Arabic warada "to come, to descend",
Akkadian warādu "to descend".

These possible cognates share a clear semantic connection to the concept of downward motion or spreading. This potential correspondence suggests a link between the notion of dew and the act of descending and possibly, by extension "spreading while descending". As we will soon

[736] Joseph Vergote, *Phonétique Historique de l'Égyptien: Les Consonnes*, Bibliothèque Du Muséon 19 (Louvain: Bureaux du Muséon, 1945), 132; Vycichl, *Dictionnaire Étymologique*, 68; David Cohen, *Dictionnaire Des Racines Sémitiques* (Berlin, Boston: De Gruyter Mouton, 1970), vol. 7 pp. 618–21, https://doi.org/doi:10.1515/9783111581323-005.

[737] Cohen, *Dictionnaire Des Racines Sémitiques*, vol. 7 pp. 618–21; A. Murtonen, *Hebrew in Its West Semitic Setting : A Comparative Survey of Non-Masoretic Hebrew Dialects and Traditions / Pt. 1, A Comparative Lexicon. Section A, Proper Names*, Studies in Semitic Languages and Linguistics 13 (Leiden: Brill, 1986), 221.

explore, in Egyptian texts, *ỉʒd.t* frequently co-occurs with the verb *hʒỉ* "to descend", reinforcing this conceptual association. The collocation of these terms in Egyptian mirrors the semantic relationship observed in the Semitic cognates, strengthening the case for a possible shared underlying concept.

The conceivable association between dew and descent is not unique to the proposed Egyptian-Afro-Asiatic link. Similar semantic connections are found at least in another language, demonstrating a possible recurring human perception of dew as a substance that descends or settles on surfaces, but still not proving the morphological correlation.

Other Typological Parallels

This conceptualization of dew as a misty or vapour-like substance bears a striking resemblance to the semantic association between the Egyptian lexeme *ỉʒd.t* "dew" and *ỉd.t* "scent". In the Egyptian context, the potential correlation between dew and scent suggests a common perception of dew as a subtle, pervasive presence, perhaps akin to the way an (incense) scent can permeate the air. This parallel in semantic associations across different language families could hint at a potential human tendency to draw connections between seemingly disparate sensory experiences based on shared qualities or characteristics.

In Sino-Tibetan, particularly in Chinese, we find the term 露 (lù) "dew" etymologically related to the verb 落 (luò) "to fall"[738]. This parallel suggests a comparable conceptual link between dew and falling, albeit with a different lexical realization than in Egyptian and Semitic.

Indo-European languages also exhibit interesting connections. English "dew" and German "Tau" are derived from the Proto-Indo-European root *$d^{h}eh_{1}$(w)- "to smoke, to haze"[739].

[738] Axel Schuessler, *ABC Etymological Dictionary of Old Chinese*, ABC Chinese Dictionary Series (Honolulu (Hawaii): University of Hawai'i Press, 2007), 365.

[739] Guus Kroonen, *Etymological Dictionary of Proto-Germanic*, Leiden Indo-European Etymological Dictionary Series (Leiden: Brill, 2013), 91.

Latin *rōs, rōris* "dew" is possibly related to the Proto-Indo-European root *$h_1$ers- "to flow, to stream"[740], suggesting a perception of dew as a flowing or liquid substance. However, a connection to the Ancient Greek δρόσος (drósos) "dew" is less certain[741], if not phonetically inconceivable.

While these typological parallels lend support to the idea of a widespread human understanding of dew as a descending or spreading substance, they do not in themselves prove the genetic relationship posited.

Within the Afro-Asiatic language family, the root √ṬLL[742] merits consideration as a typological parallel of *ỉʒd.t.* Attested in several branches, this root conveys meanings related to dew, purity, and covering. For instance, in Semitic languages, we find Arabic ṭall "dew" and Hebreל ṭal "dew", both denoting the moisture that settles on surfaces.

These typological parallels demonstrate that the semantic association between dew and the notion of descending or falling wound not be unique to the proposed Egyptian-Semitic connection. The recurrence of this semantic link across diverse language families suggests that it may be rooted in universal human experiences and perceptions of dew as a substance that appears to descend, flow or settle on surfaces.

While these parallels lend some credence to the proposed morphological connection between *ỉʒd.t* and the Semitic root YRD, they do not conclusively prove it, only support outlining the possibility. The similarities in semantic nexus could be the result of independent parallel evolution rather than shared inheritance from a common ancestor language.

In conclusion, the potential morphological and semantic connections between *ỉʒd.t* and Semitic cognates, alongside typological parallels in other language families, offer valuable insights into how dew was conceptualized in ancient Egyptian thought. However, it is critical to distinguish between diachronic connections, which explore deep historical links like those with Afro-Asiatic languages, and synchronic conceptualizations that may arise in later historical contexts. These distinct analytical levels must be kept separate to ensure clarity and accuracy. Dew, perceived as a descending or spreading

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[740] M. de Vaan, *Etymological Dictionary of Latin and the Other Italic Languages* (Leiden: Brill, 2018), 527.

[741] A. Ernout, A. Meillet, and J. André, *Dictionnaire Étymologique de La Langue Latine: Histoire Des Mots* (Paris: Klincksieck, 2001), 577; P. Chantraine, *Dictionnaire Étymologique de La Langue Grecque: Histoire Des Mots* (Paris: Klincksieck, 1999), 375; R. S. P. Beekes and Lucien van Beek, *Etymological Dictionary of Greek* (Leiden: Brill, 2009), 355.

[742] Cohen, *Dictionnaire Des Racines Sémitiques*, vol. 10 pp. 1078–79; Murtonen, *Hebrew in Its West Semitic Setting : A Comparative Survey of Non-Masoretic Hebrew Dialects and Traditions / Pt. 1, A Comparative Lexicon. Section A, Proper Names*, 206.

substance, is a theme that recurs across cultures and languages, reflecting a shared human experience and understanding of this natural phenomenon.

4.1.2. Overview of Distribution According to Diachrony

The introductory examination of *ỉʒd.t* attestations across the ancient Egyptian textual corpus reveals distinctive patterns in both its functional applications and temporal distribution. The dataset of 33 attestations (variations excluded) exhibits a noteworthy specialization in usage, with implications for our understanding of Egyptian conceptualization of hydrometeors.

Genre	**Middle Kingdom**	**Second Intermediate Period**	**New Kingdom**	**Third Intermediate/Late Period**	**Total**
Medical Texts	1	0	12	1	14 + 93
Funerary/Religious Texts	4	0	3	2	9
Temple Inscriptions	0	0	4	0	4
Literary Texts	0	0	2	0	2
Magical-Medical Texts	0	0	1	0	1
Royal Inscriptions	0	0	1	0	1
Hymns	0	1	1	0	2
Total per Period	5	1	24	3	33

Table 10: Frequency of *ỉʒd.t* by Genre and Time Period

The temporal distribution exhibits a pronounced concentration in the New Kingdom (24/33 attestations), suggesting, as before in the same analysis of other lexemes, an intensification of documentation practices. The Middle Kingdom presents the second most significant cluster (4 attestations), while both the Second Intermediate and Late Periods show minimal representation (1 and 3 attestations respectively).

Most striking is the lexeme's predominance in medical contexts, with 14 attestations appearing in pharmaceutical texts. This specialized usage suggests a complex perception of dew's practical applications in ancient Egyptian medicine. The secondary concentration in funerary and religious texts (9 attestations) may indicate the term's dual significance in both practical and

theological spheres. Temple and royal inscriptions provide a tertiary cluster (5 attestations), further emphasizing the term's relevance in institutional religious contexts.

The intersection of chronological and genre distributions illuminates specific patterns of usage. The New Kingdom's concentration of medical attestations (14 examples) points to a systematization of dew-related pharmaceutical practices during this period. Similarly, the distribution across religious texts suggests an evolution in the theological conceptualization of dew from the Middle Kingdom onward.

Several methodological considerations inform this analysis. The dataset deliberately excludes variations of the same passages to avoid statistical redundancy. Additionally, the varying preservation rates across different periods and genres necessitate caution in broader generalizations about actual usage patterns.

This distribution suggests that *ỉʒd.t* occupied a specialized position in Egyptian thought, predominantly within medical and religious spheres, with particular emphasis on practical applications during the New Kingdom period. This preliminary survey provides groundwork for deeper investigation into the term's semantic range and its role in Egyptian medical and religious practice.

4.1.3. Semantic Connection between *ỉʒd.t* ("dew") and *ỉd.t* ("perfumed oil")

As we stated, the term *ỉʒd.t*, signifying "dew" in ancient Egyptian, appears to have semantic connections to the earlier lexeme *ỉd.t*, which referred to "perfumed oil" or "scent". This relation of meaning could be explored since it could help understand that deep related meaning of *ỉʒd.t*.

As we will soon explore, the connection between these terms not only crosses the boundaries of physical states, from liquid to vapour, but also sheds light on the extensive knowledge of aromatic substances and their applications datable from predynastic Egypt[743]. Furthermore, it underscores the significant role of the perfume trade in the region's economy and administrative structure[744].

To fully grasp the semantic nexus between *ỉʒd.t* ("dew") and *ỉd.t* ("scent"), it is essential to first tersely explore the cultural and religious significance of *ỉd.t*, a term that initially referred to perfumed oil derived from vegetal sources.

The earliest attestations of *ỉd.t* are found in offerings from the tomb of Pharaoh Djer at Abydos[745], dating to the First Dynasty, as well as on an inscription label JdE 86172 from Saqqara[746], also from the same period. These early references demonstrate that perfumed oils such as *ỉd.t* held an integral role in religious and funerary practices during early dynastic Egypt.

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[743] Resin pellets have been documented in predynastic Egyptian tombs, as evidenced by archaeological excavations and material analyses. For detailed accounts of these findings, see

Edward R. Ayrton and W. L. S. Loat, *Pre-Dynastic Cemetery at El Mahasna*, Memoir of the Egypt Exploration Fund 31 (London: Egypt Exploration Fund, 1911), 11,17,27,31; A. Lucas, *Ancient Egyptian Materials and Industries*, ed. J. R. Harris, 4th ed. (London: Edward Arnold, 1962), 96–97.

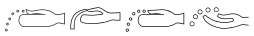
[744]Koura, *Die '7-Heiligen Öle'*, 10.

[745] Peter Kaplony, *Die Inschriften Der Ägyptischen Frühzeit*, Ägyptologische Abhandlungen 8 (Wiesbaden: Otto Harrassowitz, 1963), vol. I p. 305; Kahl, *Das System*, 462; Koura, *Die '7-Heiligen Öle'*, 145; Regulski, *A Palaeographic Study of Early Writing in Egypt*, 101; 370–71.

The most ancient indication of the possible utilization of resins in ancient Egypt is derived from an examination of the materials found within an imported Palestinian Abydos ware jug unearthed in the First Dynasty tomb of Djer at Abydos; refer to Margaret Serpico and Raymond White, 'A Report on the Analysis of the Contents of a Cache of Jars from the Tomb of Djer', in *Aspects of Early Egypt*, ed. Jeffrey Spencer (London: British Museum Press, 1996), 128–39; Serpico and White, 'Oil, Fat and Wax', 463.

[746] Rizkallah Macramallah and Egypte. Service des antiquités, *Un cimetière archaïque de la classe moyenne du peuple à Saqqarah* (Le Caire, Egypte: Imprimerie nationale, Boulâq, 1940), 16, 17a.

In addition to these early attestations, further evidence of *ỉd.t* can be observed in various later religious and funerary contexts throughout the early dynastic period. The act of pouring these aromatic liquids, as depicted by the logogram D46 and its variants[747]



is regularly witnessed and it evidently underscores the physical nature of the substance and its mode of application. The visual representation of the oil or resin droplets descending from the pouring hand evokes a resemblance to the formation of dew droplets in nature.

The presence of *ỉd.t* in both royal and private tombs suggests that the use and trade of aromatic oils were integral to Egyptian society, even if primarily accessible to the elite. These early attestations of *ỉd.t* highlights the importance of scented substances in ancient Egyptian funerary and religious practices, as well as in the economic and administrative context. The fact that these labels were found in both royal and private tombs might suggest that the use and trade of aromatic oils were, even if limited to an elite, an integral part of the Egyptian society[748].

Scent labels, made of wood or ivory, were found in both royal and private tombs across various sites, including Helwan, Nagada, and Saqqara, in addition to Abydos[749]. These labels are believed to have originated from the royal administration and were likely attached to vessels containing oils that were either delivered to or from the administration, serving as possible documentation of these transactions rather than being solely created for funerary purposes. This early evidence might suggest the existence of a well-structured administrative system for managing oil resources, even in this nascent stage of Egyptian civilization.

4.1.4. Fumigation Rituals: Potential Connection with the Concept of Dew Formation

As we will explore soon, the textual sources seem to suggest that the Egyptians continued to use perfumed oils in fumigation rituals, they likely observed the condensation of aromatic vapours, which may have inspired a cognitive association between these substances' properties and the natural process of dew formation, reflecting a semantic link. Possibly, the rising vapours from the heated

[747] To provide a clear and rigorous representation of the hieroglyphic signs discussed, graphical reproductions have been included here based also on the detailed palaeographic analysis conducted, refer to Regulski, *A Palaeographic Study of Early Writing in Egypt*, 370–71.

[748] Koura, *Die '7-Heiligen Öle'*, 10.

[749] Koura, 10.

perfumed oils would have condensed and settled on cooler nearby surfaces, much like dew droplets forming on plants in the early morning or during the night, analogously due to temperature alteration.

This observation of the transformation of a liquid aromatic substance into a more ethereal and intangible form, through the process of fumigation, might have triggered the semantic interconnection *ỉd.t ỉʒd.t*. The Egyptians observation of the natural world and their increasing knowledge of the properties of aromatic materials likely facilitated this leap, leading to the association of perfumed oils with the concept of dew.

While the dates of appearance of these terms in the available documentation suggest a progression from the concept of scent to that of dew, we must consider the possibility that this assumed direction of semantic change may be influenced by the nature of our textual sources. Given that the experience of dew could be more universal and commonplace than the condensation of perfume, it is reasonable to question whether the semantic connection could have occurred in the reverse direction. The fact that the term *ỉd.t* "scent" appears earlier in the textual record than *ỉʒd.t* "dew" could be a result of the predominance of ritual texts, which are more likely to refer to perfume and incense than to natural phenomena like dew or rain.

This potential bias in our textual sources may skew our understanding of the semantic association between these terms. If our corpus of ancient Egyptian texts were more diverse and included a greater variety of genres and subject matters, we might observe a different pattern of semantic evolution or even a more complex network of associations between the concepts of scent, moisture, and precipitation.

By acknowledging this potential bias, we aim to approach our analysis with a more critical and nuanced perspective. While the available evidence suggests a semantic progression from *ỉd.t* "scent" to *ỉʒd.t* "dew", we must remain open to alternative interpretations and be cautious in our conclusions, recognizing the limitations and inherent biases of our textual sources.

We now return to the passage, previously discussed on page 256, from the Pyramid Texts and examine it from a different perspective, focusing on the connection between perfumed oil or emanation, fumigation and dew:

ex.33. *prr.f ḥr ḥtj n(.j) ỉd.t wr.t (ỉ)pʒ Wnỉs pn m ʒpd*

If he rises on the smoke of the great emanation, this Unas will fly up as a bird.

(PT 267 § 365b-366a)

In this passage, the pharaoh is described as rising on the smoke of the "great emanation" (*ỉd.t wr.t*), which can be interpreted as the fragrant smoke resulting from the fumigation of perfumed oils or incense. The use of the term *ỉd.t* in this context is particularly significant, as it establishes a direct link between the act of fumigation and the ascension of the pharaoh. The phrase *wr ỉd.t*[750], which we will find later on connected to the phenomenon of dew, translates to "great of censing", is notably a title frequently associated with the *ḫr.j ḥb.t* or lector priest. This suggests that the *wr ỉd.t* may have been a specific courtly title designating the official responsible for overseeing the king's aromatic valuables and incense supplies. The association with *ḫr.j ḥb.t* further highlights the ceremonial and religious significance of this title in ancient Egyptian society. The lector priest was a key figure in religious rituals, often responsible for reciting sacred texts and performing rites. The connection between the title "great of censing" and the lector priest underscores the importance of incense and purification in these religious ceremonies.

The smoke rising from the burning of aromatic substances is portrayed as a vehicle for the pharaoh's ascent, enabling him to soar like a bird (*ʒpd*) into the sky. This metaphorical association between the rising smoke and the flight of birds suggests a conceptual link between the properties of aromatic substances and the process of ascension or transformation.

The connection between perfumed oil fumigation and dew becomes more apparent when we consider the transformative nature of both phenomena. Just as the burning of incense or perfumed oils transforms the physical substance into a more ethereal form, allowing its fragrance to rise and permeate the air, the formation of dew involves the transformation of moisture from the earth into droplets that appear on surfaces.

In both cases, there is a process of change and ascension, with the essence of the substance (fragrance or moisture) rising from its original state and taking on a new form. The use of the term *ỉd.t*

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[750] For further exploration of this title, refer to Henry G. Fischer, 'The Butcher pH-r-Nfr', *Orientalia* 29, no. 2 (1960): 178; Henry G. Fischer, 'Three Old Kingdom Palimpsests in the Louvre', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 86 (1961): 25; Henry G. Fischer, 'A Stela of the Heracleopolitan Period at Saqqara: The Osiris Iti', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 90 (1963): 38; Dilwyn Jones, *An Index of Ancient Egyptian Titles, Epithets and Phrases of the Old Kingdom*, BAR International Series 866 (Oxford: Archaeopress, 2000), vol. I p. 382-383; Dora Goldsmith, 'Smellscapes in Ancient Egypt', in *The Routledge Handbook of the Senses in the Ancient Near East*, ed. Kiersten Neumann and Allison Thomason (London; New York: Routledge, 2022), 643 n°15. The first attestation of this title is probably datable to the 2nd dynasty, see Scott J. Allan, 'The Earliest Private Statue of Ancient Egypt: A Re-Examination of the Statue of Hetepdief', *Archéo-Nil* 30 (2020): 69.

in the passage, with its conceptual link to *ỉʒd.t,* suggests that the ancient Egyptians recognized the transformative and condensing properties inherent in both phenomena.

The association of rising incense smoke with the pharaoh's ascension to the sky can be interpreted as a manifestation of the ancient Egyptians' belief in the transformative properties of aromatic substances. A lexical example supporting this connection could be the causative verb *snṯr*, meaning "to make divine"[751], from which the noun "incense" seems to derive. This morphological link could underscore the sacred role of incense in religious and funerary practices, a topic that will be further explored. Just as the smoke carries the fragrance of the perfumed oils or incense upwards, it also symbolically carries the pharaoh's spirit or essence to the celestial realm, facilitating his transition and rebirth in the afterlife[752].

This belief in the transformative and elevating properties of aromatic substances, as evidenced by the passage from the Pyramid Texts, might be closely linked to the concept of dew as a heavenly or divine substance. In ancient Egyptian cosmology, dew was often associated with the revivifying and life-giving properties of the gods[753], particularly the god Osiris, who was believed to grant fertility and regeneration to the land through the morning dew.

The correlation between perfumed oil fumigation and dew, therefore, goes beyond a mere similarity in their transformative and ascending properties. It also reflects a deeper religious and cosmological understanding, in which both phenomena were seen as manifestations of divine power and regeneration. The scrutiny of this passage focuses on the transformative and ascension-related aspects of incense fumigation. To further understand the semantic nuances of the verb *ỉdỉ*, let us now examine its explicit morphological and semantic connections with other related terms.

4.1.5. Lexical Analysis of the Verb *ỉdỉ*

The semantic association between the lexeme *ỉd.t*, and *ỉʒd.t*, highlights a conceptual connection in the lexicography of precipitation and fragrance in the ancient Egyptian language. For instance, within Egyptian language, one might also observe the conceivable connections of the terms

[751] *Wb* 4, 180.7-15. TLA ID 138650.

[752] Hans Bonnet, 'Die Bedeutung Der Räucherungen Im Ägyptischen Kult', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 67 (1931): 25; Hartwig Altenmüller, *Die Texte Zum Begräbnisritual in Den Pyramiden Des Alten Reiches*, Ägyptologische Abhandlungen 24 (Wiesbaden: Harrassowitz, 1972), 156.

[753] Blackman, 'The Significance of Incense'.

qbḥw, which signifies "water libation"[754] and "cataract"[755]. These meanings are semantically and morphologically linked through the aforementioned root *qbḥ*, suggesting a conceivable broader pattern of fluid associations between water-related concepts in the language. This pattern may indicate a linguistic possible tendency in ancient Egyptian to interconnect terms related to both natural elements and ritualistic practices, reflecting, as we previously explored on page 151, a probable deeper cultural understanding of water as a multifaceted symbol encompassing both sacred and natural realms. This connection underscores the importance of considering both semantic and metaphorical factors when examining lexical links in ancient Egyptian.

To fully grasp the significance of the ancient Egyptians' evolving understanding of natural phenomena but also the elaborate connections between language, ritual practices, and religious beliefs in their culture through this semantic shift and its implications, we will now explore the semantic relationships between the lexeme *ỉd.t* and the verb *ỉdỉ*.

From a morphological, phonological and semantic perspective, the lexeme *ỉd.t* appears to be closely related to the verb *ỉdỉ*, which is represented by various hieroglyphic forms, such as

[756]

The verb *ỉdỉ* seems to cover a range of meanings that are intimately tied to ritual actions and offerings, including "to give" or "to make a donation", as well as "to incense" or "to make libations". This connection suggests that the act of offering perfumed substances, such as *ỉd.t*, was an integral part of ancient Egyptian religious ceremonies, particularly in the context of censing and libation rituals.

Lexicographical sources expose the semantic range of the verb *ỉdỉ*, revealing nuances that underscore the refreshing, soothing, and transformative properties associated with the act of censing and libating. The verb *ỉdỉ* is listed with meanings such as "to spread refreshing effluvia", "to refresh", and "to calm", as well as "to extinguish" a flame[757]. These meanings stress the idea that the ritual actions of censing and libating were believed to have a powerful impact on both the physical and unworldly realms, capable of bringing about a sense of calm, renewal, and even transformation.

Another layer of complexity to the semantic range of *ỉdỉ*, listing "bedew" and "wash" among its main meanings has been proposed[758]. These associations highlight the close connection between

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[754] *Wb* 5, 27.15-29.4. TLA ID 160330.

[755] *Wb* 5, 29.5-6. TLA ID 852405.

[756] *Wb.* 1, 152.5-6. TLA ID 33900.

[757] Meeks, *AL II*, s.v. 78.0574.

[758] Plas and Borghouts, *CTWI*, 44.

the act of censing and libating and the notion of cleansing or purifying through the application of liquids, such as water or perfumed oils. The inclusion of "bedew" as a meaning of *ỉdỉ* is particularly relevant to the semantic correlation of *ỉd.t* to *ỉʒd.t*, as it could suggest a perceptive link between the ritual act of censing and the natural phenomenon of dew formation.

Based on these semantic connections, it is plausible to propose that *ỉʒd.t* is conceptually linked to the verb *ỉdỉ*, reflecting a broader association between the notions of dew, fumigation, and appeasement in ancient Egyptian thought. This conceptual link suggests that *ỉʒd.t,* in its metaphorical sense, may have evoked the notion of divine emanation or appeasement, carrying strong theological connotations similar to those associated with incense-perfume. The refreshing, cleansing, and transformative properties attributed to the act of censing and libating, as evidenced by the semantic range of the verb *ỉdỉ*.

In light of these connections, it is pertinent to re-evaluate the translation of the verb *ỉdỉ*. Traditionally rendered as "to fumigate" or "to cense", the semantic range of *ỉdỉ*, with its connotations of refreshing, soothing, and transformation, suggests a more nuanced interpretation may be warranted. Specifically, an alternative translation such as "to appease" or "to pacify" could more accurately reflect the verb's function within ritual contexts. This reinterpretation aligns closely with the verb *ḥtp* and its causative *sḥtp*, commonly translated as "to make an offering" or "to appease". Both verbs share a thematic emphasis on actions that aim to restore balance, bring about tranquillity, and establish harmony through ritual acts. Just as *ḥtp* denotes the act of placating deities through offerings, *ỉdỉ* could similarly signify a process of calming or pacifying through the act of censing.

This subtle shift in translation has the potential to deepen our understanding of the religious and ritual significance of censing and libation in ancient Egyptian conception, highlighting their role not merely as physical acts of purification but as transformative processes aimed at achieving divine appeasement and cosmic order.

The Act of Perfuming and Censing: Related Verbs

We will now examine the four main verbs semantically connected to perfuming and fumigation in order to better understand these performances in Ancient Egyptian ritual practice. We will investigate their semantic nuances, so that we can better define each term and shed light on the overall significance of fumigation in Ancient Egyptian conception.

These verbs, listed in order of frequency, are:

 kȝp "to cense; to fumigate"[759]

 snṯr "to cense; to purify"

 ỉdỉ "to cense; to libate"

 pḏ "to cense"[760]

While all these verbs appear to describe the same basic action, a closer examination of their semantic nuances allows for a more precise definition of each term. The verb *kȝp*, often represented with the logogram  (R5), which traditionally depicts a censer for fumigation, seems to emphasize the actual act of burning incense, aromatic substances, or even food offerings. The logogram itself, showing a cover from which smoke emanates, suggests that the verb refers to the covering or enveloping of an object in the fragrant smoke produced by burning.

The verb *snṯr*, on the other hand, displays a clear connection with the term *nṯr* "god" and the causative prefix *s-,* thus conveying the meaning "to make holy, to consecrate"[761]. This verb places a strong emphasis on the ultimate function of the act of fumigation, which is to render an object or individual sacred through the application of incense smoke. The related noun *snṯr* "incense" further underscores this sacred aspect, as it refers to the substance that enables the consecration process.

The verb *pḏ* appears to be an extended use of the verb *pḏ* "to stretch out; to spread out", in this particular context referring to the spreading of the scent produced by burning incense. This verb highlights the dispersive quality of the fragrant smoke, which extends and spreads through the air, carrying its purifying and sanctifying properties.

Finally, the verb *ỉdỉ*, which is the focus of this analysis, seems to graphically represent the initial action of the censing ritual: the sprinkling of aromatic substances even liquid over the censer in preparation for burning[762]. This specific nuance of the verb disappeared early from the language even

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[759] *Wb* 5, 103.8. TLA ID 163300.

[760] *Wb* 1, 568.17-18. TLA ID 63190.

[761] Adolf Erman, *Die Religion Der Ägypter: Ihr Werden Und Vergehen in Vier Jahrtausenden* (Berlin; Leipzig: Walter de Gruyter, 1934), 117.

An alternative etymology has been suggested for the term *snṯr*, positing that it is a compound formed from the elements *sṯy*, meaning "odour", and *nṯr*, meaning "of god", in a genitival direct construction, see Kurt Sethe, *Dramatische Texte Zu Altägyptischen Mysterienspielen*, Untersuchungen Zur Geschichte Und Altertumskunde Aegyptens 10 (Leipzig: J. C. Hinrichs, 1928), 206. However, this interpretation appears less substantiated compared to the previously discussed etymology.

[762] Lise Manniche, 'Perfume', *UCLA Encyclopedia of Egyptology* 1, no. 1 (14 November 2009): 4, https://escholarship.org/uc/item/0pb1r0w3.

if it is attested in liturgical contexts, such as the representations of Sethi I in his temple at Abydos[763], nevertheless it provides iconographic witnesses into these specific aspects of the censing process. The aim of this practice seemed to be twofold: to consecrate and to purify or cleanse the object or individual through the application of fragrant smoke.

The Act of Fumigation: Lexical Choices in Textual Records

Let us now turn our attention to the passage from the Pyramid Texts and examine the semantic and cognitive patterns linking the action of the verb *ỉdỉ*, here expressed by the phrase *dỉ snṯr ḥr sḏ.t,* and the polysemantic *wbn* (to spread, surge up, overflow) previously discussed on page 276. It reads

dỉ sḏ.t wbn sḏ.t dỉ snṯr ḥr sḏ.t wbn snṯ(r)
The fire was set (lit. put) so that the fire would spread (lit. lights up),
the incense was placed (lit. put) on the fire so that the incense would rise (lit. lights up).
(PT 269 § 376ab)

From a syntactic perspective, this passage consists of two parallel clauses, each containing a passive accomplished *sdm.f* form and an active subjunctive *sdm.f* form expressing purpose or consequence[764]. In the first clause, the passive verb *wdỉ* "to put, to place" is followed by the subject *sḏ.t* "fire", while the active verb *wbn* "to rise, to spread" is also followed by the subject *sḏ.t* "fire". This repetition of the subject emphasizes the ignition and spreading of the fire, which is crucial for the incense fumigation ritual[765]. The second clause mirrors the structure of the first, with the passive verb *wdỉ* followed by the subject *snṯr* "incense" and the prepositional phrase *ḥr sḏ.t* "on the fire". This clause describes the placement of the incense on the already ignited fire like the verb *ỉdỉ*. The active verb *wbn* is then followed by the subject *snṯr,* indicating that the incense itself is now spreading, floating or overflowing like the verb *pḏ.*

[763] Amice M. Calverley and Myrtle F. Broome, *The Temple of King Sethos I at Abydos, Volume II: The Chapels of Amen-Rē', Rē'-Ḥarakhti, Ptaḥ, and King Sethos*, ed. Alan H. Gardiner (London; Chicago: Egypt Exploration Society; University of Chicago Press, 1935); pl. 10-11;18.

[764] Malaise and Winand, *Grammaire*, para. 610.

[765] Kurt Sethe, *Übersetzung Und Kommentar,* vol. II p. 107-8.

From a lexical perspective, the use of the verb *wbn* in this context is particularly significant concerning its polysemy and the cognitive associations it evokes. While *wbn* is ordinarily translated as "to rise" or "to shine", its semantic range also includes the notions of spreading, surging up, and overflowing[766].This polysemy is crucial to understanding the verb's role in the context of incense offering and fumigation rituals.

The determinative accompanying the verb *wbn* in this passage could be identified as the sign (G22a)[767], depicting the *bn* bird .

This determinative serves a dual purpose: it may function as a phonetic determinative, reinforcing the phonetic value of the word, or it may carry a more symbolic significance, emphasizing the idea of soaring and diffusion associated with the verb *wbn*.

The *bn* bird, used in the verbs *wbn* and *sbn*, serves as a potent metaphor for ascension and appearance. In fact, the verb *sbn* is considered synonymous with the verb *sḫꜥî*, meaning "to show" or, more literally, "to make appear"[768]. This metaphorical connection between the *bn* bird and the concepts of ascension and appearance underscores the cognitive associations underlying the use of the verb *wbn* in the context of incense offering.

This choice of the verb *wbn* establishes a clear connection with the act of fumigation and the spreading of incense smoke. Just as the fire spreads and rises, so does the incense placed upon it, creating a fragrant smoke that ascends and pervades the ritual space. The use of *wbn* in this context highlights the dynamic and transformative aspects of the incense offering, as the solid material is converted into a rising, spreading, and purifying smoke.

Furthermore, the juxtaposition of the verbs *wdî* and *wbn* in this passage creates a sense of progression and intensification. The fire is first lit (*dî*), and then it spreads (*wbn*). Similarly, the incense is placed on the fire (*dî*), and then it, too, spreads or lights up (*wbn*). This progression emphasizes the transformative power of the ritual, as the physical elements of fire and incense are imbued with a sense of dynamic movement and sacred significance. The spreading and rising of the fire and incense smoke are not merely physical phenomena but also manifestations of divine power and presence. The act of fumigation, as described in this passage, is a means of invoking and engaging with the sacred realm, as the ascending smoke bridges the gap between the earthly and the divine.

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[766] Faulkner, *CDME*, 58.

[767] Serge Rosmorduc, 'Jsesh Documentation', 2014, http://jseshdoc.qenherkhopeshef.org [Accessed 12 Jun. 2014].

[768] Timofey Shmakov, *New Readings in the Ancient Egyptian Pyramid Texts* (Omsk, Anapa, Moscow, 2015), 142.

This passage also illustrates the relationship between the verbs *ỉdỉ* "to fumigate" and *wbn* "to spread, surge up, overflow". Although *ỉdỉ* does not appear directly in this passage, its semantic connection to the act of fumigation and the spreading of fragrant smoke is evoked through the use of *wbn*. The spreading and rising of the incense smoke described by *wbn* can be seen as the direct result of the act of *ỉdỉ*, the placing of aromatic substances on the fire for fumigation.

A later semantic connection between the verbs *wbn* and *ḫʿỉ* in collocation with *ỉȝd.t* is observed in two passages from the Book of the Dead, which also features the presence of the lexeme *stj* "scent", further heightening the semantic nexus between *ỉȝd.t* "dew" and *ỉd.t* "scent". This interaction of meanings might stress once more the nuanced but evident conceptual overlap, where dew and scent seem to be metaphorically interwoven with divine manifestation and presence, as we will see soon.

The passages read

ỉȝd.t ex. 1 *ḫʿ sḫm wbn ȝḫtj ḫʿ ỉtm ḥr stj ỉȝd.t.f*
The power appears, the Horizon-god shines,
Atum appears at the scent of his dew.
(Book of the Dead, 140)[769]

ỉȝd.t ex. 2 *(Rʿ) wbn m p.t dỉ.f ỉȝd.t.f*
Who rises in the sky, who spreads his dew.
(Book of the Dead, 15A4)

In the first example, the passage consists of two parallel clauses, each beginning with the verb *ḫʿỉ* "to appear" followed by a divine subject. In the first clause, the verb *ḫʿỉ* is used intransitively to describe the appearance of the divine "power" *sḫm,* while the verb *wbn* "to shine" is employed to characterize the action of the divine epithet *ȝḫtj* "Horizon-god"[770]. The use of these two verbs in close succession creates a sense of a luminous and dynamic divine manifestation.

[769] Refer to Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, 315;39.

[770] *Wb* 1, 18.1-2; Leitz et al., *LGG*, vol. I 53ff.

The juxtaposition of *stj* "scent" and *ỉʒd.t* "dew" in this context is particularly notable, as it conjures up the conceptual almost synaesthetic link between the olfactory and atmospheric domains. The use of the preposition *ḥr* "on, at, with" further emphasizes the idea that Atum's appearance is somehow contingent upon or triggered by the scent of his dew.

In the second example, the passage presents two participles used as adjectival predicates[771], the verb *wbn* "to rise" is used intransitively to describe the action of the divine subject *Rʿ* "Ra" in relation to the celestial domain *p.t* "sky". Then the verb *rdỉ* "to give, to spread" is employed transitively, with *Rʿ* as the subject and *ỉʒd.t.f* "his dew" as the object. This construction emphasizes the idea of Ra actively spreading or disseminating his dew as he rises in the sky.

The use of the possessive suffix pronoun *.f* "his" in both examples underscores the intimate connection between the divine entities (Atum and Ra) and the dew that is associated with them. This linguistic feature could reinforce the notion that dew, in these contexts, is not merely a natural phenomenon but rather an extension or emanation of divine presence and power.

Examining the semantic and cognitive patterns that emerge from these passages, we can observe a consistent association between the concept of dew (*ỉʒd.t*) and the manifestation or activity of divine entities. The verbs *wbn* "to shine, to rise" and *ḫʿỉ* "to appear" are used to describe the dynamic and luminous aspects of divine presence, while the verb *dỉ* "to give, to spread" suggests an active dissemination of dew as a manifestation of divine influence.

Moreover, the presence of the word *stj* "scent" in connection with *ỉʒd.t* "dew" in the first example points to a possible conceptual overlap between the domains of scent and moisture. This association might be rooted in the sensory experience of the early morning, when the coolness of the night gives way to the warmth of the rising sun, and the scent of the earth and vegetation is particularly pronounced due to the presence of dew. The evocation of scent in relation to dew might also hint at a metaphorical understanding of the divine essence or presence as a pervasive and intangible force, much like a scent that permeates the air. The association of dew with the divine entities Atum and Ra, along with the use of verbs denoting luminosity, appearance, and dissemination, indicates that dew was likely understood as an extension of divine influence in the terrestrial realm.

The analysis of the passages from the Book of the Dead and the Pyramid Texts (PT 269 § 376ab) demonstrates the semantic and conceptual link and its possible continuity between the notions of incense (*snṯr*), scent (*sty* and *ỉdỉ ỉd.t*), and dew (*ỉʒd.t*) in ancient Egyptian conception. The recurrence of the verb *wbn*, in these passages might hint at a common underlying idea connecting these apparently distant terms.

[771] Malaise and Winand, *Grammaire*, para. 856.

In PT 269, the verb *wbn* is used to describe the rising and spreading of both the fire and the incense smoke during a fumigation ritual. This use of *wbn* highlights the transformative power of incense, as it is placed on the fire and then rises and spreads, imbuing the ritual space with a sacred fragrance. The act of fumigation, as described in this passage, serves as a means of invoking divine presence and engaging with the sacred realm.The Book of the Dead passages further expand on this idea by linking the verb *wbn* to the divine entities and the concept of dew (*ỉʒd.t*). The god Atum is said to appear "at the scent of his dew" (*ḥr sty ỉʒd.t.f*), while Ra is described as rising in the sky and spreading his dew.

Semantic Links of the Verb *ỉdỉ*: Fumigation to Appeasement

Having established the theoretical background and semantic connections, we now turn to a detailed examination of further relevant textual sources. This analysis will provide additional examples of how the terms *ỉd.t, ỉdỉ,* and related concepts were employed in religious and funerary contexts, particularly in relation to the idea of purification and the journey to the afterlife.

We will investigate the morphological and semantic properties of *ỉdỉ*, in order to gain a profounder knowledge of the symbolic significance of scent and fumigation and the later semantic nexus with dew.

ex.34. *ỉdj ʒḫ.t n Ḥr(.w)-Nḫn(.j)*

Fumigate the horizon for Horus of Hierakonpolis.

(PT 255 § 295a)

This passage is composed of a single clause with a verb-subject-indirect object construction. The imperative form of the verb *ỉdỉ* "to fumigate" occupies the initial position, followed by the direct object *ʒḫ.t* "horizon" and the indirect object introduced by the preposition *n, Ḥr(.w)-Nḫn(.j)* "for Horus of Hierakonpolis". The double yod in *ỉdj* could stand for the desinence of imperative[772].

[772] Edel, *Altägyptische Grammatik II*, para. 598; Allen, *Grammar of the Ancient Egyptian Pyramid Texts. Volume 1: Unis*, 133.

We find quite a similar construal in PT 254 § 276a: *ỉdj wr.t n kȝ nḫ.* J.P.Allen translates it here as imperative mood "cense" and in PT 255 § 295a as passive past perfect tense "The Akhet has been censed for Horus of Nekhen".

The supposed imperative mood of *ỉdỉ* suggests that this utterance functions as a ritual directive or command, granting passage and emergence from the Duat and the *ȝḫ.t* (PT 249 § 266b), where the deceased's arm cannot be barred (PT 251 § 271b). The direct object *ȝḫ.t* specifies the target location or space where the fumigation is directed, and the lexeme *ȝḫ.t* is usually part of an adverbial construal preceded by the preposition *m* or *r*, rarely serving as the subject[773]. This could further support the interpretation of the imperative mood construal rather than a passive one.

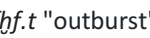
The connection between this passage and the second part of the spell, PT 255 § 295 cd, is crucial for understanding the relationship between passage and protection against the flaming light of the horizon[774] coming from *ȝḫ.t*, as it appears in the following passage:

nsr n(.j) hh.s r.ṯn (...)
ḫfḫf.t hh.s r.ṯn (...)
The flame of his fiery breath is directed against you(...)
The outburst of his fiery breath is against you (...).
(PT 255 § 295 cd)

Specifying the horizon as the locus of fumigation, the passage emphasizes the ritual's cosmological significance and its role in facilitating the transition and integration of the divine and the deceased into the eternal cycle of renewal. The fumigation of the horizon can thus be understood as a sacred act of purification and preparation, creating a sacred space for the manifestation of divine presence and the successful passage of the deceased.

Remarkably, the term  *ḫfḫf.t* "outburst"[775] appears in collocation with the term  *hh* "blast (of fire); heat (of fire)" [776], their lexical association constitutes further evidence for the conceptual proximity in Egyptian thought between phenomena of intense luminosity and fluid dynamics. The semantic overlap between these domains suggests a coherent cognitive model in which

[773] 'TLA'.

[774] The term  *ḫfḫf.t* "outburst" (*Wb.* 3, 273.15; TLA ID 116720) appears in collocation with the term  *hh* (*Wb.* 2, 501.15-502.8; TLA ID 99260) "blast (of fire); heat (of fire)", this lexical association constitutes further evidence for the conceptual proximity in Egyptian thought between phenomena of intense luminosity and fluid dynamics. The semantic overlap between these domains might suggest a coherent cognitive model wherein both flaming manifestations and flowing substances could have been understood through analogous conceptual frameworks, particularly in contexts of sudden release or emanation.

[775] *Wb.* 3, 273.15. TLA ID 116720.

[776] *Wb.* 2, 501.15-502.8; TLA ID 99260.

both flaming manifestations and flowing substances were understood through analogous conceptual frameworks, particularly in contexts of sudden release or emanation.

Two passages from the Coffin Texts, are helpful to better explore of the semantic connections and the metaphorical significance of the verb *ỉdỉ*, related to the concept of fumigation and appeasement in the context of the journey through the afterlife again in occurrence with fire and flames.

The first read:

ex.35. *ʿḫm sḏ.t pr.t, ỉd dšr.w tp-ʿ.wj ḏʒḏʒ.t nṯr*

Extinguish the flame that went out, appease the anger before the divine court

(CT I, 021 bc)

In this passage, the verb *ỉdỉ* seems to be used in the imperative mood, followed by the direct object *dšr.w* "anger", "hostility" (lit. "redness"). This metaphorical expression draws upon the association between the colour red and the emotion of anger, which is a common conceptual metaphor across many cultures visibly connected to physiological reactions[777]. The use of *ỉdỉ* in this context suggests a semantic extension from its original meaning of "to fumigate" to the more abstract sense of "to appease" or "to pacify".

This semantic shift can be understood as a result of the conceptual metaphor ANGER AS FIRE, which maps the source domain of fire onto the target domain of anger. Just as fumigation involves the use of smoke or incense to purify or cleanse a space, the act of appeasing anger is conceptualized as extinguishing the metaphorical flames of divine wrath. The juxtaposition of the imperative clauses *ʿḫm sḏ.t pr.t* "Extinguish the flame that went out" and *ỉd dšr.w* "appease the anger" reinforces this metaphorical link between the two actions.

The prepositional phrase *tp-ʿ.wj ḏʒḏʒ.t nṯr* ("before the divine court") positions the deceased within a space of divine judgment and underscores the necessity of appeasement and justification before a council of deities. This notion of a divine tribunal aligns with broader Middle Kingdom funerary texts, which emphasize the role of the gods as arbiters of justice in the afterlife. S. Donnat's work on letters to the dead further illustrates this judicial aspect, as she highlights how these texts

[777] Köhler, *Rage*, 118;125;263.

often invoke divine courts as spaces where grievances can be addressed and resolved[778]. The *ḏ3ḏ3t nṯr* (divine court) thus functions not only as a metaphor for cosmic order but also as a tangible representation of legal proceedings that mirror earthly judicial practices.

The deceased must navigate these legal proceedings to avoid eternal punishment and ensure their place in the afterlife. The cultural significance of this process is profound, as it reflects a deep-seated belief in justice and order (personified by Ma'at) as fundamental principles governing both life and death.

A second passage from the Coffin Texts exposes the transformative power of ritual fumigation, showcasing the technical aspects of the censing ritual and also exposing several theological implications about the nature of divine presence and manifestation through aromatic substances. It reads

ex.36. *ỉd rf sḏ.t ʿḫm ḥ.t*

Appease therefore the flame, extinguish the fire!

(CT VII, 275a)

In this passage, the verb *ỉdỉ* is once again used in the imperative mood, this time followed by the particle *rf* "therefore" and the direct object *sḏ.t* "flame". The second clause, *ʿḫm ḥ.t* "extinguish the fire", parallels the first, reinforcing the metaphorical connection between smothering fire and extinguishing flames, especially here in a context of finding a secure route in the journey through the Circle of Fire on the bark of Re (CT Spell 1033).

The use of *ỉdỉ* with the direct object *sḏ.t* "flame" rather than the traditional "quench" or "swamp"[779] suggests that the semantic shift from "to fumigate" to "to appease" had become well-

[778] The concept of *ḏ3ḏ3t nṯr* "divine court" and its relation to the Osirian myth, particularly the well-known ritual of the weighing of the heart, which symbolizes moral rectitude, and additional references to judicial processes in the afterlife are noted by S. Donnat. These references suggest a specific legal framework in the afterlife, where divine wrath must be appeased through ritual acts and justifications. This complexity indicates that beyond mere moral judgment, the deceased were required to engage in specific rituals to pacify divine anger and secure their place in the afterlife. For further elaboration, see Sylvie Donnat Beauquier, *Écrire à Ses Morts: Enquête Sur Un Usage Rituel de l'écrit Dans l'Égypte Pharaonique*, HOROS (Grenoble: Jérôme Millon, 2014), 39, 144–47, 218–19.

[779] Faulkner, *Coffin Texts*, I, 3; III, 129.

established by the time this text was written. The verb *ỉdỉ* could now be used directly with words related to fire and flames to convey the abstract sense of pacification or appeasement.

The imperative mood in both clauses underscores the urgency and necessity of appeasing divine wrath and extinguishing the flames, reflecting the high stakes of the deceased's journey through the afterlife[780].

It is noteworthy that the graphic representation of the verb *ỉdỉ* in both spells is primarily , with variations such as  and [781]. The use of the determinative (N4), which depicts water rivulets falling from the sky, is particularly intriguing. While this determinative has been interpreted as "douse, quench", we propose that the primary sense of pouring (something) over fire to fumigate and then appease could better fit all these occurrences. This interpretation aligns with the metaphorical extension of the verb *ỉdỉ* from its original meaning of "to fumigate" to the more abstract sense of "to appease" or "to pacify".

Nevertheless, the presence of the water determinative (N4) in the graphical representation of *ỉd* could suggest a conceptual link between the act of pouring liquid over fire to extinguish it and the act of appeasing anger or fire. This connection could be rooted in the physical experience of using water to douse flames, which is then metaphorically extended to the abstract notion of propitiating the divine favour. The use of this determinative in the verb *ỉdỉ* may also hint at a ritual aspect of fumigation or libation, where liquids were poured over offerings or sacred objects to purify them or to appease the gods, as we can see in the following passage from the Pyramid Texts.

Additionally, the presence of this specific determinative could also serve as evidence of a graphical, morphological, and semantic connection between the verb *ỉdỉ* and the term *ỉʒdt* "dew", which is attested in this corpus. This likely phonetic closeness may support the hypothesis that both words derive from a common root. The lexeme *ỉʒdt* is a contemporary term, and its consonantal skeleton shares notable similarities with *ỉdỉ*, particularly in the recurring elements *ỉ-d*. This morphological overlap suggests that these terms may have evolved from a shared linguistic origin. The inclusion of the (N4) determinative in both terms further reinforces this potential morphological link, as both words are conceptually associated with liquids, vapour, smoke and condensation — whether in the form of dew or in ritual fumigation practices involving libation or purification. This

[780] In the Coffin Texts, there are additional instances where the verb *ỉdỉ* ("to fumigate, appease") is semantically connected with the concept of flame, further reinforcing its connotation of appeasement. One such example can be found in CT 622, VI 236a: *ỉd.j wr.t n kʒ ỉw nsrsr* "Fumigate the Great One for the Bull of the Isle of Flame"; particularly in conjunction with the term Akhet, refer to CT 679, VI 305t *(ʒḫ.t) id.j n.i* " *(ʒḫ.t)* Fumigate (it) for me".

[781] Buck, *CT*, vol. I 021 bc; VII 275a.

connection underscores how the semantic fields of these terms may have developed through both physical and metaphorical associations with moisture and its transformative properties, whether in natural phenomena or sacred rituals.

The relationship between fumigation rituals and natural phenomena becomes even more apparent in the following passage, which illustrates how the transformative properties of incense and its connection to celestial ascension were conceptualized:

ex.37. *qbḥ tȝ ỉdỉ Gbb ndsds.j psḏ.tj*

Libate the earth, fumigate Geb, part the two Enneads!

(PT 519 § 1204 c-d)

This passage is structured as a series of three parallel imperative clauses, each consisting of a verb followed by a direct object. The first clause, *qbḥ tȝ* "libate the earth", denotes the ritual pouring of liquid offerings upon the ground. The second clause, *ỉdỉ Gbb* "fumigate Geb", identifies the earth god Geb as the target of the fumigation ritual, in the context of propitiating the gods during the journey in the afterlife. The use of these verbs in parallel imperative clauses highlights their ritual significance and their complementary roles in the purification and consecration process.

We find again the verb *qbḥ*, is followed by the direct object *tȝ* "earth", indicating the ritual act of pouring liquid offerings upon the ground. This action is closely associated with the concept of purification and the establishment of a sacred space. By libating the earth, the ritual performer seeks to cleanse and sanctify the ground, creating a suitable environment for the journey in the afterlife.

Similarly, the verb *ỉdỉ*, is followed by the direct object *Gbb* "Geb", the earth god in ancient Egyptian theology. The act of fumigating Geb represents the ritual purification and propitiation of the divine realm, specifically the earth and the underworld, which are peculiarly related to Geb[782]. The use of fumigation in this context suggests the importance of aromatic substances in creating a sacred atmosphere and appeasing the gods.

The parallel structure of the imperative clauses *qbḥ tȝ* and *ỉdỉ Gbb* highlights the complementary nature of these two ritual actions. Both libation and fumigation involve the pouring of liquid or aromatic substances, respectively, as a means of purification, consecration, and establishing a connection between the human and divine realms.

[782] Zandee, *Death as an Enemy According to Ancient Egyptian Conceptions*, 8, 95; Whitney M. Davis, 'The Ascension-Myth in the Pyramid Texts', *Journal of Near Eastern Studies* 36, no. 3 (1977): 171.

The graphic similarities between the determinative and logogram used in the verbs *qbḥ*  (W15) and *ỉdỉ* (D46a) could further reinforce this conceptual link, as both signs depict the act of pouring and releasing of substances. The juxtaposition of these two verbs in the same passage suggests that libation and fumigation were often performed together as part of a ritual sequence designed to create a sacred space and appease the gods[783]. The inclusion of the earth god Geb as the recipient of fumigation further emphasizes the cosmological dimension of the ritual. A deity closely associated with the earth, vegetation, and the underworld, Geb represented as well a divine helper on the ascensional journey of the deceased[784].

The inclusion of the verb *ndsds* "to part" in the third imperative clause, followed by the dual form of the noun *psḏ.tj* "the two Enneads", adds a cosmological dimension to the ritual sequence. The parting of the two Enneads, which represent the divine groupings in Egyptian theology, suggests a ritual act of separation or division, possibly to facilitate the passage of the deceased through the underworld. This action is closely linked to the concept of the journey in the afterlife and the summoning of the ferryboat (PT 515-522), which are essential elements in the deceased's transition to the divine realm.

[783] Aylward M. Blackman, 'The Significance of Incense and Libations in Funerary and Temple Ritual', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 50, no. 1–2 (1912): 69–75. Concerning fumigation, see Hans Bonnet et al., *Reallexikon Der Ägyptischen Religionsgeschicht* (Berlin: Walter de Gruyter, 1952), 624–26; Jean-Claude Goyon, *Le Papyrus Du Louvre N. 3279*, Bibliothèque d'étude 42 (Le Caire: Institut français d'Archéologie orientale, 1966), 61; J. F. Borghouts, 'The Magical Texts of Papyrus Leiden I 348', *Oudheidkundige Mededelingen Uit Het Rijksmuseum van Oudheden* 51 (1970): 82–83. Concerning the peculiar link between fumigation and the falcon flight toward the sky, see also, Bonnet, 'Die Bedeutung Der Räucherungen Im Ägyptischen Kult', 25.

The connotation of appeasement associated with the verb *ỉdỉ* can be further substantiated through additional textual evidence. A notable instance is found in the Coffin Texts, specifically in CT 75, I 332a, where the phrase *ỉd.j nṯr.w* appears. This expression can be translated as "may the gods be appeased" or "appease the gods".

[784] Davis, 'The Ascension-Myth in the Pyramid Texts', 171.

Related Lexemes: *qbḥ* ("to libate") *qbb* ("to be cool") *sḥtp.j* ("the one that appeases") and its relation to fumigation and their common semantic field

To further substantiate the semantic link between the various meanings of the verb *ỉdỉ*, from "to fumigate" to "to appease", our analysis will consider both diachronic and synchronic perspectives.

Firstly, the connection between the pouring of libations and aromata and the concept of appeasing or pacifying can be elucidated through an examination of related lexemes. The verb *qbḥ* "to libate" and its likely cognate *qbb* "to be cool" share a common semantic field associated with coolness, calmness, and tranquillity. This semantic overlap suggests a conceptual metaphor wherein the physical act of pouring cool liquid is mapped onto the abstract notion of calming or appeasing. As we have seen previously, such a metaphorical extension is not uncommon in the development of abstract concepts from concrete experiences, as posited by cognitive linguistics theories[785].

Secondly, the lexeme *sḥtp.j*[786], denoting an incense burner and literally meaning "the one that appeases" or "that which calms down", provides evidence for the intrinsic connection between fumigation rituals and the act of appeasement in ancient Egyptian thought. This lexical item condenses the dual nature of fumigation as both a physical act and a metaphysical process of appeasement, reinforcing the proposed semantic shift of *ỉdỉ* from "to fumigate" to "to appease".

Thirdly, the phonetic and potentially semantic links between:

 *ỉdỉ* "to be subjugated, to subjugate"[787] and

 *ỉdỉ* "to be deaf, to deafen"[788]

could offer prospects for understanding its semantic. These related forms could be derived from a common notion of appeasement or pacification, as observed in typological studies of other languages. The concept of subjugation implies a form of pacification through domination, while deafness can be metaphorically understood as a state of being unresponsive or "appeased" to external stimuli.

To support this semantic expansion of *ỉdỉ* and explore cross-linguistic typological evidence for connections between concepts of deafness, calmness, and the act of pouring offerings, we can examine several examples from diverse language families:

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[785] Hsu, 'The Ancient Egyptian Idea of "Death" in Conceptual Metaphor Theory'.

[786] *Wb* 4, 222.23-223.3.TLA ID 141170.

[787] *Wb* 1, 152.4.TLA ID 33830.

[788] *Wb* 1, 151.13-15.TLA ID 33890.

In ancient Greek, σπένδω (spendō) means"to pour a libation" but also "to make a treaty", showing a semantic extension from ritual pouring to abstract concepts of peace-making[789].

In Sanskrit, बधिर (*badhira*) means "deaf" but is related to "बाध" (bādha) meaning "to oppress, restrain", potentially linking deafness to concepts of restraint or suppression[790].

The Akkadian verb *šuḫarrurum* means "to be silent" or "to be still", but it's also used in contexts also "to subside, to abate". This suggests a conceptual connection between silence, calmness and subjugation[791].

These examples could demonstrate how languages often extend the meanings of words related to physical actions into abstract domains such as social or emotional states. This typological evidence supports the idea that Ancient Egyptian could have undergone similar semantic developments, where terms related to fumigation or sensory impairment evolved to encompass broader notions of appeasement or pacification.

A further interesting parallel can be drawn with the Proto-Indo-European (PIE) root *d^hewh_2- [792], which has given rise to a range of semantically related lexemes across various Indo-European languages. This root is reconstructed with the meaning "to smoke, to raise dust", and it has undergone semantic extensions similar to those proposed for the Ancient Egyptian verb *ỉdỉ*.

In Latin[793], the PIE root *d^hewh_2- has yielded the words *fūmus* "smoke", and from this *perfumare, profumare* "to perfume" in Italian, both directly related to the notion of burning and the production of aromatic smoke. This semantic connection parallels the primary meaning of the Ancient Egyptian verb *ỉdỉ* "to fumigate".

In Greek[794], the same PIE root has developed into several lexemes with extended meanings. The verb θύω (thuō) "to offer in sacrifice, slay, burn, immolate" represents a semantic shift from the basic meaning of "to smoke" to the more abstract concept of making offerings and sacrifices, often

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[789] H. G. Liddell et al., *A Greek-English Lexicon*, Ninth Edition with Revised Supplement, Ninth Edition with Revised Supplement (Oxford, New York: Oxford University Press, 1996), s.v. σπένδω.

[790] M. Monier-Williams, *A Sanskrit English Dictionary* (London: Clarendon Press, 1899), 727.

[791] Biggs, *The Assyrian Dictionary : Of the Oriental Institute of the University of Chicago Vol. 17, S [Shin]*, 203–4.

[792] J. Pokorny, *Indogermanisches Etymologisches Wörterbuch v. 1* (Bern: Francke, 1951), 268–70.

[793] Ernout, Meillet, and André, *Dictionnaire Étymologique de La Langue Latine: Histoire Des Mots*, 260;663; de Vaan, *Etymological Dictionary of Latin and the Other Italic Languages*, 249;597.

[794] Chantraine, *Dictionnaire Étymologique de La Langue Grecque: Histoire Des Mots*, 448–49; Beekes and Beek, *Etymological Dictionary of Greek*, 567–68.

involving the burning of aromatic substances. This semantic extension closely mirrors the proposed development of *ỉdỉ* from "to fumigate" to "to appease" in the context of ritual offerings.

Furthermore, the Greek noun θυμός (thumos) "soul, as the seat of emotion, feeling, and thought" and the verb τύφω (tuphō) "to smoke, fill with smoke" both derive from the same PIE root. These lexemes demonstrate a semantic connection between the production of smoke and the notion of inner states, emotions, and thoughts, which parallels the proposed link between fumigation and appeasement in the Ancient Egyptian context.

Finally, the Greek lexeme θύελλα (thuella) "hurricane, squall" also stems from the aforementioned PIE root *d^hewh_2-, showcasing a semantic extension from "smoke" to atmospheric phenomena associated with strong winds and storms, which we will discuss later. These cross-linguistic comparisons highlight the fact that the semantic associations between smoke, fumigation, appeasement, and related concepts are not unique to Ancient Egyptian but seem to be part of a broader network of semantic connections that can be observed across diverse linguistic and cultural contexts.

4.1.5.1. Semantic Development of *ỉdỉ* Connection with the Hydrometeors

From a diachronic perspective, we can conjecture a semantic chain linking these concepts:

a) Concrete action: "to fumigate" (physical act of burning aromatics)
b) Ritual action: "to purify/consecrate through fumigation" (ritualized use of smoke)
c) Metaphorical extension: "to appease (deities) through fumigation" (smoke as offering)
d) Abstract concept: "to appease/pacify" (general sense, divorced from physical act)

This proposed semantic development aligns with well-established principles of semantic change, such as metaphorical extension and abstraction. The connection between fumigation, appeasement, and subjugation is further corroborated by the iconographic evidence from Egyptian military engagements in *Retenu*[795]. Several reliefs depict a ritualized practice whereby the commander of a besieged town signifies capitulation by extending an incense burner containing smouldering

[795] Paraphrased from Kjeld Nielsen, *Incense in Ancient Israel*, Supplements to Vetus Testamentum 38 (Leiden: E.J. Brill, 1986), 13. Images sources: Walter Wreszinski, *Atlas Zur Altaegyptischen Kulturgeschichte. Zweiter Teil* (Leipzig: J. C. Hinrichs, 1925), figs 36; 54a; J.B. Pritchard, *The Ancient Near East in Pictures Relating to the Old Testament*, Ancient Near East in Pictures (Princeton University Press, 1969), no. 334.

incense over the city walls towards the Egyptian forces. This ritual is attested during Sethi I's conquest of Yenoam and, most definitively, in Ramses II's subjugation of Ascalon. The latter scene provides auxiliary support for the interpretation that the display of the censer signifies surrender, as it is accompanied by the simultaneous act of a child being thrown from the top of the wall. This child may be interpreted as either a hostage or a tangible assurance of the sincerity of the surrendering party.

The use of incense in this context can be understood as a performative act, drawing upon the well-established associations between fumigation, appeasement, and subjugation in ancient Egyptian ritual practice. By extending the censer towards the Egyptian forces, the besieged commander engages in a symbolic act of appeasement, acknowledging the superiority of the Egyptian forces and seeking to pacify their aggression through the offering of aromatic smoke. This ritualized act of subjugation mirrors the use of fumigation in religious contexts to appease divine wrath and secure favour, highlighting the pervasive conceptual link between the concrete act of fumigation and the abstract notions of appeasement and submission.

The possible cognitive and semantic connection between fumigation and the atmospheric phenomenon of dew (*i͗ʒd.t*) further enriches this symbolism. In ancient Egyptian thought, both incense smoke and dew were seen as transformative substances that ascend or descend, representing a transition from one state to another. Just as incense smoke rises and spreads through the air, dew forms through condensation and gently settles on surfaces. The Egyptians observed this natural process and linked it conceptually with fumigation, where aromatic vapours from perfumed oils would rise, condense, and settle much like dew droplets.

Thus, fumigation not only served to pacify divine forces but also evoked the life-giving properties of dew, which was associated with fertility and regeneration. This duality —appeasement through aromatic smoke and renewal through moisture— reflects a broader cultural understanding in which both incense and dew were seen as vehicles for transformation, purification, and divine favour.

4.1.5.2. Semantic Nexus Between Fumigation and Appeasement in Funerary Literature

With this broader context in mind, let us now return to the textual analysis, and examine how these themes are expressed in the specific context of Ancient Egyptian funerary literature. The following excerpt provides further elements concerning the ritual significance of fumigation and its role in divine appeasement and protection. This passage illustrates how the verb *ỉdỉ* is employed in the intimate context of Isis's parental actions towards her son Horus:

ex.38. *(ȝs.t) ỉnỉ.s dʒỉ.s ỉdỉ.s tp-ꜥ.w(j) sȝ.s Ḥr.w ḫ(r)d nḫn ḏʒỉ.f tȝ*

(Isis—she who tied the headband on her son Horus as a young boy in Akhbit) She brings her linen garment and she fumigates before her son Horus, the little child, so that he might cross The land.

(PT 519 § 1214c)

This passage exhibits a more complex syntactic structure, consisting of multiple clauses and phrases. The initial clause, *ȝs.t […] ḫ(r)d nḫn*, is an epithetical or descriptive phrase that identifies the goddess Isis and her nurturing relationship with her son Horus. This clause sets the background for the subsequent actions performed by Isis.

The main clause, *ỉnỉ.s dʒỉ.s ỉdỉ.s,* is composed of two parallel verb forms: *ỉnỉ* "to bring" and *ỉdỉ* "to fumigate". These verbs share a common subject, the third-person feminine singular suffix pronoun *.s*, referring back to Isis. The use of the suffix pronoun as the subject, instead of an explicit nominal subject, could create a sense of continuity and emphasis on Isis's actions.

The adverbial phrase *tp-ꜥ.w(ỉ) sȝ.s Ḥr.w* "before her son Horus" modifies the verb *ỉdỉ*, specifying the spatial and relational context in which the fumigation takes place. The phrase highlights the intimate and protective nature of Isis's action, as she performs the fumigation in the presence of her child.

In the final clause, *ḏʒỉ.f tȝ*, an active subjunctive *sdm.f* form is employed as a subordinate clause of purpose[796] to express the intended outcome or goal of Isis's actions. This clause evokes the context of passage and safe journey previously discussed on page 179, emphasizing that the desired result is for Horus to successfully cross the land. The use of the subjunctive form in this subordinate

[796] Malaise and Winand, *Grammaire*, para. 610.

clause highlights the purpose behind Isis's actions reinforcing the significance of the harmless path motif within the larger narrative.

Moreover, it is necessary to consider the evident pun on *ḏ3ỉ* "linen garment" and *ḏ̲3ỉ* "crossing", which likely interacts with the cultural context. Linen garments, often associated with purity and protection in ancient Egyptian culture[797], may symbolically align with the concept of crossing safely through dangerous or liminal spaces. The pair *ḏ3ỉ* and *ḏ̲3ỉ* could thus underscore a deeper cultural resonance in which both physical protection (through clothing) and successful passage (through crossing) are intertwined. This wordplay not only enriches the narrative but also reflects profounder beliefs about safeguarding and transition, particularly in religious or funerary contexts where crossing into new realms was a significant theme.

A supplementary predominant function in this passage is played by the verb *ỉdỉ* "to fumigate", as it is situated within the context of Isis's maternal and protective actions towards her son Horus. The use of *ỉdỉ* in this intimate familial setting suggests that fumigation was not only a formal ritual act but also a deeply personal and nurturing practice, associated with purification, blessing, and the transmission of divine power and protection[798].

The mention of Isis bringing her linen garment (*ḏ3ỉ*) before performing the fumigation is also significant from a lexical and symbolic perspective. The act of bringing the linen garment can thus be interpreted as a preparatory ritual gesture, symbolizing the purity and sanctity of the fumigation that follows.

The purpose clause *ḏ̲3ỉ.f t3* "so that he might cross the land" underscores the protective and enabling function of Isis's fumigation. The verb *ḏ̲3ỉ* "to cross" can be understood both literally and metaphorically, referring to the physical journey across the earthly realm as well as the spiritual passage through the challenges and transitions of life and afterlife. Isis is not only purifying and blessing Horus through fumigation but also the deceased empowering them to successfully navigate the trials and transformations that lie ahead.

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[797] Jordan Galczynski, 'The Egyptian Textile Industry: A Socio-Historical Study of the Value of Textiles at the Intersection of Power and Identity during the New Kingdom (c. 1550-1070 BCE)' (UCLA, 2024), 73;131, https://escholarship.org/uc/item/4qb0h2qp.

For a comprehensive discussion on the linen garment *ḏ3ỉ* and its association with Isis, refer to: Elisabeth Staehelin, 'Bindung Und Entbindung: Erwägungen Zu Papyrus Westcar 10,2.', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 96, no. 2 (1970): 127.

[798] Bonnet, 'Die Bedeutung Der Räucherungen Im Ägyptischen Kult', 22; Jean Winand and Michel Malaise, 'Les Parfums En Égypte', in *L'art Du Parfum*, ed. Anonymous (Paris: Le Temps apprivoisé, 1993), 38.

As in the previously analysed passage PT 519 § 1204c-d[799], the lexical choice of *tȝ* "land" as the object of the verb *ḏȝỉ* further emphasizes the cosmological significance of Isis's actions. The analysis of PT 519 has elucidated the context in which the fumigation ritual could be performed, emphasizing its role in divine appeasement and protection. To further explore the cosmological significance of fumigation and its connection to the divine realm, let us now turn to a passage from the Pyramid Texts that employs a series of poetic devices and mythological allusions:

ex.39. *qsšȝȝ n.k sšȝȝ km-wr*
ḫnỉ n.k ḫn.t nṯr sms.w
ỉdỉ n.k ỉd.t qȝỉ-skm m ỉ̈wn.w
The landing of the Great Black Bull will be landed for you,
the alighting of the senior god will be alighted for you,
the fumigation of Him with long grey hair in Heliopolis will be fumigated for you.
(PT 558 § 1390 b-d)

This passage is composed of three main clauses, each featuring the prospective passive *sḏm.w.f* form[800], and they all employ a literary device known as *jinās*[801], a sort of polyptoton and "paronomasia", where the verb *sšȝȝ* "to land" and the noun *sšȝȝ* "landing" are repeated for rhetorical effect, creating a sense of emphasis and harmony. The same device is used with the verb *ḫnỉ* "to float down" and the noun *ḫn.t* "descent", and with *ỉdỉ* "fumigate" and *ỉd.t* "fumigation", further enhancing the poetic quality of the passage.

In the third sentence, *ỉdỉ n.k ỉd.t qȝỉ-skm m ỉ̈wn.w*, the verb *ỉdỉ* "to fumigate" appears in the passive prospective form, expressing that the action of fumigation will be conducted for the subject (*n.k* "for you"). The noun *ỉd.t* "fumigation" functions as the object of the sentence, specifying the action to be performed, while the noun phrase and epithet *qȝỉ-skm m ỉ̈wn.w*[802] "Him with long grey hair in Heliopolis" could refer to the god Atum, as we will explore soon, for whom the fumigation will be carried out, highlighting the cosmological significance of this ritual action.

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[799] *qbḥ tȝ ỉdỉ Gbb ndsds.j psḏ.tj* "Libate the earth, fumigate Geb, part the two Enneads".

[800] Stauder, *Passive*, 24, 33–37.

[801] A thorough investigation of the literary device "*jinās*" and its conceptual distinction from Western rhetorical terms is found in Hany Rashwan, 'Arabic Jinās Is Not Pun, Wortspiel, Calembour, or Paronomasia: Post-Eurocentric Approach to the Conceptual Untranslatability of Literary Terms in Arabic and Ancient Egyptian Cultures', *Rhetorica* 38, no. 4 (2020): 335–70.

[802] Leitz et al., *LGG*, vol. VII, 168.

The consistent use of the passive prospective *sḏm.w.f* form throughout the passage creates a sense of linguistic cohesion and reinforces the future-oriented and benefactive nature of the actions described. The rhetoric device and the parallel structure of the sentences contribute to the poetic and ritualistic quality of the text, emphasizing the importance of these future actions in the context of the king's ascension and integration into the divine realm.

The epithet *qȝỉ-skm m ỉwn.w* "Him with long, grey hair in Heliopolis" as a reference to the god Atum, the primordial creator deity associated with the city of Heliopolis[803], invites further lexical analysis. The epithet *qȝỉ-skm* "He with long, grey hair"[804] emphasizes Atum's status as an aged and venerable deity, embodying the wisdom and authority of the primaeval era. The mention of Heliopolis, the principal cult centre of the sun god Ra and the site of the sacred benben stone, further underscores the cosmological significance of the fumigation ritual.

The analysis of this passage reveals the important role of epithets, such as *qȝỉ-skm*, in emphasizing the divine nature of the recipient of fumigation. This epithet is particularly interesting from a morphological perspective due to the presence of the term *skm* "grey hair", a term well-attested in later medical contexts[805]. The composition of *skm* could involve the prefix *s-* attached to the adjective *km* "black", suggesting a form of the phenomenon of enantiosemy previously discussed on page 110, where a word can express opposite meanings.

The prefix *s-* in this case could likely function as a privative or negating element, deriving an antonym from the base adjective *km* "black". This morphological process parallels the derivation of the verb *sḥwỉ* "to gather" from *ḥwỉ* "to scatter" through the addition of the same *s-* prefix, as discussed in the previous examples. The use of this derivational strategy to create antonyms is well-documented in other Afro-Asiatic languages, such as the Semitic languages, suggesting a possible shared linguistic feature[806].

The presence of this potential privative prefix in *skm* raises questions about its function and productivity in Old Egyptian. Further research into other possible instances of this morphological process could shed light on the derivational strategies employed in the language to create antonyms or express negation.

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[803] For further discussion on the iconographic depiction of Atum in advanced age, often portrayed seated or supporting himself with a staff, see John Baines, 'Further Remarks on Statuettes of Atum', *The Journal of Egyptian Archaeology* 58 (1972): 304.

[804] Kurt Sethe, *Übersetzung Und Kommentar,* vol. V p. 558.

[805] Deines and Westendorf, *Wb. Mediz.*, 808.

[806] Bohas and Bachmar, *L'énantiosémie dans le lexique de l'arabe classique*, 60–61.

Alternatively, *skm* "grey hair" could be associated with the verb *skm*, meaning "to make complete"[807]. This verb may, in turn, derive from *km*, meaning "to complete", which is homophonous with *km* meaning "black", though the two do not share the same root[808].

This interpretation would suggest that *skm* carries connotations of completion, wholeness, or fulfilment. Over time, this verb's semantic range expanded to include meanings such as "to be wise"[809], indicating a connection between the concept of completion and wisdom. This potential link between grey hair and wisdom could further be supported by the later development of the verb's meaning.

Additionally, this interpretation resonates with the symbolic association of grey hair with maturity and wisdom. In this context, the epithet *qȝḫ-skm* could emphasize not only physical attributes but also deeper symbolic meanings related to wisdom and authority. The god Atum, whose name could be connected with the verb *tm* "to complete"[810], may also reflect these themes of completeness and wisdom, further supporting this interpretation. Thus, the epithet *qȝḫ-skm* might convey both physical and metaphysical qualities, linking divine authority with notions of wisdom and completeness.

This is particularly relevant in the context of the fumigation ritual, where the king seeks to align himself with the creative and regenerative forces embodied by Atum. The use of the epithet *qȝḫ-skm* in reference to Atum underscores the god's role as a primaeval deity, embodying the wisdom and authority of the primaeval era. The act of fumigating Atum can be understood as a powerful gesture of veneration, propitiation, and identification, through which the deceased king seeks to align himself with the creative and regenerative forces embodied by the primordial god.

The use of these epithets[811], which might evoke the darkness and primordial nature of the pre-creation state, suggests that the king's journey is not merely a physical ascent but a spiritual transformation, a return to the origins of existence and a reintegration with the divine source.

The following passage presents a variation on the fumigation ritual described in PT 558, offering new insights into the purpose and context of this important religious practice. Examining the

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[807] *Wb* 4, 317.2-11. TLA ID 146770.

[808] For a detailed exploration of the pun and the morphological comparison between the Egyptian words for "black" (*km*) and "complete" (*km*), refer to Elsa Oréal, '« Noir Parfait »: Un Jeu De Mots De L'égyptien Au Grec', *Revue Des Études Grecques* 111, no. 2 (1998): 551–65.

[809] *Wb* 4, 317.12-13. TLA ID 146780.

[810] *Wb* 5, 303.12-304.16. TLA ID 172000.

[811] According to some scholars, these epithets may also allude to the hypostasis of lunar phases, see Meeks, *AL II*, 357; Mathieu, *Les Textes de La Pyramide de Pépy Ier: Traduction*, 541 n° 296.

lexical choices in this passage, we can further clarify the relationship between fumigation, divine presence, and ritual offering.

The text reads

ex.40. *sšȝȝ nṯr sms(.w) ỉdỉ ʿȝ-skm n ỉḫ.t*

The oldest god lands, the One with long grey hair is fumigated for the meal

(PT 643 § 1820ab)

This spell shares some similarities with the earlier example, particularly in the use of epithets to refer to the divine beings involved in the fumigation ritual. The subjects of the two clauses are *nṯr sms.w* "the oldest god" and *ʿȝ-skm* "the one with long grey hair", respectively. However, there are some notable differences in the grammatical forms employed and the overall context of the ritual.

In the first clause, the verb *sšȝȝ* "to land" appears in the unaccomplished form, describing the ongoing action of the oldest god's descent or arrival. This contrasts with the previous spell, where the landing was expressed using the passive prospective form, emphasizing the beneficiary of the action.

The second clause features the reconstructed verb *ỉdỉ* "to fumigate" in the passive unaccomplished or possibly imperative form. This form can represent either an ongoing or future event, or a command to perform the fumigation ritual on the deity described as *ʿȝ-skm* "the one with long grey hair". This epithet, a *hapax*, bears a striking resemblance to the epithet *qȝỉ-skm* encountered in the earlier spell, further reinforcing the divine nature of the recipient of the fumigation.

One of the most substantial aspects of this passage is the presence of the succinct but significant adverbial phrase *n ỉḫ.t* "for the meal", introduced by the preposition *n*. This phrase could suggest that the fumigation is closely linked to the offering or consumption of a ritual meal[812]. The mention of the meal as the motivation for the divine descent and fumigation highlights the important role of offerings and communion with the gods in ancient Egyptian religious practice.

The fumigation ritual, in this context, can be understood as an act of hospitality, a means of creating a pleasing sensory environment to welcome the divine guests and facilitate their participation in the sacred feast. The aromatic substances used in the fumigation were not merely intended for purification or consecration but also to establish a conducive atmosphere for the manifestation and interaction of the gods with the human officiants. The choice of the term *ỉḫ.t* for the meal is also

[812] Concerning the act of providing aliment to the deceased through the ability to breathe air symbolically represented through the burning of myrrh or incense, see Jan Zandee, 'Bemerkungen Zu Einigen Kapiteln Aus Den Sargtexten', in *Fragen an Die Altägyptische Literatur: Studien Zum Gedenken an Eberhard Otto*, ed. Jan Assmann, Erika Feucht, and Reinhard Grieshammer (Wiesbaden: Dr Ludwig Reichert, 1977), 513.

significant, as it carries connotations of abundance, satisfaction, and spiritual nourishment. The spell emphasizes the idea that the ritual meal is not simply a physical offering but a symbolic exchange of vital forces and propitiations.

Let us now examine another passage from the Pyramid Texts that explicitly connects the act of fumigation with the king's identification as a divine falcon, to further prove the symbolic significance of this act in the context of the king's transformation and deification:

ex.41. *Ppj Nfr-kȝ-Rᶜ pw b(ỉ)k ỉdỉ.j m [...ỉ]dỉ n ṯn Ppy Nfr-kȝ-Rᶜ ỉm*

Pepy Neferkare is a falcon that has been fumigated with [...]Pepy Neferkare has been fumigated for you with it.

(PT 668 § 1960a)

This passage consists of two clauses, and they are quite remarkable since each features a different form of the verb *ỉdỉ* "to fumigate" and possibly a reconstructed *ỉd.t,* comparable to the PT 558 § 1390b-d. The first clause, *Ppy Nfr-kȝ-Rᶜ pw b(ỉ)k ỉdỉ.j m* [...], identifies the king, *Ppy Nfr-kȝ-Rᶜ,* with the predicate *b(ỉ)k ỉdỉ.j* "a falcon that has been fumigated". This metaphorical association between the king and the fumigated falcon is particularly significant, as it suggests a deeper level of symbolic transformation. As we have discussed previously on page 252, in ancient Egyptian religious and funerary texts, the falcon was often associated with the god Horus, who represented divine kingship and the living pharaoh.

Identifying the king with a fumigated falcon, the passage emphasizes his divine status and his potential to undergo a profound divine transformation. The act of fumigation, as indicated by the passive participle *ỉdỉ.j*, can be understood as a means of facilitating the king's transition from the earthly realm to the celestial sphere, where he will join the gods in the afterlife. The pleasant scent of the perfume used in the fumigation ritual, evoked by the noun *ỉd.t*, serves as a tangible manifestation of the divine essence, imbuing the king with the qualities necessary for his journey to the sky.

As we have observed, the allusion to the king's transformation into a divine falcon also resonates with the imagery of flight and ascension associated with the fumigation ritual. As the fragrant smoke rises from the burning incense or perfume, it creates a vertical axis that connects the earthly and celestial domains. This upward movement of the scented smoke can be seen as a metaphor for the king's own ascent to the sky, where he will take on the form of the divine falcon and soar among the gods. The act of fumigation, therefore, not only purifies and sanctifies the king but also symbolically propels him towards his fate.

The second clause, *[i]dỉ.n ṯn Ppy Nfr-kȝ-Rʿ ỉm*, employs the accomplished passive form of the verb *ỉdỉ*. Here, the king appears again as the patient of the verb, receiving the act of fumigation on behalf of the gods. The adverb *ỉm* "with it" refers back to the unspecified substance, likely *ỉd.t* "the perfume", mentioned in the lacuna of the first clause, suggesting that the same fragrant material was used in both fumigation acts.

The repetition of the verb *ỉdỉ* serves to accentuate the centrality of fumigation in the process of the deceased king's transformation and deification. The identification of Pepy Neferkare with a fumigated falcon (*b(ỉ)k ỉdỉ.j*) is particularly significant, as it establishes once again a powerful symbolic link between the king and the divine bird. The semantic link between the verb *ỉdỉ* and the noun *ỉd.t* "scent, perfume" further emphasizes the sensory and symbolic aspects of the fumigation ritual.

4.1.5.3. Conclusion

The lexeme *ỉȝd.t*, holding a profound connection to atmospheric phenomena and hydrometeors, presents challenges in translation, particularly when attempting to capture its full semantic range within the domain of atmospheric waters. Modern translations such as "dew", or the related yet distinct lexeme *ỉd.t* such as "perfume", "emanation", often impose an external ethic background that may not accurately reflect the ancient conceptualization of these terms.

The translation of lexemes within the precise semantic categorization of atmospheric waters is often constrained by the limitations of target languages, which may lack a single term capable of conveying the full range of meanings. For instance, the English term "steam" possesses a specific semantic meaning, referring to water vapour at boiling temperature (100°C at standard atmospheric pressure). This precise definition allows for a clear distinction between "steam" and other forms of water vapour, such as those arising from evaporation at lower temperatures. However, when attempting to translate "steam" into German and French, one encounters a linguistic gap. These languages do not seem to have a single, dedicated term that captures the exact semantic meaning of "steam"[813].

This linguistic gap highlights the inherent challenges in translating both ancient and modern idiosyncratic concepts across languages. In the case at hand, the difficulty is particularly pronounced

[813] Refer to Detlev Möller, 'On the History of the Scientific Exploration of Fog, Dew, Rain and Other Atmospheric Water', *Die Erde; Zeitschrift Der Gesellschaft Für Erdkunde Zu Berlin* 139, no. 1 (1 January 2008): 12–13; Concerning this issue, refer also to M.P. Crosland, *Historical Studies in the Language of Chemistry* (Dover Publications, 2004).

when rendering such terms into modern languages, as they often encompass broader or subtler meanings that elude precise categorization within contemporary linguistic structures. This underscores the limitations of modern languages in fully capturing the conceptual depth of certain lexemes.

This approach pre-judges the subject for the reader and might misrepresent the original meaning of *ỉʒd.t* for the sake of transposition. In Ancient Egyptian thought, however, *ỉʒd.t* did not carry such compartmentalized meanings. Instead, it seems to encompass a broader range of associations, blending natural and ritualistic domains that today seem distinct but were intimately connected in Egyptian language and culture.

At a temporal distance of 5,000 years, we can now envision entirely different notions surrounding this term. What might appear to us as separate domains—such as dew formation, perfumed oils, and fumigation—were conceptually intertwined in Ancient Egypt. This may indicate that *ỉʒd.t* and *ỉd.t* were two terms that evolved over time as Egyptian culture influencing one another over time.

Through a wide-ranging lexical, syntactic, and comparative analysis, this chapter has tried to demonstrate the semantic complexity of the lexeme *ỉʒd.t* and its conceivable semantic connection with the verb *ỉdỉ* and *ỉd.t*. The examination of various textual sources, from the Pyramid Texts to the Coffin Texts, has revealed a consistent pattern of semantic extensions linking fumigation with abstract notions such as appeasement, purification, and divine protection. Cross-linguistic comparisons with Afro-Asiatic and Proto-Indo-European roots bring out these associations' widespread nature within a broader linguistic context.

Contextual and Syntactic analysis

In this last section, we will try to clarify the ancient Egyptian conception of dew as a multifaceted phenomenon, intertwined with religious beliefs, cosmological concepts, and embodied experiences of the natural world, through the detailed examination of the syntactic structures, lexical collocations, and metaphorical mappings associated with *ỉʒd.t*.

The boundaries between the various uses of *ỉʒd.t* can be explained by the cognitive mechanisms of semantic extension and conceptual combination. As the ancient Egyptians encountered and conceptualized dew in various contexts, they seem to have extended the meaning of *ỉʒd.t* to encompass related concepts and experiences, leading to a peculiar network of associations. Moreover, the metaphorical use of *ỉʒd.t* in poetic and literary contexts demonstrates the ancient Egyptian ability to further merge conceptual domains, creating new meanings and connotations that bridge the gaps between different semantic categories.

4.1.6. Identified Collocational Patterns and Semantic Domains

Given its occurrence across different genres of texts, our approach will focus on identifying frequent collocations with other nouns and the semantic domains they represent. Our analysis reveals that *ỉʒd.t* frequently collocates with terms from various domains, including

– Celestial and Divine Associations: Dew is often described as originating from the sky or associated with divine forces, indicating its perceived connection to the gods or celestial phenomena.

– Natural Phenomena: The lexeme is consistently linked to water and moisture, highlighting its role in the natural world. It also frequently appears in agricultural contexts, symbolizing fertility and plant growth.

– Magical and Medicinal Uses: Dew appears in medical texts as an ingredient in preparations and in magical incantations, often related to cosmic or divine forces.

– Poetic and Literary Usage: The metaphorical use of *ỉʒd.t* is prevalent in poetic contexts, where it symbolizes influence, renewal, or life-giving properties.

4.1.7. Celestial and Divine Associations

4.1.7.1. Dew as Emanation of Shu in the Articulation of the Cosmos

Let us delve into the first attestation of the lexeme *ỉʒd.t*, noticeably spelled as  (*ỉd.t*) without the *ʒ* sign, in a passage from Coffin Text 80[814]. This spell is intently associated with the god Shu[815], who, as previously discussed on page 157, is deeply linked to the atmosphere as a divine custodian of this space between the earth and the sky.

ỉʒd.t ex. 3

ỉr sšp p.t m-ḫt kkw
ỉnm.ỉ pw mḏd(.w) ṯʒw.w
pr(w) ḥr-sʒ.ỉ m rʒ n Tm
rḏw.ỉ pw ḳrr n pt
ỉd.t.ỉ pw nšn ỉḫḫw
It is I who make the light of the sky after darkness,
my colour is the pleasant airs
which goes forth after me from the mouth of Atum.
The storm of the sky is my outflow,
the storm of twilight is my emanation (dew).
(CT II, 30 a-f)

This passage employs a series of nominal sentences, each beginning with a pronoun followed by a noun phrase. The initial line, *ỉnk ỉr sšp p.t m-ḫt kkw*, is a cleft sentence emphasizing the speaker's role in illuminating the sky after a period of darkness, particularly through the prepositional phrase *m-ḫt kkw* "after the darkness", which details the temporal context, further emphasizing the atmospheric setting of the passage.

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[814] The interpretation of *ỉ(ʒ)d.t* as "dew" is also supported by J. Zandee in his analysis of this spell, see Jan Zandee, 'Sargtexte, Spruch 80 (Coffin Texts II 27d-43)', Zeitschrift Für Ägyptische Sprache Und Altertumskunde 101, no. 1 (1974): 67–68. The absence of the *ʒ* sign in this early orthographic variation is captivating, as it may suggest the aforementioned semantic link between the two lexemes *ỉʒd.t* and *ỉd.t*, potentially reflecting a distinct stage in the linguistic development of the term or a specific regional or textual tradition.

[815] Faulkner, *Coffin Texts*, 86.

The subsequent lines follow a pattern of A pw B nominal sentences, where a is a possessive noun phrase, and B is a metaphorical expression. In *ỉnm.ỉ pw mḏd(.w) ṯzww*, "my clinging skin" (*ỉnm.ỉ mḏdw)* is equated with "the breaths, airs" (*ṯzw.w*). The use of the term *ṯzw* in this context is indicative, as it firmly situates the passage within an atmospheric context, reinforcing the connection between the divine figure and the natural phenomena described.

Similarly, *rḏw.ỉ pw ḳrr n pt* identifies "my effluvia" (*rḏw.ỉ*) with "the storm of heaven" (*ḳrr n pt*). The final line, *ỉd.t.ỉ pw nšn ỉḫḫw,* directly associates "my exudation, emanation (dew)" (*ỉd.t.ỉ*) with "the storm of twilight" (*nšn ỉḫḫw*). The lexeme *rḏw*, in addition to its literal meaning, can be used metaphorically to refer to rainwater[816], further strengthening the atmospheric connotations of the passage and the association between the divine figure's bodily secretions and celestial moisture.

The third line, *pr(w) ḥr-sz.ỉ m rz n Tm* "which goes forth after me from the mouth of Atum", uses a relative form of the verb *prỉ*, further describing the *ṯzww* (airs). The prepositional phrase *m rz n Tm* "from the mouth of Atum" introduces a second divine element, associating the airs with the creator god Atum, as we have seen before on page 347 a god possibly connected with hydrometeors, and thereby establishing a direct link between the atmospheric realm and the process of creation itself.

The use of possessive pronouns throughout the passage emphasizes the relationship between the speaker, who can be identified as Shu, and the various atmospheric phenomena. The metaphorical language equates bodily secretions with celestial events, this a appear to be quite recurrent as we stressed before, suggesting a profound link between the divine figure and the natural world.

The use of *ỉd.t* and its juxtaposition with *nšn ỉḫḫw* "storm of twilight" could suggest that dew was conceptualized as a celestial phenomenon associated with transitional periods of the day, a connection that will be explored soon in the iatromagical[817] context. The parallel structure of the final two lines, with *rḏw* and *ỉd.t* both being equated with celestial storms or disturbances, implies that dew was understood as a form of divine emanation, linking it directly to the body and actions of a celestial deity.

[816] The lexeme *rḏw*, in addition to its literal meaning, can be used metaphorically to refer to rainwater, see *Wb.* 2, 469.5-19; Further discussion on this peculiar metaphorical use of *rḏw,* connected with the bodily fluids of Osiris, can be found in Diana Delia, 'The Refreshing Water of Osiris', *Journal of the American Research Center in Egypt* 29 (1992): 181–90.

[817] Guermeur, 'Le Papyrus Hiératique Iatromagique N° 47.218.2 Du Musée de Brooklyn'.

4.1.7.2. Dew as a culmination or destination of a cosmic journey

Let us now turn our attention to the second example from Coffin Text 427, which is also linked to Shu and is part of a larger spell corpus, previously discussed on page 157, that grants power over water:

ỉꜣd.t ex. 4	*šꜣs.n.ỉ Šw*
	nmt.n.ỉ šnỉ.t
	wʿr.n.ỉ Nw.t
	pḥ.n.ỉ ỉꜣd.t
	I roamed Shu,
	so that I could traverse the rainstorm,
	I passed through Nut,
	so that I could reach the dew.
	(CT V, 272a-d - 273a)

This passage features a sequence of verbal sentences utilizing the *sḏm.n.f* forms in a distinct balanced construal where the second *sḏm.n.f* functions as an adverbial complement highlighted by an emphatic form of the first *sḏm.n.f*[818]. Each line follows a consistent structure: the first-person singular pronoun *.ỉ* as the subject, a verb of motion : *šꜣs* "to walk", *nm.t* "to traverse"[819], *wʿr* "to pass", *pḥ* "to reach", and a direct object as a deity or a natural phenomenon.

The progression of the lines traces a journey through various cosmic realms, beginning with the air god Shu, then moving through hail, the sky goddess Nut, and finally reaching the dew. This sequence suggests a transition from the divine and celestial spheres to the more tangible and earthly manifestation of moisture.

The verbs *pḥ* "to reach", and *nmỉ* "to traverse (on foot)" regularly appear in collocation with the nouns *p.t* and *ḥr.t* "another designation for the sky" in ancient Egyptian corpus[820]. This collocation pattern could suggest that the atmospheric phenomena as place objects after *pḥ* and *nmỉ* could potentially serve as a synecdoche, a figure of speech where a part represents the whole, for the sky

[818] Malaise and Winand, *Grammaire*, paras 572, 977.

[819] The ending *t* may indicate an orthographic ambiguity or scribal inconsistency, as it appears to be erroneously inserted before *n*, a discrepancy already attested within this particular incantation, refer to Buck, *CT,* spell 427; Faulkner, *Coffin Texts*, vol. 2 p. 71.

[820] For the precise exploited collocation analysis of *pḥ* and *nmỉ*, refer to 'TLA'.

(*p.t*) itself. In other words, the frequent association of these verbs with words meaning "sky" indicates they may metaphorically evoke the entire sky, not merely the specific atmospheric event.

The placement of "dew" (*ỉʒd.t*) at the end of the passage could imply that it represents a culmination or destination of the cosmic journey. The inclusion of *šnjt* "rainstorm" in the second line, followed by the mention of the sky goddess Nut, could reinforce the idea that dew was conceptualized as an atmospheric event closely associated with rain and the celestial realm. This contextual evidence supports our interpretation of *ỉʒd.t* as "dew" rather than "net", or "meadow"[821] as these terms would not fit seamlessly into the atmospheric and cosmic setting described in the passage.

Furthermore, the orthographic variations of *ỉʒd.t* in different sarcophagi provide additional insights into the nature of this lexeme. In sarcophagus B2B0[822], the determinative  (M43)[823], which generally characterizes vines, wine, fruit, and gardens, is used in the spelling of *ỉʒd.t*. This choice of determinative could be linked to dew through a phonetic confluence to the lexeme *jʒd.t* "meadow" or "field". The use of the M43 determinative might evoke the image of water droplets settling on plants, a characteristic feature of dew formation[824] alternatively, it could result from confusion between (M43)[825] and (N4).

[821] Faulkner, *Coffin Texts*, vol. 2 p. 71.

[822] Buck, *CT* 427 V, 272a-d- 273a.

[823] We find the same spelling with this determinative in P. Ebers, 42, 19 with the meaning of "exudate", a fluid that drains from the body into a wound, see Bernard Lalanne and Gérard Métra, *Le Texte Médical Du Papyrus Ebers: Transcription Hiéroglyphique, Translittération, Traduction, Glossaire et Index*, Langues et Cultures Anciennes 28 (Bruxelles: Éditions Safran, 2017), 89.

[824] Furthermore, the hypothesis put forward by M. Sokolova should also be taken into consideration. In this study, Sokolova explores the nuanced use of deceptive determinatives in the Coffin Texts, suggesting their deliberate employment to potentially obfuscate meaning or to serve as a form of recondite communication Marina Sokolova, 'Reading Coffins', *Chronique d'Égypte* 92, no. 183 (2017): 5–36.

Additionally, the concept of phonetic determinatives, or what might be referred to as "phono-repeaters", could further enhance our understanding of these spellings, see Polis and Rosmorduc, 'The Hieroglyphic Sign Functions'; Ingelore Hafemann, 'Die Beschreibende Und Kommentierte Hieroglyphische Zeichenliste Als Offenes System.', in *Ägyptologische 'Binsen'-Weisheiten III: Formen Und Funktionen von Zeichenliste Und Paläographie. Akten Der Internationalen Und Interdisziplinären Tagung in Der Akademie Der Wissenschaften Und Der Literatur, Mainz, Im April 2016*, ed. Svenja A. Gülden, Ursula Verhoeven, and Kyra van der Moezel (Stuttgart: Franz Steiner, 2018), 19–49.

[825] See Lalanne and Métra, *Papyrus Ebers*, 89.

In sarcophagus B4C[826], the lexeme *ỉʒd.t* is followed by the uncommon determinative 𓇼, which depicts the sky emanating a jet of water. This determinative may provide evidence for the interpretation of *ỉʒd.t* as an atmospheric phenomenon, as it visually represents the celestial origin and liquid nature of dew. The use of this determinative in the spelling of *ỉʒd.t* seems to corroborate our argument that the ancient Egyptians perceived dew as a form of moisture emanating from the sky, further solidifying its connection to the atmospheric domain.

4.1.7.3. Dew as a Controlled Force: Mastery of Weather Phenomena

Let us investigate the celestial and metaphorical use of the lexeme *ỉʒd.t* "dew" in another excerpt from Coffin Text. This passage, which is connected with the joining of the ferryboat, a context previously discussed on page 339, that seems to be linked to the mastery of weather phenomena, helps us investigate the ancient Egyptian conception of dew and its relationship to celestial forces.

The passage reads

ỉʒd.t ex. 5 *ḫt ṯʒw hrw s[k(w)] p.[t] psḏ.t*
ỉbw m[rr (?)] ḥr(j) sḥ‘ n ḥtmw
kʒ.w rtḥw ỉd.t ỉʒḫw
The mast is the day that bathes the sky which is illuminated.
The halyard (?) is [the flame maker(?)] which is on the tent (?) of the Destroyer.
The ropes-kaw are what control the dew and the sun's radiance.
(CT V, 169a, 169c)

This excerpt employs a series of metaphors related to a ferry or boat, with each line equating a nautical component to a cosmic or divine entity. The use of nautical imagery in this context is particularly significant, as it ties into the broader theme of the deceased's journey through the afterlife

[826] Buck, *CT* V, 272a-d- 273a.

and the necessity of mastering celestial forces to ensure safe passage[827]. As previously discussed on page 359, the ferryboat recurring motif in ancient Egyptian funerary literature, symbolizes the means by which the deceased navigates the cosmic waters and reaches the realm of the gods.

In the first line, the mast (*ḫt ṯzw*) is compared to the day that bathes the illuminated sky. This metaphor suggests a connection between the mast, a vertical element of the boat, and the daily cycle of the sun, which illuminates the sky as it traverses its celestial path. The use of the verb *sk* "to bathe" or "to wipe" in this context evokes a sense of cleansing or renewal associated with the sun's daily journey, potentially alluding to the regenerative aspects of the solar cycle.

The second line, although partially obscured, seems to associate the halyard (*ỉbw*), a rope used to hoist the sail, with a flame-related entity on the tent of a destructive force. While the exact meaning of this metaphor remains elusive due to the fragmentary nature of the text, it is possible that the halyard is being linked to a divine or cosmic power that controls or influences destructive forces, such as storms or chaos.

The third line is of particular interest for our analysis of the lexeme *ỉʒd.t* "dew". Here, the "ropes-kaw" (*kʒ.w*) are described as controlling both the dew (*ỉʒd.t*) and the sun's radiance (*ỉʒḫw*). The term *kʒ.w*, which can be translated as "ropes" or "cords", could be associated with the concept of binding or restraining cosmic forces. The use of the verb *rtḥ* "to control" or "to subdue" in this context reinforces the idea that the *kʒ.w* have the power to regulate or harness the effects of dew and solar radiance.

The juxtaposition of *ỉʒd.t* "dew" and *ỉʒḫw* "sun's radiance" in this line is particularly striking, as it suggests a close relationship between these two phenomena in the ancient Egyptian cosmological structure, similar to the one previously discussed with *ỉgp* on page 224. The sun's rays, which are often depicted as a source of light, heat, and life-giving energy in Egyptian tradition, are here associated with dew, a form of moisture that appears on earthly surfaces. This metaphorical link between solar radiance and dew might reflect an understanding of the sun's role in the water cycle and the production of atmospheric moisture.

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[827] The parallelism between the components of a ferry boat and cosmic events is further explored in Spell 99 of the Book of the Dead. This spell draws an analogy between the structural elements of a boat and celestial phenomena. For further details on this topic, refer to Stephen Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, GHP Egyptology 20 (London: Golden House, 2013), spell 99; W. V. Davies, T. Schneider, and G. Lapp, *The Papyrus of Nu (BM EA 10477)*, Catalogue of the Books of the Dead in the British Museum 1 (London: British Museum Press, 1997), spell 99.

In the context of the joining of the ferryboat and the mastery of weather phenomena, the idea that the *kȝ.w* can control both dew and solar radiance takes on a deeper significance. By harnessing these cosmic forces, the deceased may be able to navigate the challenges of the afterlife journey and ensure their safe passage through the celestial realms. The ability to regulate dew and solar radiance could be seen as a form of power over the natural world, a necessary skill for successfully traversing the cosmic waters and reaching the realm of the gods.

Moreover, the association of dew with the sun's radiance in this passage may also hint at a deeper understanding of the cyclical nature of water in the ancient Egyptian worldview. The sun, as a source of heat and energy, plays a crucial role in the evaporation and circulation of moisture in the atmosphere. The formation of dew, which occurs when water vapour condenses on cool surfaces, is a visible manifestation of this cyclical process.

4.1.7.4. Dew and Divine Agency

The next example, drawn from the 18th dynasty text "The Pleasures of Fishing and Fowling clarifies the relationship between *ỉ͗ȝd.t* "dew" and the natural environment. This composition celebrates the pastoral activities of hunting and fishing, is rich in descriptions of the natural world.

The passage in question offers a concise mention of *ỉ͗ȝd.t* in relation to the goddess Neith:

ỉ͗ȝd.t ex. 6 *n ỉ͗ȝd.t N.t*
Because of the dew of Neith.
(P. Moskau o.Nr. C1, x+9)[828]

This fragmentary example, which mentions can be contextualized by drawing parallels with the more detailed descriptions found in the following example. In present example, the phrase *n ỉ͗ȝd.t N.t* "Because of the dew of Neith" offers a brief but significant insight into how dew was metaphorically linked to divine influence, particularly that of the goddess Neith. The preposition *n* introduces the cause or reason for an event, suggesting that dew was seen as a manifestation of Neith's power over the natural world. Although this example is concise, it reflects a broader theme in Egyptian texts where natural phenomena like dew were intertwined with divine agency.

[828] Ricardo A. Caminos, *Literary Fragments in the Hieratic Script* (Oxford: Oxford University Press for Griffith Institute, 1956), pl. 4, 8.

This brief mention fits within a larger narrative where dew is not just a physical occurrence but also a symbol of divine presence and influence in maintaining the balance of nature. The preposition *n* not only presents the cause for an event, but it also shows that *ỉʒd.t* is directly associated with the goddess Neith. The use of the preposition *n* in this context suggests that the dew of Neith is the driving force behind a particular phenomenon or occurrence in the natural world. This attribution of hydrometeors to a divine figure reinforces the fundamental connection between the celestial realm and the terrestrial environment in ancient Egyptian thought.

Neith, a prominent goddess in the Egyptian pantheon, is often depicted as a deity associated with the primordial waters and the origins of life[829]. Her role as a creatrix is well-attested in earlier religious texts, where she is portrayed as a nurturing figure[830], the text suggests that her creative and generative power extends beyond the metaphysical realm and directly influences the natural world. The mention of her dew or mist in the "Pleasures of Fishing and Fowling" text could be interpreted as a manifestation of her benevolent influence on the environment, providing moisture and sustenance to the plants and animals that the pharaoh encounters during his outdoor pursuits.

Moreover, the presence of this reference to *ỉʒd.t* within a text that celebrates the natural environment and the pharaoh's mastery over it is highly significant. The "Pleasures of Fishing and Fowling" composition belongs to a genre of Egyptian literature that extols the beauty and abundance of the natural world, often in the context of royal hunting and fishing expeditions. These texts serve to reinforce the pharaoh's role as a guardian and steward of the land, whose actions are intimately tied to the well-being of the environment and its inhabitants.

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[829] Svetlana Ruzanova, 'Neith of Sais as Water Goddess', in *Acqua Nell'antico Egitto: Vita, Rigenerazione, Incantesimo, Medicamento. Proceedings of the First International Conference for Young Egyptologists: Italy, Chianciano Terme, October 15-18, 2003. - (Egitto Antico; 3)*, ed. Alessia Amenta, Maria Michela Luiselli, and Maria Novella Sordi (Roma: 'L'Erma' di Bretschneider, 2005), 371–74.

[830] Ramadan el-Sayed, *Documents Relatifs à Sàïs et Ses Divinités*, Bibliothèque d'étude 69 (Le Caire: Institut français d'Archéologie orientale, 1975), 51–65.

The following passage the Stele of Daphne[831], already briefly explored, describes the unusual occurrence of rain falling on the mountains of Punt. This stele dated to the 26th dynasty (ca. 664-525 BCE), records a military expedition to the region of Punt, which was possibly located along the Red Sea coast of modern-day Sudan and Eritrea, as well as the area across the sea of South Arabia[832]. The text describes the challenges faced by the army during their campaign, including the surprising event of rainfall in an area known for its dry climate.

The passage of interest reads

(...)bȝw.k, nswt nḫ.t ỉtj mrj nṯr.w nb(.w) bỉȝ.t ʿȝ.t ḫpr[.tj] m rk ḥm.f

[nn] mȝȝ nn, nn sḏm nn, ḥw.t p.t r ḏw n(.j) Pwntʿnd pw ḥw.t m spȝ.wt rsw

[…] ỉgr ȝbd pn ḥwỉ.s ỉm.f, nn tr.s ỉs pw m nỉw.wt Tȝ-Mḥw

[…] n mw.t.k N.t N.t ỉn.t{.s} n.k ḥʿpj r sʿnḫ mšʿ.k

(...)Your power, mighty king, sovereign beloved of all the gods, for a great wonder has taken place in the days of your majesty.

[Never] had such a thing been seen or heard of: rain from heaven had fallen on the mountain of Punt, whereas rain is rare in the southern regions.

[...] But this month, when it rained in it, it was not its season (for rain) in the northern cities.

[...] to your mother, Neith of the province of Saïs, who brought you the flood in order to keep your troop alive'.

Stele of Dafenneh, x + 12-15

The most significant aspect of this passage is the explicit attribution of the rainfall to the intervention of the goddess Neith, who is connected with atmospheric phenomenon of dew as we

[831] F. Ll. Griffith, A. S. Murray, and W. M. Flinders Petrie, *Tanis. Part II. Nebesheh and Defenneh*, 2 vols, Memoir of the Egypt Exploration Fund 4 (London: Trübner, 1885), pl. XLII; Georges Posener, 'L'or de Pount', in *Ägypten Und Kusch: Fritz Hintze Zum 60. Geburtstag*, ed. Erika Endesfelder et al., Schriften Zur Geschichte and Kultur Des Alten Orients 13 (Berlin: Akademie Verlag, 1977), 162–63; Dimitri Meeks, 'Locating Punt', in *Mysterious Lands*, ed. David O'Connor and Stephen Quirke, Encounters with Ancient Egypt (London: UCL Press, 2003), 70–71; Raphaël Cavasin, 'Tell Defenneh et La Route de l'encens', *Égypte Nilotique et Méditerranéenne* 12 (2019): 8–9.

[832] Dimitri Meeks, 'A-t-on Enfin Trouvé Le Pays de Pount?', *Orientalistische Literaturzeitung* 113, no. 4/5 (2018): 283–92.

have seen. Here, she is described as the king's divine mother and patroness of the temple of Sais. The text states that Neith "brought Hapy (the Nile)" to the king so that his army could survive, implying that the goddess's actions were responsible for the unusual occurrence of rain in Punt and its life-sustaining effects on the military expedition.

From a syntactic perspective, the passage consists of several clauses, each contributing to the overall narrative and emphasizing the extraordinary nature of the event. The first clause, *bỉȝ.t ꜥȝ.t ḫpr[.tj] m rk ḥm.f* "a great wonder has taken place in the days of your majesty", introduces the main event of the passage, emphasizing its extraordinary character. The second clause, *[nn] mȝȝ nn, nn sḏm nn*, is a negated verbal sentence with a parallel structure, reinforcing the idea that the event was unprecedented.

The third and fourth clause, *ḥw.t p.t r ḏw n(.j) Pwnt ꜥnd pw ḥw.t m spȝ.wt rsw*, consist of an adverbial sentence followed by a nominal sentence, both describing the specific event: the falling of rain from heaven on the mountain of Punt. The adverbial sentence, *ḥw.t p.t r ḏw n(.j) Pwnt*, employs a direct genitive construction, with the noun *ḥw.t* "rain" followed by the noun *p.t* "heaven". This construction emphasizes the celestial origin of the precipitation, a concept that has been previously discussed in the analysis of other passages.

The use of the direct genitive construction *ḥw.t p.t* "rain of heaven" is particularly significant, as it seems to establish a link between the meteorological phenomenon of rain and its celestial source. Directly juxtaposing the two nouns without any intervening prepositions or particles, the text presents the rain as an inherent and inseparable aspect of the heavenly realm.

The nominal sentence *ꜥnd pw ḥw.t m spȝ.wt rsw* "rain is rare in the southern regions" follows the adverbial sentence, providing additional information about the typical climatic conditions of the area and underscoring the extraordinary nature of the event. The use of the noun *ꜥnd* "rarity, scarcity" as the predicate of the nominal sentence, with the subject *ḥw.t* "rain" and the adverbial phrase *m spȝ.wt rsw* "in the southern regions", serves to contrast the unusual occurrence of rainfall in Punt with the normally arid conditions of the surrounding regions.

The fourth clause, […] *ỉgr ȝbd pn ḥwỉ.s ỉm.f, nn tr.s ỉs pw m nỉw.wt Tȝ-Mḥw*, is introduced by the particle *ỉgr* "but", indicating a contrast with the previous statement. The clause emphasizes the timing of the rainfall, specifying that it occurred in a month when it was not the season for rain in the northern regions. The use of the verb *ḥwỉ* "to rain" and the noun *tr* "season" highlights the unusual timing of the precipitation.

The final clause, […] *n mw.t.k N.t N.t ỉn.t{.s} n.k ḥꜥpj r sꜥnḫ mšꜥ.k*, directly attributes the rainfall to the intervention of the goddess Neith, who is described as the king's mother and the one who brought the flood (Hapy) to keep the king's troop alive. The use of the verb *ỉnỉ* "to bring" and the noun

ḥʿpy "flood" emphasizes Neith's role in providing the life-sustaining water, while the infinitive *sʿnḫ* "to keep alive" underscores the crucial importance of the rainfall for the survival of the military expedition.

From a lexical perspective, the passage employs a range of terms related to rainfall, celestial phenomena, and divine intervention. The noun *ḥw.t a*nd verb *ḥwỉ*, both meaning "rain" and "to rain", are used in sequence, signifying a consistent elaboration of the phenomenon. The noun *p.t* "heaven" is used to indicate the celestial origin of the precipitation, while *ḏw* "mountain" and *spȝ.wt* "regions" provide geographical context. The term *ʿnd* "rarity" emphasizes the unusual nature of the event, while *tr* "season" highlights its timing.

The passage also employs a distinctive vocabulary related to the divine and royal spheres. The king is described using epithets such as *nswt nḫ.t* "mighty king", *ỉtj* "sovereign", and *mrj nṯr.w nb(.w)* "beloved of all the gods", emphasizing his power and divine favour. The goddess Neith is referred to as *mw.t.k N.t N.t* "your mother, Neith of the province of Saïs", underscoring her role as a divine protector and benefactor of the king. The term *bỉȝ.t* "wonder", describing a "great prodigy" is a *topos* previously discussed on page 213, and it is used to describe the extraordinary nature of the event[833], while *ḥʿpj* "flood" and *sʿnḫ* "to keep alive" highlight the life-sustaining importance of the rainfall.

This association between Neith and the provision of water through rainfall is particularly noteworthy, as it demonstrates the extension of the goddess's sphere of influence beyond her traditional roles as a creator deity and protector of the king. Moreover, the attribution of this miraculous event to the reign of the Saite king, possibly Ahmose[834], might serve to legitimize his rule and reinforce his divine mandate. The text portrays the king as a beloved of the gods, particularly Neith, whose favour and protection are made manifest through the extraordinary occurrence of rainfall in Punt. This divine sanction would have been especially significant in the context of the Saite period, which saw a resurgence of Egyptian power and influence after centuries of foreign domination.

The ideology of the Saite era, which emphasized the restoration of traditional Egyptian values and the reassertion of the pharaoh's divine authority[835], is reflected in the language and symbolism of the Stele of Daphne. The attribution of the rainfall to Neith's intervention on behalf of the king serves to reinforce the idea of the pharaoh as a chosen and favoured ruler, whose actions are guided and

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[833] Regarding the literary motif of "the prodigy as a rupture of the norm", refer to Vernus, *Essai Sur La Conscience de l'histoire Dans l'Égypte Pharaonique*, 137–39.

[834] Cavasin, 'Tell Defenneh et La Route de l'encens', 9.

[835] Alan B. Lloyd, 'The Late Period (664-332 BC)', in *The Oxford History of Ancient Egypt*, ed. Ian Shaw (Oxford: Oxford University Press, 2000), 369–70.

supported by the gods. The text's emphasis on the unprecedented nature of the event further underscores the special status of the Saite king and the divine sanction of his military campaigns.

While the two passages from the "Pleasures of Fishing and Fowling" and the Stele of Daphne come from different time periods and serve distinct purposes, they both reveal important aspects of the ancient Egyptian understanding of the relationship between divine forces and natural phenomena, particularly in the context of royal ideology and the legitimization of pharaonic power.

In the "Pleasures of Fishing and Fowling" text, the brief mention of the "dew of Neith" (*i͗ʒd.t N.t*) serves to associate the goddess with the natural environment and the provision of moisture, thereby emphasizing her nurturing and life-sustaining qualities. This passage, set within a composition celebrating the pharaoh's prowess in outdoor pursuits, subtly reinforces the idea of the king as a custodian of the land, whose actions are intimately tied to the well-being of the environment and its inhabitants. Similarly, the Stele of Daphne, while focusing on a military expedition to the distant land of Punt, employs the motif of divine intervention in the form of rainfall to underscore the special status of the Saite king and the divine sanction of his actions.

In both cases, the association of natural phenomena (dew and rain) with specific deities (Neith) and their intervention in human affairs might serve to legitimize and reinforce the power and authority of the pharaoh. Whether in the context of peaceful outdoor pursuits or military campaigns in foreign lands, the texts present the king as a figure intimately connected to the divine realm and the natural world, whose actions are guided and supported by the gods.

The next example, from the previously explored 19th dynasty papyrus Leiden I 343 + I 345, presents a fragmented passage that displays the conceptualization of *ỉʒd.t* "dew" within the context of divine familial relationships and celestial associations. Despite the *lacunae* in the text, the surviving portions provide a vivid personification of dew as a sibling of a goddess, likely alluding to one of the daughters of the Near Eastern deity Baal[836].

ỉʒd.t ex. 7 *[___]-Ḥr.w tʒ šrỉ.t […] nḥḥ*
[t]ʒ [š]rỉ.t n(.j.t) tʒ p.t n.tj qʒỉ.tỉ r-ḥr.ỉ
tʒ sn.t ʿn(.ỉt)ˀtʒ ỉʒd.t ḥnʿ
[… …] [Goddess?]-Horus, the daughter […] of eternity,
the daughter of heaven who is high above,
the sister of the dew, and [… … …].
(P. Leiden I 343 + I 345 = AMS 28 + CI 11b rt. 13, x+2)[837]
ỉ

The passage consists of three main clauses, each concerning a goddess and her relationship to the dew. The first clause introduces the goddess as a daughter figure, possibly associated with Horus, and connects her to the concept of eternity (*nḥḥ*), probably *Ḥw.t-Ḥr*, Hathor. The second clause further elaborates on the goddess's celestial associations, describing her as "the daughter of heaven who is high above". This description reinforces the idea of a direct connection between the divine realm and the heavenly domain, with the goddess serving as a personified link between the two.

The third clause is of particular interest for our analysis, as it directly associates the goddess with the dew (*ỉʒd.t*) through a sibling relationship. The noun phrase *tʒ sn.t* "the sister" is followed by the genitival adjective *n(.j.t)* "of" and the definite article *tʒ* preceding the noun *ỉʒd.t* "dew", creating a direct genitive construction that presents the dew as the sister of the goddess. This personification of

[836] Beck, *Exorcism, Illness and Demons in an Ancient Near Eastern Context: The Egyptian Magical Papyrus Leiden I 343 + 345*, 72–73; Hans-W. Fischer-Elfert, 'Sāmānu on the Nile: The Transfer of a Near Eastern Demon and Magico-Medical Concept into New Kingdom Egypt', in *Ramesside Studies in Honour of K. A. Kitchen*, ed. Mark Collier and Steven Snape (Bolton: Rutherford, 2011), 197.

[837] Beck, *Exorcism, Illness and Demons in an Ancient Near Eastern Context: The Egyptian Magical Papyrus Leiden I 343 + 345*, 70–73.

dew as a divine sibling is a powerful metaphorical device that could underscore the intimate relationship between the natural world and the celestial realm.

The portrayal of dew as a sibling to a goddess is particularly significant in light of the potential allusion to one of the daughters of the Near Eastern deity Baal[838]. Baal's daughters – Ṭallay, Pidray, and Arṣay – are associated with different forms of dew in Near Eastern mythology. This connection implies a possible cultural and mythological exchange between Egypt and the Near East, with the Egyptian concept of *ỉʒd.t* being influenced by or associated with the daughters of Baal.

This part of the papyrus that follows this passage is highly fragmentary, with each column containing only one to three lines from the lower part of the manuscript. The fragmented nature of these lines makes it extremely difficult to determine their precise meaning and context. Given the overall nature of the papyrus, which contains magical and exorcistic texts, it is possible that these fragmentary lines could be directed against the demon Sāmānu, also known as Akhu[839].

The collocation of the passage on *ỉʒd.t* and its celestial associations with the potential reference to the demon Sāmānu in the fragmentary lines also underscores the multifaceted nature of Egyptian iatromagical texts, which often combine elements of cosmology, mythology, and demonology in complex and interrelated ways. Intriguingly, this could be explained by the association of medical virtues with rain and dew. As previously discussed on page 197, the ancient Egyptians attributed healing properties to celestial moisture, which might justify the presence of a demon associated with illness in a magical-medical context that also mentions dew. We will explore these medicinal properties of dew in more detail in the forthcoming sections.

[838] Fischer-Elfert, 'Sāmānu on the Nile: The Transfer of a Near Eastern Demon and Magico-Medical Concept into New Kingdom Egypt', 197; Beck, *Exorcism, Illness and Demons in an Ancient Near Eastern Context: The Egyptian Magical Papyrus Leiden I 343 + 345*, 72–73.

[839] Beck, *Exorcism, Illness and Demons in an Ancient Near Eastern Context: The Egyptian Magical Papyrus Leiden I 343 + 345*, 69.

Dew as divine scent

The passage from the closing inscription of the Punt reliefs at Hatshepsut's temple in Deir el-Bahari offers another example of the association between dew and divine presence in a ritual context.

It reads

ỉʒd.t ex. 8 *ḫnm.w.s m ỉ(ʒ)d.t nṯr*

her scent is the dew (= pleasant scent) of god.

Inscriptions from the Deir el Bahari Temple of Hatshepsut, closing inscription of the (Punt reliefs, 39,2; Urk. IV, Urk. IV, 339, 15)

Syntactically, the text employs an adverbial sentence with a nominal subject, where the queen's scent (*ḫnm.w.s*) is equated with the "dew of god" (*ỉʒd.t nṯr*) using the preposition *m*. This construction establishes a direct metaphorical link between Hatshepsut's bodily fragrance and the divine essence, suggesting that her scent is not merely pleasant but also imbued with divine qualities.

The choice of the term *ḫnm.w*[840], meaning "scent" or "fragrance", is significant, as it highlights the olfactory dimension of the queen's presence and its association with divine aroma. The juxtaposition of *ḫnm.w* with *ỉʒd.t nṯr* creates a powerful sensory metaphor, where the intangible and ephemeral nature of scent is likened to the elusive yet pervasive quality of dew.

Furthermore, the genitive construction *ỉʒd.t nṯr*, "dew of god", emphasizes the divine origin and ownership of the dew, implying that Hatshepsut's fragrance is a direct emanation of divine presence. This metaphorical use of dew aligns with conceptual mapping of the DIVINE ESSENCE AS DEW, which will be analysed in the last section, where the properties of dew, such as its moistening and all-pervading nature, are mapped onto the abstract notion of divine presence and influence. The association of dew with the olfactory dimension of ritual experience further highlights its role as a symbol of divine manifestation and its connection to the use of aromatic substances in sacred contexts.

The extended description of Hatshepsut's bodily adornments and her association with the land of Punt reinforces the idea of her physical presence as a manifestation of the divine essence. The imagery of her skin sparkling like stars evokes the conceptual mapping of LIGHT AS DEW, linking the luminous qualities of celestial bodies to the glistening appearance of dew.

Thus, this excerpt demonstrates how the metaphorical use of dew in ritual and divine contexts serves to express the ineffable nature of divine presence and its manifestation through sensory

[840] *Wb* 3, 293.2-6. TLA ID 118230.

experiences, such as the scent and light. This example further supports the argument that the ancient Egyptians consistently associated dew with celestial and divine phenomena, perceiving it as a tangible expression of divine influence and power in the natural world.

Additionally, the placement of *ỉʒd.t* within cosmic journeys and deities implies that dew was not merely seen as a physical phenomenon but also as a manifestation of divine presence and influence. The attribution of dew to specific gods and goddesses, such as Shu, Neith, and other foreign divinities, further reinforces this connection between the celestial and the earthly domains.

4.1.8. Natural Phenomena

4.1.8.1. Collocation of *ỉʒd.t* with the Verb *hʒỉ* (to descend)

In this section, we will investigate the collocation of *ỉʒd.t* with the verb *hʒỉ*, meaning "to descend". While this collocation might initially suggest an interpretation of *ỉʒd.t* as "rain", a closer examination of the linguistic and cultural context reveals a more nuanced understanding of the term. As observed in several languages and dialects[841], dew is often conceived as a descending phenomenon rather than a process of condensation formation.

The collocation of verbs meaning "to descend" or "to fall" with nouns denoting "dew" is attested in various languages and language families[842]. The widespread occurrence of this collocation

[841] Dong, Huang, and Ren, 'Towards a New Typology of Meteorological Events: A Study Based on Synchronic and Diachronic Data', sec. 5.; Sicong Dong et al., 'Directionality of Atmospheric Water in Chinese: A Lexical Semantic Study Based on Linguistic Ontology', *Sage Open* 11, no. 1 (1 January 2021): 2158244020988293, https://doi.org/10.1177/2158244020988293.

[842] For instance, in Indo-European languages, such as English "the dew falls", where the verb "to fall" is used in conjunction with the noun "dew". In German, the phrase "der Tau fällt" (literally, "the dew falls") is commonly used to describe the formation of dew, see '"TAU" | Collins German-English Dictionary', 12 April 2024, https://www.collinsdictionary.com/dictionary/german-english/tau. Similarly, in Slavic languages like Russian, the expression "роса падает" (rosa padayet) employs the verb "падать" (padat'), meaning "to fall", alongside the noun "роса" (rosa), denoting "dew", see 'POCA', Ushakov's Explanatory Dictionary Online, accessed 7 November 2024, https://ushakovdictionary.ru/word.php?wordid=66811.

across diverse languages suggests a common cognitive association between the downward movement of moisture and the formation of dew, providing evidence that dew is conceptualized as a substance that falls or descends.

The prevalence of this collocation across various language families points to a shared cognitive perception of dew as a substance that appears to "fall" or "descend" onto surfaces. This association likely stems from the observation of dew droplets forming on plants, ground, and other objects during the night, creating the impression that the dew has fallen from above[843]. These linguistic parallels might suggest a widespread cognitive association between dew and downward movement, which can inform our understanding of the ancient Egyptian perception of *ỉʒd.t*.

4.1.8.2. Dew as a Manifestation of Divine Presence

The following passage from the 13th dynasty Stele of Sobekhotep and Sobekiry presents the interaction between divine presence and natural phenomena: the god Min, praised for his fragrance, a clear connection with *ỉd.t* and this epithet, we previously discussed on page 324, is here associated with the descent of *ỉʒd.t* as he moves from Medja-Nubia to Egypt. This connection suggests that dew was perceived as a hydrometeor and once again also as a manifestation of divine power and blessing. In religious contexts, particularly in hymns to deities like Min and Horus, dew symbolizes divine emanation or celestial moisture descending from the sky[844]. The association between *hʒỉ* "to descend"

Moreover, this collocation extends beyond the Indo-European language family. In Semitic languages, such as Akkadian, Hebrew and Arabic, parallel constructions can be observed. in Akkadian, the term *nalšu* ("dew") is often used with verbs meaning "to fall" or "to make fall", and there is also the verb *nalāšu*, which means "to fall like dew, see Robert D. Biggs, *The Assyrian Dictionary : Of the Oriental Institute of the University of Chicago Vol. 11, N* (Oriental institute, 1980), 199,202-203.

The Hebrew phrase "הטל יורד" (hatal yored) utilizes the verb "לרדת" (laredet), signifying "to descend" or "to come down", in combination with the noun טל (tal), meaning "dew", see see 'Strong's Hebrew: 2919. טָל (Tal) -- Night Mist, Dew', accessed 7 November 2024, https://biblehub.com/hebrew/2919.htm.

[843] Yanli Zhuang et al., 'Dew Formation Characteristics in the Gravel Desert Ecosystem and Its Ecological Roles on Reaumuria Soongorica', *Journal of Hydrology* 603 (2021): 425–26, https://doi.org/10.1016/j.jhydrol.2021.126932.

[844] Two divergent analyses of the hieroglyphic signs representing the Egyptian deity Min and their relationship to meteorological manifestations can be found in Jean-Guillaume Olette-Pelletier, 'Une Force Divine Fulgurante: Sur Le Sens et La Lecture Du Signe Théonyme Min (R22) / (R23)', *Égypte Nilotique et Méditerranéenne* 15 (2022): 35–49; Livia Bergerot et al., 'L'image et l'emblème de Min: De La Recherche de La Foudre à La Découverte de La Lumière', *Égypte, Afrique & Orient* 105 (2022): 35–58.

and *i͗ȝd.t* thus reflects the notion of dew as a life-giving force bestowed by divine entities, further distinguishing it from rain.

i͗ȝd.t ex. 9 *wr i͗(ȝ)d.t hȝi͗.f ⟨m⟩ Mḏȝ šfšf.tj m Tȝ-stj Wtn.tj i͗ȝ ⟨.w⟩ ḥs.wt*

(Min) Great in fragrance, when he descends ⟨from⟩ Medja-Nubia (to Egypt), worthy one in Taseti-Nubia, belonging to Utenet, praise and glory

(Stele of Sobekhotep and Sobekiry (Louvre C 30), A.9-11) [845]

The lexeme *i͗ȝd.t* in this passage from the Hymn to Min and Horus is employed within a religious context, specifically in a hymn extolling the virtues of these divine figures. The term *i͗(ȝ)d.t* appears here in its first collocation with the verb *hȝi͗* "to descend", suggesting a conceptual link between the descent of dew and the manifestation of divine presence or blessing. As we have seen, cross-linguistically, verbs meaning 'to descend' are often used to describe dew falling, further supporting that *hȝi͗* in this context refers to dew rather than rain.

The association of dew with Horus-Min in this hymn points to a broader pattern of connecting this natural phenomenon with divine entities, particularly those linked to fertility and regeneration. As we discussed previously on page 213, Min, as a god of fertility[846] and vegetation, embodies these concepts, and his association with dew in this passage reinforces the idea of dew as a symbol of divine presence and blessing.

The syntactic structure of the mentioned phrase *wr i͗(ȝ)d.t* merits closer examination, as it provides insight into the ancient Egyptian perception of the qualities associated with *i͗ȝd.t.* The adjective *wr*, meaning "great", is used to modify and describe the nature of the *i͗ȝd.t*. This adjectival

[845] Kurt Sethe, *Aegyptische Lesestücke Zum Gebrauch Im Akademischen Unterricht: Texte Des Mittleren Reiches* (J. C. Hinrichs, 1924), 65.

[846] The metaphorical association between dew and divine fertility is exemplified in the passage, which we will analyse soon:

i͗ȝd.t.k ḫt ʿwt.i͗ nb.t "Your dew is through every one of my limbs" (Urk. IV, 221,4).

This passage illustrates the Egyptian conceptualization of dew as a divine essence that permeates the physical form, paralleling broader theological motifs that connect dew with divine generative powers. This association is particularly evident in the theological foundation linking dew to fertility deities such as Horus-Min and Neith, where dew serves as a metaphor for divine procreative fluids and regenerative forces. The text demonstrates how Egyptian religious thought integrated natural phenomena into its theological discourse, employing dew as a potent symbol of divine vitality and regeneration.

construction suggests that *ỉʒd.t* was regarded as a desirable or positive attribute, one that was deemed worthy of being ascribed to the divine entity being venerated in the hymn.

The presence of the virtual adverbial clause *hʒỉ.f 〈m〉 Mḏʒ* introduces a spatial and temporal dimension to the divine figure's actions. The verb *hʒỉ*, is employed in conjunction with the preposition *m*, to indicate the deity's movement from the region of Medja-Nubia to Egypt. This passage establishes a noteworthy connection between the divine figure's descent and the manifestation of *ỉʒd.t*. It is plausible that this association alludes to the ancient Egyptian belief that the deity's presence or actions were responsible for bringing forth or embodying the invigorating and refreshing qualities attributed to *ỉʒd.t*.

This movement is not merely geographical but also metaphorically significant, as Nubia is literally situated higher than Egypt, given that the Nile flows from south to north. This creates a natural logic in the use of *hʒỉ*, reinforcing a parallel between the Nile's flow and the descent of divine forces.

This descent is further linked to the manifestation of *ỉʒd.t* , suggesting an ancient Egyptian belief that divine actions were responsible for bringing forth or embodying qualities associated with fertility and renewal. The connection between *ỉʒd.t* and fertility mirror the life-giving properties of the Nile, which nourishes Egypt through its annual inundation. Furthermore, this association can be extended to a broader symbolic network involving Min, perfume (*ỉd.t*), dew (*ỉʒd.t*), and fertility, where each element represents aspects of renewal, moisture, and life.

The verb *hʒỉ,* therefore, not only describes physical movement but also captures a theological concept of divine descent bringing forth fertility, much like how dew nourishes plants or how perfume spreads its essence. The choice to translate *ỉʒd.t* as "dew" in this context could be supported by the predominant theme of the passage, which emphasizes the revitalizing and beneficial aspects of the divine figure's presence

Dew and Avian Flight

The connection between divine descent and the manifestation of dew, as seen in this excerpt, is further reinforced by the attestation of *ỉʒd.t* from the Book of the Dead, formerly discussed on page 252. It reads

ỉʒd.t ex. 10 *ỉṯṯ.ỉ ỉm bỉk pwj ḥr smʒ.w ỉʒd.t Ḥr.w*
I fly as that falcon over the crown and the dew of Horus.
(P. London BM EA 10477: P. Nu, BD 098, 3)[847]

In this passage, the deceased is described as flying like a falcon over the "dew of Horus" (*ỉʒd.t Ḥr.w*). This juxtaposition of avian flight with the divine dew of Horus parallels the descent of Min from Nubia, where the god's movement is associated with the appearance of dew.

In both examples, the motion of divine figures—Min descending from Nubia and the deceased flying as a falcon—is linked to the presence of dew. This recurring motif suggests that dew was conceived as a manifestation of divine power and benevolence, often associated with the movement of gods through the celestial and terrestrial realms.

Furthermore, the connection between avian flight and dew, as previously discussed on page 252, underscores the symbolic significance of dew as an atmospheric phenomenon linked to divine presence. The use of the verb *ỉṯṯ* "to fly, to flutter" in conjunction with *ỉʒd.t Ḥr.w* "the dew of Horus" evokes the idea of a light, spreading motion, reminiscent of the dispersion of dew or mist, further emphasizing the association between divine emanation and atmospheric moisture.

4.1.8.3. *ỉʒd.t* as an umbrella term for various manifestations of evening moisture

The notion of dew, with its connotations of freshness and moisture, aligns well with the idea of the deity descending from Nubia, a region associated with the life-giving waters of the Nile. However, it is important to acknowledge that the term *ỉʒd.t* might have encompassed a broader semantic range, potentially including both dew and light rain, or even mist as the distinction between these forms of moisture may not have been as sharply delineated in ancient Egyptian thought as it is

[847] Davies et al., *The Papyrus of Nu (BM EA 10477)*, ch. 098; Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, 217.

in current understanding. The semantic complexity of *ỉʒd.t* warrants careful consideration in light of historical atmospheric observations:

"At sunset the wind falls, the air becomes cooler, and of the vapour suspended it in the atmosphere during the day is deposited in abundant supply of dew. As the evening advances a thin mist darkens to rising, and spreads over the water grounds and in the morning, when the sun is a team to certain elevation and gradually ascends in the form of flaky clouds"[848].

M. Russell's documentation of Egypt's atmospheric phenomena in provides particularly interesting understandings into the nature of nocturnal condensation patterns. His detailed description of the evening moisture manifestations - characterized as a "copious thin mist" - aligns remarkably well with both modern meteorological understanding and potentially with the ancient Egyptian conception.

This correlation might suggest that the ancient Egyptian term *ỉʒd.t* likely operated within a more nuanced semantic field than simple categorization would allow, encompassing various forms of atmospheric moisture that materialize during the transition from day to night. The temporal precision of Russell's observations, though made in the 19th century, reflects environmental conditions that would have been largely consistent with those of antiquity, given the relative stability of Egypt's climatic patterns[849]. This historical documentation could be a reference point to understand how the ancient Egyptians might have perceived and categorized these closely related meteorological

[848] Michael Russel, *History of Ancient and Modern Egypt. With an Outline of Its Natural History* (Thomas Nelson, 1849), 43.

[849] The paleoclimatic data indicates that contemporary Egyptian meteorological conditions have remained relatively consistent with those prevalent during the Pharaonic period, specifically from the Old Kingdom onwards (ca. 2686-2181 BCE). However, the pre-Old Kingdom epoch exhibited markedly different conditions, characterized by significantly higher precipitation levels. Current meteorological records demonstrate the region's pronounced aridity, with Cairo experiencing a mere six days of annual precipitation, while Aswan, situated in Upper Egypt, records an even more minimal average of one precipitation event per annum. This climatic continuity over approximately four and a half millennia provides valuable context for understanding ancient Egyptian agricultural practices and societal development.

Concerning this specific topic, refer to Bell, 'Climate and the History of Egypt: The Middle Kingdom'; Zibelius-Chen, *Die Ägyptische Expansion Nach Nubien: Eine Darlegung Der Grundfaktoren.*, 2; Endruweit, *Städtischer Wohnbau in Ägypten*, 165; Ibrahim and Ibrahim, *Ägypten: Eine Geographische Landeskunde*, 36; Köpp-Junk, 'Wasserspeier in Tuna El-Gebel: Dachentwässerungstechniken an ‚Tempelgräbern' Ptolemäisch-Römischer Zeit', 422.

phenomena, supporting the hypothesis that *ỉ3d.t* functioned as a possible umbrella term for various manifestations of evening moisture.

We now go back to another passage presenting the verb *hȝỉ* in collocation with *ỉ3d.t.* The next fragmentary passage, sourced from the literary text "The Pleasures of Fishing and Fowling"[850], showcases the uncommon use of the verb *hȝỉ* in a transitive sense, with *ỉ3d.t* as its subject, might imply that dew was conceptualized as an entity capable of actively engaging with the world. This depiction of a natural environment, where dew is inserted, might reflect the ancient Egyptian tendency to imbue natural elements with agency and purpose, blurring the lines between the physical and abstract domains.

ỉ3d.t ex. 11 *[h]ȝỉ.t sw k.t ỉ3d.t*

Until/before (?) another dew descends on him?.

P. Moskau o.Nr. The Pleasures of Fishing and Fowling, C1, x+8

This passage presents a challenge for syntactic analysis due to its fragmentary nature, nevertheless, the presence of the lexeme *ỉ3d.t* once again in close proximity to the verb *hȝỉ.* The collocation of *hȝỉ* with the dependent pronoun *sw* in this context suggests a potential shift in the verb's transitivity, which may shed light on the semantic and cognitive associations between the concept of dew and the action of descending or touching.

In most instances[851], the verb *hȝỉ* is used intransitively to convey the idea of descending or moving downward. However, this passage, with *sw* serving as the direct object, suggests a newer interpretation of the verb's meaning, possibly implying a sense of "touching"[852] rather than simply descending.

The phrase *k.t ỉ3d.t*, translated as "another dew", introduces the notion that *ỉ3d*.t is not a singular or isolated occurrence but rather a phenomenon that can be experienced repeatedly. This choice may reflect the ancient Egyptians' empirical observations of the recurrent nature of dew formation in the natural world.

The transitive use, of *hȝỉ* in this context also raises questions about the conceptual link between the action of touching, or affecting and the manifestation of *ỉ3d.t*. While the fragmentary

[850] Ricardo A. Caminos, *Literary Fragments in the Hieratic Script* (Oxford: Oxford University Press for Griffith Institute, 1956), pl. 4,9.

[851] We employed 'TLA' , where only two occurrences showcase a transitive use.

[852] Meeks, *AL II*, under 78.2464.

nature of the passage precludes a definitive interpretation, it is worth considering the possibility that the ancient Egyptians perceived dew or mist as an entity capable of actively engaging with or affecting an individual. This personification of *ỉꜣd.t* could reflect a metaphorical understanding of the phenomenon, one that ascribes agency and power to the natural occurrence of moisture formation.

Alternatively, the association of *ỉꜣd.t* with the transitive use of *hꜣỉ* might allude to the ancient Egyptian belief in the divine or supernatural origins of dew. If the "touching" or "chasing" of *ỉꜣd.t* was believed to be initiated by a divine figure or force, the passage could be interpreted as a reference to the direct intervention of a higher power in the natural world. This interpretation would align with the broader ancient Egyptian worldview, which often attributed natural phenomena to the actions and influence of deities, as we discussed in the previous section.

The positioning of this passage within the text is particularly noteworthy, as it appears just before a mention of dew in connection with the goddess Neith. This proximity could suggest a potential thematic link between the two references, possibly reinforcing the concept of dew as a divine manifestation. Such an interpretation would be consistent with the ancient Egyptian tendency to view celestial and meteorological phenomena as expressions of divine will or presence. The verb *hꜣỉ*, with its connotations of descent or coming down, could imply that dew was perceived as originating from the heavenly realm and descending to the earthly sphere through divine agency.

4.1.8.4. Dew as a Source of Moisture in Arid Regions

In this excerpt from the "Great Nile Hymn", a composition previously analysed, which extols the virtues and beneficence of the Nile god Hapy, the life-sustaining properties of dew are celebrated in the context of the Nile god Hapy's benevolence. The passage emphasizes the vital role of dew as a source of moisture for the arid regions beyond the reach of the Nile's floodwaters, highlighting the awareness of environment and its natural cycles. It reads

ỉꜣd.t ex. 12 *ssꜣꜣ{.w} ḫꜣs.t r wꜣ.w r mw*
ỉꜣd.t.f pw hꜣj.t m p.t
He who satisfies the mountainous land that is far from the (flood)water:
his dew is what comes down from heaven.
(The Great Nile Hymn I,7-8)[853]

[853] Plas, *L'hymne à La Crue Du Nil*, vol. I 70-71; II 14-15.

From a syntactic perspective, the A pw B construction is once again utilized, with the subject *ỉꜣd.t.f*, meaning "his dew", being equated with the predicate *hꜣỉ.jt m p.t*, which can be translated as "what comes down from heaven". The presence of the masculine singular suffix pronoun *.f* in the subject suggests that the dew is associated with a specific entity, most likely the Nile god Hapy, given the context of the hymn.

The passage features the role of dew in providing sustenance and nourishment to the *ḫꜣs.t*, the "mountainous land", which is described as being far from the life-giving waters of the Nile flood. This juxtaposition underscores the crucial importance of dew as a source of moisture for regions[854] that do not directly benefit from the annual inundation. The attribution of this vital function to the dew associated with the Nile god Hapy serves to emphasize the all-encompassing and benevolent nature of the deity, whose influence extends beyond the immediate vicinity of the Nile Valley.

The choice to translate *ỉꜣd.t* as "dew" in this context could be reinforced by the contrast drawn between the dew and the floodwater. The passage implies that while the Nile flood is the primary source of water for the fertile lands along the river, the dew serves as a complementary source of moisture for the more distant and arid regions. This distinction suggests that the term *ỉꜣd.t* was used to refer to a specific form of atmospheric moisture, one that was distinct from the inundation and was associated with the presence and power of the Nile god.

The interpretation of *ỉꜣd.t* as "dew" rather than "rain" could be supported by logical considerations. Dew is a more frequent phenomenon than rain in the arid climate of Egypt and its surroundings, where, as we mentioned earlier on page 374, the average annual rainfall is very low. The formation of dew occurs when atmospheric moisture condenses on surfaces that have cooled

[854] The ecological significance of dew as a vital hydrological input in arid and semi-arid environments has been extensively documented, with research demonstrating its substantial contribution to both diurnal and seasonal moisture regimes. Contemporary studies have quantified dew's critical role in maintaining soil moisture levels and supporting ecosystem function across various xeric landscapes, particularly in regions where conventional precipitation is limited or highly seasonal. This empirical evidence might align with the ancient Egyptian recognition of dew's importance, suggesting a possible fine understanding of environmental hydrology that predates modern scientific observations, see Marlene Tomaszkiewicz et al., 'Dew as a Sustainable Non-Conventional Water Resource: A Critical Review', *Environmental Reviews* 23, no. 4 (2015): 425–42, https://doi.org/10.1139/er-2015-0035; Carlos A. Aguirre-Gutiérrez et al., 'The Importance of Dew in the Water Balance of a Continental Semiarid Grassland', *Journal of Arid Environments* 168 (2019): 26–35, https://doi.org/10.1016/j.jaridenv.2019.05.003; Maria Simas Guerreiro et al., 'Contribution of Non-Rainfall Water Input to Surface Soil Moisture in a Tropical Dry Forest', *Hydrology* 9, no. 6 (2022), https://doi.org/10.3390/hydrology9060102.

down during the night, a process that is more likely to occur in areas with high temperature fluctuations between day and night, such as deserts. In contrast, rainfall requires specific atmospheric conditions, such as the presence of moisture-rich air masses and mechanisms for lifting and cooling the air, which are less common in desert regions.

It is important to consider the possibility that the term *ỉʒd.t* could have encompassed a broader spectrum of moisture-related phenomena, including not only dew but also drizzle or mist. The ancient Egyptian understanding of these atmospheric events may have been more fluid and less differentiated than modern classifications. The use of the term *ỉʒd.t* in this passage could reflect a general conception of moisture emanating from the sky, with the specific form of that moisture being less important than its life-sustaining properties and its association with the divine.

The choice to translate *ỉʒd.t* as "dew", could also be supported by the fact that, as we will observe soon in the next section, dew is mentioned in ancient Egyptian medical texts from at least the Middle Kingdom period. This may suggest that the ancient Egyptians were well aware of the regular occurrence of dew and its potential practical uses. The presence of *ỉʒd.t* in Egyptian medical texts may hint at the possibility that the ancient Egyptians similarly recognized the value of dew as a source of pure, perhaps more accessible water, especially in regions where the Nile's influence was less direct. The attribution of the dew to the Nile god Hapy might also reflect the deeply held belief in the divine origin and control of the natural world. The dew, descending from the sky, is portrayed as an extension of the deity's benevolence, a means by which the god provides for and maintains the balance of the cosmos.

The following inscription from Hatshepsut's Deir el Bahari temple shows the relationship between natural phenomena, divine favour, and royal power in ancient Egyptian cosmology. The invocation of both dew and the Nile flood during Hatshepsut's reign suggests that these moisture-bearing events were seen as complementary manifestations of divine blessing and abundance. The passage underscores the importance of the natural cycles of water and moisture in sustaining the prosperity of the land, while also emphasizing the role of the pharaoh in securing these blessings through their relationship with the gods.

ỉ3d.t ex. 13 *sh3(w) ỉ3d.t ỉm.t p.t m rk.s h3w.s*
ỉm(w) ỉwt n.s ḥꜥpj ꜥ3 wr.t m rk.s
Bring down the dew that is in the sky during her time,
and cause the great flood to abundantly come for her during her time.
(Inscriptions the Deir el Bahari Temple, Northern Middle Colonnade, 2,10;
Urk. IV, 217, 10-11)[855]

The excerpt presents an intriguing pairing of the terms *ỉ3d.t* and *ḥꜥpj ꜥ3*, the latter meaning "great flood". While the parallel structure of the two statements, each featuring a causative verb followed by a reference to a form of moisture, might suggest a relationship between these phenomena, a closer examination of the linguistic and contextual evidence may support the translation of *ỉ3d.t* as "dew" rather than "rain".

From a linguistic standpoint, the hieroglyphic spelling of *ỉ3d.t* clarifies the specific nature of the moisture phenomenon described in the inscriptions. In the text, the term is represented only by the logogram  (N4), precisely with five descending lines, which visually depicts water droplets or moisture descending from the sky. This logogram, also as determinative commonly associated with dew, provides an important clue regarding the interpretation of *ỉ3d.t.* The choice of this particular determinative suggests that the term likely refers to a distinct form of hydrometeors —most likely dew— rather than rain. This distinction is reinforced by the fact that rain is typically denoted by the term *ḫw.t*, which, as we observed is frequently accompanied by the determinative  (N35a), representing water in a more general sense. Therefore, the use of the dew-related determinative for

[855] Somers Clarke and Edouard Naville, *The Temple of Deir El Bahari*, 6 vols, Memoir of the Egypt Exploration Fund, Part 2 (Egypt Exploration Fund, 1895), 13–14, pl. XLVI.

ỉꜣd.t underscores a more precise categorization of moisture phenomena, differentiating it from other forms such as rain.

The first statement in the passage employs the causative verb *shꜣ*, "to bring down", causative of the verb *hꜣỉ,* in relation to *ỉꜣd.t*, which is further qualified as *ỉm.t p.t*, "that which is in the sky". Although this construction emphasizes the celestial origin of the *ỉꜣd.t*, it does not necessarily imply a form of precipitation as substantial as rain. The use of the *nisba* adjective *ỉm.t* serves to locate the *ỉꜣd.t* within the sky, but this could refer to a supposed origin of a range of atmospheric moisture phenomena, including dew. The juxtaposition of the *ỉꜣd.t* with the *ḥꜥpj ꜥꜣ* in the second statement might initially suggest a complementarity between two forms of moisture, with the *ỉꜣd.t* descending from the sky and the *ḥꜥpj ꜥꜣ* rising from the river.

The textual correlation between *ỉ(ꜣ)d.t* and the Nile inundation is further evidenced in the inscription on the Cuboid Statue of Bak-en-Chons, dating to the reign of Osorkon II during the 22nd-23rd dynasty, the passage reads

ỉꜣd.t ex. 14 *ỉd.t.f wr tw r ḥj sfsf.f ꜣw*
His dew is greater than the flood when he pours out drink offerings.
(Cuboid Statue of Bak-en-Chons (Cairo CG 42213), text d-e, 18)[856]

It presents a significant semantic nuance, as the lexeme *ỉd.t* appears to undergo a metaphorical extension in this ritualistic context. However, the collocation with *sfsf ꜣw* "to pour out drinking offering" suggests that *ỉd.t*, in this context, functions within the semantic domain of ritual purification rather than denoting the meteorological phenomenon per se. This interpretation is strengthened by the comparative construction with *ḥj* "flood", which seems to establish a conceptual and hyperbolic setting emphasizing ritual efficacy over natural occurrence.

However, the contrast in the scale and impact of these two phenomena could argue against interpreting *ỉꜣd.t* as rain. The Nile flood, described as *ꜥꜣ* and with the adverb *wr.t*, "abundantly, greatly", was a monumental event that had a profound impact on ancient Egyptian agriculture and culture. In comparison, the *ỉꜣd.t* appears to be a more localized and subtle form of moisture, but still more frequent than rain and thus more consistent with the characteristics of dew.

[856] Karl Jansen-Winkeln, *Ägyptische Biographien Der 22. Und 23. Dynastie. Teil 1: Übersetzung and Kommentar. Teil 2 + 3: Phraseologie + Texte*, Ägypten Und Altes Testament 8 (Harrassowitz, 1985), vol. I, 100; II, 484.

The temporal phrase *m rk.s*, "during her time", links the bringing down of the *i͗ʒd.t* and the coming of the *ḥʿpj ʿ3* to Hatshepsut's reign. This association suggests that the invocation of these water-related phenomena was tied to the concept of royal power and the role of the pharaoh in ensuring the prosperity of the land. However, the specific mention of the *i͗ʒd.t*, as opposed to a more general term for rain, implies that this form of moisture held a particular significance in the context of royal ritual and symbolism.

As we will discuss soon, it is important to note that the term *i͗ʒd.t* appears 5 times in the early 18th dynasty, considering its approximately 30 attestations known from non-medical texts in the whole corpus. This frequency could imply that the term held a significant place in the vocabulary of the time and was likely associated with important cultural, religious, and symbolic concepts. The consistent use of the term in contexts related to celestial and divine themes could further reinforce its specific and potentially metaphorical significance.

This term, therefore, carries a metaphorical resonance that distinguishes it from other lexemes analysed in this study, such as *ḫw.t* and *i͗gp*. While all three terms are connected to atmospheric phenomena and hydrometeors, *i͗ʒd.t* displays a hierarchically considerable connotative depth, likely due to its recurrent metaphorical association with divine or celestial imagery, but not exclusively. This distinction places *i͗ʒd.t* in a position of particular rhetorical and symbolic prominence within the corpus, overshadowing the more denotative, descriptive applications of *ḫw.t* and *i͗gp*.

ỉʒd.t as a potent force under the control of a divine speaker

One passage from the Coffin Texts provides a different perspective on the personification of *ỉ(ʒ)d.t* and its attributed capabilities as a manifestation of divine presence. This example is particularly substantial because it condenses the themes discussed in this section, such as the semantic evolution of *ỉ(ʒ)d.t* and its association with both natural and divine phenomena.

The passage emphasizes the conceptual link between dew and divine emanation and also illustrates how *ỉ(ʒ)d.t* was perceived as an active agent in funerary rituals, embodying divine power. In this funerary spell, the speaker —likely a divine entity— declares:

ỉʒd.t ex. 15 *ỉnk ỉd.t ḥʒp.t rḫj.t ỉnk ḥr.(j) nfʒ pw ʿnḫ m dšr.ww*
Mine is the dew which conceals the *rḫj.t*-people; I am indeed he who is in charge of exhalation, living on bloods.
(CT VI, 202j)

Here, *ỉʒd.t* is portrayed as a potent force under the control of the divine speaker, who claims the ability to wield dew to conceal or obscure the common people (*rḫj.t*). This attribution of agency to *ỉʒd.t* aligns with the broader ancient Egyptian tendency to personify natural phenomena and imbue them with purpose and power. The specific association of *ỉʒd.t* with the act of concealment suggests that dew was perceived as having a veiling or obscuring quality, perhaps alluding to its ethereal or intangible nature.

Furthermore, the juxtaposition of *ỉʒd.t* with the concepts of exhalation (*nfʒ*) and blood (*dšr.w*) in this passage situates dew within a complex network of associations related to the life cycle, the divine regulation of bodily functions, and the transformative aspects of moisture. The divinity's claim to control both the dew and the breath of life emphasize the fundamental role of *ỉʒd.t* in the maintenance of the cosmic order and the regenerative processes of nature.

We can thus propose that the analysis of the lexeme *ỉʒd.t* and its consistent collocation with the verb *hʒỉ* exposes plausible evidence for its interpretation as "dew" rather than "rain" in ancient Egyptian texts. The linguistic data demonstrates that this collocation pattern reflects a broader cross-linguistic phenomenon where dew is conceptualized as descending, rather than indicating precipitation. This interpretation could be reinforced by the term's frequent appearance in religious and literary contexts, particularly in association with divine presence and morning phenomena, which aligns more closely with the characteristics of dew than rain.

The contextual distribution of *ỉ3d.t* in texts such as the Hymn to Min and Horus, the Great Nile Hymn, and Hatshepsut's funerary inscriptions exposes a consistent pattern of usage that emphasizes gentle, beneficial moisture distinct from more dramatic forms of precipitation. The juxtaposition of *ỉ3d.t* with *ḥꜥpj ꜥ3* "great flood" in Hatshepsut's inscriptions particularly highlights this distinction, presenting dew as a complementary rather than equivalent form of moisture.

Furthermore, the term's semantic range, as evidenced in religious texts and divine epithets, suggests a conceptualization of *ỉ3d.t* as a manifestation of divine presence, particularly associated with blessing and regeneration. This association aligns with the natural properties of dew as a subtle but significant source of moisture in arid environments, rather than the more dramatic manifestation of rainfall.

The evidence presented through syntactic analysis and contextual examination supports the conclusion that *ỉ3d.t* could habitually denote "dew" in ancient Egyptian texts, reflecting both the environmental realities of ancient Egypt and the cultural significance attributed to this natural phenomenon. This interpretation contributes to our understanding of ancient Egyptian meteorological terminology and demonstrates the importance of considering both linguistic and environmental factors in lexicographical analysis.

4.1.9. Magical and Medicinal Uses of *ỉ3d.t*

As we said, the lexeme *ỉ3d.t*, frequently appears in various ancient Egyptian iatromagical sources, namely magical spells and medical prescriptions. This chapter focuses on the contextual and syntactic analysis of *ỉ3d.t* within these specific genres to interpret the semantic nuances, cognitive associations, and functional roles of this term in the realms of magic and medicine. To create a cohesive outline and avoid redundancy, we will analyse a selection of distinctive examples that showcase the diverse ways in which *ỉ3d.t* was used and perceived in these contexts.

We will begin the exploration of *ỉ3d.t* in ancient Egyptian medicine with a review of key sources across different time periods that document how remedies were exposed to dew as part of medical procedures. This exposure process is often expressed through the formulaic phrase:

sḏr(.w) n ỉ3d.t

"The remedy will be exposed to dew (during the night)".

This implies that remedies were placed outdoors at night to absorb dew, a practice that was likely believed to enhance their healing properties. The study will further explore the methods by

which dew was collected, prepared, and applied in various medical treatments, as well as its potential symbolic and metaphorical significance in magical contexts.

It is remarkable that the therapeutic application of dew in ancient pharmacopoeia demonstrates remarkable cross-cultural continuity, particularly evident in the parallel medicinal practices of Egyptian and Mesopotamian traditions[857]. This convergence is notably documented in later Akkadian pharmaceutical texts, which exhibit striking similarities in their prescribed methodologies for dew nocturnal exposure and utilization. The persistence of this practices across different cultural spheres suggests its recognized efficacy in ancient medical practices, rather than mere coincidental adoption.

4.1.9.1. Dew as a Healing Agent and its Divine Associations

The ancient Egyptian understanding of dew as a potent healing agent in medical practices may be rooted in their notion of dew as a divine attribute with restorative powers. This connection between the practical application of dew and its divine associations is illustrated in the following passage from the Book of the Dead, found in the papyrus of Amenemsaf, could help explain the conception of dew as a divine attribute with healing properties.

ỉʒd.t ex. 16 *ỉʒd.t.k ḫsr mn m sk m ws m ỉrwj.k*
Your dew dispels suffering in destruction in loss in your forms.
(Book of the Dead, papyrus of Amenemsaf: Louvre 3292) section T)[858]

In this text, the dew of the god Ra is invoked to dispel suffering, destruction, and loss, suggesting a potent restorative and protective power.

The use of the possessive pronoun "your" *(.k)* directly links the dew to Ra, emphasizing its divine origin and power. The *verb ḫsr*, meaning "to dispel" or "to drive away", highlights the active role of Ra's dew in countering negative forces.

The juxtaposition of the terms *mn* "suffering", *sk* "destruction", and *ws* "loss" creates a sense of all-encompassing adversity, suggesting that Ra's dew has the ability to alleviate various forms of

[857] Refer to Ritner, 'Innovations', 112.

[858] Refer to Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, 529.

hardship. The reference to Ra's "forms" (*ỉrwj.k*) further implies that this protective and healing power extends across the god's multiple manifestations.

This passage might resonate with the previously discussed texts from the Pyramid Texts and the Book of the Dead, where dew is associated with divine presence, fragrance, and the verb *wbn*, signifying rising and spreading. The attribution of healing properties to Ra's dew in this context expands upon these themes, indicating that the ancient Egyptians perceived dew not only as a sign of divine manifestation but also as a tangible expression of the gods' benevolent influence in the world. The healing and protective aspects of Ra's dew in this passage also align with the broader ancient Egyptian belief in the restorative powers of divine effluence.

4.1.9.2. Chronological Distribution of *ỉꜣd.t* Attestations in Iatromagical Texts

To further explore the role of dew in ancient Egyptian medicine, we will now examine two significant datasets: a chronological distribution table of attestations across various papyri, and a typological classification of complex sequences involving dew in medical procedures. These datasets will serve as the foundation for our analysis of the contextual and syntactic features of *ỉꜣd.t* in magical and medicinal contexts.

We begin by examining the following table that summarizes the 94 occurrences of *ỉꜣd.t*, specifically in the expression *sḏr(.w) n ỉꜣd.t* across various medical texts. This table presents an overview of the sources, their respective time periods, and the number of occurrences of *ỉꜣd.t*.

Text Name	Time Period	Occurrences
P. Ramesseum III = P. BM EA 10756 [859]	13th Dynasty	3
P. Hearst[860]	17th-18th Dynasty	14
P. Ebers[861]	18th Dynasty	53
P. Berlin P 3038[862]	19th Dynasty	13
P. Chester Beatty VI[863]	19th Dynasty	8
P. Chester Beatty X[864]	19th Dynasty	1
P. Brooklyn 47.218.48+85[865]	26th Dynasty	1
P. Berlin P 10456[866]	26th Dynasty	1

Table 11: Chronological Distribution of *i3d.t* Attestations in Iatromagical Texts.

[859] Gardiner, *The Ramesseum Papyri*; John W. B. Barns, *Five Ramesseum Papyri* (Oxford University Press, 1956).

[860] George A. Reisner, *The Hearst Medical Papyrus: Hieratic Text in 17 Facsimile Plates in Collotype with Introduction and Vocabulary*, University of California Publications in Egyptian Archaeology 1 (Hinrichs, 1905).

[861] Georg Ebers and Ludwig Stern, *Papyros Ebers: Das Hermetische Buch Über Die Arzeneimittel Der Alten Ägypter in Hieratischer Schrift, Herausgegeben, Mit Inhaltsangabe Und Einleitung Versehen*, 2 vols (Wilhelm Engelmann, 1875); Lalanne and Métra, *Papyrus Ebers*.

[862] Wreszinski, *Der Grosse Medizinische Papyrus Des Berliner Museums (Pap. Berl. 3038): In Facsimile Und Umschrift Mit Übersetzung, Kommentar Und Glossar*.

[863] Alan H. Gardiner, *Chester Beatty Gift*, 2 vols, Hieratic Papyri in the British Museum 3 (London: Trustees of the British Museum, 1935), pl. 30-32A.

[864] Gardiner, pl. 62-63.

[865] Sauneron, *Un traité égyptien d'ophiologie*.

[866] Wolfhart Westendorf, 'Papyrus Berlin 10456: Ein Fragment Des Wiederentdeckten Medizinischen Papyrus Rubensohn', in *Festschrift Zum 150jährigen Bestehen Des Berliner Ägyptischen Museums*, ed. Anonymous (Akademie-Verlag, 1974).

4.1.9.3. Analysis of the Expression *sḏr n ỉꜣd.t* ("to be exposed to the dew")

This dataset demonstrates a clear temporal distribution pattern of *ỉꜣd.t* attestations (94), with a notable concentration in the New Kingdom period, particularly in the medical papyrus Ebers (53 occurrences). This temporal clustering might suggest a codification of dew-related medical practices during the 18th dynasty, with continued but decreased usage through the Late Period (P. Berlin P 10456), this could also showcase a sustained tradition of dew utilization in Egyptian medicine spanning over a millennium.

We now analyse in detail the expression from its earliest attestation from the Ramesseums Papyri (13th Dynasty):

ỉꜣd.t ex. 17 *sḏr(.w) n (ỉ)ꜣd.t*
(it: the remedy) will be exposed to the dew at night.
(P. Ramesseum III = P. BM EA 10756, ro, frg. 6.2)[867]

The passage under analysis consists of a single clause, featuring an implied subject, the verb *sḏr* in the prospective passive form *sḏr.(w),* and the prepositional phrase *n (ỉ)ꜣd.t*. The verb *sḏr*, meaning "to lie down" or "to spend the night", is used here in the prospective passive form, this form suggests that the exposure to dew is an expected or intended outcome of the medical procedure being described.

The verb *sḏr* is morphologically related to the verb *ḏr*[868], meaning "to keep away (from)", "to put aside", or "to eliminate". This relationship sheds light on the semantic nuances of *sḏr* in the medical context. The basic meaning of *sḏr* can be understood as "to lay down on the side", with the *s*-prefix functioning as a causative marker and *ḏr* meaning "side"[869]. Thus, the literal meaning of *sḏr* can

[867] John W. B. Barns, *Five Ramesseum Papyri* (Oxford: Oxford University Press, 1956), pl. 14.

[868] Wb 5, 595.5-9; TLA ID 184570. Refer also the morphological analysis in Gerhard Fecht, 'Die Königs-Insignien Mit s-Suffix (1. Teil)', *Studien Zur Altägyptischen Kultur* 1 (1974): 186–87; Simone Gerhards, *Konzepte von Müdigkeit Und Schlaf Im Alten Ägypten*, Studien Zur Altägyptischen Kultur, Beihefte 23 (Helmut Buske, 2021), 154–55.

[869] Carlos Gracia Zamacona, 'Two Brief Linguistic Remarks on P.Jarf B I, 26a-29b (c. 2566 BC)', *Polis: Revista de Ideas y Formas Políticas de La Antigüedad Clásica* 30 (2018): 34; Carlos Gracia Zamacona, 'The Semantics of the Verb sDr in the Coffin Texts: Actancy and Aktionsart', *Boletín de La Asociación Española de Egiptología* 28 (2019): 43.

be interpreted as "to make (something) lie on its side", emphasizing the specific positioning of the substance in relation to the dew.

The prepositional phrase *n ỉʒd.t* composed of the preposition *n* and the noun *ỉʒd.t* functions as an adjunct to the verb *sḏr.(w).* In this context, the preposition *n* does not express a dative case but rather a type of direction or orientation. This distinction can be better understood by contrasting it with the use of the preposition *ḥr* in similar constructions, such as

sḏr(.w) ḥr ḥ(n)q.t nḏm.t
It will be left in sweet beer.
(Papyrus Ebers, 36,4-44,12)[870]

sḏr(.w) ḥr nqʿ.wt šww.jwt
(It) will be left with dried scratched sycamore fruits.
(Papyrus Ebers, 36,4-44,12)

nḏ(.w) sḏr(.w) ḥr bỉ.t
It will be ground and laid out in honey.
(Papyrus Ebers, 2,7-25,11)

In these examples, the preposition *ḥr* is used to express a sense of direct contact or proximity between the substance being treated and the medium in which it is placed. The phrase *sḏr ḥr ḥ(n)q.t nḏm.t* implies that the substance is left standing directly in the sweet beer, while *sḏr ḥr nqʿ.wt šww.jwt* suggests that the substance is left overnight in close contact with the dried scratched sycamore fruits. Similarly, *nḏ sḏr ḥr bỉ.t* indicates that the ground substance is laid out directly in honey.

In contrast, the use of the preposition *n* in the phrase *sḏr.(w) n ỉʒd.t* may imply a less direct contact or a more general orientation towards the dew. The preposition *n* could suggest that the substance is exposed to the dew or directed towards it, without necessarily being in direct physical contact. This distinction might reflect a cognitive understanding of the different ways in which a substance can interact with a medium, either through direct contact (*ḥr*) or through proximity and exposure (*n*).

[870] Lalanne and Métra, *Papyrus Ebers*.

The choice of the preposition *n* in the context of dew exposure could also hint at the ancient Egyptian perception of dew as a more elusive or intangible substance compared to liquids like beer or honey. The use of *n* may emphasize the idea of the substance being oriented towards or receptive to the dew, rather than being physically immersed in it. This linguistic distinction might reflect the cognitive categorization of dew as a separate entity that influences the substance through its presence and proximity.

The following passage might further support the idea of *n* expressing a sense of direction or orientation:

ỉw.ỉ r sḏr n ḫnw
I will lie down inside
(P. Harris 500 : P. BM EA 10060, ro 2,9)[871]

In this example, the preposition *n* is used to indicate the direction or location "inside" where the action of lying down takes place, implying a movement or orientation towards the interior space.In light of this morphological analysis, the passage implies that the medicinal substance should be placed aside, exposed to the dew. The idea of "laying down on the side" or "putting aside" conveyed by *sḏr* highlights the importance of direct contact between the substance and the dew for the intended medicinal effect to take place. The semantic extensions of *sḏr* to mean "to sleep" or "to spend the night" further reinforce the notion of extended exposure to dew overnight, emphasizing the duration and timing of the dew exposure.

4.1.9.4. Alternative Expression for Dew Exposure

While the phrasal construction *sḏr n ỉʒd.t* "to be exposed to the dew" represents the most common syntactic pattern associated with dew exposure in ancient Egyptian medical texts, the corpus also presents alternative expressions that shed light on the diverse ways in which dew was utilized in medicinal preparations. These alternative expressions not only are useful to analyse the linguistic aspects of dew-related terminology but also hint at the possible underlying rationale that may have guided the ancient Egyptian use of dew in medical practices.

[871] Bernard Mathieu, *La Poésie Amoureuse de l'Égypte Ancienne: Recherches Sur Un Genre Littéraire Au Nouvel Empire.*, Bibliothèque d'étude 115 (Le Caire: Institut français d'archéologie orientale, 1996), pl. 9.

The following example offers a contrasting case to the standard phraseology:

ỉ3d.t ex. 18 *rḏỉ.ḫr.k sḏr ʿnd.jt m3(w).t šr.w? m3(w) mḥ m mw n.(w) ỉ3d.t*
You therefore leave a new *ʿnḏ.jt* vessel and a new bowl? filled with dew water.
(P. Ebers 783-807, 93,13)

The passage mentions *ʿnd.jt m3(w).t* "a new *ʿnḏ.jt* vessel" and *šr.w? m3(w)* "a new bowl" being filled with *mw n ỉ3d.t* "dew water". This alternative expression suggests a more direct use of dew, where the water collected from dew is explicitly mentioned as an ingredient in the preparation or storage of medicinal substances. The noun phrase *mw n.(w) ỉ3d.t* "dew water" is constructed using the genitive *nisba* adjective *n.(w)*, which connects the noun *mw* "water" with the noun *ỉ3d.t* "dew", indicating a specific type of water derived from dew. This construction emphasizes the distinctive nature of dew water and its potential medicinal properties.

The emphasis on the newness of the vessel and the bowl, conveyed by the adjective *m3w* "new", it is not trivial as it might also highlight the importance of purity and freshness in the containers used for holding dew water. This attention to the quality of the vessels underscores the significance attributed to dew itself, as it was likely perceived as a potent and pristine substance that required careful handling. From an empiric perspective, the use of clean, new containers for dew water may have been based on empirical observations of the potential contamination or degradation of medicinal substances when stored in used or impure vessels. The ancient Egyptians may have recognized the importance of maintaining the integrity and efficacy of dew-based preparations by ensuring a clean environment.

The following passage although fragmentary, provides additional information regarding the practical application of dew-exposed substances. It reads

ỉȝd.t ex. 19 *[rḏỉ] n ỉȝd.t swr? [r] [hrw] [4]*

(It) shall be [exposed] to the dew, (it) shall be drunk (?) [for four days.]

(P. Chester Beatty X = P. BM EA 10690, Rto x+1.11)

The reconstructed phrase *rḏỉ n ỉȝd.t* "exposed (lit. placed) to the dew" is followed by the verb *swr* "to drink", indicating that the treated substance was intended for ingestion. The verb *swr* "to drink" suggests that the dew-infused substance was consumed orally, possibly as a liquid remedy. This example expands our understanding of the medicinal use of dew, revealing that it was not only employed in the preparation of external remedies but also internalized as a therapeutic agent.

As we said, the purity of dew water compared to other water sources may have held special significance in ancient Egypt. While Nile water carried sediment and potential contaminants, dew forms through natural condensation and would have been relatively pure. This purity was especially important in a society where water-borne diseases were prevalent[872]. The preference for dew could thus be seen as a reflection of its perceived cleanliness and safety for consumption.

This distinction between water sources may also clarify why ancient Egyptian society may have favoured fermented beverages like beer over plain water[873]. The fermentation process naturally purifies liquids, making them safer to consume —a crucial factor in an environment where clean drinking water was not always readily available. This posited water purification and treatment methods seem to be extended to their medical practices as well. Ancient Egyptian medical texts show precise instructions for the preparation and administration of remedies, particularly those involving dew.

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[872] For detailed evidence of how water quality impacted public health in ancient Egyptian society, refer to Brett Heagren, 'Water Related Diseases in Ancient Egypt', in *L'acqua Nell'antico Egitto: Vita, Rigenerazione, Incantesimo, Medicamento; Proceedings of the First International Conference for Young Egyptologists, Italy, Chianciano Terme, October 15-18, 2003*, ed. Alessia Amenta et al. ('L'Erma' di Bretschneider, 2005).

[873] The ancient Egyptians' recognition of beer's quality over water may have contributed to its sacred associations and use in religious contexts since earliest times, see Delwen Samuel, 'Archaeology of Ancient Egyptian Beer', *Journal of the American Society of Brewing Chemists* 54, no. 1 (1996): 3–12, https://doi.org/10.1094/ASBCJ-54-0003; Jiajing Wang et al., 'Predynastic Beer Production, Distribution, and Consumption at Hierakonpolis, Egypt', *Journal of Anthropological Archaeology* 64 (2021): 101347, https://doi.org/10.1016/j.jaa.2021.101347.

For instance, the passage, the temporal phrase *r hrw 4* "for four days" specifies the duration of the treatment regimen, implying a systematic approach to the administration of dew-infused medicines. The use of a specific time frame indicates that the ancient Egyptians had developed a structured protocol for the use of dew in medical treatments, possibly based on empirical observations of its efficacy over a certain period. The mention of a four-day duration may have been rooted in the practical understanding of the optimal time required for the medicinal properties of dew to take effect or for the treated substance to reach its desired potency.

Dew in Treatments: Complex Sequences Involving Dew Exposure

The therapeutic applications of dew in ancient Egyptian medical documents also reveal that practitioners deliberately exposed medicinal ingredients to dew, suggesting they recognized its unique properties compared to other forms of moisture. This practice appears particularly in treatments involving blood conditions and inflammatory ailments, where the cooling and purifying qualities of dew may have been especially valued. Rather than simply using dew as a liquid medium, Egyptian physicians incorporated it as a specific step in complex preparation methods, often combining it with careful timing and precise measurements.

The following examples demonstrate the integration of dew exposure into complex treatment procedures:

ỉʒd.t ex. 20 *ỉr gmỉ.k ⟨snf⟩ ỉm.ỉ-ḫt.f ỉr wbn.sn ⟨m⟩ mw ỉrỉ.ḫr.k n.f pr.wt wʿn sḥm rḏỉ.w n ỉʒd.t wdỉ{.t} ʿ.wt nb(.t) ỉm.f r snb.f*

If you find ⟨blood⟩ afterwards, (and) if it flows out ⟨as⟩ water, then you make instead: berries of the juniper will be crushed; they will be exposed (lit. placed) to the dew; be put with every part of the body so that it becomes healthy.

(P. Chester Beatty VI = P. BM EA 10686, 5.1-3)

ỉʒd.t ex. 21 *ỉʿỉ nn ỉt sḥm rdỉ sḏr tʒ pḫr.t r-ḏr.st ⟨n⟩ ỉʒd.t*

This pounded barley shall be washed (soaked); cause the whole remedy to be exposed to the dew at night.

(P. Berlin P 3038, 138, 11,8)

In the first example, the exposure to dew (*rḏỉ.w n ỉʒd.t*) is preceded by the crushing of juniper berries and followed by the application of the treated substance to the affected body parts. The verb

sḥm "to crush, to pound" suggests a mechanical process of breaking down the juniper berries into a finer consistency, possibly to facilitate the extraction of their medicinal properties. The subsequent exposure of the crushed berries to dew may have been intended to enhance or activate the therapeutic potential of the plant material.

Similarly, the second example presents the dew exposure (*rdỉ sḏr ... n ỉʒd.t*) as part of a treatment that involves the pounding and soaking of barley. The verb *ỉʿỉ* "to wash, to soak" implies a process of hydration or saturation, possibly to soften the barley and make it more susceptible to the effects of dew exposure. The combination of pounding, soaking, and dew exposure suggests a multi-step procedure aimed at maximizing the medicinal potential of the barley. The pounding and soaking of the barley may have been intended to break down the tough outer layers of the grain and allow for better penetration of dew and extraction of its therapeutic constituents. The exposure to dew following these preparatory steps may have been believed to further enhance the medicinal properties of the barley or to activate specific compounds within the grain.

Dew as a Source of Pure, Celestial water

One last example introduces a metaphorical dimension to the understanding of dew in ancient Egyptian thought in iatromagical context. It reads

ỉʒd.t ex. 22 *mw n.w ỉʒd.t n(.j).t p.t ʿntỉ.w-šw 1*
Water from the dew of heaven, dried myrrh: 1 (dose)
P. Ebers 614,77,18

The passage refers to *mw n.w ỉʒd.t n(.j).t p.t* "water from the dew of heaven", potentially alluding to the celestial origin of dew, as we explored in the previous section. The indirect genitive construction *ỉʒd.t n.t p.t* "dew of heaven" associates dew with the celestial domain, suggesting a divine or cosmic source. This metaphorical expression elevates dew beyond its earthly manifestation, imbuing it with a sacred or otherworldly character.

From a practical perspective, the reference to dew as the "water from the dew of heaven" may have been rooted in the ancient Egyptian understanding of dew as a more readily available source of pure, celestial water compared to rainwater. Given the arid climate of ancient Egypt, where rainfall was scarce and sporadic, dew may have been seen as a more reliable and accessible source of moisture

for medicinal purposes. The formation of dew during the cooler nights, especially in areas near water bodies or with higher humidity, would have provided a regular supply of pristine water for use in medical preparations.

The metaphorical association of dew with the sky, may have served to emphasize the purity and sacredness of dew water, elevating its perceived medicinal efficacy. Attributing a celestial origin to dew, the ancient Egyptians may have sought to tap into the divine essence or potency associated with the heavenly realm, thereby enhancing the therapeutic power of dew-based treatments.

Comparing this passage with previous example mentioning *mḥ m mw n ỉʒd.t* (P. Ebers 93,13), which mentions "dew water" in the context of filling new vessels, reveals a consistent pattern in the linguistic construction used to refer to dew water. Both examples employ the genitive phrase *mw n ỉʒd.t*, this linguistic parallelism might suggest a standardized terminology for referring to water derived from dew, highlighting its distinctive properties and medicinal significance.

Moreover, as we have suggested previously on page 155, the use of the indirect genitive construction in both examples highlights the ancient Egyptian understanding of dew as a specific type or source of water, distinct from other forms of moisture. The genitive adjectival marker *n(.j)* serves to establish a relationship of origin or source, indicating that the water in question is derived from or belongs to dew. This linguistic specificity might reflect the ancient Egyptian recognition of dew as a unique and valuable resource for medicinal purposes.

Typological Classification of Complex Sequences Involving *ỉʒd.t*

We will now present a second table with a widespread analysis of most frequent complex sequences involving *ỉʒd.t* in medical texts, focusing on the specific actions or processes associated with dew:

Sequence Type	Source	Time Period	Formula
Day/Night Exposure	P. Ebers	18th Dynasty	ỉʒd.t ex. 23 *wrš.s n šw sḏr.s n ỉʒd.t* it will be exposed to sun by day, to dew by night. (P. Ebers, 307 53,4)
Measured Exposure	P. Ebers	18th Dynasty	ỉʒd.t ex. 24 *sḏr.(w) 1/16 n mw n jʒd.t* it will be exposed 1/16 measure to dew. (P. Ebers, 166 34,5)
Seasonal Specification	P. Ebers	18th Dynasty	ỉʒd.t ex. 25 *sḏr.(w) n ỉʒd.t m šm.w* it will be exposed to dew in summer. (P. Ebers, 57 18,1)
Straining + Dew	P. Berlin P 3038	19th Dynasty	ỉʒd.t ex. 26 *ʿtḫ.(w) sḏr.(w) n ỉʒd.t* it will be strained and exposed to dew. (P. Berlin P 3038 117, 10.3)
Crushing + Water + Dew	P. Berlin P 3038	19th Dynasty	ỉʒd.t ex. 27 *sḏr.(w) n ỉʒd.t qnqn.(w) ḥr mw* it will be exposed to dew and crushed in water. (P. Berlin P 3038, 159 14, 5)
Rubbing + Straining + Dew	P. Berlin P 3038,	19th Dynasty	ỉʒd.t ex. 28 *sỉn.(w) ḥr ḏr.t sḫnk.(w) m ḥbs.w sḏr.(w) n ỉʒd.t* it will be exposed rubbed with hand, strained through cloths, exposed to dew. (P. Berlin P 3038, 188 20,8)
Boiling + Dew	P. Berlin P 10456	26th dynasty	ỉʒd.t ex. 29 *psỉ.(w) sḏr.(w) n ỉʒd.t* it will be boiled and exposed to dew. (P. Berlin P 10456, x+1.6)

Table 12: Typological Classification of Sequences Involving *ỉʒd.t*.

This second dataset, comprising more complex procedural sequences, exposes sophisticated patterns in the syntactic and semantic deployment of *ỉʒd.t* within medical prescriptions. These sequences warrant detailed analysis of their lexical and practical implications.

The complex sequences presented in the table demonstrate a remarkable variety of lexical combinations, reflecting diverse therapeutic applications of dew. The sequences can be analysed according to their syntactic structure, lexical choice, and implied therapeutic rationale.

The passages consistently position the dew exposure (*sḏr n ỉʒd.t*) as the final step in multi-stage preparations. This terminal positioning suggests that dew exposure likely served as a finishing

process, possibly believed to activate or enhance the medicinal properties of the prepared substances. The construction appears as a standardized phraseological unit, maintaining consistent morphosyntactic features across different texts and time periods.

4.1.9.5. Dew Harvesting and Practical Applications

As we stated, the collection of dew most likely involved leaving the prepared substances exposed overnight to gather naturally occurring moisture. The integration of dew exposure into these pharmaceutical sequences demonstrates its vital role within a standardized manufacturing process. The progression from grinding to pill formation to dew exposure points to a systematic approach where each step, including the final dew treatment, played a specific role in the preparation of medicinal compounds.

Evident for its pharmaceutical applications but not exclusively for this purpose, dew harvesting was likely an important supplementary water source, especially in arid desert regions far from the Nile River. While specific dew harvesting methods are not often explicitly detailed in ancient Egyptian texts, some archaeological findings and historical accounts provide clues to how this practice may have been carried out.

For instance, the alignments of sand and stone heaps found in the El-Deir[874] fossilized terroir of Egypt's Western Desert, carefully covered with ceramic shards and stones, initially thought to be remnants of vineyards or olive groves, could have served an alternative purpose. These mound structures might have been skilfully designed to facilitate dew collection by creating cool, moisture-trapping microclimates conducive to dew formation and accumulation. A similar water collection strategy, called mulch lithic agriculture, has been documented, besides other regions in the world[875], in the Marmarica region – corresponding to the modern Libya and Egypt frontier[876].

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[874] Jean-Paul Bravard et al., 'Rise and Fall of an Egyptian Oasis: Artesian Flow, Irrigation Soils, and Historical Agricultural Development in El-Deir, Kharga Depression, Western Desert of Egypt', *Geoarchaeology* 31, no. 6 (2016): 473, https://doi.org/10.1002/gea.21566; Charlène Bouchaud and Gaëlle Tallet, 'L'intégration du coton au sein des économies agraires antiques : un marqueur discret d'innovation', in *Le changement dans les économies antiques* (2020), 248–49.

[875] Dale R. Lightfoot, 'The Nature, History, and Distribution of Lithic Mulch Agriculture: An Ancient Technique of Dryland Agriculture', *The Agricultural History Review* 44, no. 2 (1996): 206–22.

[876] Thomas Vetter et al., 'Ancient Rainwater Harvesting Systems in the North-Eastern Marmarica (North-Western Egypt)', *Libyan Studies* 40 (2009): 11–12.

Historical evidence from the early 19th century[877] lends further credibility to the significance of dew collection in Egypt. Traveller journals and agricultural reports from this period consistently describe the utilization of simple yet effective dew collection techniques by Egyptian farmers. When considered in conjunction with the archaeological evidence from El-Deir and other sites, these accounts could probably imply that dew collection was a constant water procurement strategy for ancient Egyptians, enabling them to thrive in the face of increasing aridity by optimizing soil moisture through innovative methods like mound construction and strategic plant cultivation.

The consistent use of dew collection techniques over millennia, as evidenced by both ancient medicinal texts and more recent historical accounts, underscores the role of dew in Egyptian society. From a rational perspective, the sequences found in ancient medical prescriptions reveal an Egyptian understanding of dew as a refining or transformative agent. The positioning of dew exposure as the final step in pharmaceutical preparation suggests its conceptualization as a completing element, possibly reflecting observations of dew's natural purifying properties and its role in plant growth and regeneration.

However, it is important to note that these propositions, while plausible, remain hypothetical in nature. The exact motivations and understanding behind the incorporation of dew exposure in ancient Egyptian pharmaceutical practices cannot be definitively ascertained without further archaeological and textual evidence. Nonetheless, the consistent appearance of dew in these medicinal sequences across various texts and time periods suggests that its inclusion was not merely incidental but rather a deliberate and purposeful aspect of the pharmaceutical process, hinting at a likely practical or conceptual significance. The standardization of phrases and constructions might imply the development of a specialized pharmaceutical register within the Egyptian medical tradition.

[877] Several travel journals consistently describe the practice of dew collection in Egyptian agriculture. Local farmers utilized simple techniques, such as planting young date trees in earthenware jars buried in the sand, which created a cool environment around the roots where dew could accumulate. Refer to Edward Daniel Clarke, *Travels in Various Countries of Europe, Asia and Africa: Greece, Egypt, and the Holy Land* (T. Cadell and W. Davies, 1814), 178; Constance Frederica Gordon Cumming, *Via Cornwall to Egypt* (Chatto and Windus, Piccadilly, 1885), 140.

Lexical Analysis

The passages in the second table expose peculiar lexical choices associated with the use of dew in medical contexts. The verb *sḏr* is often preceded by other verbs that describe specific actions or processes applied to the medicinal substance before its dew exposure. These actions include:

Straining (*ʿtḫ*): The substance is strained, likely to remove impurities or solid particles, before being exposed to dew.

Crushing (*qnqn*): The substance is crushed or ground, possibly to increase its surface area and facilitate its interaction with dew.

Rubbing (*sỉn*): The substance is rubbed, possibly to increase its absorption or to facilitate its application to the affected area.

Boiling (*psỉ*): The substance is boiled before being exposed to dew, possibly to extract or concentrate its active ingredients.

The use of these verbs in combination with *sḏr n ỉʒd.t* suggests that the exposure to dew was not a standalone process but rather a part of a multi-step treatment that involved various forms of preparation and manipulation of the medicinal substance.

Cognitive and Logical Patterns

The analysis of these passages also reveals an underlying rationale associated with the use of dew in ancient Egyptian medical practices:

– Dew as a medium for medicinal substances: The consistent use of the phrase *sḏr n ỉʒd.t* suggests that dew was perceived as a medium in which medicinal substances could be exposed or immersed. This exposure to dew was probably believed to enhance the potency, absorption, or efficacy of the substances.

– Dew as a nocturnal phenomenon: The use of the verb *sḏr*, which can also mean "to spend the night", might imply that the exposure to dew was primarily associated with the nocturnal hours. This association aligns with the natural occurrence of dew, which typically forms during the cooler nighttime hours when the air temperature drops below the dew point.

– Seasonal variation in dew collection: The specific mention of exposing substances to dew during the summer season (*sḏr n ỉʒd.t m šm.w*) suggests an awareness of seasonal variations in dew formation. The summer months in ancient Egypt were characterized by high temperatures and low

humidity, conditions that are less conducive to dew formation. The explicit reference to summer dew might indicate a particular value or rarity associated with dew collected during this season.

– Integration of dew into complex pharmaceutical processes: The passages that describe multiple steps of preparation before the exposure to dew (e.g., grinding, straining, rubbing) suggest that dew was not used in isolation but rather as part of complex pharmaceutical processes. These processes likely aimed to optimize the interaction between the medicinal substances and the dew, possibly to enhance the extraction, absorption, or preservation of the active ingredients.

The contextual and syntactic analysis of the lexeme *ỉʒd.t* in ancient Egyptian magical and medicinal texts reveals a consistent pattern of dew being used as a medium for the exposure or immersion of medicinal substances. The exposure to dew was often preceded by various preparatory actions, such as boiling, straining, crushing, and rubbing, suggesting a multi-step approach to the use of dew in medical treatments.

4.1.9.6. Metaphorical and Mythological Dimensions of Dew in Iatromagical Contexts

The significance of dew in ancient Egyptian thought extends beyond its practical medicinal applications, as evidenced by the metaphorical and mythological dimensions revealed in the textual sources. The passage from the iatromagical text P. Chester Beatty VII provides a salient example of the porous boundaries between natural phenomena, mythological narratives, and metaphorical uses of dew in ancient Egyptian cosmology. It reads

ỉꜣd.t ex. 30 *ḥr-ntj ỉr prỉ{.t} tꜣ mtw.t r-ḥr.j šꜣj.ỉn wỉꜣ n(.j) Rʿ ḥr ṯꜣs{.t} pf n(.j) ʿꜣpp ỉmḥ m ḫsf.w ỉꜣd.t*
(the magician speaks:) For if the poison should rise to the surface, then the barge of Re will run aground on that sandbank of Apophis, which (?) fills up at the arrival of the morning dew.
(P. Chester Beatty VII: P. BM EA 10687, ro 5,2-5 5,4) [878]

The passage, which is part of a series of incantations against scorpion stings, employs a complex mythological imagery to describe the potential consequences of the poison rising to the surface. The conditional clause *ỉr prỉ{.t} tꜣ mtw.t r-ḥr.j* "if the poison should rise to the surface" sets the stage for a dramatic celestial event, where the barge of the sun god Re is said to run aground on the sandbank of the serpent Apophis. The use of the verb *šꜣj* "to run aground" in this context creates a vivid metaphorical image of the solar barge being impeded by the sandbank, symbolizing the threat posed by Apophis to the cosmic order.

The sandbank of Apophis is further described as being filled up or inundated (*ỉmḥ*) by the arrival of the morning dew (*ḫsf.w ỉꜣd.t*). The noun *ḫsf.w*, morphologically connected to the root *ḫsf* "to confront" [879] is used here in the specific context of the morning dew, suggesting a temporal association between the arrival of dew and the mythological confrontation between Re and Apophis. The inundation of the sandbank by the morning dew adds a layer of complexity to the metaphorical imagery, possibly alluding to the transformative or disruptive power of dew in the mythological landscape.

The role of dew in the mythological context is rather ambiguous, as it can be interpreted both positively and negatively. On one hand, dew could be seen as a positive force, metaphorically burying

[878] Gardiner, *Chester Beatty Gift*, vol. 1: 59; 2: pl. 34.

[879] 'Thesaurus Linguae Aegyptiae v2.1.2', 15 December 2022, https://thesaurus-linguae-aegyptiae.de/lemma/870536.

Apophis's sandbank, thus allowing safe passage by preventing the serpent (and its associated poison) from surfacing. This interpretation supports the notion of dew as a protective or transformative element, aiding Re's journey by neutralizing the threat posed by Apophis. On the other hand, but less likely, dew might have a negative connotation, as it could obscure the sandbank, increasing the risk of running aground and thus hindering safe navigation.

Additionally, the temporal correlation of dew with particular hours of the night—especially as mentioned in relation to its appearance in this passage—may be linked to atmospheric phenomena described in the section of the Amduat, previously analysed on page 179. This connection could imply that dew serves as an indicator of significant moments during Ra's nocturnal confrontation with Apophis. Such a hypothesis could be supported by the symbolic and ritualistic importance of natural elements in Egyptian cosmology, where environmental changes often reflect or influence divine events. In the passage in question, dew could symbolize a transitional phase or a momentous point in Ra's journey through the underworld. The lexical choices in the passage, such as the verbs *šzj* "to run aground" and *ỉmḥ* "to fill up, to inundate", contribute to the dynamic imagery of the mythological scene.

The metaphorical use of dew in this passage, demonstrates the fluid boundaries between the practical and symbolic dimensions of dew in ancient Egyptian cosmology. The association of dew with the battle between Re and Apophis suggests a composite array of meanings and associations that go beyond the purely iatromagical aspects of dew discussed in the previous sections. This passage also serves as a bridge to the next section of the chapter, which will explore in greater detail the metaphorical and mythological dimensions of dew in ancient Egyptian texts. The permeable boundaries between the natural, mythological, and metaphorical aspects of dew, as exemplified in the last passage, provide a fertile ground for further exploration in the upcoming section.

4.1.10. Poetic and Literary Usage

In this final part of our analysis, we will conduct the investigation of the poetic and literary usage of the lexeme *ỉʒd.t*, meaning "dew", particularly present in ancient Egyptian texts from the 18th and 19th dynasties. Employing the aforementioned Conceptual Metaphor Theory (CMT) as our primary theoretical background, we aim to expose the cognitive mechanisms and metaphorical mappings that underlie the conceptualization of dew in the Egyptian worldview.

4.1.10.1. Dew as a Divine Permeating Substance

Let us begin with a detailed examination of the passage from Hatshepsut's temple at Deir el-Bahari:

ỉʒd.t ex. 31 *ỉʒd.t.k ḫt ʿwt.ỉ nb.t*
Your dew is (now) through every one of my limbs.
(Urk. IV, 221,4)[880]

This passage is a crucial component of the theogamy cycle depicting the divine conception of Hatshepsut[881]. In this context, Queen Ahmose, the mother of Hatshepsut, is disclosing that the metaphorical "dew" or of the god Amun has permeated her body, resulting in her impregnation with the future queen-pharaoh.

The nominal sentence *ỉʒd.t.k ḫt ʿwt.ỉ nb.t* "Your dew is through every one of my limbs" consists of a subject *ỉʒd.t.k* "your dew" and an adverbial phrase *ḫt ʿwt.ỉ nb.t* "through every one of my limbs". The subject is *ỉʒd.t* with the possessive suffix *.k* "your" indicating that the dew belongs to or emanates from Amun, establishing a direct connection between the god's essence and Queen Ahmose. The adverbial phrase *ḫt ʿwt.ỉ nb.t* emphasizes the permeation of Amun's divine essence throughout

[880] For further reference, see Clarke and Naville, *The Temple of Deir El Bahari*, 14, pl. XLVII–XLVIII.

[881] For recent scholarship on the *topos* of theogamy as a religious-political principle employed to reinforce pharaonic power and legitimacy through divine filiation, see Alice Coyette, 'La Naissance Merveilleuse d'Hatshepsout Dans Les Reliefs de Deir El-Bahari', in *Les Naissances Merveilleuses En Orient : Jacques Vermeylen (1942-2014) in Memoriam*, ed. Christian Cannuyer and Catherine Vialle (Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique, 2015); Alice Coyette, 'Nouvelle Lecture d'une Scène de La Théogamie d'Hatshepsout', in *Proceedings of the XI International Congress of Egyptologists, Florence Egyptian Museum, Florence, 23-30 August 2015*, ed. Maria Cristina Guidotti and Gloria Rosati (Archeopress, 2017).

Ahmose's body, almost as a receptacle[882], suggesting a complete infusion of divine power into her physical being.

From a cognitive perspective, the use of *i͗ꜣd.t* "dew" to represent Amun's procreative power is a potent example of the conceptual metaphor DEW AS A DIVINE PERMEATING SUBSTANCE. This metaphor draws upon the embodied experience of moisture penetrating surfaces, which is then mapped onto the abstract domain of divine impregnation. It allows the ancient Egyptians to conceptualize and express the intangible notion of divine conception through a tangible, relatable experience. Also, the use of *ʿwt* "limbs" goes beyond literal physical limbs to encompass Ahmose's entire being[883].

In the context of the theogamy cycle, this passage plays a pivotal role in establishing Hatshepsut's divine parentage. Portraying Ahmose as impregnated by Amun's essence, the text serves to validate and reinforce Hatshepsut's divine mandate to rule as pharaoh. The divine conception elevates Hatshepsut's status above that of a mere mortal ruler, presenting her as the direct offspring of Amun. This theogamy scene, with its evocative metaphor of divine dew permeating the queen's body, demonstrates how abstract concepts of divine power and legitimacy could be made tangible through the use of richly symbolic language rooted in common human experiences of the physical world. It illustrates the sophisticated use of metaphor in ancient Egyptian royal ideology to establish and reinforce claims to divine authority.

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[882] Concerning the female body as container, see Tanja Pommerening, 'The Female Body in Ancient Egypt: Sources, Terminology, and Concepts', in *Female Bodies and Female Practitioners*, ed. Lennart Lehmhaus (Mohr Siebeck, 2023), 148–52.

[883] The concept of *ʿwt* as a corporeal designation merits particular attention in its distinction from alternative Egyptian lexemes for the body (e.g., *ḏt, ḫꜣt*). A. Martin observes, that this terminology specifically denotes the physical body as an aggregate of its constituent components, thereby emphasizing its material and holistic aspects. This mereological approach to corporeality suggests a sophisticated understanding of bodily integrity in ancient Egyptian thought, where the whole is conceptualized through its discrete anatomical elements rather than as an abstract unified entity, see Anaïs Martin, 'Le Corps En Égypte Ancienne. Enquête Lexicale et Anthropologique' (Thèse de doctorat Archéologie et Préhistoire [unpublished], Université Paul Valéry – Montpellier III, 2013).

4.1.10.2. Dew as a Sustaining Essence

Moving on to the Speos Artemidos inscription again from Hatshepsut's reign:

ỉꜣd.t ex. 32 *sʿꜣỉ.n.ỉ Mꜣʿ.t mrỉ.t.n.f ỉw rḫ.n ʿnḫ.f ỉm t.ỉ pw sʿm.ỉ m ỉꜣd.t.s*
I have increased the Ma'at which he desired, for it is known that he lives by it; it is my bread, (and) I swallow her dew.
(Speos Artemidos, Historical Inscription of Hatshepsut, Urk. IV, 615, 15)[884]

This passage exhibits several clauses that work together to convey an overpowering message about the importance of Ma'at and its sustaining power, while also serving as a means for Hatshepsut to legitimize her rule through her connection to Amun.

The first clause, *sʿꜣỉ.n.ỉ mꜣʿ.t mrỉ.t.n.f*, employs the accomplished *sḏm.n.f* verb form *sʿꜣỉ* "I have increased", followed by the direct object *Mꜣʿ.t* "Ma'at" and the accomplished relative *mrỉ.t.n.f* "which he desired". This clause establishes Hatshepsut's action of promoting Ma'at, which is characterized as an object of desire for a male entity, most likely referring to her divine father, Amun.

The second clause, *ỉw rḫ.n ʿnḫ.f ỉm*, uses the impersonal construction *ỉw rḫ.n* "it is known", followed by the substantival *sḏm.f* form *ʿnḫ.f* "he lives" and the prepositional phrase *ỉm* "by it". This clause asserts the common knowledge that Amun lives by Ma'at, underscoring the vital role of Ma'at in sustaining divine existence.

The final two clauses, *t.ỉ pw* and *sʿm.ỉ m ỉꜣd.t.s*, equate Ma'at with bread (*t*) and its dew (*ỉꜣd.t*) with the action of swallowing, absorbing (*sʿm*). The use of the first-person singular suffixes *.ỉ* "my" and "I" emphasizes Hatshepsut's personal relationship with Ma'at and her internalization of its sustaining qualities.

Lexically, the choice of the terms *t* "bread" and *sʿm* "to swallow" in association with Ma'at and its dew creates a powerful metaphorical link between the abstract concept of cosmic order and the concrete, life-sustaining necessities of food and water[885]. This metaphor is reinforced by the use of the verb *ʿnḫ* "to live", which highlights the essential nature of Ma'at for divine or royal existence.

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[884] Allen, 'The Speos Artemidos', 1–17; pl. 1–2.

[885] For the concept of dew as sustenance, a parallel to this passage can be found in the Book of the Dead, specifically in the formulae on the papyrus of Amenemsaf (Louvre 3292) from the Third Intermediate Period, section K, see Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, 525.

This statement can be understood within the broader context of Hatshepsut's legitimization strategy, which heavily relied on the concept of divine birth and her claim to be the daughter of Amun. By asserting her intimate connection with Ma'at and, by extension, with Amun himself, Hatshepsut is reinforcing her divine right to rule.

The metaphors EMANATION OF MA'AT AS DEW and DEW AS BEVERAGE, allows Hatshepsut to conceptualize the abstract notion of Ma'at through the concrete, visceral experiences of eating and drinking. Equating Ma'at with bread and its influence (represented by dew) with drink, Hatshepsut emphasizes the indispensable role of cosmic order in sustaining life, both on a physical and a metaphysical level and DEW AS (MANIFESTATION OF) DIVINE ESSENCE.

Moreover, the use of the term *ỉʒd.t* "dew" in this context expands its metaphorical scope, as it is specifically associated with the nurturing and life-giving aspects of Ma'at. This suggests that the concept of *ỉʒd.t* could be flexibly applied to convey various aspects of divine presence and power.

Thus, in this passage, the metaphorical use of *ỉʒd.t* "dew" serves as a powerful representation of Ma'at's nourishing and sustaining qualities. Hatshepsut evokes a gaudy image of a life-giving essence that permeates and sustains the natural and cosmic order, much like dew nurtures the earth. This metaphor extends beyond the physical realm, symbolizing Ma'at as a manifestation of divine presence that is both vital and subtle, absorbed as sustenance for the soul. As Hatshepsut "swallows" the dew of Ma'at, she internalizes this divine order, reinforcing her legitimacy as a ruler who is not only sustained by Ma'at but also actively embodies it. The portrayal of dew as a divine emanation underscores the intimate connection between the cosmic order and the divine essence, positioning Hatshepsut as a conduit through which Ma'at, and by extension Amun's divine power, flows into the world.

This metaphorical tradition is not unique to Hatshepsut's reign; rather, it finds echoes in other royal inscriptions across different periods, indicating a broader continuity in the use of metaphorical language in Egyptian royal and religious texts. For instance, the poetic stele of Thutmose III (Cairo CG 34010) and the later Amun-Bezirk inscription[886] from the reign of Seti I exhibit parallel metaphorical constructions, demonstrating a shared phraseological background. Both texts employ similar linguistic and symbolic devices, suggesting a continuity in the use of metaphorical language across different reigns.

[886] Lanny Bell, 'The Epigraphic Survey', *The Oriental Institute Annual Report* 1986–1987, nos 4–17 (1986): vol. IV pls. 15-16; p. 48 ff.

4.1.10.3. Dew as Representation of Royal Power

The recurrence of these metaphors in inscriptions separated by time points to the persistence of specific rhetorical strategies within royal and religious contexts, underlining how Seti I's inscription builds upon the established literary conventions found in Thutmose III's stele.

ỉʒd.t ex. 33 *ḏỉ.ỉ mʒ.sn ḥm.k mỉ sšd stỉ bs.f m sḏ.t ḏỉ.f ỉ(ʒ)d.t.f*

I will let them see Your Majesty like lightning, which radiates its glow as flame when it spreads (lit. gives) its essence (lit. "dew").

(Thutmosis III, Poetic Stela: Cairo, CG 34010,15; Urk. IV 610.8-619.2)[887]

These passages, although separated by time, exhibit striking similarities in their syntactic structure and lexical choices, suggesting a continuity in the use of this metaphorical construction to describe the awe-inspiring nature of the pharaoh's presence.

Syntactically, both sentences begin with the prospective form of the verb *rḏỉ* "to cause" in the first-person singular (*ḏỉ.ỉ*), followed by the subjunctive *sḏm.f* form of the verb *mʒʒ* "to see" with the third-person plural suffix pronoun *.sn* as its subject (*mʒ.sn*). The object of their vision is the king's majesty (*ḥm.k*), which is compared to lightning (*sšd*) using the preposition *mỉ* "like".

The metaphorical comparison is then elaborated through two subordinate clauses introduced by the participles *stỉ* "sending out, here radiating" and *ḏỉ.f* "it gives, creates". In both cases, the lightning is described as emitting a fiery substance, whether *bs* "glow, flame" or *ḫ.t* "fire". The final clause in each passage uses the verb *rḏỉ* with *ỉʒd.t* "dew" as its object, suggesting that the lightning spreads or emanates its essence.

The lexical use of terms such as *sšd* "lightning", *bs* "glow, flame", and *ỉʒd.t* in this passage is particularly significant, as it reveals a clear connection between dew and light. The consistent association of *ỉʒd.t* with the fiery and luminous qualities of lightning suggests a broader conceptual flexibility of the term. This flexibility allows *ỉʒd.t* to convey an emanating essence or substance, regardless of its specific physical properties. This association could be linked to the fact that dew is traditionally connected with the morning and the return of light, as seen in previous examples. Dew forms in the early hours when the first light of dawn begins to appear, symbolizing renewal and the

[887] Pierre Lacau, *Stèles Du Nouvel Empire: 34001-34189*, Catalogue Général Des Antiquités Égyptiennes Du Musée Du Caire 50, 81 (Imprimerie de l'institut français d'archéologie orientale, 1909), 17–21, pl. VII.

transition from darkness to light. The imagery of dew glistening in the morning sun further emphasizes its luminous quality, reinforcing its connection to light.

Moreover, this association could also be tied to the concept of LIGHT AS FLUID and possibly LIGHT AS DEW previously explored on page 276. In both cases, a sense of directionality and movement becomes apparent. This metaphorical context underscores the use of *ỉʒd.t* not only in its literal sense but also in its symbolic dimension, where light embodies a transformative and dynamic force. The appearance of these metaphors in inscriptions separated by time, such as those of Seti I and Thutmose III, points to the persistence of specific rhetorical strategies, indicating how Seti I's inscription consciously builds upon and extends the established literary conventions present in Thutmose III's stele.

The metaphorical mapping of the king's majesty onto lightning is a powerful way to conceptualize the overwhelming impact of the pharaoh's presence. The conceptual metaphors ROYAL POWER AS LIGHTNING and DEW AS DIVINE ESSENCE are at play here, drawing upon the embodied experiences of witnessing lightning and the emanation of substances to express abstract notions of divine kingship.

The use of the verb *rḏỉ* "to give, create" in collocation with *ỉʒd.t* in both passages reinforces the idea of the king's essence being actively spread or bestowed upon his subjects. This active transmission of royal power through the metaphor of dew highlights the dynamic and purposeful nature of the pharaoh's influence on his realm. The parallel construction found in the Amun-Bezirk text from Seti I's reign could validate the enduring nature of this metaphorical expression.

4.1.10.4. Recurrent Conceptual Metaphors

These passages showcase a direct interaction of metaphorical mappings. The primary mapping is between the source domain of lightning and the target domain of the king's majesty and power. The king's awesome presence is conceptualized in terms of the visual grandeur, intensity, and far-reaching influence of lightning. Furthermore, the lightning's emission of fire is mapped onto the king's emanation of his powerful essence, which is metaphorically represented by dew. This mapping is facilitated by the conceptual association between dew and divine or royal emanations, as established in the previous examples. The choice of dew as the vehicle for the king's power highlights its pervasive, awe-inspiring, and potentially feared nature.

Analysing these passages collectively, we can identify several recurrent conceptual metaphors that structure the ancient Egyptian understanding of dew:

DIVINE/ROYAL ESSENCE AS DEW: This metaphor maps the properties of dew, such as its moistening, revitalizing, and all-pervading qualities, onto the abstract concept of divine or royal power and influence. It allows the Egyptians to conceptualize intangible forces in terms of concrete, embodied experiences.

NOURISHMENT/VITALITY AS DEW: Associating dew with the essential sustenance provided by bread and the life-giving properties of moisture, this metaphor emphasizes the role of dew as a source of nourishment and regeneration. It highlights the importance of dew in maintaining the vitality of both physical and metaphysical entities.

POWER/INFLUENCE AS SPREADING DEW: This metaphor conceptualizes the exercise of power or influence in terms of the pervasive, far-reaching spread of dew. It captures the idea that divine or royal authority penetrates and affects all aspects of the cosmos, just as dew permeates and transforms the physical world.

LIGHT AS DEW: This metaphor maps the properties of dew, such as its luminous quality and its association with the morning and the return of light, onto the abstract concept of light. It allows the Egyptians to conceptualize light as a fluid substance that spreads and illuminates, similar to how dew appears as droplets on surfaces and refracts sunlight.

These conceptual metaphors seem to be grounded in the Egyptians' embodied experiences and observations of dew in their natural environment. The life-sustaining properties of dew, its ability to moisten and revitalize plants, and its ubiquitous presence in the early morning hours all contribute to its metaphorical potential as a source domain for understanding abstract concepts such as the divine essence, regenerative power, and royal authority. Also, the consistency in the metaphorical mappings, despite variations in specific image and syntax, indicates that these conceptual metaphors were not mere poetic innovations but rather fundamental cognitive structures that shaped the Egyptian worldview.

Conclusion

The contextual and syntactic analysis of the lexeme *ỉʒd.t* exposes a semantic network that clarifies the ancient Egyptian conceptualization of dew as both a natural phenomenon and a manifestation of divine power. The analysis also shows that *ỉʒd.t* operated within principal yet permeable semantic domains: celestial-divine associations, natural phenomena, magical-medicinal applications, and poetic-literary usage. This multifaceted semantic range suggests that the ancient Egyptians understood dew not merely as atmospheric moisture, but as an personification of divine influence manifesting in the terrestrial realm.

Particularly noteworthy is the consistent association of *ỉʒd.t* with aerial and chthonic deities, especially in religious texts where it frequently appears alongside terms for sky (*p.t*) and atmospheric phenomena. The syntactic patterns reveal a strong tendency for *ỉʒd.t* to occur in constructions emphasizing vertical movement and celestial origin, likely reinforcing its conceptualization as a bridge between divine and earthly spheres.

The orthographic variations observed in different textual sources provide insights into the Egyptian understanding of dew's nature. The use of determinatives related to both moisture and vegetation suggests a sophisticated and precise grasp of dew's role in its lexical use.

5. SYNTHESIS AND CONCLUSION

Synthesis of the Lexicographical Study

This lexicographical study of hydrometeors in ancient Egyptian language has exposed a distinct semantic network that reveals the subjacent cultural, cognitive, and linguistic structures surrounding these phenomena. This section condenses the morphological trends, syntactic patterns, contextual associations, and diachronic developments of the lexemes *ḥw.t, ỉgp,* and *ỉʒd.t,* and situates these findings within the broader context of ancient Egyptian culture and tradition.

The choice of *ḥw.t, ỉgp,* and *ỉʒd.t* as the focal points of our study was based on their prominence and semantic charge within a widespread corpus of ancient Egyptian texts, spanning a wide range of genres, registers, and historical periods. Through the methodologies outlined in the introductory section, particularly the need for a context-sensitive approach that considers the full range of textual records, this study has sought to bridge the gap between linguistic analysis and cultural interpretation.

Semantic Fields of Hydrometeorological Lexemes

Our investigation showcased a far-reaching semantic field, wherein words associated with rain, clouds, and dew are profoundly connected with concepts of force, movement, ritual action, and divine manifestation. The etymological and morphological analyses of the lexemes *ḥw.t* "rain", *ỉgp* "rain cloud", and *ỉʒd.t* "dew", and their morphologically related verbs *ḥwỉ, (ỉ)gp,* and semantically *ỉdỉ*, illustrate a constant pattern of semantic extension and metaphorical usage.

The verb *ḥwỉ* and its connection to *ḥw.t* exposes a semantic evolution rooted in the notion of forceful projection and dispersion. Among *ḥwỉ*'s wide range of meanings, the sense of "to throw" rather than "to beat" stands out as particularly appropriate to comprehension of the ancient Egyptian conceptualization of rain. This connotation goes beyond simple physical action; it suggests a cognitive link between the act of throwing and the dynamic, almost self-propelled nature of certain phenomena. Interestingly, *ḥwỉ* also includes intransitive meanings related to the flow of water, such as "to surge up", "to overflow", and "to flood". These senses evoke the image of water throwing itself forward, pouring out with great force. It is this idea of forceful, self-motivated dispersion that lies at the core of the semantic development of *ḥwỉ* to mean "to rain".

Rather than a direct association between hitting and raining, the connection seems to arise from the shared notion of projection and spreading. Rain, in the ancient Egyptian conception, was not

simply falling water, but a powerful, dynamic event—the sky throwing down water, the clouds pouring forth their contents. The core meaning of *ḥwỉ*, with its emphasis on forceful projection and dispersion, was likely extended to encompass the phenomenon of rain, seen as a vigorous, almost self-directed emanation from the sky. This might mirror the Nile's capacity to powerfully and dynamically transform the landscape.

The Semantic Network of *ỉgp*

In contrast, the analysis of the lexeme *ỉgp* "rain cloud" and its connection to the verb *(ỉ)gp* seems to expose a semantic network focused on movement, both physical and metaphorical. The verb *(ỉ)gp* means "to soar, billow" and "to be cloudy, overcast", which could imply a direct link between avian movement in the sky and the ancient Egyptian perception of cloud formation, particularly since the verb (*ỉ)gp* appears frequently in collocation with soaring birds such as the heron. The heron as a symbol for soaring is significant, as it was associated with creation, regeneration, and the journey between the earthly and celestial realms. This may suggest a cognitive association of clouds as being in a state of endless movement and transformation.

The semantic range of (*ỉ)gp* extends from "to soar, to billow" to likely include meanings such as "to overflow" or "to inundate", drawing a connection between the obscuring effects of clouds and the enveloping nature of floodwaters. The conceivable semantic connection with other roots like *gp/gb* "overflow" and the verb *ʒgbỉ* "to flood" could indicate that clouds were not perceived as static entities but as dynamic masses, mirroring the movement of water in the sky and on earth. The reinterpretation of *(ỉ)gp* to mean "to cloud" as in "to float", "to soar", or "to billow" could highlight this dynamic element, portraying the sky as an active, fluid space. This apparently shows a different semantic path from *ḥwỉ* focusing on active movement and the dynamism of cloud formations.

The Semantic Complexity of *ỉʒd.t*

The examination of *ỉʒd.t* "dew" and its potential semantic conflation with *ỉd.t* "perfumed oil" and *ỉdỉ* "to fumigate" presents an additional layer of semantic density, exposing possible semantic connections and conflations between fragrance, moisture, and ritual practice. The association of ỉd.t with "perfumed oil" or "scent", and ỉʒd.t with "dew" may imply that the ancient Egyptians perceived a semantic relationship between the two, despite their different physical states. This could be due to the shared element of emanation or arising from a source, as both dew and scent can be seen as effluvia arising from their respective origins.

The verb *ỉdỉ*, apparently related to *ỉd.t*, has a vast array of meanings centred on ritual performances: "to spread refreshing effluvia", "to refresh", "to calm" and "to extinguish", which seems

to link the act of fumigation to the ideas of refreshment, purification, and appeasement. The evident connection to *qbḥw* "water libation" and the graphic association with the determinative of falling rivulets (N4) seen in the verb *ỉdỉ*, could further strengthen this association between liquid, fragrance, and the divine. The proposed interpretation of the secondary meaning of *ỉdỉ* as "to appease" or "to pacify" also reveals its specific connection with ritual practices as a way of restoring balance and ensuring cosmic harmony. This contrasts with *ḥwỉ* and *(ỉ)gp*, which are more directly associated with physical phenomena. The focus of *ỉdỉ* on ritual appeasement marks its difference from verbs like *ḥwỉ* and *(ỉ)gp*, emphasizing the ritual and transformative aspects of fragrance, moisture, and divine interaction.

Shared Patterns of Semantic Extension

Across these three case studies, a consistent thread of "dispersal and movement of force" appears to link these seemingly disparate concepts. *ḥwỉ*'s focus on dynamic impact and dispersion can be observed in the verb's meanings relating to both physical actions and the forceful movement of water. *(ỉ)gp*'s association with the movement of birds and clouds could link physical motion to atmospheric phenomena. *ỉdỉ*'s connection to ritual acts of censing and libation likely shows how the dispersal of fragrance and liquid were linked to notions of appeasement. The use of similar determinatives in the graphic representation of these roots could further prove that they were part of a cohesive semantic network, where these different semantic domains are not separate but share a profounder connection to a core idea of dynamic movement.

Furthermore, the metaphorical extensions of these terms might expose the ancient Egyptian tendency to imbue natural phenomena with figurative implication. The Nile's annual inundation, described by the verb *ḥwỉ*, was not just a natural event but a fundamental element of the agricultural cycle, and therefore an emblem of abundance and fertility. Rain, also related to *ḥwỉ*, was possibly understood as a forceful emanation from the sky, connecting the idea of forceful dispersal with the gift of life-sustaining water. Clouds, linked to the verb *(ỉ)gp*, were seen as dynamic entities that could obscure or inundate, acting as a medium for divine and cosmic movement. The connection between smoke, dew, and the divine realm seemingly shows a similar metaphorical interconnection, with fumigation and aromatic substances used as ways to communicate with and appease deities and as a symbol of transformation and purification.

Syntactic Patterns and Conceptual Frameworks

The case studies of *ḥw.t, ỉgp*, and *ỉʒd.t* expose interconnected semantic fields, but also distinct and overlapping syntactic patterns. One of the most conspicuous syntactic similarities shared by these lexemes is their frequent occurrence in constructions that emphasize the posited radial movement and celestial origin of the hydrometeors they represent. For instance, the lexeme *ḥw.t* is often found in close association with verbs of motion and descent, such as *ỉwỉ* "to come" and *hʒỉ* "to descend", which are used to describe the downward motion of rain from the sky to the earth. In the analysed instances, the verb *ỉwỉ* is used in conjunction with the noun *p.t* "sky" to convey the idea of rain descending from the sky, with ḥw.t serving as the direct object of the verb.

Similarly, the lexeme *ỉgp* is frequently found in contexts that highlight its role as a vehicle or medium for the celestial journeys of divine beings or the deceased. We find it in parallel collocation with the verb *hʒỉ* "to descend", which reinforces the idea of a vertical trajectory between the earthly and celestial domains, with *ỉgp* serving as the means of transportation.

The lexeme *ỉʒd.t* also exhibits a strong association with the verb *hʒỉ* "to descend", as evidenced in passages where the verb *hʒỉ* is directly associated with the noun *ỉʒd.t*, suggesting a conceptualization (cross linguistically common) of dew as a phenomenon that descends or moves downward from a higher location. This syntactic pattern is further reinforced by the use of the preposition *m* "from" to specify the physical origin of the downward movement, highlighting the spatial dimension of the supposed dew's trajectory.

Distinctive Syntactic Behaviours

The recurrence of these syntactic patterns across the three lexemes could underscore how the hydrometeors as natural phenomena are connected with the celestial domain and that manifest themselves through oriented motion. The consistency in the use of verbs of descending and prepositions that indicate a vertical trajectory suggests a shared conceptual background that emphasizes the celestial origin and the dynamic, spatially oriented nature of precipitation, clouds, and dew.

However, while these predominant syntactic correspondences point to a common underlying perception of hydrometeors as descending celestial phenomena, a closer examination of the specific grammatical structures and collocational patterns associated with each lexeme reveals important differences that reflect the distinct semantic nuances and contextual associations of each term.

For instance, the lexeme *ḥw.t* stands out for its frequent occurrence in syntactic constructions that highlight its direct impact on the natural landscape and its association with the destructive potential of extreme weather events. This is exemplified in passages where the noun *ḥw.t* is used in a

simile construction with the noun *snm.w* "downpours" to convey the overwhelming and destructive force of the rain, also in co-occurrence with the verb *bʿḥỉ* "to flood" to describe the impact of the rain on the valleys (*ỉn.wt*). This syntactic construction emphasizes the physical and transformative power of the rain, its ability to flood and overwhelm the landscape, and its metaphorical association with the violence and destruction of warfare.

In contrast, the lexeme *ỉgp* is characterized by its frequent occurrence in syntactic structures that foreground its metaphorical and symbolic dimensions, particularly in relation to the expression of divine or royal power, military might, and the overwhelming force of nature. This is exemplified in passages where *ỉgp* "cloud" is used in a simile construction with the noun *mw* "water" to convey the overwhelming and irresistible force of the pharaoh's conquests. The collocation with the verb *ỉṯỉ* "to conquer, to take possession of" is used to describe the action of the pharaoh, with the object *s(j)* "them" referring to the conquered territories.

Cultural Contextualization of Hydrometeors

The contextual analysis of *ḥw.t, ỉgp,* and *ỉʒd.t* reveals their shared association with the celestial realm and divine entities, while also illuminating the distinct practical and symbolic roles each hydrometeor played in ancient Egyptian culture. Consistently, across a wide range of textual genres and historical periods, *ḥw.t, ỉgp*, and *ỉʒd.t* are intricately and evidently linked to the sky (*p.t*) and frequently appear in contexts that emphasize their role as tangible manifestations of divine power, presence, or influence in the terrestrial world.

However, while these overarching similarities in celestial associations provide a unifying structure for understanding the conceptualization of hydrometeors in ancient Egyptian thought, a closer examination of each lexeme reveals distinct semantic nuances, contextual patterns, and cultural significance that reflect the specific characteristics and roles of the hydrometeor it represents.

The lexeme *ḥw.t*, for instance, exhibits a particularly strong connection to the physical act of rainfall and its direct impact on the natural landscape. Throughout the analysed textual excerpts, *ḥw.t* consistently collocates with geographical features such as mountains (*ḏw*), fields (*ʒḫ.t*), and lakes (*š*), highlighting the transformative power of rain in shaping and nourishing the earth. The frequent association of *ḥw.t* with the inundation of the Nile and the fertilization of agricultural lands emphasizes the vital importance of rainfall in sustaining life and prosperity in ancient Egyptian society. Moreover, the occurrence of *ḥw.t* in contexts related to the destructive potential of extreme weather events, such as storms and floods, reveals the conceivable acute awareness of the dual nature of rain as both a life-giving force and a potentially threatening phenomenon.

The Multifaceted Nature of *ỉʒd.t*

The lexeme *ỉʒd.t* stands out for its particularly complex and multifaceted semantic network that encompasses both practical and symbolic aspects of dew in ancient Egyptian culture. In medical and magical texts, *ỉʒd.t* appears as a major ingredient in a wide collection of remedies, often associated with the concepts of purification, regeneration, and divine blessing. The analysis of procedural sequences involving nocturnal dew exposure (*sḏr n ỉʒd.t*) sheds light on the significance of the properties and potential therapeutic benefits of this hydrometeor in ancient Egyptian iatromagical thought. The incorporation of dew into elaborate pharmaceutical processes, often in combination with other substances and technical steps, could highlight the empirical knowledge and practical skills developed by ancient Egyptian healers in harnessing the transformative power of atmospheric moisture for medicinal purposes.

Beyond these practical applications, the metaphorical use of *ỉʒd.t* in literary and religious texts reveals its profound significance as a symbol of divine essence, nourishment, and the all-encompassing influence of celestial forces in the terrestrial realm. The conceptual metaphors DEW AS DIVINE PERMEATING SUBSTANCE and NOURISHMENT VITALITY AS DEW, which emerges from the detailed analysis of the lexeme's collocations and semantic associations, underscore the ancient Egyptian perception of dew as a physical manifestation of divine presence and a source of sustenance for both physical and metaphysical entities.

Symbolic Significance and Orthographic Variations

The contextual analysis of *ḥw.t, ỉgp,* and *ỉʒd.t* could also clarify the considerable symbolic significance of these hydrometeorological terms in articulating the ancient Egyptian conception of water as a fundamental element of life, fertility, and divine presence. The incorporation of hydrometeors into the ancient Egyptian cosmology and theology, as evidenced by their frequent appearance in religious and funerary texts, may highlight the central role of water in mediating the relationship between the human and divine spheres. The linguistic exemplification of rain, clouds, and dew as emanations or manifestations of divine power, benevolence, or wrath underscores the profound symbolic significance of water in ancient Egyptian *Weltanschauung*, as a source of life, regeneration, and spiritual transformation.

The orthographic variations observed in the spelling of *ḥw.t, ỉgp,* and *ỉʒd.t* further illustrate the nature and properties of the hydrometeors they represent. The deliberate use of specific determinatives, such as the flowing water sign ( N35a) for *ḥw.t* and the sign (N4), for *ỉgp* and *ỉʒd.t*, could demonstrate once again an accurate perception of the physical characteristics and impact of these phenomena. The occasional inclusion of determinatives related to vegetation or divine entities

in the spelling of *ỉʒd.t*, in particular, might highlight the perceived connection between dew, agricultural fertility, and divine influence.

Conceptual Connections and Continuity

Remarkably, the potential conceptual connection between the N4 sign, commonly used as a determinative in the spelling of *ỉgp* and *ỉʒd.t*, and the sign S15, which implies the idea of sparkling, bright, brilliant, could suggest that the ancient Egyptians recognized an eventual relationship between atmospheric moisture and the diffusion of light. Just as droplets of water disperse and spread through the air, scattering and refracting sunlight, the Egyptians may have understood that light, too, penetrates and diffuses through the atmosphere, illuminating the sky and the earth. This connection could have been inspired by acute interpretations of how the sun's rays interact with clouds, mist, or dew, creating visual phenomena such as rainbows, halos, or the shimmering of light on water droplets. The association of the three terms with light and celestial radiance in certain contexts, particularly in religious and mythological texts, could further attest to a recognition of the posited conceptual link concerning the behaviour of light and hydrometeors.

The diachronic perspective afforded by the analysis of texts spanning different historical periods brings to the fore the continuity and change in the use and conceptualization of these hydrometeorological terms over time. While the core semantic associations and syntactic patterns seem to exhibit stability, the evidence of semantic extension, metaphorical elaboration, and the integration of these lexemes into textual genres and contexts reflects the dynamic and evolving nature of language use and conceptualization. The increasing prominence of the metaphorical use of *ỉgp* to convey notions of military conquest and royal power in later periods, for instance, might mirror the shifting political and ideological landscape of ancient Egypt and the adaptability of linguistic resources to express and reinforce emerging social realities and power structures.

Environmental Knowledge and Societal Significance

Furthermore, the perspicuous frequent co-occurrence of *ḥw.t* with terms related to wind (*ṯʒw*), storms (*ḏꜥ*), and even the rare mention of snow (*srq*) could point to a distinct knowledge of the relationships between atmospheric conditions and the formation of hydrometeors. This linguistic evidence suggests that the ancient Egyptians likely possessed an observational comprehension of weather patterns and a grasp of the fundamental principles governing the behaviour of atmospheric moisture. Similarly, the association of *ỉʒd.t* with light and celestial radiance in certain contexts may hint at a recognition of the connection between dew formation and the diurnal cycle, further attesting to the depth and extent of ancient Egyptian environmental knowledge.

The contextual analysis also brings to the fore the significant role played by these hydrometeorological terms in various facets of ancient Egyptian culture, religion, and society. In religious and mythological texts, *ḥw.t, ỉgp,* and *ỉʒd.t* are intimately tied to the actions, attributes, and epithets of deities, often serving as manifestations of their power, munificence, or fury. The integration of these terms into royal inscriptions, ideological discourse, and the legitimization strategies of the pharaonic rule demonstrates their importance in articulating and reinforcing the divine mandate and the cosmic order that underpinned the ancient Egyptian state. The association of hydrometeors with the maintenance of Maat, the fundamental principle of truth, justice, and harmony, underscores their centrality in the ancient Egyptian conception of the proper functioning of the universe and the legitimate role of the king as the mediator between the divine and human dominions.

Concluding the Research Focus and Methodology

This study sought to expose the lexicographical and semantic nuances of three key hydrometeorological terms—*ḥw.t* "rain", *ỉgp* "rain cloud", and *ỉʒd.t* "dew"—in ancient Egyptian language. Our research exposed an articulate semantic network connecting these lexemes to the broader cultural, environmental, and theological frameworks of ancient Egyptian society. Situating these terms within their full textual and contextual environments, this investigation has tried to demonstrate how language served as a medium through which the ancient Egyptians conceptualized, categorized, and responded to natural phenomena and hydrometeors.

Through the integration of philological methods with insights from cognitive linguistics, this research has tried to provide a more holistic understanding of ancient Egyptian natural and atmospheric perception. The methodological approach prioritized contextual sensitivity, considering not only the linguistic features of each lexeme but also their cultural significance, ritual applications, and environmental referents.

Key Findings and Their Implications

The analysis has revealed several significant patterns that illuminate the ancient Egyptian conceptualization of hydrometeors:

Semantic Networks and Conceptual Metaphors

The three lexemes exhibit distinct yet interconnected semantic profiles. The term *ḥw.t* demonstrates a semantic evolution rooted in concepts of forceful projection and dynamic movement,

suggesting that rain was not merely perceived as falling water but as an active, powerful emanation from the sky. This perception likely mirrors the ancient Egyptian experience of the Nile's transformative power.

The term *ỉgp* reveals a semantic network centred on movement and transformation, with connections to avian imagery suggesting that clouds were conceptualized as dynamic entities in constant flux. The semantic associations with soaring and billowing indicate a perception of clouds as active participants in cosmic processes rather than passive atmospheric formations.

The lexeme *ỉʒd.t* presents perhaps the most complex semantic profile, with potential connections or conflations with perfumed oil (*ỉd.t*) and fumigation (*ỉdỉ*), suggesting conceptual links between moisture, fragrance, and ritual purification. This semantic constellation exposes the integration of dew into a refined background of ritual practice and divine interaction.

Syntactic Patterns and Celestial Associations

The consistent syntactic patterns observed across these lexemes—particularly their association with verbs of descent and celestial origins—could underscore the ancient Egyptian perception of hydrometeors as phenomena with a vertical trajectory from the celestial to the terrestrial realm. The recurrent use of verbs such as *hʒỉ* "to descend" with all three lexemes reinforces their conceptual framing as manifestations of celestial forces in the earthly domain.

However, each lexeme also exhibits distinctive syntactic behaviours that reflect their specific semantic nuances. The term *ḥw.t* frequently appears in constructions emphasizing its physical impact on the landscape, while *ỉgp* often occurs in metaphorical expressions of royal and divine power. The term *ỉʒd.t*, particularly in medical and religious contexts, is syntactically framed as a medium for the divine essence and regenerative potential.

Cultural and Ritual Significance

The contextual analysis has illuminated the profound cultural significance of these hydrometeors in ancient Egyptian thought. Rain (*ḥw.t*) emerges as both a life-sustaining force and a potentially destructive power, mirroring its dual nature in the agricultural cycle. Clouds (*ỉgp*) function as potent symbols of divine movement and royal dominance, frequently appearing in metaphorical expressions of overwhelming force and celestial journeys.

Dew (*ỉʒd.t*) demonstrates particularly rich cultural associations, from its practical applications in medical remedies to its symbolic representation of the divine blessing and cosmic order. The procedures involving nocturnal dew exposure (*sḏr n ỉʒd.t)* in iatromagical texts reveal sophisticated

empirical knowledge of its properties, while its metaphorical extensions in religious contexts underscore its perceived connection to divine essence and regenerative potential.

Strengths and Limitations

While this study has provided detailed findings concerning the ancient Egyptian conceptualization of atmospheric moisture, it is important to acknowledge certain limitations. The focus on three primary lexemes, though allowing for depth of analysis, necessarily limits the scope of investigation. Other, less frequent terms within the semantic field of hydrometeors remain unexplored. Additionally, the reliance on textual evidence, while essential for lexicographical study, means that our understanding is shaped by the surviving corpus, which represents only a fraction of ancient Egyptian linguistic output and is biased toward elite contexts.

Studying these lexemes not in isolation but as components of a wider semantic network embedded in cultural practices and environmental realities, this study has revealed the possible conceptual frameworks through which the ancient Egyptians understood and responded to atmospheric phenomena.

Directions for Future Research

Building on these findings, several auspicious avenues for future research arise. First, a complete study of the lexical field of flooding and inundation would complement this investigation, potentially revealing subjacent connections between atmospheric and terrestrial manifestations of water in ancient Egyptian language and conception. The linguistic encoding of the annual Nile flood, with its crucial importance for Egyptian civilization, merits thorough examination in light of the patterns observed in hydrometeorological terminology.

Second, extending the analysis to include less frequent hydrometeorological terms, such as those relating to storms, wind, or snow, would provide a more complete picture of the ancient Egyptian atmospheric lexicon. Third, incorporating archaeological and palaeoclimatological evidence could further contextualize the linguistic patterns observed, potentially revealing correlations between lexical developments and environmental changes.

Finally, comparative studies exploring similar lexical fields in other ancient river valley civilizations could illuminate shared patterns and distinctive features in how different cultures linguistically encoded their environmental experiences.

Broader Implications

This study contributes to our understanding of the complex relationship between language, environment, and culture in ancient civilizations. It demonstrates how lexicographical inquiry can expose linguistic patterns and also profounder cultural structures and environmental perceptions.

Our research has tried to enhance our appreciation of their environmental knowledge and cultural creativity by exploring how the ancient Egyptians linguistically encoded their experiences of rain, clouds, and dew. It reveals a civilization deeply attuned to the rhythms and manifestations of atmospheric moisture, capable of articulating complex conceptual relationships through language, and innovative in incorporating these natural phenomena into their religious, medical, and social practices.

APPENDICES

CONVENTIONS AND EDITORIAL PRACTICE

This section details the conventions of transliteration, transcription, and editorial practice adopted for this thesis, ensuring consistency and clarity in the presentation of ancient Egyptian texts[888].

Transliteration and Transcription Conventions

The transliteration of Egyptian texts employs a standardized system where each hieroglyph corresponds to a specific Latin sign or diacritic. For example, *i̯* is used for the hieroglyph 𓇋 M17, and *j* for 𓇋𓇋 M17 M17 and 𓏲 Z3A, following the conventions established in sources like the Wörterbuch (Wb.) by A. Erman and H. Grapow, commonly known as the Berlin *Wörterbuch*[889].

Hieroglyphic texts were processed using JSesh software, developed by S. Rosmorduc[890], transliterations were typed using the IFAO keyboard layout. For hieroglyphic representations within this thesis, the font *EgyptianHiero* v3.03[891] by M. Kilani is also employed.

The presentation of hieroglyphs is limited to instances where it is most necessary for clarity and direct analysis. This approach is adopted for several reasons:

The primary focus of this study is on the semantic and linguistic patterns of terms, which are consistently and effectively conveyed through a standardized transliteration system.

For textual examples originally written in hieratic script, a transliteration is consistently provided, as this script lacks a standardized form and exhibits significant variation across different periods and textual genres. While a hieroglyphic transcription of hieratic script is also furnished, its inclusion is deliberately limited, serving primarily to offer a visual and linguistic baseline for comparative analysis.

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[888] I would like to express my sincere appreciation to Dr. Émil Joubert for his inspirational contribution to this chapter and the entire manuscript. He has skilfully and intelligently guided my research endeavours, offering both friendly support and crucial insights pertinent to this work. His review of the manuscript and essential critical observations have substantially improved the quality and accuracy of this thesis. His intellectual generosity and scholarly camaraderie have been truly exceptional contributions to this academic achievement.

[889] Adolf Erman and Hermann Grapow, eds, *Wörterbuch der aegyptischen Sprache*, 5 vols (Akademie-Verlag, 1926).

[890] Serge Rosmorduc, 'Jsesh Documentation', 2014, http://jseshdoc.qenherkhopeshef.org

[891] Marwan Kilani, 'MKilani/Djehuty', 4 August 2019, 18 June 2025, https://github.com/MKilani/Djehuty.

Presenting a full hieroglyphic rendering for every single attestation would introduce an unnecessary level of palaeographic detail, which is not always central to the linguistic arguments advanced in this study. Instead, hieroglyphs are included selectively, particularly in dedicated sections such as the graphic analysis of sign  N4. In such instances, specific morphological variations and their semiotic implications are directly discussed, as they are crucial for understanding the sign's formation, structure, and complex semantic relationships. Conversely, for lexemes like *ỉgp* and *ỉʒd.t*, a separate graphic analysis section is not included when the consistent use of specific determinatives (e.g., N4 or N1) means a detailed graphic analysis would provide minimal additional understanding, yet their graphemic representation is still examined within contextual analysis where relevant.

The goal of this approach aims to facilitate a broad and inclusive survey for readers, where the standardized display of Egyptian words, whether in transliteration or a controlled, representative hieroglyphic form, enhances accessibility. This methodological choice allows for a clearer focus on the thematic and lexical understanding of hydrometeors, ensuring that readers can engage with the core semantic and conceptual arguments without being overly distracted by orthographic intricacies.

Philological Editorial Conventions

When presenting textual excerpts, specific notations are used to indicate the state of the original manuscript and any editorial interventions:

(...): denotes an elliptical element or editorial clarification.

[...]: signifies a lacuna, i.e., a missing part of the text.

⌜...⌝ / [...]...: represents a partially lacunose element.

...?: indicates an uncertain proposed restoration or translation.

<...>: marks an element missing from the used witness and restored in the edition.

{...}: designates an element present in the witness but omitted for the sense of the text.

Linguistic and Stylistic Specificities

This thesis acknowledges the diachronic evolution of the Egyptian language. Texts from periods like the Twenty-First Dynasty are often in "traditional Egyptian"[892], applying Middle Egyptian norms with adaptations for Neo-Egyptian elements.

Orthographical and morphological conventions include:

The distinction between *s* ( S29) and *z* ( O34) is not observed from the Middle Kingdom onwards; both are rendered as *s*.

Suffix pronouns are attached to the preceding word (e.g., *sḏm.n.f* for "he heard").

Feminine and plural markers are separated from roots by a ". " (e.g., *ḥw.t* for "rain").

Nisbas (relational nouns) are indicated by the addition of a *j*, placed in parentheses if not explicitly noted (e.g., *šmʿj.t n(j).t) Ỉmn* "singer of Amun" or "singer for Amun").

The indirect genitive is noted *n(j)/n(j).t* meaning "of", as opposed to the preposition *n* meaning "for".

Negation is systematically transliterated as *n*.

Certain Egyptian terms, such as Ba, Akh, Maat, or isefet, are lexicalised within Egyptological discourse and are therefore presented in roman (non-italicized) characters in the main body of the text. The concept of Maat, due to its significant cultural importance, is consistently written as "Maat" in roman script with an initial capital letter. Transcription of proper names generally follows established conventions, favouring lexicalised forms (e.g., "Thutmose").

Bibliographical References

Bibliographical notes adhere to the abbreviations proposed by the IFAO[893], supplemented by common abbreviations in Egyptology (e.g., TLA, *Wb*.) and specific abbreviations for frequently cited references within this study. Attestations from the corpus are presented in the order of their appearance in the main text of the study, rather than chronologically, to prioritize the contextual understanding of the linguistic data.

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[892] Pascal Vernus, 'Traditional Egyptian I (Dynamics)', *UCLA Encyclopedia of Egyptology* 1, no. 1 (2016), https://escholarship.org/uc/item/0bg342rh.

[893] Bernard Mathieu, *Abréviations des périodiques et collections en usage à l'Institut français d'archéologie orientale*, 7e édition, revue et augumentée (Institut français d'archéologie orientale, 2019).

CORPUS ATTESTATIONS

The corpus presented herein comprises the primary attestations of the selected lexemes—*ḥw.t, i̯gp,* and *i̯ʒd.t*—drawn from a diverse array of ancient Egyptian textual sources, encompassing various genres, registers, and historical periods. To ensure clarity and concision, explicit variations of identical attestations are omitted, though their existence is acknowledged and integrated into the holistic interpretation of the data.

Each attestation is dated according to its manuscript's creation, rather than its original composition date, which critically situates the linguistic data within its specific historical and cultural production context. Crucially, wide-ranging co(n)textual information is provided for all non-fragmentary passages. Furthermore, for fragmentary attestations where key elements are preserved or where reconstructions are feasible, contextual details are also furnished, albeit with due acknowledgment of any inherent uncertainties, thereby enabling a robust and in-depth analysis of their linguistic and cultural nuances.

The corpus is structured according to its appearance in the main text of this study, rather than a strict chronological arrangement, to prioritize a coherent contextual understanding. This deliberate organization seems to facilitate a focused examination of how the lexemes operate, reflecting their specific usage and significance. This approach likely underscores the interpretive frameworks developed throughout this research, ensuring that each attestation is strictly analysed within its unique situational distinctions, rather than being constrained solely by historical linearity.

Through this methodology, which involves the detailed examination of various and co(n)textual examples for each individual lexeme, complemented by extensive comparative analysis across the other lexemes under investigation, a refined and profound understanding of their semantic and functional dimensions has been established.

ḥw.t

ḥw.t ex. 1. **Transliteration:** *ḫr.(j)-**ḥw.t***

Translation: Bringer of rain

Source: CT VII, 370f

Date: First Intermediate Period

Determinative:  (N35a)  (A40)

Textual genre: Funerary text

Context:

VII 370c: *Nḥb.ti Nḥb.ti*

VII 370d: *nḥʒ-ḥr* "Fierce-face"

VII 370e: *ḫr.(j)-ʒḥ.wt* "Bringer of joy"

VII 370f: *ḫr.(j)-**ḥw.t*** "Bringer of rain"

VII 370 g: *ḫr.(j)-ỉʒw* "Bringer of worship"

Context overview : The title "Bringer of rain" is explicitly connected with the divinity *Nḥbtj*, who is invoked in the preceding Spell 1089 of the Coffin Texts. In Spell 1089, the deceased identifies themselves as one who opens the Netherworld and addresses both Thoth and Re, offering to navigate Re's bark and "prepare your path in the sky". This preparation of a celestial path is directly followed by the statement "and its waters will come down", establishing a clear connection between the sky pathway and the descent of water. The spell continues with references to making "silent the waters of the pool(?) of the plain" and mentions that "a path is prepared for the rod-bearer of *Nḥbtj*"; directly linking the deity to pathways of water and cosmic navigation. This contextual framework positions *Nḥbtj* as a divine entity associated with celestial waters and their controlled descent to earth. The

epithet "Bringer of rain" appears at the beginning of Spell 1090, where *Nḥbtj* is attributed multiple titles including "Fierce-face", "Bringer of joy", "Bringer of rain", and "Bringer of worship". This series of epithets collectively portrays *Nḥbtj* as a multifaceted deity with command over both fearsome and beneficial aspects of nature. Within this funerary context, the control over rain serves a dual purpose: it demonstrates the deity's cosmic authority while symbolizing divine blessing necessary for the deceased's afterlife journey. The conceptualization of rain as a path or journey from the celestial realm reflects the ancient Egyptian understanding of precipitation as a manifestation of divine power that connects the heavens and earth. This cosmological framework is essential to Egyptian mortuary religion, where control over natural forces—particularly water—was considered vital for successful navigation of the afterlife.

Edition: Adriaan de Buck, *The Egyptian Coffin Texts*, Oriental Institute Publications 34 (Chicago: University of Chicago Press, 1935), vol. III, spell 1090 VII, 370f.

ḥw.t ex. 2. **Transliteration:** *ʿḥʿ.n rḏỉ.n.sn ỉwỉ.t p.t m ḏʿ ḥr* ***ḥwj.t***

Translation: And then they made the sky to come (down) with gale and rain.

Source: P. Westcar = P. Berlin P 3033, 11, 14

Date: 17th Dynasty, Second Intermediate Period

Determinative: 𓈖 (N35a)

Textual genre: Fictional tale

Context:

Line 11-12: *ptỉ nʒ n.tt.n ỉwỉ.wỉ.n r.s nn ỉrỉ.t bỉʒ.jt n nʒ n(.j)* Line 11-12: *ḫrd.w smỉ.n n pʒj.sn ỉt rḏỉ ỉwỉ.t.n*

What are these reasons for which we have gone without performing a miracle for these children, so that we might report to their father, who has caused us to come?

ʿḥʿ.n 11,13: *msỉ.n.sn ḫʿ.w ȝ n nb ʿnḫ-(w)ḏȝ-s(nb)*

Then they created three crowns of the Lord (=royal crowns), L.H.G.,

rḏỉ.ỉn.sn st m pȝ 11,14: *ỉt*

and then put them in the (sack of) barley.

11,14: *ʿḥʿ.n rḏỉ.n.sn ỉwỉ.t p.t m ḏʿ ḥr* ***ḥwj.t***

And then they caused the sky to come (down) with gale and rain.

11,15: *ʿḥʿ.n ʿn.n.sn st r pȝ pr*

Then they turned (again) towards the house.

Context overview: After assisting Reddjedet in giving birth to her three sons destined to become kings, the goddesses Isis, Nephthys, and Heket realize they have not yet fulfilled their complete divine mission. This prompts them to craft three royal crowns and conceal them within the sack of barley given as payment for their midwifery services. The creation of these crowns represents the divine validation of the children's future kingship as the first three rulers of Dynasty 5 (possibly Weserkaf, Sahure, and Neferirkare Kakai). It is at this precise moment in the narrative—immediately after hiding the crowns—that they cause the dramatic meteorological event described in the example. This supernatural weather manifestation serves multiple purposes: it acts as both a divine sign marking the cosmic significance of these future rulers and as a practical narrative device that creates the circumstances for the concealed crowns to remain hidden until the appropriate time for their discovery. The sequence demonstrates the goddesses' careful orchestration of both the immediate birth event and the long-term destiny of the children, with the storm serving as a dramatic punctuation mark that transforms their departure from a simple conclusion of midwifery duties into a momentous cosmic event that will shape Egypt's dynastic future.

Edition: Adolf Erman, ed., *Die Märchen Des Papyrus Westcar*, Mittheilungen Aus Den Orientalischen Sammlungen 5–6 (Berlin: W. Spemann, 1890), pl. XI, 14.

ḥw.t ex. 3. **Transliteration:** *[ʿḥʿ.n] [rḏi. n] ⸢nṯr⸣.w ỉwỉ.t p.t m ḏʿ n(.j)* ***ḥ[(w)j.t]***

Translation: [Then] the ⸢God⸣s made the sky come down in a storm of rain.

Source: Ahmose Storm Stele, recto, lines 6-7

Date: Early 18th Dynasty, New Kingdom

Determinative: 𓈖 (N35a)

Textual genre: Royal inscription

Context:

Line 6: *[ỉst] [gr.t] [nṯr] [pn] [ḥr] [ʒbỉ.jt] [ʿn?] [s]w ḥm.f [ḫr?] [.f?] ⸢ỉw⸣ nṯr.w ḥr šnỉ[.t] ḥ[kn.w.w?] [.sn] [nb.w?] [ʿḥʿ.n?]*

[But now this god (= Amun) wished that His Majesty should [turn back to him (?)] again; whereas (?)] the (other) gods asked for [all (?) their praises (?)]. [Then]

7: *[rḏỉ.n?] [nṯr.w] [ỉwỉ.t] [p.t] [m] [ḏʿ] [n(.j)]* ***[ḥ(w)j.t]***

[the gods made (?) the sky come in a storm of rain.]

[kk.wj?].w m rʿ-ʿ ỉmn.t

[Darkness (?)] was at the end of the west (i.e. on the western horizon).

Context overview: The Ahmose Storm Stele describes a catastrophic meteorological event within a complex narrative framework of royal legitimacy and divine intervention. According to the preceding text, King Ahmose had just been appointed king by Ra himself and had been residing in the city of "Supplier of the Two Countries" located in the southern district near

Dendera. The inscription indicates that the king journeyed upstream to Thebes (Southern Heliopolis) to pay homage to Amun, where ritual offerings were made and the cult image of the god was united with his temple. This ceremonial context establishes the religious significance of the events that follow, suggesting a dynamic relationship between the newly installed pharaoh and the divine realm. The additional context reveals a crucial theological dimension: Amun wishes the king to return to him, while other gods seek their due recognition, creating a divine tension that precipitates the storm. The storm itself is portrayed as a direct manifestation of divine will, with the subsequent passages vividly describing the storm's destructive power, noting that "darkness was at the end of the west" and "the sky was stormy, there was no cessation". The text emphasizes the storm's unprecedented intensity by stating that the rain on the mountains was louder than "the noise of the cave which is in Elephantine" (a reference to what was believed to be the source of the Nile). The devastating effects included destroyed houses and dwellings, with corpses floating "on the water like papyrus boats". Following this divine demonstration of power, which left "not a single torch shining over the two countries", King Ahmose acknowledges the supremacy of the divine forces, declaring "Oh, how much greater is this than a demonstration of the might of the great god". The narrative concludes with the king returning to Thebes to consolidate the Two Lands and restore order, thereby fulfilling his divine mandate to rule through successfully navigating this cosmic challenge.

Edition: Wolfgang Helck, *Historisch-Biographische Texte Der 2. Zwischenzeit Und Neue Texte Der 18. Dynastie*, 2nd revised, Kleine Ägyptische Texte 6 (Wiesbaden: Harrassowitz, 1983), 104–103.

ḥw.t ex. 4. **Transliteration:** *[...] snm tp-ʿ ṯzw wr.t p.t [...]* ***ḥ(w)j.t*** *ʿ3.t*

Translation: [...] rainstorm preceding a great wind, the sky [...] heavy rains.

Source: The Sporting King, section A, page 2, line 4

Date: 18th Dynasty, New Kingdom

Determinative: 𓏏 (N35a)

Textual genre: Literary text

Context:

ḏd.ỉn sḫ3-(ỉ)r.(ỉ)-ʿ-n-nsw-n-ḫft-ḥr

Now the scribe, entrusted with the king's charter, said in (his) presence:

[ỉw] [m3]3.n.ỉ wnm 3pd.w

I've seen birds eating.

sf ?[...] [snm] tp-ʿ ṯ3w wr{.t}

[(during) torrents of rain] [...] before a violent (storm) wind.

p.t [...] ***ḥ(w)j.t*** *ʿ3.t*

The sky [was ... ...] heavy rains;

[...] 3pd.w mỉ h3w [...].n.f

[...] birds [...] as in the time [...]

Context overview: The Sporting King is a fragmentary narrative which recounts the adventures of a king engaged in hunting and other outdoor pursuits. The surviving passage appears within a dialogue between *Sehetep-ib-re-anch* (identified as "the scribe, entrusted with the king's charter in his presence") and the king. The scribe describes observing birds eating during a meteorological event, specifically "torrents of rain" preceding a violent storm wind, with the sky bringing heavy rains. This observation of wildlife behaviour during extreme weather appears to be significant enough to report directly to the pharaoh, suggesting that such natural phenomena were considered noteworthy and possibly portentous. The description of the rainstorm preceding a great wind and heavy rains provides valuable insight into the ancient Egyptian understanding of atmospheric phenomena and their

interconnectedness. The text continues with the scribe's further observations about hearing voices from the "Great Green", seeing birds eating near a Nubian, and references to "mighty water" and "lagoons of Lower Egypt". Following a gap in the text, there are mentions of "The Lying People" in the "House of Fire". These diverse references to geographical locations, supernatural elements, and water features suggest a broader narrative concerning unusual natural and possibly divine occurrences. The literary nature of this text, with its vivid meteorological descriptions, demonstrates the cultural significance of weather events in ancient Egyptian thought and indicates an acute attentiveness to the relationship between different atmospheric conditions and their potential implications for royal activities.

Edition: Ricardo A. Caminos, *Literary Fragments in the Hieratic Script* (Oxford University Press for Griffith Institute, 1956), 22–39, pl. 8–16.

ḥw.t ex. 5. **Transliteration:** *smỉ.t(w) n.f pr.t-spd.t ḥʿpj smỉ.t(w) n.f* ***ḥwj.t*** *p.t*

Translation: One will report to him the rising of Sothis and the (onset of the) inundation,
and one will report to him the rain of the sky.

Source: Duties of the Vizier, Urk. IV 1116, line 5, (Tomb of Amenemopet, called Pairi (TT 29), transept hall, east wall, column 28; other textual witnesses (User TT 131, Rechmire TT 100, Hepu TT 66, Paser TT 106).

Date: 18th Dynasty, New Kingdom

Determinative: 𓈖 (N35a)

Textual genre: Administrative text

Context:

smỉ.sn n.f ḫrt r ʒbd r mtr ỉnw

ỉw ḫtmtj.w pḥw-ỉb

(smỉ.t(w) n.f) […] prt-Spdt ḥʿpj smỉ.t(w) n.f ḥwj.t p.t n n ỉmj-r w n šntw […]

They reported to him the dues per month to verify the provisions.

The sealers […]

One will report to him the rising of Sothis and the (onset of the) inundation, […] of the overseer of the district of the policeman. […]

Context overview: The excerpt from appears within a broader administrative context that outlines the vizier's extensive responsibilities in the Egyptian government. In the preceding sections, the text details how the vizier should receive reports concerning various administrative matters, stating that "they shall report to him the dues per month so as to specify the deliveries" and mentions "the sealers" who were possibly responsible for official royal treasure. This administrative framework highlights the vizier's central role in Egypt's bureaucratic system, serving as the recipient of crucial information that directly impacted state planning and resource management. The reporting of celestial and meteorological phenomena represented just one aspect of the data collection system that supported the vizier's administrative duties. Following the mention of reporting "the rising of Sothis, the start of the inundation" and "the rain of the sky", the text continues with references to "the height of the flood" and other monitoring responsibilities assigned to officials and policemen. The term *ḥwj.t p.t* has been subject to scholarly debate, with some suggesting the restoration *ḥw.t [mw]* could be rendered as either "the inundation-flood" or "rain". While some scholars prefer the former interpretation given rain's relative rarity in Egypt, Vandersleyen (RdE 19, 1967, 123 ff.) has provided evidence of heavy rainstorms as historical possibilities during the early New Kingdom period. This meteorological information would have had significant practical implications for agriculture, resource allocation, and ritual calendars, reflecting the Egyptian administration's sophisticated understanding of environmental factors that affected the state's prosperity and stability.

Edition: G. P. F. van den Boorn, *The Duties of the Vizier: Civil Administration in the Early New Kingdom*, Studies in Egyptology (Kegan Paul International, 1988), 288.

ḥw.t ex. 6. **Transliteration:** *msw.t 3s.t ỉr.t p.t* ***ḥ(w).t***

Translation: Birth of Isis: The sky making rain.

Source: P. BM EA 10057 (Papyrus Rhind I), verso, column 87b, line 3

Date: Second Intermediate Period

Determinative: 𓐍 (N35a)

Textual genre: Mathematical papyrus

Context:

rntp-sp 11 ʒbd 1 ʒḫ.t msw.t Stḫ rdỉ.t tw ḫrw.f ỉn ḥm n(.j) nṯr pn

msw.t 3s.t ỉr.t p.t ***ḥ(w).t***

Year 11, first month of the inundation season, day 3. Birth of Set: the majesty of this god caused his voice to be [heard].

Birth of Isis: The sky making rain.

Context overview: This meteorological notation exemplifies the profound integration of weather phenomena into Egyptian religious calendrical observations through the systematic pairing of divine births with atmospheric events. The extended context reveals a theological framework where consecutive divine birthdays across the epagomenal days are possibly linked to complementary meteorological manifestations. The birth of Seth on the third day of the first month of the inundation season is associated with his "voice"—most plausibly interpreted as thunder—while the immediately following entry connects Isis's birth with the sky producing rain, creating a consecutive record of storm phenomena across two divine birthdays. This textual structure suggests that the ancient Egyptians understood thunder and rain as related divine expressions, with Seth's thunderous voice heralding or accompanying Isis's rain-bringing power. The placement of these entries within a mathematical papyrus

possibly reveals how deeply cosmological and meteorological observations were embedded in practical record-keeping, reflecting the Egyptian administrative system's integration of religious, natural, and civil concerns. The explicit connection between Isis—goddess of magic, motherhood, and healing—and rain-making might reinforce her role as a life-giving divine force whose creative power manifests through celestial water.

Edition: Helck, *Historisch-Biographische Texte Der 2. Zwischenzeit Und Neue Texte Der 18. Dynastie*, 78, 113.

ḥw.t ex. 7. **Transliteration:** *ntsn sṯȝ.w nṯr pn ʿȝ m sšm sw r wȝ.wt ḥr.t, ntsn ỉrr.w ḫpr.t m p.t m ṯȝw m ḥtp.w m ḏʿ m* ***ḥwj.t***

Translation: They are those who tow this great god guiding him on his ways of the sky. They are those who make what happened in the sky, like the wind, the calmness, the storm and the rain.

Source: Book of the Amduat, 12th Hour, Middle Register, line 831

Date: 18th Dynasty, New Kingdom

Determinative: 𓈖 (N35a)

Textual genre: Funerary-cosmological text

Context:

Amd. 830: *ntsn sṯȝ nṯr pn ʿȝ m p.t sšm.w sw r wȝ.wt ḥr.t*

They are the ones who draw this great god in heaven, who guide him in the ways of heaven.

Amd. 831: *ntsn ỉr ḫpr.t m p.t m ṯȝw m ḥtp.w m ḏʿ m* ***ḥw.t***

They are the ones who create what happens in the sky as wind, as good weather, as storm winds, as rain.

Amd. 832: *wḏ.t.sn pw m ʿnḫ.w ỉr.t wỉȝ ʿȝ m p.t*

What they command as living beings is what makes the great ship in the sky.

Context overview: This passage appears within the 12th hour of the Book of the Amduat, marking the final and climactic stage of the sun god Ra's nocturnal journey through the underworld. The extended context reveals the cosmic authority of the thirteen goddesses who facilitate Ra's rebirth and renewal. In the preceding scene, these divine entities are explicitly identified as "They are the ones who receive the rope of the ship of Re, (when) it proceeds from the spine of 'Life of the Gods'". The expanded text elaborates on their

cosmological function by first establishing their role as guides who "draw this great god in heaven" and "guide him in the ways of heaven", emphasizing their direct participation in Ra's celestial navigation. The crucial passage about their control over atmospheric phenomena—"They are the ones who create what happens in the sky as wind, as good weather, as storm winds, as rain"—positions these goddesses as the primary agents of meteorological control, responsible for generating all atmospheric conditions that manifest in the earthly realm. As Ra emerges from the depths of the netherworld through the passage made by the arms of Shu, these thirteen goddesses continue to play a crucial role in both facilitating his rebirth and maintaining cosmic order through their control over atmospheric phenomena. The concluding statement that "What they command as living beings is what makes the great ship in the sky" reinforces their ultimate authority over celestial movements and cosmic cycles. This theological framework seems to establish a direct causal relationship between divine will and natural phenomena, with rain and other weather patterns understood as manifestations of these goddesses' commands. The positioning of this passage at the moment of Ra's rebirth emphasizes that the control over atmospheric phenomena could be intrinsically linked to the daily renewal of cosmic order, making these goddesses essential agents in maintaining the universe's stability and continuity.

Edition: Abdel-Aziz Fahmy Sadek, *Contribution à l'étude de l'Amdouat: Les Variantes Tardives Du Livre de l'Amdouat Dans Les Papyrus Du Musée Du Caire*, Orbis Biblicus et Orientalis 65 (Universitätsverlag; Vandenhoeck & Ruprecht, 1985), 63; Erik Hornung, *Texte Zum Amduat. Teil 3: Langfassung, 9. Bis 12. Stunde*, Aegyptiaca Helvetica 15 (Éditions de Belles Lettres, 1994), 831.

ḫw.t ex. 8. **Transliteration:** *ḥ ꜥpj ꜥꜣ n p(ꜣ)j.ỉ hꜣw ỉmỉ n.ỉ tꜣ p.t ỉw.s n ꜥḏ ỉw.s ꜥšꜣ [m **ḫw.t]***

Translation: A great inundation in my time, give me the sky when it is murky, when it is abundant with rain.

Source: Taharqa's inscriptions, peristyle court at Karnak, eastern end of the wall, columns 9-10

Date: 25th Dynasty, Third Intermediate Period

Determinative: possibly 𓈖 (N35a)

Textual genre: Royal inscription

Context overview: The Inscriptions of King Taharqa represent a royal prayer addressed to the god Amun, forming part of a larger program of Kushite royal ideology during the 25th dynasty. In the preceding sections, Taharqa acknowledges Amun's divine authority and intervention in his kingship. The king positions himself as "your child" in relation to Amun, emphasizing the filial relationship between deity and pharaoh, while acknowledging Amun as the creator of "all that comes into existence". This theocratic proclamation seems to create a framework in which Taharqa can request divine assistance in various domains of royal responsibility, including agricultural prosperity through favourable weather conditions.

Within this theological framework, Taharqa's specific request in line 9 represents a crucial petition for agricultural abundance. This metaphorical description of the sky as resembling "a mass of fat" (likely referring to dense cloud formations) connects directly to the subsequent mention of rain, highlighting the perceived relationship between specific celestial phenomena and the promise of rainfall. The request is embedded among other petitions that demonstrate the nature of divine patronage, including pleas for political dominance in line 10 ("place them all under my domination"), protection from harm in line 12 ("preserve me from pain, preserve me from all evil actions"), and bounty of offerings in line 13 ("bread, beer, cattle, birds, my heart being happy"). These surrounding petitions contextualize the rainfall request within a broader pattern of royal dependence on divine provision, emphasizing that control of weather phenomena was considered as much a divine prerogative as political authority or personal protection.

Edition: Pascal Vernus, ‘Inscriptions de La Troisième Période Intermédiaire (I): Les Inscriptions de La Cour Péristyle Nord Du VIe Pylône Dans Le Temple de Karnak’, Bulletin de l’Institut Français d’Archéologie Orientale 75 (1975): 29–31.

ḫw.t ex. 9. **Transliteration:** *dỉ n.k pȝ mw nfr dỉ n.k p.t mw* ***ḫwỉ*** *nfr*

Translation: (Amon says to Harsiotef:) I will give you good water, I will give you a sky of water and good rain.

Source: Stela of Harsiotef (Cairo JE 48864), Urk. III, 118, 14

Date: Late Period (380-360 BCE)

Determinative: × (Z9)

Textual genre: Royal correspondence

Context:

Line 11 *ḏd* Line 12: *n.ỉ Ỉmn Npyt ỉ.dỉ n.k pȝ sḥ n pȝ tȝ Nḥsj dỉ.ỉ*

Amon of Napata said to me: 'I will give you the crown of the land of Nubia, I will give...

Line 13: *n.k pȝ 4 qʿḥ n pȝ tȝ ḏr.f*

you the four corners of the land in its entirety.

dỉ n.k pȝ mw nfr dỉ n.k Line 14: *p.t mw ḫwỉ nfr*

I will give you good water, I will give you a sky of water and good rain.

dỉ n.k sbj nb ḫr ṯb.w Line 15:*.k*

Translation: "I will give you every rebel under your sandals".

Context overview: The excerpt appears within the Stela of Harsiotef, a monumental inscription from Jebel Barkal. This statement occurs at a pivotal moment in the text when Harsiotef approaches Amon of Napata seeking divine sanction for his rule. The extended context reveals Amon's divine blessing that systematically establishes Harsiotef's legitimacy through political authority, natural resources, and military dominance. The sequence begins with the fundamental grant of political sovereignty—"I will give you the crown of the land of Nubia"—followed by territorial expansion to "the four corners of the land in its entirety", establishing Harsiotef's dominion over the entire known world. The crucial meteorological blessing—"I will give you good water, I will give you a sky of water and good rain"—appears as the central pillar of this divine covenant, positioned between political authority and military supremacy. This strategic placement emphasizes that control over water resources was considered equally essential to successful kingship as political power and military might. The blessing concludes with assurance of victory over enemies: "I will give you every rebel under your sandals. The enemy that comes against you will not fare well". This divine promise likely demonstrates how meteorological phenomena were systematically integrated into Kushite royal ideology, with the gift of rain representing not merely environmental blessing but a fundamental component of legitimate rule that enables agricultural prosperity, sustains populations, and provides the material foundation necessary for political and military success. The text then reveals the immediate fulfilment of this divine promise, stating: "Now I saw a great Inundation which Amon, my good father, gave to me, while I was standing in the Harem of Amon of Napata, inside his tabernacle", likely establishing direct causal connection between promised celestial water and manifest terrestrial abundance that legitimizes Harsiotef's authority over the Kushite kingdom.

Edition: Peust Carsten. *Das Napatanische : ein ägyptischer Dialekt aus dem Nubien des späten ersten vorchristlichen Jahrtausends : Texte, Glossar, Grammatik,* Monographien zur ägyptischen Sprache 3 (Göttingen: Peust und Gutschmidt, 1999), 24–33, 53–57; Roberto B. Gozzoli, 'Kawa V and Taharqo's Byʒwt: Some Aspects of Nubian Royal Ideology', *Journal of Egyptian Archaeology* 95 (2009): 243.

ḫw.t ex. 10. **Transliteration:** *ṯ3w nfr n ỉmn.tt ntf sḫp(r)* ***ḥ(w)j(.t)*** *ḥʿpj n p.t r sṯḥn t3 m rnp.wt sḫp(r) ḫrr.wt nb.w(t) n Wsỉr Wn-nfr nswt-nṯrw 3s.t wr.t mw.t-nṯr ḫnw.t-nṯrw-nb.w*

Translation: The good west wind. It is he who brings forth the flood and the inundation from heaven to make the earth shine with the first fruits, he who brings forth all the flowers for Osiris Onnophris, the king of the gods, and (for) Isis the great, the divine mother, the lady of all the gods.

Source: Karnak Opet Temple, Central Hall VII, frieze on west wall, west wind, Opet 101

Date: Ptolemaic-Roman Period

Determinative: 𓏏 (N35a)

Textual genre: Temple inscription

Context: The inscription forms part of a theological program depicting the four winds. In this scene, the west wind iconographically represented as a falcon with a ram's head, a divine hybrid form that symbolizes its celestial power and connection to creation. This iconographic representation reinforces the wind's divine agency in the text, where it is portrayed as an active force in meteorological processes. The placement of this text within the temple's decorative scheme situates it within a broader cosmological framework that explains the relationships between atmospheric phenomena and divine powers. The inscription itself belongs to a series of texts dedicated to the cardinal winds in the Opet Temple, each wind being associated with specific meteorological functions and divine attributes. This text establishes the west wind as a benevolent force that plays a crucial role in bringing forth both rain and the Nile inundation from the sky. The theological significance of this association is emphasized by the text's dedication to Osiris-Onnophris, "king of the gods", and Isis, "the great, divine mother, lady of all gods". This connection between the west wind, rainfall, and these particular deities suggests a conceptual link between meteorological phenomena and the divine powers of regeneration and fertility embodied by Osiris and Isis, reinforcing the idea that rain served as a manifestation of the divine blessing within the Egyptian cosmological framework. This extract may exhibit intertextuality with other ancient Egyptian

texts that mention winds, such as the "Song of the Four Winds" in the Coffin Texts Coffin (Spell 162).

Edition: Constant de Wit, *Les Inscriptions Du Temple d'Opet, à Karnak*, Bibliotheca Aegyptiaca, vol. 12, no. v. 1 (Édition de la Fondation égyptologique Reine Élisabeth, 1958), 101–4.

ḥw.t ex. 11. **Transliteration:** *swrỉ ꜥtw ⸢tz⸣ ⸢ẖḥ.t⸣ ỉrỉ tm sẓỉ.w m mw n(.j).w* ***ḥ(w)[.t]*** *[...] [__] n(.j) Pz-Rꜥ*

Translation: Let the field drink you, which is not sated with rainwater (?) [...] of Ra.

Source: oStrasbourg H. 115, recto, line 2

Date: 19th or 20th Dynasty, New Kingdom

Determinative: 𓈙 (N35a)

Textual genre: Magical ostracon

Context:

Line 1: *pz Sz-mꜥ-nw - pz n.tỉ hrp*

O Samanu who is immersed:

[swrỉ] [tw] [ỉbỉ]

[Let it drink you … when he / it is thirsty].

Line 2: *swrỉ tw tz ẖz.t ḏzmꜥꜥꜥ*

Let the desert drink of you when it is dry.

[swrı] [tw] [tȝ] [ȝḥ.t] Line 3: *ỉrỉ tm sȝj.w m mw n(.j).w ḥ(w)[.t] [...]* Line 4: *n(.j) Pȝ-Rʿ* -

Let the field drink you, which is not sated with rainwater (?) [...] of Ra.

ntsn ỉrỉ.sn [swrj] [k] [...] Lines 5-11: *pȝ ntj hrp - m pȝỉ.f rd*.wj *[...] ntj ḥr sḫsḫ m pḥ.wj.f ntj ḥr ksỉ.t.f [...] m pȝj.f rmn.wj m nḥb.t.f m ḏȝ.t.wj.f [...] m ỉwmʿrʾ.f - m mḫt.w.f ntj mȝʿ [...] m pȝj.f wfȝw ḥnʿ pȝ ḏrw.w [...] m tȝj.f sp.t.wj n.t ḥr mdwj.t - m šrỉ.f [...] m tȝj.f ỉr.t.wj ntj ḥr ptrj*

They are the ones who will drink you [… you who are immersed, into his two feet […], [… which] rush, into his hindquarters which bends […], into his two shoulders, into his neck, into [his] hands, […], into his *jmr* , into his intestines which are in order, […], [in] his lungs and the flanks, […], [in] his two [lips] which speak, into his nostrils… (?) […], [in] his two eyes which see, into […]].

Context overview: This iatromagical incantation against *Samanu* Disease forms part of a therapeutic approach to combating ailments in ancient Egypt. The extended context reveals a sophisticated magical framework employing systematic absorption as a curative mechanism. The text begins by directly confronting the personified disease *Samanu*, described as "immersed", establishing a dramatic dialogue characteristic of Egyptian magical texts. The spell then develops through a methodical series of parallel statements employing the verb *swrỉ* (to drink), creating a metaphorical framework where the disease is consumed or absorbed by entities associated with dryness and thirst. The progression moves from cosmic elements—beginning with an unspecified thirsty entity, then "the desert when it is dry", followed by "the field that is not saturated with rainwater of Re"—to an extensive anatomical enumeration targeting every part of the afflicted body. This creates a symbolic opposition between the disease (characterized by unwanted moisture or inflammation) and the drying or absorptive powers invoked to eliminate it. Within this context, the specific reference to "rainwater of Re" introduces a crucial cosmic dimension by associating this celestial water with the sun god, suggesting that rainfall was conceptualized as a divine substance capable of purifying and restoring natural balance. The anatomical listing—covering feet, hindquarters,

shoulders, neck, hands, internal organs, lungs, flanks, lips, nostrils, and eyes—reflects the Egyptian medical belief that thorough treatment required addressing all potentially affected areas systematically. This methodical approach transforms the human body into a cosmic battleground where divine forces (represented by the absorptive powers of desert, field, and rainwater) combat disease through systematic consumption. The association of rainfall with divine intervention in this healing context aligns with Egyptian conceptions of rain as both a natural phenomenon essential for agricultural fertility and a manifestation of the divine blessing that could be channelled for therapeutic purposes, demonstrating the integrated worldview where natural, medical, and religious domains were inseparably interconnected in ancient Egyptian belief.

Edition: Yvan Koenig, *Les Ostraca Hiératiques Inédits de La Bibliothèque Nationale et Universitaire de Strasbourg*, Documents de Fouilles de l'Institut Français d'archéologie Orientale 33 (Cairo: l'Institut français d'archéologie orientale, 1997), pl. 51.

ḥw.t ex. 12. **Transliteration:** *kḥʒ **ḥ(w)j.t** ḥr ḫʒs.wt r ḫrw qrr.t ỉm.j 3bw*

Translation: Louder raged the rain on the mountains than the noise of the cave (=Nile springs) which is in Elephantine.

Source: Ahmose Storm Stele, recto, line 8

Date: Early 18th Dynasty, New Kingdom

Determinative: 𓈙 (N35a)

Textual genre: Royal inscription

Context:

Line 7: *p.t šn[ʿ].tj [n]-wn[.t] [ʒb.w?] [qʒj.tỉ?] [r] [ḫrw]* Line 8 *[rḫ.jt] [wsr.tỉ] [r] [...]*

The sky was stormy, there was [no gap (lit.: cessation) (?)], (it was) [higher (i.e. louder) (?) than the voice of the *rḫ.jt* people, stronger than ...].

[*khʒ?*] ***[ḥ(w)j.t?]*** *ḥr ḫʒs.t.w r ḫrw qr(r).t ỉm.ỉ(.t) 3bw*

[The rain raged louder (?)] on the mountains than the noise of the cave (= sources of the Nile) which is in Elephantine.

*wn.ỉn pr nb ỉw*j.t *nb.t spr.t.sn* Line 9 *[ʒq.t(ỉ)?] [ỉm.j.w?] [.s?] [m(w)t?] [ḫʒ.t.w?] [.sn?] [ḥr] [mḥỉ.t] [ḥr] [mw] [mỉ] smḥ.w.w n(.j).w mḥỉ.t. ⸢w⸣m [rʿ?] ⸢ḥr⸣ʿ-ḫn.wtỉ ḥn.tỉ r hrw [...]*

Then every house, every dwelling that they (= storm and rain) had reached was [destroyed (?), those in it were dead (?), their corpses (?) floated on the water like] papyrus boats, (also) in the [entrance area(?)] ⸢and⸣ of the audience hall, over a period of [x] days.

Line 10: *[n] [sḥḏ.n] [tkʒ(.w)] [ḥr] [tʒ.wj]*

[Not a single torch shone over the two countries.]

Context overview: This description from the Ahmose Storm Stele focuses on the intensity of rain falling on mountains or hill country, but the additional context reveals the full scope of the catastrophic storm. The passage emphasizes the unprecedented nature of this meteorological event by comparing the sound of rain to the noise of the cave or Nile springs at Elephantine—a reference to what was believed to be the source of the Nile. This comparison is particularly striking as it suggests that the rainfall was so intense it drowned out one of the most significant acoustic landmarks in ancient Egypt. The extended context shows the storm's progression from initial intensity—with the sky being "stormy" with "no cessation"—to its devastating consequences. The description of destroyed houses and dwellings, with corpses floating "on the water like papyrus boats", creates a vivid picture of widespread destruction that affected both ordinary residences and important civic buildings like audience halls. The final reference to no torches shining "over the two countries" suggests that the storm's impact was felt throughout all of Egypt, emphasizing its cosmic significance. The preceding lines describe darkness falling upon the land and the heavens releasing torrents that could not be contained, creating a dramatic narrative of cosmic disruption. This

description could demonstrate how the ancient Egyptians understood and recorded extreme weather events not merely as meteorological phenomena but as manifestations of divine power that could fundamentally alter the landscape and social order. See also *supra* ex. 3.

Edition: Ritner and Moeller, 'The Ahmose "Tempest Stela", Thera and Comparative Chronology', 6. See also *supra* ex. 3.

ḥw.t ex. 13. **Transliteration:** *gm pȝ sfḫ.w ḥʿ.w sʿḥʿ n.f š wn n.f ʿfd.t m ȝbḏ.w swȝ [n][.f] pḫȝ n[.f] wsḫ.t ḥwỉ n.f* ***ḥwj.t*** *š*

Translation: He who "dissolves bodies" will be found when the lake (= flood) will be brought to a standstill for him, when the coffin (of Osiris) in Abydos will be opened for him, when the plank of the (sun) bark will be broken for him, when rain and flood will pour out for him. Once He is found, it will be crushed.

Source: P. Berlin 3038, recto, 21, line 6

Date: 19th Dynasty, New Kingdom

Determinative: 𓈖 (N35a)

Textual genre: Magical-medical papyrus

Context: This incantation appears in a collection of magical-medical texts designed to provide protection against various ailments and supernatural threats. The spell, combines several protective mechanisms, invoking divine assistance (particularly from Isis and Horus) while employing metaphorical language to ward off fever and physical harm. The text uses a series of threatening consequences for any entity attempting to harm the patient, including the rising of the lake and the breaking of a ship's deck. Notably, the mention of *ḥw.t* in this context appears within a sequence of defensive mechanisms where the rain and the flood are weaponized against potential aggressors, suggesting that water—particularly in its more

turbulent manifestations—was conceptualized as having protective or reactive powers. The spell continues by invoking protective objects, specifically a club made of willow-wood with a knob of pure acacia, and calls upon the seven Hathors to maintain protection until the body is healed. This invocation is compared to the rising of Re over the land, establishing a cosmic parallel between bodily healing and solar cycles. The text concludes by emphasizing Isis's role as a divine healer, referring to her as "the great one [who] practices the art of Re" and "the physician of the god who soothes the god". This explicit connection to Isis, renowned for her healing powers and her role in the resurrection of Osiris at Abydos (mentioned earlier in the text), places the spell within the broader tradition of Osirian magical healing practices. The formula combines preventive, protective, and curative elements, using the imagery of controlled water (*ḥw.t*) as a responsive defence mechanism against malevolent forces.

Edition: Walter Wreszinski, *Der Grosse Medizinische Papyrus Des Berliner Museums (Pap. Berl. 3038): In Facsimile Und Umschrift Mit Übersetzung, Kommentar Und Glossar*, Die Medizin Der Alten Ägypter 1 (Leipzig: J. C. Hinrichs, 1909), 21,6.

ḥw.t ex. 14. **Transliteration:** *k.t bỉȝ.t n p.t ḫȝ ḥr mw n.w* ***ḥ(w)j[.t]***

Translation: Another (recipe): Iron of the sky will be pounded with water of the rain.

Source: P. Berlin 3038, recto, 8, line 1

Date: 19th Dynasty, New Kingdom

Determinative: 𓏏 (N35a) Textual genre: Magical-medical papyrus

Context: This concise medical recipe prescribes a treatment combining "iron of the sky" with rainwater. The specification of rainwater rather than ordinary water from the Nile or wells suggests that practitioners attributed special therapeutic properties to precipitation collected directly from the sky. This belief likely stemmed from rain's perceived purity and divine origin, making it particularly effective for treating scorpion and snake bites, that were themselves considered to have supernatural causes.

Edition: Walter Wreszinski, *Der Grosse Medizinische Papyrus Des Berliner Museums (Pap. Berl. 3038): In Facsimile Und Umschrift Mit Übersetzung, Kommentar Und Glossar*, Die Medizin Der Alten Ägypter 1 (Leipzig: J. C. Hinrichs, 1909), 8,1.

ḥw.t ex. 15. Transliteration: *pḫr.t n pgs n ḫr.j dm.wt nb(.t) mw n(.j).w {s}* ⟨***ḥ***⟩ ***w.j [t]***

Translation: Remedy for spitting out for someone who has suffered any kind of bite: rain water.

Source: The Brooklyn Papyrus 47.218.48+85, Section 84, column 5, line 16

Date: 26th Dynasty, Late Period

Determinative: 𓈖 (Y1), 𓏏 (Z3a)

Textual genre: Magical-medical papyrus

Context:

Line 16 *pḫr.t n(.j.t) pgs n(.j) ḫr.j dm.wt nb(.t)*

Remedy for spitting out what has been bitten by something:

mw n(.j).w {s} ⟨*ḥ*⟩ *wj*

Rainwater.

sḫnk ḥr bỉ.t ḥmʒ(.t)-mḥ(.t)

Filtered with honey and Lower Egyptian salt.

zwr jn ḫr.j-dm.wt

Be drunk by the bitten

pgs r tʒ zp 4

and spewed out to earth four times.

Context overview: This remedy appears in a handbook for treating venomous snakebites. The formula's simplicity—rainwater filtered with honey and Lower Egyptian salt—underscores ancient Egyptian belief in rainwater's purifying and neutralizing properties, attributed to its divine origin. The instructions to drink and then spew the concoction four times reflect a ritualized therapeutic process designed to expel venom from the body. The text is part of a larger compendium containing scores of anti-venom formulations, ranging from complex herbal compounds to simple single-ingredient remedies like this one. The selection of rainwater specifically for treating venomous bites reflects the attribution of purifying and neutralizing properties to water that originated from the sky rather than terrestrial sources.

Edition: Sauneron Serge, *Un traité égyptien d'ophiologie: papyrus du Brooklyn Museum n°47.218.48 et .85*, Bibliothèque générale (Le Caire: Institut Français d'Archéologie Orientale, 1989), 113.

ḥw.t ex. 16. Transliteration: *ỉṯ.t(w) ḏw.w ḥr* ***ḥw(j).t****.f nn gmḥ.tw.f*

Translation: The mountains are taken thanks to its outpour, and it will not be observed.

Source: The Great Hymn to Nile, stanza 5, line 5

Date: 18th Dynasty or later, New Kingdom

Determinative:  (N35a)

Textual genre: Hymn/Poetry

Context:

Lines 5.1-5.2: *{srdw} ⟨srd⟩ ḫt {ʒb} ⟨ʒbb(.t)⟩ nb(.t) - nn {d} ⟨n⟩ gʒ.tw r.s*

(O Hapy,) who causes wood and everything that ceases to grow, - there is no lack of it -;

Lines 5.3-5.4: *ḫpr ỉmw m pḥ.wj.f pw - nn mḏḥ m ỉnr*

that means that a ship is created by 〈its〉 power (the power that makes trees grow): - you can't build something in/out of stone!

Lines 5.5-5.6: *ỉṯ.t(w) 〈ḏw.w〉 ḥr* ***ḥw[.(j)t]****.f - [nn] [gmḥ.tw].f*

〈The mountains are〉 taken into possession thanks to [his rain], [- (and yet) he cannot/will not be observed]

Lines 5.7-5.8: *[bȝk] [nn] ḫrp.tw.f – šdỉ m štȝ*

[who works without] being guided/instructed; who feeds (?; or: is raised) in secret;

Lines 5.9-5.10: *n rḫ.tw bw n.tw.f - n gmỉ.n.tw.f m {ỉ} 〈t〉 pḥ.t.f m zḫȝ.w*

one does not know the place 〈where〉 he is; one does not find him in his cave in the scriptures.

Context: This passage appears within the Great Hymn to the Nile as part of a celebration of Hapy's (the Nile god's) mysterious and life-giving powers. The extended context reveals a sophisticated theological meditation on the paradoxical nature of the Nile's creative force and its fundamental unknowability. The hymn's broader context establishes the Nile as a manifestation of divine will, with its annual cycle essential to Egyptian cosmology, agriculture, and national identity. The sequence begins by praising Hapy as the one who causes "wood and everything that ceases to grow", emphasizing the Nile's role in fostering all vegetation, with the parenthetical assurance "there is no lack of it" underscoring the abundance provided by the inundation. The text then develops a practical example, noting that ships are created through the Nile's power to grow trees, with the humorous aside that "you can't build something in/out of stone!" highlighting the fundamental importance of wood—and thus water—for Egyptian civilization. This particular verse about mountains being "taken into possession thanks to his rain/outpouring" appears within a section describing how the

inundation transforms the landscape, making the desert bloom and bringing abundance to previously barren areas. Notably, in this context the term *ḥw.t* (rain) can also be interpreted as flood in the sense of outpouring, reflecting the conceptual fluidity between celestial precipitation and terrestrial inundation in Egyptian conception**.** The reference to the Nile's action not being directly observed ("and yet he cannot/will not be observed") adds a crucial mysterious dimension that aligns with Egyptian religious concepts attributing unseen divine forces to observable natural phenomena. The passage continues by emphasizing this mystery, describing Hapy as one "who works without being guided/instructed" and "who feeds (or: is raised) in secret", culminating in the declaration that "one does not know the place where he is" and "one does not find him in his cave in the scriptures". This background positions the reference to the Nile's "rain/outpouring" within a broader theological understanding of water as both a cosmic force capable of transforming landscapes and a divine mystery that transcends human comprehension, emphasizing the conceptual link between river inundation and celestial precipitation in Egyptian belief while celebrating the fundamental unknowability of divine creative power.

Edition: Dirk van der Plas, *L'hymne à La Crue Du Nil: I: Traduction et Commentaire: II: Présentation Du Texte*, 2 vols, Egyptologische Uitgaven 4 (Nederlands Instituut voor het Nabije Oosten, 1986), vol. I 30-31.

ḥw.t ex. 17. Transliteration: *ỉw m(w).t m ḥr.ỉ mỉn mỉ wꜣ.t* ***ḥwj.t*** *mỉ ỉwỉ s m mšʿ r pr.sn*

Translation: Death stands before me today like the passing of the rain, as when a man comes home from an expedition.

Source: P. Amherst 3 + P. Berlin P 3024, column 137

Date: 12th Dynasty, Middle Kingdom

Determinative: 𓈖 (N35a)

Textual genre: Wisdom text/Dialogue

Context:

Column 135-136: *ỉw m(w).t m ḥr.ỉ mỉn mỉ st sshn.w mỉ ḥmsỉ.t ḥr mr.jt n.t tḏ.t*

Death stands before me today, like the scent of lotus flowers, like sitting on the shore of "paradise" (literally: land of drunkenness).

Column 137-138: *ỉw m(w).t m ḥr.ỉ mỉn mỉ wʒ.t **ḥwj.t** mỉ ỉwỉ s m mšʿ r pr.sn*

Death stands before me today like the passing of the rain, as when a man comes home from an expedition.

Column 139-140: *ỉw m(w).t m ḥr.ỉ mỉn mỉ kfỉ.t p.t mỉ s sḫt.f ỉm r ḫm.tn.f*

Death stands before me today like the clearing of the sky, like a man who thereby captures/acquires (some) of (?) that which was (previously) unknown to him.

Column 141-142: *ỉw m(w).t m ḥr.ỉ mỉn mỉ ʒbb s mʒʒ pr.sn ỉrỉ.n.f rnp.t ʿšʒ.t m nḏr.t*

Death stands before me today, as when a man longs to see home after having spent many years in captivity.

Context overview: This series of meteorological and natural similes appears within the famous existential Dialogue between a man and his Ba (soul) about the meaning of life and death. In this section, the man contemplates mortality through a sequence of poetic comparisons that frame death as a transient natural phenomenon. The rain metaphor specifically presents death as something that passes through—like a rainstorm that brings temporary disruption but ultimately yields to clarity and renewal. This is reinforced by the following simile of "the clearing of the sky", which continues the meteorological imagery and suggests that death, like weather, is part of a natural cycle of transformation. The comparison to "a man coming home from an expedition" provides a parallel human experience that emphasizes death as a return or homecoming rather than an ending.

Edition: Richard B. Parkinson et al., *Four 12th Dynasty Literary Papyri (Pap. Berlin P. 3022-5): A Photographic Record*, Ägyptische Und Orientalische Papyri Und Handschriften Des Ägyptischen Museums Und Papyrussammlung Berlin (Akademie Verlag, 2012), 15–17; 54–59; James P. Allen, *The Debate between a Man and His Soul: A Masterpiece of Ancient Egyptian Literature*, Culture and History of the Ancient Near East 44 (Brill, 2011), 103–6.

ḥw.t ex. 17. Transliteration: *ỉw.w mỉ m nn hb.n.ỉ šmỉ.j m wpw.t r ḏʒh m nʒ.w hrw.w n(.j)* ***ḥwj.t*** *srq.w ḫpr.w m pr.t*

Translation: How are these (literally: how what are they, these) whom I sent out, those who went with orders to Jahi (= area in Palestine) in these days of rain, when it (even) snowed in the *peret* season?

Source: Abu Simbel Great Temple, Facade Stele Year 34, line 36

Date: 19th Dynasty, New Kingdom

Determinative: 𓈒 (N35a)

Textual genre: Royal inscription

Context:

Line 29: *ʿḥʿ.n wʒwʒ.n ḥm.f sḥ.w m-ḏd*

Then His Majesty considered plans ... with the following words:

Line 72: *ỉw.w mỉ m nn hb.n.ỉ šj.w m wpw.t r ḎʒHj m nʒ.w hrw.w n(.j)* ***ḥwj.t*** *srq ḫpr.w m pr.t*

How are these (literally: how what are they, these) whom I sent out, those who went with orders to Jahi (= area in Palestine) in these days of rain, when it (even) snowed in the *peret* season?

ʿḥʿ.n smʒʿ.n.f ʿʒb.t ʿʒ.t Line 30 *n ỉtỉ.f Swtḫ spr.n.f ḥr.f m-ḏd*

So he made a great sacrifice for his father Seth and asked for the following (= weather situation in Syria):

p.t ḫr-ʿ.wj.k

Heaven is under your care.

tȝ ḫr rd.wj.k

The earth is beneath your feet.

wḏ.t.k pw ḫpr.t tm.k ỉrj.t ***ḥwj.t*** *qbjw srq r spr n.ỉ bỉȝ.jt wḏ.k n.ỉ*

What you command will happen... you shall not create rain, icy wind, or snow until the miracles you assign me have reached me.

ʿḥʿ.n sḏm.n ỉtỉ.f Swtḫ ḏd.n.f nb.t

Then his father Seth heard everything he (= Ramses II) had asked (literally: said).

wn.ḫr Line 31 *p.t m hrw.w šm.w*

There was heaven in ... and mild-warm days (literally: days of the *shemu* season)

Context overview: This passage comes from the Marriage Stela at Abu Simbel's Great Temple, commemorating the diplomatic marriage between Ramesses II and a Hittite princess around 1245 BCE within a refined narrative framework that integrates diplomatic history, meteorological observation, and divine intervention. The extended context reveals the complete sequence of the king's concern, petition, and divine response regarding severe weather conditions that threatened his diplomatic mission. The text describes challenges faced by the Egyptian delegation sent to escort the princess during winter season, establishing a semantic connection between rain and snow as co-occurring phenomena that emphasized the severity of weather conditions in the Levantine region. Ramesses II's response to this crisis demonstrates the sophisticated Egyptian understanding of divine control over natural phenomena. Upon learning of the harsh weather conditions, the king "considered plans" and

then proceeded to make "a great sacrifice for his father Seth", acknowledging the storm god's dominion over meteorological phenomena with the formal declaration "Heaven is under your care. The earth is beneath your feet". The king's petition reveals Egyptian belief in divine control over meteorological phenomena, as the pharaoh appeals to Seth—god of storms, foreign lands, and chaos—to restrain disruptive weather ("you shall not create rain, icy wind, or snow") until the diplomatic mission bringing the Hittite princess is successfully completed. The narrative concludes with Seth's response to the royal entreaty, as "his father Seth heard everything he had asked", followed by the transformation of weather conditions to "mild-warm days". This combination of diplomatic history and meteorological observation provides crucial insight into both the political climate of the ancient Near East and the recognition of extreme weather as significant challenges in international relations, while demonstrating how royal ideology integrated practical concerns about weather with theological concepts of divine intervention and cosmic order.

Edition: K. A. Kitchen, *Ramesside Inscriptions, Historical and Biographical, II* (B. H. Blackwell, 1979), 233–56. Charles Kuentz, 'La "Stèle Du Mariage" de Ramsès II.', *Annales Du Service Des Antiquités de l'Égypte* 25 (1925): 181–238.

ḥw.t ex. 18. **Transliteration:** *wḏn.k pw ḫpr.wt nb mỉ tm.k ỉr.t* ***ḥwj.t*** *qb srq.w r spr n.ỉ bjȝ.wt wḏ.k n.ỉ*

Translation: What you have commanded is fully accomplished (lit.: is all that happens), just as you shall not create rain, cold and snow until the miracles, which you assign to me, have reached me.

Source: Marriage Stela of Ramesses II (Abu Simbel), Great Temple, Facade Stele Year 34, lines 37-38

Date: 19th Dynasty, New Kingdom

Determinative:  (N35a); linked to (P5), (N4)

Textual Genre: Royal Inscription

Context: See ex.18. This excerpt follows directly from the previous passage in the Marriage Stela at Abu Simbel and contains Ramesses II's invocation to the god Seth. This entreaty reveals Egyptian belief in divine control over meteorological phenomena and shows the pharaoh appealing to Seth—god of storms, foreign lands, and chaos—to restrain disruptive weather until the diplomatic mission bringing the Hittite princess is successfully completed.

Edition: See *supra*

ḥw.t ex. 19. Transliteration: *wḥm bỉȝ.t ỉr.t* ***ḥw[.t]*** *mȝȝ ḫpr.w n.w nṯr pn*

Translation: Renewing the miracle: making rain and seeing the manifestations of this god.

Source: Wadi Hammamat, Quarry Inscription M 191, line 2

Determinative: possibly 𓈖 (N35a)

Textual genre: Royal inscription (quarrying expedition)

Date: 11th Dynasty, Middle Kingdom

Context:

Line 2: *m ḏw pn m nb-ʿnḫ ỉnr wȝḥ wḥm bỉȝ.t ỉr.t ḥw[.t] mȝȝ ḫpr.w n.w nṯr pn*
On this mountain of hard stone belonging to the Lord of Life. Renewing the miracle: making rain and seeing the manifestations of this god.

Context overview: The text appears in an account of a quarrying expedition led by vizier Amenemhat under King Mentuhotep IV. The inscription continues to describe unusual events that occurred during this mission, including the appearance of gazelles and miraculous water

sources in the desert. The inscription seems to establish the quarry site itself as a sacred location—"this mountain of hard rock of the Lord of Life"—transforming the practical extraction of stone into an encounter with divine presence. The phrase "renewing the miracle" (*wḥm bỉȝ.t*) might suggest this was not an isolated supernatural event but rather the repetition of previously witnessed divine interventions, indicating that the god regularly manifested his presence through meteorological phenomena at this sacred quarry site. The dual action of "making rain and seeing the manifestations of this god" likely establishes a direct causal relationship between the divine presence and the miraculous precipitation, demonstrating how ancient Egyptians understood weather miracles as tangible expressions of divine favour and intervention. This theological framework positions the rain miracle within a broader pattern of divine manifestations that validated royal authority and legitimized state economic activities. The inscription continues to describe other unusual events that occurred during this mission, including the appearance of gazelles and miraculous water sources in the desert, creating a narrative of divine blessing that encompassed both the practical success of the quarrying operation and the supernatural endorsement of royal power through meteorological intervention in the harsh desert environment.

Edition: Jules Couyat and Pierre Montet, *Les Inscriptions Hiéroglyphiques et Hiératiques Du Ouâdi Hammâmât*, Mémoires Publiés Par Les Membres de l'Institut Français d'archéologie Orientale 34 (L'institut français d'archéologie orientale, 1912), 97–98; Alan B. Lloyd, 'Once More Hammamat Inscription 191', *Journal of Egyptian Archaeology* 61 (1975): 59.

ḫw.t ex. 20. **Transliteration:** *(...)bȝw.k, nswt nḫ.t ỉtj mrj nṯr.w nb(.w) bỉȝ.t ʿȝ.t ḫpr[.tj] m rk ḥm.f [nn] mȝȝ nn, nn sḏm nn,* ***ḫw.t*** *p.t r ḏw n(.j) Pwntʿnd pw ḥw.t m spȝ.wt rsw […] ỉgr ȝbd pn ḥwj.s ỉm.f, nn tr.s ỉs pw m nỉw.wt Tȝ-Mḥw […] n mw.t.k N.t ỉn.t{.s} n.k ḥʿpj r sʿnḫ mšʿ.k*

Translation:(...) Your power, mighty king, sovereign beloved of all the gods, for a great wonder has taken place in the days of your majesty. [Never] had such a thing been seen or heard of rain from heaven had fallen on the mountain of Punt, whereas rain is rare in the southern regions. [...] But this month, when it rained in it, it was not its season (for rain) in

the northern cities. [...] to your mother, Neith of the province of Saïs, who brought you the flood in order to keep your troop alive'.

Source: Stele of Dafenneh, lines x+12-15

Date: 26th Dynasty (Early Persian Period), Late Period

Determinative: 𓈖 (N35a)

Textual genre: Royal decree

Context: The Stele of Dafenneh commemorates an extraordinary meteorological event that occurred during the reign of an unnamed king. The stele serves as a testament to the king's divine favour, as indicated by the unusual rainfall on the mountain of Punt - a region known for its exotic goods and which was rarely visited by Egyptians. This rare occurrence of rain in an area where it was typically scarce was interpreted as a divine sign supporting the king's rule. The text emphasizes that such an event had never been seen or heard of, highlighting its miraculous nature and positioning it as a cosmic endorsement of royal authority. The passage connects this unusual rainfall directly to the intervention of the goddess Neith of Sais, who is credited with bringing the life-giving flood to sustain the king's troops.

Edition: F. Ll. Griffith, A. S. Murray, and W. M. Flinders Petrie, *Tanis. Part II. Nebesheh and Defenneh*, 2 vols, Memoir of the Egypt Exploration Fund 4 (London: Trübner, 1885), pl. XLII;

ḥw.t ex. 21. Transliteration: *ḥw{i.t}* *ḫft wḏ.f*

Translation: The rain (happens) according to his command.

Source: Metternich Stela, New York, Metropolitan Museum of Art 50.85, Spell 8, line 83

Date: 30th Dynasty, Late Period

Determinative: 𓈖 (N35a)

Textual genre: Magical text

Context:

Line 83: *ʿḫn.f s(j) ḫpr kk(.w)*
If he closes it, darkness arises.

ḥw{i.t} *ḫft* Line 84: *wḏ.f*
The rain (happens) according to his command.

n{n} rḫ nṯr.w rn.f
Commentary: (and yet:) The gods do not know his name.

Context overview: The Metternich Stele, a protective healing statue contains numerous magical spells designed to counter the venom of snakes, scorpions, and other dangerous creatures. Spell 8, from which this excerpt comes, invokes the power of the sun god Horus to neutralize poison and heal the afflicted. The spell establishes the sun god's absolute control over the natural world, including the cycle of day and night and meteorological phenomena such as rainfall.
The context of this excerpt is significant, as it appears immediately after a description of how the god controls light and darkness. This juxtaposition creates a cosmic framework where the god's actions directly influence celestial phenomena. In a magical healing context, this assertion of divine control over natural forces serves to reassure the afflicted that the same divine power can be directed toward neutralizing poison and restoring health.

Edition: C. E. Sander-Hansen, *Die Texte Der Metternichstele*, Analecta Aegyptiaca 7 (København: Ejnar Munksgaard, 1956), 47–49.

ḥw.t ex. 22. Transliteration: *ʒ(i)s.sn bʿḥỉ.f ỉn.wt.sn ṯr.w.sn mỉ snm.w ḥwj.t*

Translation: Their entrails, it floods their valleys, their red blood is like downpours of rain.

Source: Tombos Stela of Thutmose I, line 8

Determinative:  (N35) linked to (N4)

Textual genre: Royal inscription (military)

Date: Early 18th Dynasty, New Kingdom

Context:

Line 7: *ỉwn.tỉ.w Štỉ ḫr n šʿ.t ḏỉ.j ḥr gs ḫt tʒ.w.sn*

The Troglodytes of Nubia fell in the slaughter, they lay on their sides (= were dead) across their lands.

Line 8: *ʒ(ỉ)s.sn bʿḥỉ.f ỉn.wt.sn ṯr.w.sn mỉ snm.w **ḥwj.t***

Their entrails, it floods their valleys, their red blood is like downpours of rain.

ḥʒj.w.w ḥr.s ʿšʒ n(.j) ʒpd.w.w ḥr ḫnp ỉṯỉ(.t) r kj bw

Birds of prey were upon them – numerous birds stole (them) and carried (them) to another place.

Context overview: The Tombos Stela of Thutmose I (circa 1504-1492 BCE) commemorates this pharaoh's military campaign into Nubia, recording his conquest of territories and

establishing the southern boundary of the Egyptian empire. The stela was erected at Tombos, near the Third Cataract of the Nile, marking Egypt's expanded frontier and serving as a warning to potential enemies. In this context, the vivid description of enemy blood flooding valleys "like downpours of rain" functions as a powerful metaphor for the overwhelming and devastating nature of the Egyptian military victory, emphasizing the total defeat of the Nubian forces.

The metaphorical use of rainfall imagery in this military context draws upon the shared human experience of witnessing the power and destructive potential of severe storms. This image is reinforced by the preceding statement that enemy entrails "flood their valleys", creating a parallel between the natural phenomenon of flooding and the consequences of military defeat. Such powerful metaphorical language serves to glorify the king's military prowess and to intimidate potential rebels, demonstrating how meteorological phenomena could be employed rhetorically to communicate political messages.

Edition: Klug, *Königliche Stelen in Der Zeit von Ahmose Bis Amenophis III*, 73;552.

ḥw.t ex. 23. **Transliteration:** *pḥ.n qȝȝ.t ỉr.w tp-ḥw.t.s (ȝ)ʿʿ m ȝḫ.t r tr n rnp.t snḏ n ḫpr* ***ḥw.t***

Translation: (Sand) drifts reached his roof, covered over with earth until the time of year dreading the occurrence of the rain.

Source: Kawa Temple IV (Taharqa's Khartoum Stela 2678), lines 10-11

Date: 25th Dynasty, Late Period

Determinative: 𓈖 (N35a)

Textual genre: Royal inscription

Context:

Line 10: *gmỉ.n.f ḥw.t-nṯr tn qd.tw m ḏbȝ.t*

He found this temple built of bricks.

pḥ.n qȝȝ.t Line 11: *ỉr.w tp-ḥw.t.s (ȝ)ʿʿ m ȝḫ.t r tr n rnp.t snḏ n ḫpr* ***ḥw.t***

(Sand) drifts reached his roof, covered over with earth until the time of year dreading the occurrence of the rain.

wn.n ỉb n(.j) ḥm.f wȝỉ r Line 12: *ḏw ḥr.s r ḫʿỉ ḥm.f m nswt nswt-bj.tj smn Nb.tj tp.f*

Therefore, His Majesty's heart was in a bad mood (lit.: far from evil), until His Majesty (= Taharqa) appeared as King of Upper and Lower Egypt, with the Two Uraei fixed on him.

ḫpr rn.f m Ḥr.w qȝ-ḫʿ.w sḫȝ.n.f ḥw.t-nṯr Line 13: *tn mȝ.n.f m ḥwn m rnp.t tp.j n.t ḫʿỉ.f*

When his name as Horus Qa-chau had come into being in the first year of his appearance, he remembered this temple which he had seen as a youth.

ḏd.ỉn ḥm.f n smr.w.f

Then His Majesty said to his courtiers:

m.k ỉb.ỉ r qd ḥw.t-nṯr Line 14: *n ỉtỉ.ỉ Ỉmn-Rʿw-Gm-pȝ-Ỉtn ḥr-ntt wnn.s qd.tw m ḏbȝ.t ȝʿʿ.tw m ȝḫ.t*

Behold, my heart will build a temple for my father Amun-Re of Gem-pa-Iten, for it is built only of bricks and smeared with earth.

nn r.f Line 15: *nfr ḥr ỉb.w.f*

There is nothing good in the hearts.

wnn nṯr pn m s.t tn n rḫ ỉrỉ.tn ***ḥwj.t***

This god is in this place, what caused the downpour is not known.

ntf pw swḏȝ rᵓ-pr pn r ḫpr ḫʿỉ.ỉ m nswt Line 16: *rḫ.n.f ntt ỉrỉ.n n.f mn.w sȝ.f ỉm.j wtt.n.f*

It is he (= Amun-Re) who kept this temple safe until my appearance as king, for he knows that I had already made monuments to him, for I am his son, whom he begot.

Context overview: The Khartoum Stela of King Taharqa provides a narrative of temple restoration that integrates practical architectural concerns with divine intervention. The sequence begins with Taharqa's discovery of the neglected Temple of Amun at Kawa, originally constructed of mudbrick (line 10). The critical description in line 11 reveals that sand drifts had reached the temple's roof and been covered with earth as protection against the annual rainy season—the "time of year dreading the occurrence of the rain" (*ḥw.t*). This practical measure reflects sophisticated understanding of seasonal weather patterns and their destructive potential for architectural structures. Taharqa's emotional response is captured in line 12: his heart was troubled until his formal coronation as pharaoh. Following his accession and adoption of the Horus name Qa-chau (line 13), he recalls the temple from his youth and addresses his courtiers with his restoration plans (line 14), acknowledging the inadequate mudbrick and earth construction. The pivotal moment occurs during the rebuilding process when a mysterious downpour occurs despite there being no apparent natural cause. As stated in line 15, "This god is in this place, what caused the downpour is not known". This sudden, unexplained rainfall was interpreted as a manifestation of divine presence and approval, confirming that Amun was indeed present at the site and sanctioning the restoration efforts. The mysterious rainfall serves as a pivotal element in this narrative, transforming routine royal building work into a divinely ordained mission. Line 16 concludes by emphasizing divine protection: "It is he [Amun-Re] who kept this temple safe until my appearance as king", establishing the theological framework where both the destructive seasonal rains and the miraculous restorative downpour demonstrate divine agency in the preservation and renewal of sacred space. This context shows how *ḥw.t* encompasses both the feared seasonal precipitation that threatens architectural integrity and the blessed divine outpouring that signals divine approval of restoration efforts.

Edition: M. F. Laming Macadam, *The Temples of Kawa I: The Inscriptions* (Oxford: Oxford University Press, 1949), 14–21, pl. 7–8.

ḥw.t ex. 24. **Transliteration:** *wnn nṯr pn m s.t tn n rḏ ỉrỉ.t.n* ***ḥwj.t***

Translation: This god is in this place, what caused the downpour is not known.

Source: Kawa Temple IV (Taharqa's Khartoum Stela 2678), line 15

Date: 25th Dynasty, Late Period

Determinative: 𓈖 (N35a)

Textual genre: Royal inscription (temple building)

Context: See ex.4. Continuing the narrative of Taharqa's restoration work at the Temple of Amun at Kawa, the stela describes a remarkable event that occurred during the rebuilding process. After the king had ordered the temple's restoration and workers had begun clearing away the accumulated sand, a mysterious downpour occurred despite there being no apparent natural cause. The statement suggests that the rainfall was interpreted as a manifestation of divine presence and approval. This sudden, unexplained rainfall was viewed as confirmation that the god Amun was indeed present at the site and sanctioning the restoration efforts.
The passage occurs within a broader narrative describing how Taharqa, having found the temple neglected, took immediate action to restore it to its former glory. The mysterious rainfall serves as a pivotal element in this narrative, transforming what might otherwise be seen as routine royal building work into a divinely ordained mission.

Edition: See *supra*

ḥw.t ex. 25. **Transliteration:** *ʿ.t nb.(t) mḥ.t m ḫm.(w) ḫpr ỉs* ***ḥ(w).t*** *mḥ.t [m mw]*

Translation: All its rooms were filled with rubble, but as rains happens, then they were filled [with water].

Source: Nomarch Sarenput I stela 9, line 7

Date: 12th Dynasty, Middle Kingdom

Determinative: 𓈖 (N35a)

Textual genre: Autobiographical inscription (temple restoration)

Context:

Zx+6-7: *st wš.t n ⸢tỉ⸣ mwm[...]*

The site was destroyed by the *tj* plant...

Zx+7: *⸢t⸣s nb.t mḥ.t m ḫmʿw*

All of its chambers were filled with rubble.

Zx+7-8: *ḫpr ỉs ḥt mḥ.t [m mw]*

but as rains happens, then they were filled [with water].

Zx+8-9: *rn ʿnḫ dbt wš.t ʿm.n tȝ zwr.t.s*

The name was still alive, the brick was destroyed and earth had swallowed their drinking place.

Context overview: The stela of Sarenput I, documents the restoration of a shrine within the Sanctuary of Heqaib at Elephantine Island. Sarenput I was the nomarch of Elephantine under King Senwosret I, and this restoration project demonstrates his commitment to local religious traditions and his authority in maintaining important cult sites. The text describes finding the shrine in a state of severe disrepair, indicating long-term neglect of this important religious structure. This deterioration was compounded by rainfall, which caused the rubble-filled rooms to become waterlogged, further threatening the structural integrity of the shrine.

Following this description of the shrine's condition, the stela goes on to detail Sarenput's restoration work, including replacing damaged stones, refreshing religious imagery, and ensuring that the structure would be better protected against future environmental damage. The specific mention of rain causing water accumulation in the already compromised rooms highlights the practical challenges faced by Egyptian builders in maintaining structures in areas subject to occasional rainfall.

Edition: Labib Habachi et al., *Elephantine IV: The Sanctuary of Heqaib*, 2 vols, Archäologische Veröffentlichungen, Deutsches Archäologisches Institut, Abteilung Kairo 33 (Philipp von Zabern, 1985), 36; pl. 24; Detlef Franke, *Das Heiligtum Des Heqaib Auf Elephantine: Geschichte Eines Provinzheiligtums Im Mittleren Reich*, Studien Zur Archäologie Und Geschichte Altägyptens 9 (Heidelberger Orientverlag, 1994), 155,165; pl. I.

ḥw.t ex. 26. **Transliteration:** *ỉrỉ.j.ỉ n.f s(j) ḥr p(ỉ) n(.j) rwd.t sq(ʒ)ỉ sʿʒỉ.w wr.t ḏrn.tt ḥ[__] **[ʕḫj?].t** r ḥw.t-nṯr (j)n Nw.w m jj[.t] r ỉ[t]r.w.f*

Translation: I will build it for him on a pedestal of solid stone, by making it very high and big, for [... the flood] to the temple by Nun when he comes in his times.

Source: Foundation ritual stele of Thutmose III from Karnak, Cairo Egyptian Museum CG 34012, line 3

Date: 18th Dynasty, New Kingdom

Determinative: Lost (Lacuna)

Textual genre: Royal inscription (temple foundation)

Context:

Line 2: *[ỉ]w ʒbỉ.n ḥm.ỉ ỉrỉ.t mn.w n (ỉ)tỉ.ỉ [Ỉmn-Rʿ] m Ỉp.t-s.wt sʿḥʿ ỉwnn sḏsr ʒḫ.t smnḫ n.f Ḫft(.ỉ)t-ḥr-nb.s s.t-ỉb (ỉ)tỉ.ỉ* Line 3 *n(.j).t hrw tp.ỉ [Ỉmn-Rʿ] [nb-ns.wt-tʒ.wj]*

It is so: My Majesty has conceived the wish to erect a monument for my father [Amun-Re] in Karnak, to build a sanctuary, to make the horizon (= temple) magnificent, to make for him excellent Cheftithernebes, the favourite place of my father from the first day, [of Amun-Re, Lord of the Throne of the Two Lands].

ỉrỉ.ỉ.ỉ n.f s(j) ḥr p(ỉ) n(.j) rwd.t sq(ʒ)ỉ sʿʒỉ.w wr.t ḏr-ntj.t ḥ[...] [ḥỉ?].t r ḥw.t-nṯr (ỉ)n Nw.w m ỉỉ[.t] r ỉ[t]r.w.f
I will build it for him on a base of solid stone, making it very high and great, for [… the flood (?)] to the temple through Nun, when he comes in his season.

ḫ(w)sỉ.ỉ n.f sỉ m ỉb mrr
I will build it for him with a loving heart.

Context overview: The Foundation Ritual Stele of Thutmosis III records the ceremonial establishment of a new shrine dedicated to Amun-Re within the temple complex at Karnak. The extended context reveals the theological and practical background underlying this royal building project. The king begins by declaring his divine inspiration to create a monument for "his father" Amun-Re, emphasizing the filial relationship between pharaoh and deity that legitimizes royal authority. The specific mention of making the "horizon" (*ʒḫ.t*) magnificent refers to the temple as a cosmic threshold where divine and earthly realms intersect, while "Cheftithernebes" appears to be a sacred designation for the temple precinct as the god's "favourite place from the first day". This theological introduction establishes the construction not merely as a building project but as a cosmic act of devotion and renewal. Foundation rituals were essential religious ceremonies that sanctified new construction projects and placed them under divine protection. In this text, Thutmosis III declares his intention to build the shrine on a "base of solid stone" and make it "very high and great", revealing both practical engineering considerations and symbolic aspirations for the structure to reach toward the heavens. The crucial practical consideration about protecting the temple from flooding by Nun "when he comes in his season" could demonstrate the complex understanding of the relationship between temple architecture and environmental factors, particularly the annual Nile inundation that could threaten structures built at lower elevations.

The reference to Nun, the primordial waters of chaos, contextualizes the flood threat within Egyptian cosmology while acknowledging the cyclical nature of inundation. The concluding declaration that he will build "with a loving heart" transforms the construction into an act of personal devotion, emphasizing the emotional and spiritual dimensions of royal temple patronage. This framework likely shows how practical architectural concerns about water management were seamlessly integrated with theological concepts of divine service and cosmic order in ancient Egyptian royal ideology.

Edition: Kurt Sethe, *Urkunden Der 18. Dynastie*, 2nd ed., Urkunden Des Ägyptischen Altertums, IV (Berlin; Graz: Akademie-Verlag ; Akademische Druck- und Verlagsanstalt, 1961), vols 3, 833–838;

ḫw.t ex. 27. **Transliteration:** *[...] nṯr ḥr(.j)? nšnỉ.f r pḥ.tj?.[f] [...] m* ***ḫwj.t***

Translation: [...] the superior (?) god (?), he rages with all his might [...] with a rainstorm.

Source: The Teaching of the P. Ramesseum II (P. BM EA 10755), recto I, line 6

Date: 12th or 13th Dynasty, Middle Kingdom

Determinative: 𓈖 (N35a)

Textual genre: Wisdom text

Context:

Line 5: *[...] .k m psš-rʾ*

[...] you/your [...] like/is one with a splitting/split mouth.

Line 6: *mdw sh(ʒ) ḥʒ? ḏỉ.f*

A word of rebellion ..., it gives/causes [...]

[...] nṯr ḥr(.j)? nšnỉ.f r pḥ.tj?.[f] [...] m ***ḫwj.t*** [...]

[...] the superior (?) god (?), he rages with all his might [...] with a rainstorm.

Line 7: [...] *ḏbʒ.f nḫw t? .s ỉw nh.w s šm? snỉ ʿnḫ*

[...] some leaders (?; or: their loss) [...] (when) life passes by.

Context overview: The fragmentary nature of the text makes its exact context challenging to reconstruct, but it seems to describe a divine entity whose actions manifest in natural phenomena, particularly a violent rainstorm. The preceding lines mention rebellion and splitting/division, while the following passage references leadership and the passing of life. The divine figure's manifestation through meteorological phenomena appears to serve as a response to disorder or rebellion, with the rainstorm representing divine intervention or judgment. This connection underscores the deity's dominion over both celestial phenomena and social order, possibly demonstrating how natural manifestations were understood as divine responses to human conduct in Egyptian wisdom literature.

Edition: Alan Gardiner, *The Ramesseum Papyri* (Oxford: Oxford University Press for Griffith Institute, 1955), pl. III, ro 1, 6.

ḫw.t ex. 28. **Transliteration**: *bꜣ pw n Ḥḥw* ***ḫw.t***

Translation: The Ba of Huh is the flow.

Source: Book of the Heavenly Cow, KV 9 (Tomb of Ramesses VI), Scene 86, line 6

Date: 20th Dynasty, New Kingdom

Determinative: 𓈙 (N35a)

Textual genre: Mythological-funerary text

Context:
Line 5: *ḥkꜣ.w pw bꜣ*
Magic is my Ba-soul,

wr sw r.s
She (the Ba-soul) is older than she (the years?).

bꜣ pw n Šw Line 6: *ṯꜣw*
The Ba of Shu is the wind.

bꜣ pw n Ḥḥw ḫw.t
The Ba of Huh is flow.

⸢bꜣ⸣ pw n kk.wt grḥ
The Ba of darkness is the night.

Line 7: *bȝ pw n Nwn mw*

The Ba of Nun is water.

Context overview: This text is set within the context of Ra's withdrawal from direct rule over humanity after their rebellion, creating a new cosmic structure mediated by other deities. The extended context reveals a theological framework that systematically identifies the Ba-souls of primordial forces with their natural manifestations, establishing a cosmological system that explains how abstract divine principles become tangible phenomena in the physical world. The excerpt appears in a section that elaborates on the divine attributes and manifestations of primordial gods, particularly their connections to natural and cosmic phenomena. The passage presents a methodical series of declarations identifying the Ba-souls of different cosmic entities, beginning with the foundational statement "Magic is my Ba-soul" followed by the temporal assertion that "She (the Ba-soul) is older than she (the years?)", establishing magic as the primordial force that precedes even time itself. The sequence then systematically maps divine essences onto natural phenomena: "The Ba of Shu is the wind", "The Ba of Hehu is flow", "The Ba of darkness is the night", and "The Ba of Nun is water". These identifications establish how abstract cosmic principles manifest through natural phenomena, with Hehu 's manifestation specifically being rainfall or flowing water (*ḥw.t*), while creating a crucial theological distinction between different types of primordial water: Huh represents flowing, dynamic water (including rain and streams), while Nun represents the static, primordial waters of creation. This differentiation between Huh as a flowing primordial body of water in contrast to Nun as a standing primordial body of water reflects sophisticated Egyptian theological understanding of water's various manifestations and roles in cosmic order. The systematic enumeration of these divine correspondences likely demonstrates how ancient Egyptian cosmology provided a framework for understanding the relationship between divine forces and natural phenomena, positioning rain (*ḥw.t*) within a broader theological context that encompasses the full spectrum of cosmic manifestations from magic and time to atmospheric conditions and primordial waters.

Edition: Jacques Vandier et al., *Mo'alla: La Tombe d'Ankhtifi et La Tombe de Sébekhotep*, Bibliothèque d'étude 18 (Institut français d'archéologie orientale, 1950), 220-225;232-234;

Bernard Mathieu, *La Littérature de l'Égypte Ancienne, I: Ancien Empire et Première Période Intermédiaire. Textes Des Pyramides, Autobiographies, Lettres Aux Morts, Hymnes, Eulogies Royales*, 2 vols (Belles Lettres, 2021), 238–40.

ḥw.t ex. 29. Transliteration: *Sšȝ.w* ***ḥw.t*** *ḫzỉ.j ḏ.t twr ḥt.t-ỉb.ỉ*

Translation: Seshau, rain. The cobra is weak, my windpipe is pure.

Source: Pyramid Texts, Spell 285 (§426 b-c), Pyramid of Unas

Date: late 5th to 8th Dynasty, Old Kingdom

Determinative: (N4)

Textual genre: Funerary text

Context: Spell 285

§426a *ḏd-mdw ỉw nšz.k ỉr šzwj.k*
Recitation: put your two (poison) drops to your two cups (i.e., poison-glands)!

bš ỉwn ṯrỉ §426b *ỉ.bḫ m*
Spew out now, Gory; please, spew out!

wj m mw ỉ j bb nṯ Sšȝ.w §426c ***ḥw.t*** *ḫzj wȝḏt twr ḥt.t-ỉb.ỉ*
Hey, into the water! O eye-hurt, cobra. Seshau, rain. The cobra is weak; my windpipe is pure!

ỉ ḥṯỉ ỉbnw sw rw m mw ȝw ȝw ȝ ḥt.t-ỉb.ỉ tỉ
O hyena? alum?! Dangerous one, lion—into the water! *ȝw ȝw ȝ?* ! Let the windpipe be safe.

Context overview: Earliest known attestation of *ḥw.t*, invoking the deity Seshau for protection against rainfall and snake venom, reflecting the symbolic and magical associations of natural phenomena in the context of funerary beliefs and practices. This spell belongs to a category of protective formulas designed to neutralize the threat of venomous creatures in the afterlife, specifically snakes, which were a real-world danger as well as powerful symbolic entities in Egyptian religious thought. The spell appears among a sequence of anti-snake incantations inscribed on the western wall of the burial chamber, near the sarcophagus, positioning it to provide immediate magical protection for the deceased king.

Edition: James P. Allen, *A New Concordance of the Pyramid Texts*, 6 vols (Brown University, 2013), vol. III, PT 285.

ỉgp

ỉgp ex. 1. **Transliteration:** *[…]p.t <m> ỉgp tȝ m ṯȝw [s nb mt] n ḥḳr ḥr ṯs pn n ʿpp* ***[…]***

Translation: […]When the sky was overcast and the land in the wind [and every man dead] of hunger on this sand bank of Apep**[…]**.

Source: Ankhtifi 10, IV, 8-10

Date: First Intermediate Period (ca. 2181-2055 BCE)

Determinative: 𓌅 (N1)

Textual genre: Autobiography

Context: The inscription appears in Ankhtifi's tomb at Mo'alla, dating to the turbulent First Intermediate Period (ca. 2181-2055 BCE), when Egypt experienced political fragmentation, environmental stress, and famine. Ankhtifi, the nomarch of Hierakonpolis and Edfu, used this autobiographical text to legitimize his authority during this chaotic period. The passage about clouds occurs in a section where he describes his governance during environmental disaster, juxtaposing the natural calamity with his benevolent leadership. Immediately preceding this passage, Ankhtifi boasts of his role as a provider for his region during widespread famine. The cloud reference forms part of a vivid description of environmental collapse affecting all Upper Egypt, with the darkened sky serving as both literal description and metaphor for the political darkness engulfing the land.

Edition: Jacques Vandier et al., *Mo'alla: La Tombe d'Ankhtifi et La Tombe de Sébekhotep*, Bibliothèque d'étude 18 (Institut français d'archéologie orientale, 1950), 220-225;232-234; Bernard Mathieu, *La Littérature de l'Égypte Ancienne, I: Ancien Empire et Première Période Intermédiaire. Textes Des Pyramides, Autobiographies, Lettres Aux Morts, Hymnes, Eulogies Royales*, 2 vols (Belles Lettres, 2021), 238–40.

ỉgp ex. 2. **Transliteration:** *ỉ nb ỉns sḫm m ȝw.t-ỉb ỉ nb* ***ỉgp*** *ṯȝy sqd.wt ỉ sqdd ḥr ṯs pwj n ʿȝpp ỉ ṯs tp.w smn wsr.wt m prỉ.t m nsp.w ỉ ỉr.ỉ mḫn.t štȝ.t sȝȝ ʿȝpp ỉnỉ n.ỉ mḫn.t*

Translation: Oh Lord of the red cloth who possesses joy, oh Lord of the clouds, Male of the crossing, oh He who sails over that sandbank of Apophis, oh He who attaches the heads and fastens the necks in escape from the wounds, oh Guardian of the secret ferry who guards Apophis, bring me the ferry!

Source: Book of the Dead 99,3

Date: New Kingdom (ca. 1550-1069 BCE)

Determinative: 𓉔 (N4)

Textual genre: Funerary-religious text

Context: This invocation focuses on providing the deceased with access to a ferry-boat for crossing celestial waters in the afterlife. The passage forms part of a longer sequence of invocations addressed to divine entities who control various aspects of the netherworld journey, with particular emphasis on overcoming the cosmic serpent Apophis (Apep). The title "Lord of the cloud" appears within a series of epithets addressing a divine ferryman who assists the deceased in navigating dangerous cosmic waters. This section directly follows instructions for the deceased to recite specific magical words to secure passage, and precedes descriptions of the ferryman's powers to overcome cosmic obstacles.

Edition: Book of the Dead (BD 99 B): W. V. Davies, T. Schneider, and G. Lapp, *The Papyrus of Nu (BM EA 10477)*, Catalogue of the Books of the Dead in the British Museum 1 (London: British Museum Press, 1997), pl. 62; Stephen Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, GHP Egyptology 20 (London: Golden House, 2013), chap. 099.

ỉgp ex. 3. **Transliteration:** *pr.n Ppj pn ḥr* ***ỉgp.w*** *hʒ.n.f ḥr ỉ(ʒ)ḫḫ.w*

Translation: This Pepy ascended on the clouds, he descended onto the radiance.

Source: PT 627 § 1777c

Date: Old Kingdom

Determinative: 𓐍 (N4)

Textual genre: Funerary-religious text

Context:
§ 1777: *[...] Ppj m bỉk ʿʒ dbḥ ḫpr ḫns Ppj pn p.t ḥr fdw sr.w pr.n Ppj pn ḥr ỉgp.w hʒ.n.f ḥr ỉ(ʒ)ḫḫ.w ỉn n Ppj pn ʒḫ.f ʿpr.*

[...] this Pepy as a great falcon who demands to be born, This Pepy will course the sky on the four boards. This Pepy ascended on the clouds, he descended onto the radiance. For has been brought to this Pepy his *akh* spirit equipped.

Context overview: The utterance belongs to a category of spells designed to facilitate the deceased king's transformation and movement in the celestial realm, emphasizing his ability to traverse different cosmic domains. The extended context reveals Pepy's celestial transformation and cosmic authority within Pyramid Text 627. The sequence begins by establishing Pepy's divine metamorphosis into "a great falcon who demands to be born", connecting him to Horus and other falcon deities while emphasizing his active role in his own rebirth and transformation. The phrase "who demands to be born" suggests the king's agency in his own cosmic regeneration rather than passive reception of divine power. The reference to Pepy coursing "the sky on the four boards" establishes his mastery over celestial navigation, with the "four boards" likely referring to the structural elements of the solar barque or the four corners/directions of the sky, positioning him as an active participant in cosmic order

rather than merely a passenger. The central passage describing his ascension "on the clouds" and descent "onto the radiance" demonstrates his complete freedom of movement between different cosmic domains—the atmospheric realm represented by clouds and the pure celestial realm of divine radiance. This bidirectional movement emphasizes not just his ability to reach the divine realm, but also his capacity to return and traverse between worlds at will. The sequence culminates with the confirmation that "his akh spirit equipped has been brought to this Pepy",establishing the successful completion of his transformation into an effective spirit (*akh*) capable of functioning independently in the afterlife. This theological progression—from falcon transformation through celestial navigation to cloud-traversing mobility and finally to fully equipped spiritual status—creates a broad narrative of royal apotheosis that positions atmospheric phenomena like clouds as both pathways and domains of divine authority accessible to the transfigured king.

Edition: Kurt Sethe, *Die Altaegyptischen Pyramidentexte: Nach Den Papierabdrücken Und Photographien Des Berliner Museums*, 4 vols (Leipzig: J. C. Hinrichs, 1908), 1777c.

ỉgp ex. 4. **Transliteration:** *pr.t hꜣ.t m p.t hꜣ.n N tn ỉm.ṯ m* ***ỉgp***

Translation: Ascending and descending from the sky; this N came down from you (= the sky) in a cloud.

Source: CT VI, 346h

Date: Middle Kingdom (ca. 2055-1650 BCE)

Determinative: (N1)

Textual genre: Funerary-religious text

Context: This spell focuses on the deceased's freedom of movement in the afterlife, especially the ability to traverse between celestial and terrestrial realms. The passage appears in a

section addressing the deceased's ability to transform and travel between realms, serving as a declaration of cosmic mobility.

Edition: Adriaan de Buck, *The Egyptian Coffin Texts*, I–VII vols, Oriental Institute Publications 34 (Chicago: University of Chicago Press, 1935), 718, VI 346h.

ỉgp ex. 5. **Transliteration:** *sḫtp.ỉ Rʿ m-ḫn.w bʿḥ wtnw wỉȝ.ỉ sqd.f m-ḫn.w* ***ỉgp.t*** *ḥnʿ šms Rʿ*

Translation: May I satisfy Ra within the flood of the celestial flow, when my boat sails inside the cloud together with Re's suite.

Source: CT IV, 144n

Date: Middle Kingdom

Determinative: 𓏏 (N4)

Textual genre: Funerary-religious text

Context: This passage focuses on the deceased's relationship with Re and other solar deities. The spell concerns the celestial journey of the deceased and their integration into the cosmic order, with particular emphasis on the solar boat's navigation. The section directly addresses the deceased's aspiration to satisfy Re, the sun god, while navigating through celestial waters and clouds. This passage appears within a broader description of the deceased's desired relationship with various celestial entities. The image of the boat sailing "inside the cloud" connects to Egyptian conceptions of the sky as a watery realm, with clouds serving as channels or pathways through the celestial ocean.

Edition: Adriaan de Buck, *The Egyptian Coffin Texts*, I–VII vols, Oriental Institute Publications 34 (Chicago: University of Chicago Press, 1935), IV 144m-n.

ỉgp ex. 6. **Transliteration:** *ỉnk nb.t fz.w m wz.wt* ***ỉgp***

Translation: I am the Lady of Prestige on the paths of the cloud.

Source: CT IV, 177g

Date: Middle Kingdom

Determinative: (N1)

Textual genre: Funerary-religious text

Context:

177g: *ỉnk nb.t fz.w m wz.wt* ***ỉgp***

I am the Lady of Prestige on the paths of the overcast sky.

177h: *ỉnk nb.t ṯz.w m ỉw ḥʿ.w*

I am the Lady of the Winds on the Isle of Joy.

Context overview:

This declaration focuses on the deceased's identification with various divine aspects and their navigation through cosmic realms. The spell emphasizes the deceased's transformation and acquisition of divine authority in the afterlife. The passage forms part of a series of self-identificatory statements through which the deceased claims various divine titles and powers. The context reveals the cosmic authority claimed by the deceased within Coffin Text spell IV, specifically focusing on the identification with divine control over both atmospheric and geographical domains. The sequential declarations in lines 177g and 177h likely create a theological outline where the deceased asserts dominion over complementary cosmic realms: the atmospheric pathways represented by cloudy skies and the mythological territories symbolized by the "Isle of Joy". This parallelism reflects ancient Egyptian mortuary beliefs where the successful deceased could claim divine titles and exercise supernatural authority

over various domains of existence. The title "Lady of Prestige" in connection with the "paths of the overcast sky" could establish the authority over celestial navigation through atmospheric phenomena, particularly the cloud-covered regions of the sky that were understood as divine pathways. The complementary identification as "Lady of the Winds" (*nb.t t̲ꜣ.w*) governing the "Isle of Joy" creates a claim to meteorological control that encompasses both the movements of air masses (winds) and the atmospheric conditions that produce cloud cover. The "Isle of Joy" could represent a blessed geographical location within the afterlife cosmography, likely referring to one of the paradisiacal islands where the righteous dead could expect to dwell. This dual identification might reveal the Egyptian concept that successful deceased individuals could assume divine attributes and exercise control over previously threatening natural phenomena, transforming obstacles like overcast skies and unpredictable winds into domains of personal authority. The sequence positions atmospheric control—particularly over clouds and winds—as essential aspects of divine authority that the deceased seeks to appropriate, reflecting the practical importance of weather phenomena for navigation and survival while simultaneously demonstrating their symbolic significance as manifestations of cosmic order under divine control.

Edition: Adriaan de Buck, The Egyptian Coffin Texts. Vol. 4 (Chicago: University of Chicago Press, 1951), 177g.

i̯gp ex. 7. **Transliteration:** *p.t m* ***i̯[g]p*** *tꜣ m si̯m*

Translation: The sky covered (and) the earth in mist.

Source: CT VI, 220l

Date: Middle Kingdom

Determinative:  (N1)

Textual genre: Funerary-religious text

Context:

VI 220 l 2 – m: *p.t m* ***i̯[g]p*** *tz m sỉm m {r}<r>d qb ṯ[b.wt] ḥzp.wt*

the sky is covered (and) the earth is in fog with the calm foot (and) the hidden sandals

VI 220 n: *i̯mỉ gm.(w) nb{t}<ḏ> sz n(w).t wz.t r.s*

It is so that the Destroyer, the son of Nut, cannot find a way against him (= the eye of Horus)

Context overview: The spell 607 focuses on protecting the Eye of Horus and the deceased from hostile forces. The specific line occurs in a section where Isis speaks about bringing protective measures against "the Destroyer, the son of Nut" (Seth). Just before this reference to atmospheric phenomena, Isis mentions bringing "everything" to Osiris, assembled on the mounds, and expresses her desire that he protects his Eye from harm. The clouds and mist are described as part of a protective shroud that comes with "quiet foot and hidden sandal", suggesting these atmospheric conditions serve as concealment against Seth's destructive influence. Following this reference to the sky in clouds and earth in mist, the text continues its protective theme, stating that "the Destroyer, the son of Nut" should not find a way against the one being protected. This possibly indicates that the atmospheric conditions are intentionally invoked as part of a magical barrier or disguise. The spell then transitions to addressing the Eye of Horus directly, comparing them to the Night-bark and Day-bark (the solar vessels), and further develops themes of protection and cosmic integrity against forces that would harm or misuse these divine embodiments of power.

Edition: Adriaan de Buck, The Egyptian Coffin Texts. Vol. 6 (Chicago: University of Chicago Press, 1956), 220l.

i̯gp ex. 8. **Transliteration:** *kf ʿḏ.wt nwr* ***i̯gp***

Translation: The murky sky clears, the clouds shake.

Source: CT VII, 205b

Date: Middle Kingdom

Determinative: 𓉔 (N4)

Textual genre: Funerary-religious text

VII 205 a: *ḫpr m ḫrp.wj*
To become Him of the two wands

VII 205 b: 1 *kf ʿḏ.wt nwr* ***i̯gp***
The murky sky clears, the clouds shake.

Context: The Spell 993 of the Coffin Texts focuses on transformation magic and the deceased's identification with divine power. The passage appears at the beginning of a complex spell titled "To become Him of the two wands", where the clearing of clouds signals the revelation of cosmic truths and the appearance of Re with his divine Ennead. This meteorological imagery establishes a pivotal moment of transition and divine manifestation. In the lines immediately preceding this passage, the spell introduces the transformation theme, establishing the ritual context for this powerful natural imagery. Following the description of clouds dissipating, the text elaborates on divine beings who appear, particularly focusing on deities associated with natural fertility and cosmic order, including "Mistress of herbage who makes the Two Lands green" and "She who bent Seth on account of her utterance". This possibly positions the clearing skies and shaking clouds as a prelude to divine revelation and cosmic order being established. The passage represents a critical transitional moment in the spell where atmospheric clearing creates the conditions for divine manifestations and the deceased's assumption of power, connecting meteorological phenomena directly to spiritual transformation and divine revelation in the afterlife journey.

Edition: Adriaan de Buck, The Egyptian Coffin Texts. Vol. 7 (Chicago: University of Chicago Press, 1961), 205b.

i̯gp ex. 9. **Transliteration:** *nfʿ(.i̯) n.k šȝp.t ḫsr(.i̯) n.k* ***i̯gp*** *i̯.sḏ.(.i̯) n.k šni̯.t*

Translation: I will take away the deluge for you, I will dispel the clouds for you, and break up the rain-cloud for you.

Source: PT 311 § 500 a-b

Date: Old Kingdom (ca. 2686-2181 BCE)

Determinative: 𓉐 (N4)

Textual genre: Funerary-religious text

Context:
§ 500a *i̯ṯỉ.k n.k Wnỉs ḥnʿ.k ḥnʿ.k*
May you take Unas with you, with you

§500b *nfʿ(.ỉ) n.k šʒp.t ḫsr(.ỉ) n.k* ***ỉgp*** *ỉ.sḏ.(.ỉ) n.k šnỉ.t*
I will take away the deluge for you, I will dispel the clouds for you, and break up the rain-cloud for you.

Context overview: The formula 311 is part of a sequence focusing on the deceased king's relationship with Re and other celestial deities. The passage occurs at a critical moment in the utterance when the king asserts his worthiness for divine assistance and protection. Immediately preceding this section, Re is urged to recognize the king and not forget offerings, while cosmic doors are opened for the Morning Boat's emergence. The tricolon structure "I will take away... expel... break up" appears within a broader dialogue where the king is positioning himself as both worthy of protection and capable of rendering valuable service to Re. This reciprocal relationship is emphasized in surrounding lines where the king promises to "make adoration upon adoration" and "praise upon praise" immediately after declaring his ability to control atmospheric phenomena. The declaration of power over clouds, deluge, and hail demonstrates the king's cosmic authority and establishes him as an

entity capable of maintaining celestial order by removing obstacles from Re's path, a critical function in ensuring the sun god's unimpeded journey across the sky. The utterance continues with promises of protection and purification, ultimately enabling the king's transformation into an akh-spirit who can freely traverse celestial realms.

Edition: Kurt Sethe, Die Altaegyptischen Pyramidentexte nach den Papierabdrücken und Photographien des Berliner Museums. Vol. 1 (Leipzig: J. C. Hinrichs, 1908), 500a-b.

ỉgp ex. 10. **Transliteration:** *dr.jw **ỉgp** s (?) mḥḥ.jw mȝ wỉ sp-2(?)*

Translation: O you who remove the clouds, who... (?), look at me, look at me (?)!

Source: P. Ramesseum XVI = P. BM EA 10769, 16,2

Date: Middle Kingdom

Determinative: (N1)

Textual genre: Magical text

Context: The papyrus Ramesseum XVI (BM EA 10769) contains several fragmentary magical spells addressing various supernatural entities. This incantation appears in a section dealing with protection against malevolent forces, where the practitioner invokes an entity characterized as "the one who removes the clouds". The spell employs vocative forms and imperatives typical of Egyptian iatromagical practices, directly addressing supernatural forces as if they were present during the ritual performance. The broader context of this spell suggests it was recited as part of a ritual practices believed to connect the earthly and divine realms, potentially reflecting the perceived significance of meteorological phenomena in ancient Egyptian magical practices.

Edition: Pierre Meyrat, *Les Papyrus Magiques Du Ramesseum: Recherches Sur Une Bibliothèque Privée de La Fin Du Moyen Empire*, 2 vols, Bibliothèque d'étude 172 (Institut français d'archéologie orientale; The British Museum, 2019), vol. I 115-16; II 359.

ỉgp ex. 11. **Transliteration:** *swʒỉ ḥr.k mỉ swʒỉ* ***ỉgp ḥr*** *[___] [m] [m] [hrw] pn dwʒ rnp.t(?)*

Translation: (That is the) passing (lit. of evil?) before(?) you, as the clouds pass by on [---] [on] this [day], the morning of the year.

Source: P. Ramesseum VIII = P. BM EA 10761, 12,7-8

Date: Middle Kingdom

Determinative: (N1)

Textual genre: Magical-religious text

Context:

12.5: *kʒ dỉ.ỉ n ⸢s?⸣ wḏʒ.w snb ḥbs.wn.ỉ ḏs.ỉ*
12.6: *pʒj wnn r? ḥʿ rmn.w.ỉ bqs.[ỉ]*
12.7: *r dỉ.t sʒ.w snb [n] mn msỉ.n mn.t*
swʒỉ ḥr.k mỉ swʒỉ 12.8 ***ỉgp*** *ḥr [___] [m] [m] [hrw] pn dwʒ rnp.t(?) ḥḥ.s*

So I will give her (the amulets) 'well-being' and 'health', which I myself wore, which had been on(?) (my) body, ie my shoulders, and covered [my] upper spine area, in order to prepare protection of health (or: protection and health) [for] NN, whom NN gave birth to. (That is the) passing (lit. of evil?) before(?) you, as the clouds pass by on [---] [on] this [day], the morning of the year. They may strike(?)

Context overview: The papyrus Ramesseum VIII (BM EA 10761) contains specialized medical-magical texts for treating *šmm.t* fever, a condition characterized by burning sensations and believed to be caused by demonic influences. This fever was conceptualized as an entity that needed to be expelled from the patient's body through ritual means. The sequence begins with the practitioner's transfer of protective amulets that have been personally consecrated through bodily contact—"which I myself wore, which had been on my body, i.e. my shoulders, and covered my upper spine area"—establishing the physical transmission of protective power through previously worn talismans. This practice reflects Egyptian medical belief in the transfer of efficacious spiritual protection through objects that have maintained intimate contact with a ritual specialist's body. The specification of body parts (shoulders and upper spine) suggests anatomical precision in the application of protective magic, targeting areas believed crucial for maintaining bodily integrity and spiritual defence. The therapeutic purpose is explicitly stated as preparing "protection of health [for] NN, whom NN gave birth to", possibly indicating this spell was designed for treating children or infants, with the maternal reference emphasizing the vulnerability of young patients who require enhanced spiritual protection. The pivotal meteorological simile comparing the desired departure of illness to cloud movement—"as the clouds pass by on [---] [on] this [day], the morning of the year"—creates a powerful visualization technique that draws upon natural phenomena to conceptualize healing. The reference to "the morning of the year" suggests this ritual was performed at a specific calendrical moment, possibly New Year's Day, when cosmic renewal was believed most potent for expelling negative influences. The concluding cryptic phrase "they may strike" may refer to the clouds' ability to dispel harmful forces or the protective amulets' power to attack the disease. This context could demonstrate how Egyptian magical medicine integrated material objects (amulets), bodily practices (wearing protection), temporal considerations (seasonal timing), and natural metaphors (cloud movement) into a unified therapeutic approach that addressed both physical symptoms and spiritual causation of illness.

Edition: Meyrat, *Les Papyrus Magiques Du Ramesseum: Recherches Sur Une Bibliothèque Privée de La Fin Du Moyen Empire*, vol. I 49; II 319.

ỉgp ex. 12. **Transliteration:** *dr.k šnʿ.tỉ sḥḏ.n.k* ***ỉgp*** *m rn.k pwj n(.j) dr. šnʿ.tỉ*

Translation: May you drive away the storm after you have illuminated the clouds, in your name ''Driver of the storm''!

Source: P. Harris 501 = P. BM EA 10042, rt. 2,5

Date: New Kingdom, 20th Dynasty (ca. 1186-1069 BCE)

Determinative: (N4, N23)

Textual genre: Magical-religious text

Context:
2,5 *ỉnỉ.k hrỉ.t m mww.k m rn.k pwj n(.j) Ỉn-ḥr.t*
dr.k šnʿ.tỉ 2,6 *sḥḏ.n.k ỉgp m rn.k pwj n(.j) dr. šnʿ.tỉ*
ḫsf.k ʿḏ prỉ m Nwn.w m rn.k tỉ 2,7 *pwj n(.j) ḫsf ʿḏ.w*

On your carrying pole you bring the distance, in this your name ''He who brings the distance (Onuris)''.
May you drive away the storm after you have illuminated the clouds, in this your name ''Driver of the storm''!
May you ward off the angry one (a crocodile) who comes from the Nun, in this your name ''He who wards off the angry ones''.

Context overview: The Harris Magical Papyrus contains protective spells against dangerous animals. This passage appears in the third of three hymns to Shu, specifically designed to ward off crocodiles. The text addresses Shu directly, invoking his meteorological powers: "May you drive away the storm after you have illuminated the clouds, in your name 'Driver of the storm'!" The spell employs the Egyptian magical principle that knowing and pronouncing a deity's secret name granted access to their power. The epithet "Driver of the storm"

characterizes Shu's essential nature as a controller of atmospheric phenomena. This hymn was likely recited by travellers navigating the Nile or other waterways where crocodile attacks posed a real danger.

The sequence presents a systematic enumeration of Shu's protective capabilities, each tied to a specific divine name that encapsulates his cosmic authority over different domains of natural phenomena and supernatural threats. The invocation (line 8) addresses Shu as "He who brings the distance" (Onuris), referring to his role in maintaining cosmic separation. This epithet establishes Shu's authority over spatial relationships and his capacity to bridge remote locations, essential for protective magic that must operate across geographical boundaries. The central meteorological invocation (line 9) positions Shu as master of atmospheric phenomena, with the dual action of driving away storms while simultaneously illuminating clouds demonstrating his complete control over weather patterns from destructive tempests to beneficial clearing skies. The epithet "Driver of the Storm" (reveals Shu's essential nature as controller of atmospheric turbulence, making him the ideal deity to invoke for protection during dangerous water travel where both storms and crocodiles posed real threats. The concluding invocation (line 10) addresses the immediate practical danger by invoking Shu's power to "ward off the angry one who comes from the Nun", directly referencing crocodiles as manifestations of primordial chaos emerging from the cosmic waters. This systematic progression from spatial control through atmospheric mastery to specific creature protection demonstrates the integrated Egyptian understanding of natural phenomena as interconnected divine domains, with Shu's authority over clouds and storms providing the theological foundation for his broader protective capabilities against both meteorological and zoological dangers encountered during Nile navigation.

Edition: Christian Leitz, *Magical and Medical Papyri of the New Kingdom*, Hieratic Papyri in the British Museum 7 (London: The British Museum Press, 1999), 33; pl. 13.

ỉgp ex. 13. **Transliteration:** *dr.n.f* ***ḏj ỉ͗ʒ ỉ͗g ỉ͗p.w*** *m wʒ.wt Rˁ*

Translation: He has warded off the storm cloud on the passings of Re.

Source: TT 279, Tomb of Pabasa, Pillar Hall, western row of pillars, 2nd hour of day, 8

Date: Late Period, 26th Dynasty

Determinative: 𓉔 (N4)

Textual genre: Funerary-religious text (Ritual of the Hours)

Context:
Line 8: *ỉw rpˁ ḥʒtỉ-ˁ ḫtm.w-bỉtj smr-wˁ(.tj) n(.j)-mrw.t ỉr.t.wj nsw ˁnḫ.wj bỉtj ỉmj-rʒ-Šmˁ.t-mỉ-qd.s ỉmj-rʒ-pr-wr-n(.j)-dwʒ.t Pʒ-n-Bs mʒˁ-ḫrw dr.n.f ỉ͗ʒgp.w* Line 9: *m wʒ.wt Rˁ*

The hereditary prince and count, the chief seal holder of Lower Egypt, the only friend, the beloved, the eyes of the king of Upper Egypt, the ears of the king of Lower Egypt, the chief of all Upper Egypt, the chief domain manager of the praying mantis, Pabasa, the justified, has warded off the storm clouds on the passings of Re.

Context overview: The tomb of Pabasa (TT 279) is situated in the Asasif necropolis of Thebes, where Pabasa served as chief steward to the God's Wife of Amun, Nitocris I, daughter of King Psamtik I. This elaborately decorated tomb includes a rare provincial version of the *Stundenritual* (Ritual of the Hours), a composition that tracks the sun god's journey through the twelve hours of day. The passage appears in the text for the second hour, when the sun god faces potential obstacles in his celestial journey.
This passage appears to be part of an extended biographical title sequence for Pabasa, the claim that he "warded off storm clouds on the ways of Re" possibly demonstrates the integration of meteorological imagery into elite biographical discourse, suggesting that Pabasa's administrative competence was conceptualized as extending to cosmic protection

of the solar deity's celestial journey. The specific mention of "the passings of Re" evokes the conventional Egyptian theological concept of the sun god's daily journey across the sky, during which various demons and adverse forces attempted to impede his progress. By claiming to ward off storm clouds from this celestial pathway, Pabasa positions himself as an essential guardian of cosmic stability, transforming his temporal administrative role into a permanent protective function that ensures the continuation of solar cycles and, by extension, the maintenance of Maat. Archaeological evidence shows that this section of Pabasa's tomb was oriented to catch morning light, creating a physical manifestation of the ritual's purpose.

Edition: This composition of the *Stundenwachen* is currently under study by E. Graefe and remains unpublished. For the purposes of this analysis, we have utilized the version available in 'TLA 2', https://thesaurus-linguae-aegyptiae.de/text/47D5Q2LG5FASHG6FF24WORMHCM.

ỉgp ex. 14. **Transliteration:** *ḥss.ỉ ṯn(w) Mqỉ? tʒš.s rs.j.t r Tʒ-.t? ỉṯỉ.n.ỉ s(j) mỉ* ***gp*** *n(.j) mw*

Translation: It is (after) I had conquered them like a cloud of water that I favour This and *Mqj* (?), (when) their southern border was at *Tʒ-t* (?).

Source: Teaching for Merikare, 72, 5-9

Date: Middle Kingdom (ca. 2055-1650 BCE)

Determinative: 𓈖 (N35a)

Textual genre: Wisdom text

Context overview: The passage appears in a section where the king recounts his military campaigns against nomadic groups on Egypt's borders. The excerpts convey through a simile the overwhelming nature of the royal victory. The larger context involves legitimation of royal power through demonstration of military prowess balanced with wisdom and restraint. The passage continues by describing how the conquered territories were subsequently

incorporated into Egypt's sphere of influence, with borders established and tribute imposed. This duality parallels the nature of rain clouds themselves, which can be both threatening and beneficial.

Edition: W. Golénischeff, *Les Papyrus Hiératiques N° 1115, 1116 A et 1116 B de l'Ermitage Impérial à St.-Pétersbourg* (St. Pétersbourg: n. publ., 1913), pl. XI; Joachim Friedrich Quack, *Studien Zur Lehre Für Merikare*, Göttinger Orientforschungen 23 (Wiesbaden: Harrassowitz, 1992), 43;179.

ỉgp ex. 15. **Transliteration:** *pḥ.tj.k ʿḫ mw r ḥr.t hmh ỉmj rʒ.k m* ***(ỉ)gp*** *nft fnd.k [...]wt sʿbj n.k ḥr-tp ḏw.w š.w*

Translation: Your strength which lifts the waters to the sky, the saliva that is in your mouth is a rain cloud. Release the breath of your nose [...], (the water) which pours out over the mountains for you is the lakes.

Source: P. Berlin 3048, 39, V, 7-8

Date: Late Period (ca. 664-332 BCE)

Determinative: (N4)

Textual genre: Hymn

Context:
Line 6: *p.t m ḥr.k dwʒ.t ḫr.k ỉw Gb mnḫ ḥr ỉmn.n.k*
Line 7: *nn rḫ.sn ḫpr.w m ḥʿw.k pḥ.tj.k ʿḫ mw r ḥr.t hmḥ ỉmỉ rʒ.k m ỉgp nft fnd.k [...].wt sʿbỉ n.k ḥr-tp ḏw.w š.w*

The sky is above you, the underworld is beneath you. Geb is consolidated because of what you have concealed, and it is not known what came from your body. Your strength which lifts the waters to the sky, the saliva that is in your mouth is a rain cloud. Release the breath of your nose [...], (the water) which pours out over the mountains for you is the lakes.

Context overview: The hymn employs physiological metaphors to celebrate Ptah's cosmic powers as a creator deity who generates meteorological phenomena through his bodily functions. Positioned within a section describing Ptah's sovereignty over natural elements, this excerpt follows declarations of the god's primordial nature and precedes descriptions of his role in sustaining all living beings. The text establishes explicit connections between divine anatomy and atmospheric cycles: Ptah's strength raises waters skyward, his saliva forms clouds, and his breath creates precipitation that fills lakes—presenting the complete water cycle as manifestations of a single deity's physical processes and associating Ptah with both creative speech and the material substance of creation. This dual nature allows him to physically generate meteorological phenomena while maintaining cosmic order.

Edition: Georg Möller, *Hymnen a Verschiedene Götter. Zusatzkapitel Zum Totenbuch*, Hieratische Papyrus Aus Den Königlichen Museen Zu Berlin 2 (J. C. Hinrichs, 1905), 39; Walther Wolf, 'Der Berliner Ptah-Hymnus (P 3048, II-XII)', *Zeitschrift Für Ägyptische Sprache Und Altertumskunde* 64, no. 1 (1929): 24.

ỉʒd.t

ỉʒd.t ex. 1. Transliteration: *ḫʿ Sḫm wbn ʒḫtj ḫʿ Ỉtm ḥr stj **ỉʒd.t**.f*

Translation: The Power appears, the Horizon-god shines, Atum appears at the scent of his dew.

Source: Book of the Dead, 140

Date: Third Intermediate Period

Determinative: 𓈖 (N35a)

Textual genre: Funerary text

Context:

Title: *mḏʒ.t ỉrỉ.t m ʒbd 2 pr(.t) ʿrq.j ḫft mḥ wḏʒ.t m ʒbd 2 pr(.t) ʿrq.j*

Scroll performed on the last day of the second month of Peret, concerning the filling of the Eye of Horus on the last day of the second month of Peret.

Line 1: *ḏd-mdw ỉn Wsỉr NN mʒʿ-ḫrw*

Words to be spoken by Osiris NN, justified:

ḫʿi̯ Sḫm wbn(.w) ⟨m⟩ ʒḫ.t

The mighty one appears, rising ⟨in⟩ the horizon.

ḫʿ Sḫm wbn Ꜣḫtj ḫʿ Ỉtm ḥr stj ***ỉꜣd.t.f***

The Power appears, the Horizon-god shines, Atum appears at the scent of his dew.

Context overview: The association between Atum's appearance and the scent of his dew in this funerary text from the Book of the Dead (Spell 140) reveals a link between divine manifestation and atmospheric phenomena. The formula's title, positioned before this excerpt, frames Atum's cosmic role as central to a ritual marking the crucial juncture of the "filling of the Eye of Horus", emblematic of the restoration of order and completeness during the annual cycle. The imagery of Atum appearing "at the scent of his dew" suggests that dew, as an atmospheric phenomenon, was conceptualized as a tangible sign of the god's presence and creative power. This dew functions both as a symbol of cosmic renewal and as a divine attribute that assures sustenance and stability to both the earth and the sky. The invocation transitions into descriptions of Atum's powers to sustain life, using dew as a sensory and symbolic marker of divine grace during pivotal ritual moments.

Edition: Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, 315.

ỉꜣd.t ex. 2. **Transliteration:** *(Rʿ) wbn m p.t dỉ.f ỉꜣd.t.f*

Translation: (Ra) Who rises in the sky, who spreads his dew.

Source: Book of the Dead, 15A4

Date: New Kingdom 19th dynasty

Determinative: 𓈖 (N35a)

Textual genre: Funerary text

Context:

dd [ṯz.w m hhw] r.f

(Ra) who gives [winds of fire] of his mouth

(Rʿ) wbn m p.t dỉ.f ***ỉzd.t.f***

(Ra) who rises in the sky, who spreads his dew

ḫsr.n.f kkwj m st.wt.f

he has dispelled darknes by his rays:

Context overview: This passage appears within a hymn to Ra as he rises in the eastern horizon of the sky. The text celebrates the solar deity's emergence at dawn through a sequence of divine activities that demonstrate his cosmic power and life-giving properties. The context reveals a carefully structured progression of Ra's manifestations: first as the source of fiery winds from his mouth, then as the celestial body that rises and spreads dew, and finally as the dispeller of darkness through his radiant rays. This triadic sequence positions the spreading of dew as a central cosmic act between the emission of divine breath and the illumination of the world, possibly suggesting that dew represents an intermediate manifestation of Ra's creative power. The juxtaposition of "winds of fire" from Ra's mouth with the gentle spreading of dew could demonstrate the deity's mastery over contrasting atmospheric phenomena—from the fierce and destructive to the gentle and life-sustaining. This sequential arrangement emphasizes how Ra's emergence at dawn involves multiple complementary actions that together restore cosmic order and vitality to the world. The placement of dew-spreading between the emission of fiery winds and the dispelling of darkness suggests that this atmospheric moisture likely serves as a transitional element in the dawn process, bridging the transformative power of divine breath with the illuminating force of solar radiance. The hymn further elaborates on Ra's divine reception, with various beings—from baboons to horizon gods to serpents—offering worship as he rises, demonstrating the universal acknowledgment of his authority over atmospheric phenomena and the essential role of dew in the daily renewal of creation.

Edition: Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*,39.

ỉꜣd.t ex. 3. **Transliteration:** *ỉr sšp p.t m-ḫt kk.w ỉnm.ỉ pw mḏd(.w) ṯꜣw.w pr(.w) ḥr-sꜣ.ỉ m rꜣ n Tm rḏw.ỉ pw ḳrr n pt* ***ỉd.t.****ỉ pw nšnỉ ỉḫḫw*

Translation: It is I who make the light of the sky after darkness; my colour is the pleasant airs which go forth after me from the mouth of Atum. The storm of the sky is my outflow, the storm of twilight is my emanation (dew).

Source: CT II, 30 a-f

Date: Middle Kingdom

Determinative: 𓉐 (N4)

Textual genre: Funerary text

Context:

II 029 f: *ḥbs.w.ỉ pw ṯꜣw n ʿnḫ*

My clothes are the wind of life

II 029 g: *pr.n.(ỉ) ḥꜣ.ỉ m rꜣ .(ỉ) Tm*

It is from the mouth of Atum that I (= the Ba of Shu) came out around me (= Shu)

II 029 h - 030 a: *wbꜣ.n.(ỉ) ṯꜣw.w ḥr wꜣ.wt.ỉ*

It was on my passings that I pierced the air

II 030 b: *ỉr sšp p.t m-ḫt kk.w*

I am the one who made the light of heaven after darkness

II 030 cd: *ỉnm.ỉ pw mḏd(.w) ṯzw.w pr(.w) ḥr-sz.ỉ m rz n.(ỉ) Tm*

my colour is the pleasant airs which go forth after me from the mouth of Atum

II 030 e: *rḏw.ỉ pw ḳrr n pt*

The storm of the sky is my outflow,

II 030 f: ***ỉd.t**.ỉ pw nšnỉ ỉḫḫw*

the storm of twilight is my emanation (dew).

II 031 a 1: *ỉw zw n.(ỉ) p.t tn n nm.wtt.ỉ*

The length of this sky (is) of my movements.

II 031 a 2: *ỉw wsḫ n.(ỉ) tz pn n grg.wt.ỉ*

The width of this land (is) of my establishments.

Context overview: In Coffin Text spell 80, dew appears within a complex cosmological speech where Shu addresses the eight Chaos-gods who "encircle the sky with your arms": The context reveals Shu's divine identity and cosmic authority. The passage establishes Shu as the creator of cosmic order who "gathers together sky and earth for Geb" and was himself fashioned by Atum in the primordial waters. The sequence begins with Shu describing his divine vestments as "the wind of life", establishing his fundamental connection to atmospheric phenomena. His origin is then specified: "It is from the mouth of Atum that I came out", positioning him as

a direct emanation of the creator deity. This divine birth narrative continues with "It was on my passings that I pierced the air", emphasizing his role as the primordial force that separated and organized the atmospheric realm. Within his self-declaration of divine power, Shu explicitly associates atmospheric phenomena with his bodily emanations, stating "I am the one who made the light of heaven after darkness" and describing his "colour or skin" as "the pleasant airs which go forth after me from the mouth of Atum". The climactic declarations about storm and dew follow this systematic establishment of cosmic authority: "The storm of the sky is my outflow, the storm of twilight is my emanation (dew)". This direct association between the god's bodily emissions and weather phenomena places dew within a divine physiological framework, where atmospheric moisture originates from the deity's physical manifestations. The passage concludes with Shu's ultimate cosmic claim: "The length of this sky (is) of my movements" and "The width of this land (is) of my establishments", positioning him as the divine force whose very being determines the dimensions of the created world. The spell thus portrays dew not merely as a natural phenomenon but as a direct emanation from Shu's body, specifically equated with divine exhalation during twilight hours, likely establishing a profound theological understanding where atmospheric moisture represents the breathing of the cosmic deity who maintains the separation between heaven and earth.

Edition: Adriaan de Buck, The Egyptian Coffin Texts, (Chicago: University of Chicago Press, 1938).

i3d.t ex. 4. **Transliteration:** *š3s.n.i Šw nmt.n.i šni.t wꜥr.n.i Nw.t pḥ.n.i* ***i3d.t***

Translation: I roamed Shu, so that I could traverse the rainstorm, I passed through Nut, so that I could reach the dew.

Source: CT V, 272a-d-273a

Date: Middle Kingdom

Determinative: (N4) or  (M43) as in Eb 207d 42,17; or

Textual genre: Funerary text

Context:

V 272 a: *dỉ.f*

May he do

V 272 b: *šȝs.n.ỉ Šw.t*

I roamed Shu

V 272 c: *nmt.n.ỉ šnỉ.t*

so that I could traverse the rainstorm,

V 272 d: *wʿr.n.ỉ Nw.t*

I passed through Nut,

V 273 a: *pḥ.n.ỉ* ***ỉȝd.t***

so that I could reach the dew.

V 273 b: *Ḥw.t-Ḥr sʿr.t (wỉ)*

It was Hathor who introduced me,

V 273 c: *ḥwỉ n.ỉ sḏb*

the one who chased away the obstacle for me,

V 273 d 1: *wd.t (w)ỉ m-bʒḥ Tm*

the one who placed me in the presence of Atum

Context overview: The spell 427 emphasizes the deceased's journey through the cosmic realms, where their shade is granted permission to return to them as they navigate atmospheric domains. The spell emphasizes the deceased's journey through the cosmic realms, where their shade is granted permission to return to them as they navigate atmospheric domains. The context reveals an invocation structure that systematically addresses various cosmic forces and deities. The sequence begins with a general petition ("May he do") followed by specific declarations of the deceased's cosmic mastery. The deceased declares "I roamed Shu", establishing their traversal of the air god's domain, followed by "so that I could traverse the rainstorm", indicating successful navigation through violent atmospheric phenomena. The invocation continues with "I passed through Nut", demonstrating the deceased's passage through the sky goddess's celestial realm, culminating in the crucial achievement "so that I could reach the dew". This progression moves systematically through atmospheric layers—from the domain of air (Shu) through storms to the celestial realm (Nut)—with dew representing the final and most refined atmospheric phenomenon to be mastered. The text then reveals the divine agency behind this cosmic journey, as "It was Hathor who introduced me" establishing the goddess as the deceased's divine patron and guide. Hathor's role is further elaborated: she is "the one who placed me in the presence of Atum", positioning her as both protector and cosmic facilitator who ensures safe passage to the creator deity. This broader context likely sets the stage for the climactic journey through divine and atmospheric territories, where the deceased's traversal of the domains of Shu and Nut, symbolic of air and sky respectively, represents a systematic conquest of atmospheric phenomena that progresses toward a climactic encounter with dew

as the ultimate emblem of divine favour and renewal. The association with Hathor as guide and Atum as destination places this atmospheric mastery within a broader framework of divine patronage and cosmic integration, where dew serves as both the final atmospheric challenge to be overcome and the ultimate prize to be captured in the deceased's journey toward divine transformation and union with the creator god.

Edition: Adriaan de Buck, The Egyptian Coffin Texts, (Chicago: University of Chicago Press, 1954).

ỉʒd.t ex. 5. **Transliteration:** *ḫt ṯʒw hrw s[k(w)] p.[t] psḏ.t ỉbw m[rr (?)] ḥr(.j) sḥˁ n ḥtmw kʒ.w rtḥw* ***ỉd.t*** *ỉʒḫw*

Translation: The mast is the day that bathes the sky which is illuminated. The halyard (?) is [the flame maker(?)] which is on the tent (?) of the Destroyer. The ropes-*kaw* are what control the dew and the sun's radiance.

Source: CT V, 169a, 169c

Date: Middle Kingdom

Determinative: 𓉐 (N4)

Textual genre: Funerary Text

Context:

Title: *rn [ỉˁb ? mḫn.tr ḫr.t-nṯr r bw n.tj wsỉr ỉm] ?*

Formula to join the boat to the necropolis, to the place where Osiris (is)

V 168 b: *dp.t sšn dỉ r [tʒ] nṯr<.w>*

The boat (is) the *sšn* (boat) placed near the land of the gods

V 168 c 1: *mnỉ.t*

The mooring stake,

V 168 c 2: *nqʒ.ww ỉ[mn.tjw s.wt] rrw.t*

(these are) the western (?) fixings of the seats of the *rrw.t*

V 168 d: *ḥ3.wtt pḥ.wt mnỉ3 ḥḏdw.t*

The bow ropes (and) the stern ropes (are) the pincers of *ḥḏdw.t* (= scorpion goddess)

V 168 f: *ṯbw.t mn.t ỉs 3 (?) wr.t*

The sandal (is) indeed the thigh of the Great one

V 169 a: *ḫt-ṯ3w hrw s[k] p[.t] psḏ.t*

The mast is the day that bathes the sky which is illuminated.

V 169 b: *ỉbw m[rr] ? ḥr sḥʿ n ḥtm.w*

The halyard (?) is [the flame maker(?)] which is on the tent (?) of the Destroyer.

V 169 c: *k3.w rtḥ.w ỉd.t ỉ3ḫ.w*

The ropes-*kaw* are what control the dew and the sun's radiance.

V 169 d 1: *ṯ3w.t ṯss.t sḫw3.t*

The sail (is) the red one that delivers (?)

V 169 d 2: *ỉniỉ.w*

the tributes (?)

V 169 e: *ỉm.j-tp ḫr.(j)-ʿ wr ỉ{m}<w>.f ḥnʿ dbḥ.w*

The stern post (and) the rod (are) the Great when he (is) in the company of the needy

V 169 g: *ḥr.wt rḏ.w ḫʒ.w nw.w*

The *ḥr.t* cords (are) the tendons around Noun

V 170 a: *mḏʒb.t šʒd.t ỉm.(t) ḏr snk.t*

The bailer (is) the pond which (is) in the domain of darkness

Context overview: Preceding this passage, the formula is titled as a "Spell for Joining the Ferry-Boat to the Realm of the Dead", which metaphorically describes the cosmic ferryboat as a vehicle for navigating celestial waters. Each component of the boat is analogized to cosmic or divine elements, emphasizing mastery over natural and supernatural forces. The mast is described as "the day that bathes the sky which is illuminated", symbolizing the sun's daily cycle, while other parts of the boat are linked to celestial phenomena and deities. In Coffin Text spell 400, the ropes-*kaw* are described as controlling both dew (*ỉʒd.t*) and the sun's radiance (*ỉʒḫw*). This metaphorical association highlights dew as a regulated force within the cosmic order, alongside solar radiance.

Edition: Adriaan de Buck, The Egyptian Coffin Texts, (Chicago: University of Chicago Press, 1954).

ỉ3d.t ex. 6. **Transliteration:** *n* ***ỉ3d.t*** *N.t*

Translation: Because of the dew of Neith.

Source: P. Moskau o.Nr. C1, x+9 ("The Pleasures of Fishing and Fowling")

Date: 18th Dynasty, New Kingdom

Determinative: 𓈖 (N35a)

Textual genre: Literary text

Context:

C1, x+8 ca. 12cm: *p.t [...]*

The sky [...

[h]3ỉ.t sw k.t ỉ3d.t

...] until/before (?) another mist/dew attacks him (?).

C1, x+9 ca. 11cm: *ʿq [...]*

Enter [...

n ỉ3d.t N.t

[...] because of the mist/dew of Neith.

C1, x+10 ca. 12cm: *wrš.i̯ m bꜣ[...] pns*

I spend the day in the bushes (?) [...] (turned) earth.

Context overview: This fragmentary passage appears in "The Pleasures of Fishing and Fowling", where the preceding context establishes a vivid scene of natural environment and atmospheric phenomena. The sequence begins with a reference to "the sky", setting the celestial framework for the subsequent mentions of dew and mist. The first dew reference describes another mist/dew that "attacks" or descends upon someone, introducing the concept of dew as an active atmospheric force with agency. This is immediately followed by the pivotal phrase "because of the mist/dew of Neith", which explicitly attributes the atmospheric phenomenon to the goddess Neith, positioning dew within a divine framework rather than as merely a natural occurrence. The sequence concludes with the narrator spending the day "in the bushes" among turned earth, creating a narrative context that places human activity within this dew-influenced wetland environment. This association between Neith and atmospheric moisture reinforces the connection between divine agency and natural phenomena, suggesting that dew was conceptualized as a manifestation of divine power specifically associated with the goddess Neith. The progression from celestial observation to divine attribution to human activity showss how ancient Egyptian texts integrated meteorological phenomena into broader narratives celebrating the interconnectedness of nature, divine agency, and human experience in wetland environments.

Edition: Ricardo A. Caminos, *Literary Fragments in the Hieratic Script* (Oxford: Oxford University Press for Griffith Institute, 1956), pl. 4, 8.

i̯ꜣd.t ex. 7. **Transliteration:** *[...]-Ḥr.w tꜣ šrī̯.t [...] nḥḥ [t]ꜣ [š]rī̯.t n(.j.t) tꜣ p.t n.tj qꜣī̯.tj r-ḥr.j tꜣ sn.t ⸢n(.jt)⸣ tꜣ* ***i̯ꜣd.t*** *ḥn‹*

Translation: [...] [Goddess]-Horus, the daughter [...] of eternity, the daughter of heaven who is high above, the sister of the dew, and [...]

Source: P. Leiden I 343 + I 345 = AMS 28 + CI 11b rt. 13, x+2

Date: 19th Dynasty, New Kingdom

Determinative: 𓊃 (N4)

Textual genre: Magical-medical text

Context: This fragmentary passage personifies dew as a sibling to Horus's daughters—a possible allusion to mythological narratives involving Baal's daughters in Near Eastern traditions. Preceding this text are descriptions linking atmospheric phenomena like rain or mist with divine interventions during healing rituals. Following this invocation, dew assumes an active role in restoring health or balance within afflicted individuals or environments. External comparisons highlight similar personifications in magical-medical texts across ancient cultures where moisture forms were believed to embody divine curative powers.

Edition: Susanne Beck, *Exorcism, Illness and Demons in an Ancient Near Eastern Context: The Egyptian Magical Papyrus Leiden I 343 + 345*, Papers on Archaeology of the Leiden Museum of Antiquities 18 (Sidestone, 2018), 70–73.

ỉȝd.t ex. 8. **Transliteration:** *ḫnm.w.s m* ***ỉ(ȝ)d.t*** *nṯr*

Translation: her scent is the dew (= pleasant scent) of god

Source: Inscriptions from the Deir el Bahari Temple of Hatshepsut, closing inscription of the Punt reliefs, 39, 2-4; Urk. IV, 339, 15

Date: 18th Dynasty, New Kingdom

Determinative: 𓊃 (N4)

Textual genre: Temple inscription

Context:

2 *ḥm.t.s* 3 *ḏs.s ỉrỉ.t m ꜥ.wj.s ḫ3.t ꜥnt.w ḥr ꜥ.t.s nb.t ḫnm.w.s m* ***ỉ(3)d.t*** *nṯr ỉw stỉ.s 3bḏ m Pwn.t ỉnm.s nbỉ m ḏꜥm* 4 *ḥr ꜥb(3) mỉ ỉrỉ sb3.w m-ḫnw wsḫ.t-ḫ3b.(j)t ḫft-ḥr-n t3 r-ḏr.f*

It is Her Majesty herself who does it with her two arms; the best myrrh is on all her limbs, her smell is the dew of the god, her fragrance mingles with that of Punt, her skin is covered with electron and sparkles like the stars inside the festival court in view of the whole land.

Context overview: This passage appears within the closing inscription of the Punt reliefs at Hatshepsut's temple at Deir el-Bahari, describing the queen's divine transformation and ritual activities within a festival court. The extended context reveals a ceremonial scene where Hatshepsut personally conducts sacred rituals, emphasizing her direct divine connection and cosmic authority. The text establishes her physical and spiritual transformation through the application of precious substances: "The best myrrh is on all her limbs", likely representing how the aromatic treasures from the Punt expedition were integrated into temple rituals. The central metaphor "her smell is the dew of the god" connects Hatshepsut's physical presence directly to divine atmospheric phenomena, positioning her scent as a manifestation of celestial moisture and divine essence. This olfactory association with divine dew serves multiple symbolic functions: it links her to atmospheric renewal, divine blessing, and the life-giving properties traditionally associated with dew in Egyptian cosmology. The sequence continues by emphasizing the international and cosmic significance of her transformation: "her fragrance mingles with that of Punt", establishing a connection between her divine essence and the exotic incense-producing region that was central to Egyptian concepts of divine geography. The climactic description presents her as cosmically radiant: "her skin is covered with electron and sparkles like the stars inside the festival court in view of the whole land", transforming her into a stellar deity visible to all Egypt within the sacred precinct. This context possibly shows Hatshepsut's divine transformation, with the dew metaphor serving as a crucial link between terrestrial aromatics and celestial divine essence, reinforcing her legitimacy as a pharaoh who embodies both earthly prosperity and divine cosmic order.

Edition: Kurt Sethe, Urkunden der 18. Dynastie: Historisch-biographische Urkunden (vol. IV), Urkunden des aegyptischen Altertums (Leipzig: J.C. Hinrichs, 1906-1958).

ỉ3d.t ex. 9. **Transliteration:** *wr* ***ỉ(3)d.t*** *hȝỉ.f 〈m〉 Mḏȝ šfšf.jtỉ m Tȝ-stj Wtn.tj ỉȝ 〈.w〉 ḥs.wt*

Translation: (Min) Great in fragrance/dew, when he descends 〈from〉 Medja-Nubia (to Egypt), worthy one in Taseti-Nubia, belonging to Utenet, praise and glory

Source: Stele of Sobekhotep and Sobekiry (Louvre C 30), A.9-11

Date: 13th dynasty, First Intermediate Period

Determinative: 𓉐 (N4)

Textual genre: Hymn

Context:

A.5: *wr m Sn.wt ʿȝ m ỉp.w* A.6 *Gb.tjw.j Ḥr.w* A.7 *tmȝ-ʿ*

The Great in the Senut sanctuary, the Great in Achmim, the Coptite, Horus with a strong arm,

nb šfšf.wt sgr A.8 *fȝ.w ỉtỉ nṯr.w* A.9 *nb.w*

Lord of dignity, who silences arrogance(?), prince of all gods,

wr ỉ(3)d.t hȝỉ.f A.10 *〈m〉 Mḏȝ šfšf.jtj* A.11 *m Tȝ-stj Wtn.tj ỉȝ 〈.w〉 ḥs.wt*

Great in fragrance/dew, when he descends 〈from〉 Medja-Nubia (to Egypt), worthy one in Taseti-Nubia, belonging to Utenet, praise and glory!

Context overview: This passage appears within a hymn to Min that systematically catalogues the deity's geographical domains, sacred epithets, and divine attributes across multiple cult centres in Egypt and Nubia. The context positions Min as both a pan-Egyptian deity and a specifically Nubian manifestation. The hymn begins with devotional phrases establishing the relationship between the worshipper and Min: "As I worship Min, so I exalt Horus, the one with uplifted arm". The text then proceeds through formal salutations and elaborate geographical associations that demonstrate Min's widespread cultic presence. The sequence "The Great in the Senut sanctuary, the Great in Achmim, the Coptite, Horus with a strong arm" establishes Min's authority across major cult centres in Upper Egypt, with particular emphasis on Achmim (ancient Ipu) as a primary centre of Min worship. The continuation "Lord of dignity, who silences arrogance(?), prince of all gods" reinforces his cosmic authority and hierarchical supremacy within the Egyptian pantheon. The climactic passage about Min being "Great in fragrance/dew when he descends from Medja-Nubia" introduces a crucial geographical and theological dimension that connects his aromatic essence specifically to movement from southern territories. This association between divine movement from Nubia and the manifestation of fragrance and dew (ỉʒd.t) suggests that Min's sensory presence served as a marker of geographical transition and divine manifestation. The specification of "Medja-Nubia" and "Taseti-Nubia" reflects the hymn's awareness of distinct Nubian regions and their relationship to Min's cult, while "belonging to Utenet" may reference a specific sacred site or epithet associated with his southern manifestations. The concluding "praise and glory" transforms the geographical description into liturgical acclamation, demonstrating how Min's aromatic emanation was understood as both a natural phenomenon accompanying his movement across territorial boundaries and a divine attribute worthy of worship. This context positions dew not only as atmospheric moisture but as a sensory manifestation of Min's divine presence that accompanies his transitions between sacred geographical domains, reinforcing the Egyptian conception of atmospheric phenomena as divine emanations tied to specific territorial and cultic contexts.

Edition: Kurt Sethe, *Aegyptische Lesestücke Zum Gebrauch Im Akademischen Unterricht: Texte Des Mittleren Reiches* (J. C. Hinrichs, 1924), 65.

ỉʒd.t ex. 10. **Transliteration:** *ỉṯṯ.ỉ ỉm bỉk pwj ḥr smʒ.w* ***ỉʒd.t*** *Ḥr.w*

Translation: I fly as that falcon over the crown and the dew of Horus.

Source: P. London BM EA 10477 (P. Nu), BD 098, 3

Date: 18th Dynasty, New Kingdom

Determinative: logogram 𓉐 (N4) det. 𓈙 (N35a)

Textual genre: Funerary text

Context:

Title: *r n ỉnỉ.t mḫn.t m p.t*

Saying to catch the ferry in heaven.

3 *ḫʿỉ.ỉ m nṯr*

I appear as God.

ngg.n.ỉ m smn

I cackled like a goose.

ỉṯṯ.ỉ ỉm m 4 *bỉk pwj ḥr smʒ.w ỉʒd.t Ḥr.w*

I fly as that falcon over the crown and the dew of Horus.

ḏʒỉ.ỉ tʒ r p.t

May I cross the earth to heaven!

ʿḥʿ.ỉ Šw

I stand, Shu.

srwḏ.i ỉʒḫ.w 5 *ḥr rmn.wj mʒqt sỉʿr.t ỉ ḫm.w-wrḏ ḥrj.w r ḥsq*

I consolidate the "radiance" on the two supports of the ladder that brings up the "tireless ones", away from the beheading.

Context overview: This passage from Book of the Dead Spell 98 presents a sequence of divine transformation and celestial navigation that positions the deceased within a complex cosmological framework. The spell begins with the explicit title "Saying to catch the ferry in heaven", likely defining the fundamental purpose as securing passage across celestial waters to reach the afterlife. The context reveals a systematic progression through multiple stages of divine transformation and cosmic ascension. The initial transformation "I appear as God" establishes the deceased's divine status, followed by the assumption of specific avian forms that enable celestial navigation. The sequence "I cackled like a goose" represents the first avian transformation, associated with the goose as a sacred bird in Egyptian cosmology, particularly connected to the primordial goose that laid the cosmic egg. This is immediately followed by the falcon transformation: "I fly as that falcon over the crown and the dew of Horus", which represents a more elevated form of divine bird identity. The falcon, as Horus's sacred animal, connects the deceased directly to royal and solar symbolism, while the specific mention of flying "over the crown and the dew of Horus" suggests movement through the highest celestial realms where divine regalia and atmospheric phenomena merge. The subsequent declarations "May I cross the earth to heaven!" and "I stand, Shu" demonstrate the successful completion of the transformation, with the deceased now identifying with Shu, the god of air and atmosphere, who supports the sky and separates earth from heaven. The culminating statement about consolidating "the radiance" on the two supports of the ladder that brings up the 'tireless ones', away from the beheading" references the cosmic ladder or stairway that connects different levels of existence, with the deceased now having the power to guide other souls (the "tireless ones") safely across this celestial infrastructure while protecting them from destruction. This sequence displays how the reference to Horus's dew functions within a narrative of atmospheric and celestial mastery, where the deceased's ability to fly over divine emanations represents their successful integration into the cosmic order and their qualification to navigate and protect others within the celestial realm.

Edition: Davies et al., *The Papyrus of Nu (BM EA 10477)*, ch. 098; Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, 217.

ỉ3d.t ex. 11. Transliteration: *[r h]3ỉ.t sw k.t* ***ỉ3d.t***

Translation: until/before (?) another dew descends on him?

Source: P. Moskau o.Nr. The Pleasures of Fishing and Fowling, C1, x+8

Date: 18th Dynasty, New Kingdom

Determinative: 𓈖 (N35a

Textual genre: Literary text

Context: See ex. 6. Preceding this passage, the text describes various natural elements and activities, including mentions of plants, as well as references to nighttime shelter and agricultural tasks. These details establish a vivid scene of the natural environment, celebrating human interaction with it. The text mentions "until/before (?) another dew/mist attacks him (?)", introducing the idea of dew as an active force descending upon the protagonist. Following this passage, the narrative continues with "I spend the day in the bushes (?)", framing dew within a series of experiences in the wetland environment. This context places dew as both a natural phenomenon and a divine manifestation, aligning with the earlier mention of "because of the dew of Neith" (ex. 6). This attribution to Neith reinforces its conceptualization as a divine emanation tied to fertility and renewal. The sequence integrates dew into a broader narrative celebrating the interconnectedness of nature, divine agency, and human activity.

Edition: Ricardo A. Caminos, *Literary Fragments in the Hieratic Script* (Oxford: Oxford University Press for Griffith Institute, 1956), pl. 4,9.

ỉ3d.t ex. 12. **Transliteration:** *ss33{.w} ḫ3s.t r w3.w r mw* ***ỉ3d.t.f*** *pw hỉ3.jt m p.t*

Translation: He who satisfies the mountainous land that is far from the (flood)water: his dew is what comes down from heaven.

Source: The Great Nile Hymn I,7-8

Date: New Kingdom

Determinative:  (N4) (N1) (N35a)

Textual genre: Hymn

Context:

[ỉw]ḥ 4 *š3 qm3m ⟨.n⟩ Rʿ [r] [sʿnḫ] [ʿw.t] [nb.t] -*

(Hail, O Hapy, ...,) who irrigates the marshland that Re created

to revive all the flocks;

ss3ỉ [ḫ3s.t] [w3ỉ.tj] [r] [mw]

(Hail, O Hapy, ...,) who satiates the mountainous land (or: the desert) far from water:

1.8 *[ỉ3d.t].[f] [pw] [hỉ3.t] [m] [p.t]*

his dew is what comes down from heaven.

Context overview: Preceding this passage, the hymn celebrates the Nile god Hapy's benevolence, describing his role in sustaining Egypt's fertility and life. The text situates Hapy as a universal provider, satisfying both the lowlands nourished by floodwaters and the arid highlands through alternative means. The opening lines hail Hapy as emerging from the earth

to revive Egypt, emphasizing his unseen yet omnipresent influence in maintaining cosmic and terrestrial balance. The context demonstrates how the hymn employs a careful parallelism to illustrate the god's universal provision across Egypt's varied landscape. The sequence begins by establishing Hapy's role in the traditional fertile areas with the declaration that he "irrigates the marshland that Re created to revive all the flocks", positioning him as the sustainer of livestock and agricultural abundance in the areas naturally suited for cultivation. This opening stanza establishes the baseline of Hapy's conventional role as a provider of Nile waters for the fertile regions of Egypt. The hymn then transitions to address a more challenging geographical reality with the statement "who satiates the mountainous land (or: the desert) far from water", acknowledging regions where the Nile's annual inundation cannot reach. This creates a theological problem: how can the Nile god provide for areas beyond the flood's reach? The hymn's elegant solution appears in the parenthetical explanation "it is his dew that comes down from heaven", which extends Hapy's dominion beyond terrestrial waters to include celestial precipitation. This theological innovation demonstrates sophisticated Egyptian understanding of hydrological cycles while maintaining Hapy's cosmic authority. The structure creates a wide-ranging concept of divine water provision: traditional Nile waters for fertile lowlands, and celestial dew for arid highlands and mountainous regions. This duality reflects ancient Egyptian awareness of different water sources and their roles in sustaining life across Egypt's diverse topography. The parenthetical nature of the dew reference "(t is his dew that comes down from heaven" suggests this was understood as a crucial explanatory note, clarifying how Hapy's influence extends beyond the geographical limitations of river inundation. The progression from earthbound irrigation to celestial precipitation establishes dew not as a separate phenomenon but as another manifestation of Hapy's dominion over all forms of life-giving water. This structure positions the Nile god as master of the complete water cycle, from terrestrial flooding to atmospheric condensation, demonstrating ancient Egyptian conception of divine authority that transcends geographical and meteorological boundaries while ensuring no region of Egypt remains outside divine providence. The hymn concludes by attributing these blessings to Hapy's connection with other deities such as Geb and Nepri, reinforcing the interconnectedness of natural phenomena with divine stewardship.

Edition: Plas, *L'hymne à La Crue Du Nil*, vol. I 70-71; II 14-15.

ỉꜣd.t ex. 13. **Transliteration:** *shꜣ(w)* ***ỉꜣd.t*** *ỉm.t p.t m rk.s hꜣw.s ỉm(w) ỉwt n.s ḥʿpj ʿꜣ wr.t m rk.s*

Translation: Bring down the dew that is in the sky during her time, and cause the great flood to abundantly come for her during her time.

Source: Inscriptions from the Deir el Bahari Temple of Hatshepsut, Northern Middle Colonnade: Legend of Birth, Youth and Ascension (Royal Cycle), birth legend, Amun before the College of Gods 2,10; Urk. IV, 217, 10-11

Date: 18th Dynasty, New Kingdom

Determinative: logogram 𓉐 (N4) precisely with 5 descending lines

Textual genre: Temple inscription

Context:

7 *smꜣ.n (ỉ) n.s tꜣ.wj m ḥtp[.w] nb.w [qd] [.s]* 8 *ḥw.t.ṯn sḏsr.s pr.w [.ṯn] [srwd] [.s]* 9 *pꜣw.t.ṯn swꜣḏ [.s] [wdḥ.w] [.ṯn]*

I have united the Two Countries in peace for her […] (and) all […, so that she] builds your temples, so that she [houses] are magnificent […, so that she] [strengthens] your offerings, so that [she] makes your offering altars prosper […]

10 *shꜣỉ ỉꜣd.t ỉm.j[.t] [p.t] [m] [hꜣw] [.s]*

Bring down the dew that is in the sky during her time

[ỉmỉ] [ỉwỉ.t] [n] [.s] [ḥʿpj.w] [ʿꜣ.w] wr.t 11 *m rk =s*

and cause the great floods to abundantly come for her during her time.

Context overview: This passage from the Deir el-Bahari Temple inscriptions reveals Amun-Re's divine blessing for Hatshepsut's reign through a sophisticated theological framework that integrates political legitimacy, religious stewardship, and cosmic harmony. The extended context demonstrates how divine endorsement manifests through both temporal governance and natural phenomena, establishing Hatshepsut's rule as fundamentally aligned with cosmic order. The sequence begins with Amun's declaration of political unity: "I have united the Two Countries in peace for her", establishing the foundation of her royal authority through divine intervention that brings harmony to Upper and Lower Egypt. This political unification serves as the prerequisite for the religious responsibilities that follow, as Amun outlines Hatshepsut's sacred duties: "so that she builds your temples, so that she [houses] are magnificent", positioning temple construction and maintenance as essential expressions of legitimate royal power. The enumeration continues with ritual obligations: "so that she [strengthens] your offerings, so that [she] makes your offering altars prosper", demonstrating how political authority must be exercised through proper religious observance that maintains divine favour. This background of royal responsibilities—political unification, architectural patronage, and ritual maintenance—creates the theological justification for the cosmic blessings that follow. The invocation then transitions from earthly duties to celestial benefits with "Let the dew that is in [the sky] come down [in their era]", likely positioning dew as a divine reward for proper royal stewardship. This celestial blessing is immediately complemented by terrestrial abundance: "[Let to her] especially [great Nile floods] come", creating a system of divine provision that encompasses both atmospheric moisture and riverine inundation. The parallel structure of these blessings—dew from above and floods from below—reflects Egyptian theological understanding of water as a multifaceted divine gift that requires both celestial and terrestrial manifestations to ensure complete agricultural and social prosperity. The specification of timing, "in their era" and "especially" for Hatshepsut, likely emphasizes that these natural phenomena are not merely seasonal cycles but divine responses to legitimate royal authority. This background positions Hatshepsut's reign within a cosmic covenant where proper fulfilment of royal duties activates divine provision through natural abundance, demonstrating ancient Egyptian belief that political legitimacy, religious observance, and environmental prosperity were fundamentally interconnected through divine will. The juxtaposition of dew and Nile floods within this blessing sequence reveals sophisticated understanding of Egypt's diverse water needs: celestial moisture for areas beyond the reach

of inundation, and riverine abundance for the traditional agricultural heartland, ensuring that divine providence encompasses all regions of the kingdom under Hatshepsut's divinely sanctioned rule.

Edition: Somers Clarke and Edouard Naville, *The Temple of Deir El Bahari*, 6 vols, Memoir of the Egypt Exploration Fund, Part 2 (Egypt Exploration Fund, 1895), 13–14, pl. XLVI.

ỉʒd.t ex. 14. Transliteration: *ỉd.t.f* *wr tw r ḥj sfsf.f ʒw*

Translation: His dew is greater than the flood when he pours out drink offerings.

Source: Cuboid Statue of Bak-en-Chons (Cairo CG 42213), text d-e, 18

Date: 22nd-23rd Dynasty Third Intermediate Period

Determinative: 𓈖 (N35a)

Textual genre: Funerary-religious text

Context:

(18) *wʒḥ m tʒ n ws m-ḫnt.f*

Duration on earth without end lies before him.

ỉd.t.f *wr tw r ḥj sfsf.f ʒw*

His dew (= water offering), he is greater than the flood, when he pours out drink offerings.

19 *smnḫ.f ḥr.t ḥts n ḥʿ.w.ỉ*

He builds the rock tomb that was made for my body.

sš.f snṯr ḥr.s n mʿḥʿ.t.ỉ fʒỉ.f 20 *ṯʒw ḥr jʿr ỉm.ỉ*

He scatters incense in it for my place of worship when he sails over to me.

Context overview: This passage from the Cuboid Statue of Bak-en-Chons integrates concepts of divine permanence, ritual efficacy, and funerary provision within the broader context of Third Intermediate Period religious conception. The sequence begins with the foundational assertion of divine eternality establishing Amun-Re's fundamental characteristic as an eternal deity whose presence transcends temporal limitations. The central line about divine dew being "greater than the flood when he offers drink offerings" elevates subtle divine emanations above the most dramatic natural phenomena known to ancient Egyptians. This comparison functions on multiple levels: it possibly demonstrates Amun-Re's ability to provide superior spiritual sustenance through delicate means rather than overwhelming force, while simultaneously establishing the supremacy of divine offerings over natural abundance. The metaphor suggests that the god's dew represents a refined form of divine provision that surpasses even the Nile's life-giving inundation in its spiritual efficacy and permanence. The sequence then transitions to concrete expressions of divine care through funerary provision: "He builds the rock tomb that was made for my body", showing how eternal divine commitment manifests in practical architectural protection for the deceased. This physical construction represents the materialization of divine eternality in permanent stone structures designed to ensure the deceased's ongoing existence. The culminating image of ritual maintenance—"He scatters incense in it for my place of worship when he sails over to me"—creates a vivid picture of ongoing divine service where Amun-Re personally tends to the deceased's cult through aromatic offerings. The progression from eternal presence to superior offerings to permanent construction to ongoing ritual care creates a theology of divine provision that encompasses temporal, spiritual, physical, and ceremonial dimensions. The comparison of divine dew to the flood gains profound significance as it represents the god's ability to provide more effective spiritual nourishment through subtle emanations than through the most dramatic manifestations of natural power.

Edition: Karl Jansen-Winkeln, *Ägyptische Biographien Der 22. Und 23. Dynastie. Teil 1: Übersetzung and Kommentar. Teil 2 + 3: Phraseologie + Texte*, Ägypten Und Altes Testament 8 (Harrassowitz, 1985), vol. I, 100; II, 484.

ỉꜣd.t ex. 15. Transliteration: *ỉnk* ***ỉd.t*** *ḥꜣp.t rḫj.t ỉnk ḥr.(j) nfꜣ pw ʿnḫ m dšr.ww*

Translation: Mine is the dew which conceals the *rḫj.t*-people; I am indeed he who is in charge of exhalation, living on bloods.

Source: CT VI, 202j

Date: Middle Kingdom

Determinative: 𓉔 (N4)

Textual genre: Funerary Text

Context:

VI 202 h: *wḏꜣ-mdw.(ỉ) m nṯr.w*

It is to judge with the gods

VI 202 *ỉ.nḏ.ỉ sꜣ[ỉr].w.sn ḫft pr.tm [ỉb].ỉ ?*

(and) it is to ask their needs according to what has come out of my heart (?) (= my will)

VI 202 j: *ỉnk ỉd.t ḥꜣp.t rḫ(j).t*

Mine is the dew which conceals the *rḫj.t*-people

VI 202 k: *ỉnk ḥr.(j) nfꜣ pw ʿnḫ m dšr.ww*

I am indeed he who is in charge of exhalation, living on bloods.

Context overview: Preceding this passage, Coffin Text spell 585 situates the deceased within a cosmic hierarchy, addressing men, gods, spirits, and powers to assert their dominance over atmospheric and vital forces. The text describes the deceased's mastery over phenomena such as exhalation as dew, emphasizing their ability to conceal or obscure humans (*rḫj.t*-people) using dew as a tool of divine control. This control is presented alongside other manifestations of power, such as living on blood and wielding falcon-knives, underscoring the commanding presence in the cosmic order. Following this passage, the text continues to elaborate on the dominion over natural and supernatural forces, including their ability to establish order among divine entities and navigate the challenges of the afterlife. The invocation of dew as a concealing force aligns with broader Egyptian conceptions of atmospheric phenomena as extensions of divine agency. Dew is metaphorically linked to renewal and protection but also carries connotations of obscurity and danger when wielded by powerful cosmic figures.

Edition: Adriaan de Buck, The Egyptian Coffin Texts, (Chicago: University of Chicago Press, 1956).

ỉꜣd.t ex. 16. Transliteration: *ỉꜣd.t.k* *ḫsr mn m sk m ws m ỉrwj.k*

Translation: Your dew dispel suffering in destruction, in loss, in your forms.

Source: Book of the Dead, papyrus of Amenemsaf, (Louvre 3292) section T

Date: 21st Dynasty, Third Intermediate Period

Determinative:  (N4)

Textual genre: Funerary text

Context:

ỉwnw.k r tꜣ ḫt m ḥꜥ.w

your colour against the earth cuts the outline of bodies

ỉʒd.t.k ḫsr mn m sk m ws m ỉrwj.k

Your dew dispel suffering in destruction, in loss, in your forms.

Context overview: This passage from the Book of the Dead papyrus of Amenemsaf exposes Ra's visual manifestation with his healing emanations, creating a portrait of divine intervention that operates through both luminous and atmospheric phenomena. The sequence begins with the striking declaration "your colour against the earth cuts the outline of bodies", establishing Ra's visual presence as an active force that delineates and defines physical forms through divine radiance. This cutting or defining action of Ra's colour suggests a creative and organizational power that brings order to the material world by establishing clear boundaries and distinct identities for all corporeal beings. Following this visual manifestation, the text transitions to the complementary healing power: "Your dew dispel suffering in destruction in loss in your forms". This progression from visual definition to therapeutic intervention creates a dual mechanism of divine action where Ra first establishes cosmic order through his defining radiance, then provides healing restoration through his atmospheric emanations. The juxtaposition suggests that Ra's dew functions as the restorative counterpart to his organizing light—where his colour creates structure and definition, his dew provides renewal and healing. The reference to "your forms" likely indicates that Ra's dew operates across his multiple manifestations, demonstrating the nature of his healing power that transcends any single divine aspect. The systematic enumeration of afflictions—"suffering in destruction in loss"—suggests an approach that addresses both physical ailments and existential challenges, positioning Ra's dew as a universal remedy capable of countering all forms of distress and deterioration. Within the broader context of the Book of the Dead, this passage emphasizes Ra's role as both creator and sustainer, whose divine emanations serve complementary functions in maintaining cosmic order and providing ongoing renewal for both the deceased and the living, reinforcing his status as the supreme deity whose influence encompasses every aspect of existence from initial formation to continuous regeneration.

Edition: Quirke, *Going out in Daylight - Prt m Hrw: The Ancient Egyptian Book of the Dead; Translation, Sources, Meaning*, 529.

ỉ3d.t ex. 17. Transliteration: *sḏr(.w) n* ***(ỉ)3d.t***

Translation: (it: the remedy) will be exposed to the dew at night.

Source: P. Ramesseum III = P. BM EA 10756, ro frg. 6.2.

Date: 13th Dynasty, Middle Kingdom

Determinative:  logogram with  (N4); logogram (N4) det.  (N35a); logogram (N4); det. (N35a) (N36 N23)

Textual Genre: Medical text

Context:

frg. 6.1: *[bnrỉ.w] n(.j).w bnr.w [...]*
[fermentation agent (?) of] dates [...]

frg. 6.2: *[ʿm ʾ] [hnw]*
[...] in a jar-*hin* (unit of measure, ca. 1/2 liter).

sḏr(.w) n ***(ỉ)3d.t***
(it: the remedy) will be exposed to the dew at night. [...]

Context overview: This is the earliest attestation of the expression *sḏr n ỉʒd.t* in a medical context out of 94 total occurrences. It indicates exposing a medicinal substance to dew overnight as part of a treatment procedure, suggesting dew's perceived medicinal properties in ancient Egyptian medicine. Preceding this passage, the text describes various stages of fermentation and exposure to natural elements, including references to dates and vessels, highlighting the importance of environmental conditions in the preparation of substances. The fragmented lines suggest a focus on the interaction between materials and atmospheric phenomena, setting the stage for the mention of dew as a transformative agent. Following this passage, the text elaborates on the exposure of substances to dew during nighttime, emphasizing its role in altering or enhancing their properties.

Edition: Gardiner, *The Ramesseum Papyri*; John W. B. Barns, *Five Ramesseum Papyri* (Oxford: Oxford University Press, 1956), pl. 14.

ỉʒd.t ex. 18. **Transliteration:** *rḏỉ.ḫr.k sḏr ꜥnd.jt mʒ(w).t šr.wʔ mʒ(w) mḥ m mw n(.j)* ***ỉʒd.t***

Translation: You therefore leave a new *ꜥnḏ.jt* vessel and a new bowl? filled with dew water.

Source: P. Ebers 783-807, 93,13

Date: 18th Dynasty, New Kingdom

Determinative: (N4)

Textual genre: Medical text

Context:

Eb 786+787: *k.t ỉrr.t. pʒ.t n wnn.t* 93.12 *ḫr wšš bʒg*

Another (remedy), something to do for a (woman) who (continually) excretes curds:

93.13 … *ntš m mw ʿȝ wr.t m ḫȝwj*

be sprinkled with a lot of water in the evening.

rḏỉ.ḫr.k 93,14 *sḏr ʿnd.jt mȝ(w).t šr.w? mȝ(w) mḥ m mw n(.j)* ***ỉȝd.t***

You therefore leave a new *ʿnḏ.jt* vessel and a new bowl? filled with dew water.

ntš.ḫr.k 93,15 *nȝ-n spj.w.t m wḥm m pr.t nṯr-dwȝ.j ḥnʿ rḏỉ.t ḥmsỉ s.t ḥr.s* 93,16 *r hrw.w ʿšȝ.w*

You therefore sprinkle these pieces again at the rising of the morning star and cause the woman to sit on them for many days.

Context overview:

This expanded passage from the Ebers Papyrus reveals a complex multi-stage gynaecological treatment that possibly demonstrates the ancient Egyptians' systematic approach to women's reproductive health, integrating temporal precision, environmental factors, and celestial observations into a therapeutic protocol. The medical context begins with the specific diagnosis of a woman who "continually excretes curds", possibly indicating a condition characterized by abnormal vaginal discharge with a particular texture and consistency. The treatment protocol reveals a carefully orchestrated sequence, that emphasizes the importance of timing and water-based interventions. This initial evening treatment sets the stage for the more complex overnight dew exposure process that follows. The central pharmaceutical instruction to "leave a new *ʿnḏ.jt* vessel and a new ... bowl filled with water to be exposed to the dew at night" represents a complex understanding of how atmospheric moisture could enhance medicinal preparations. The specification of "new" vessels possibly indicates the importance of purity and cleanliness in pharmaceutical preparation, while the overnight dew exposure transforms ordinary water into a therapeutically enhanced substance believed to possess healing properties derived from celestial sources. The culminating instruction to "sprinkle these pieces again at the rising of

the morning star and cause the woman to sit on them for many days" creates a therapeutic regimen that integrates astronomical observation with practical medical treatment. The reference to "the rising of the morning star" could demonstrate how Egyptian medical practice incorporated precise celestial timing into treatment protocols, recognizing that the conjunction of dew-enhanced water with the appearance of Venus created optimal conditions for therapeutic intervention. The final element requiring the patient to "sit on them for many days" indicates a sustained treatment approach that recognized the need for prolonged contact between the dew-enhanced remedy and the affected area. This treatment protocol could exemplify the integration of environmental factors, astronomical observations, and pharmaceutical techniques that characterized Egyptian gynaecological medicine, where dew exposure served as a critical component in a multi-stage therapeutic approach designed to address complex reproductive health conditions through the systematic application of celestially-enhanced remedies.

Edition: Georg Ebers and Ludwig Stern, *Papyros Ebers: Das Hermetische Buch Über Die Arzeneimittel Der Alten Ägypter in Hieratischer Schrift, Herausgegeben, Mit Inhaltsangabe Und Einleitung Versehen*, 2 vols (Wilhelm Engelmann, 1875); Bernard Lalanne and Gérard Métra, *Le Texte Médical Du Papyrus Ebers: Transcription Hiéroglyphique, Translittération, Traduction, Glossaire et Index*, Langues et Cultures Anciennes 28 (Éditions Safran, 2017).

ỉ3d.t ex. 19. **Transliteration:** *[rḏỉ] n* ***ỉ3d.t*** *swr? [r] [hrw] [4]*

Translation: (It) shall be [exposed] to the dew, (it) shall be drunk (?) [for four days.]

Source: P. Chester Beatty X = P. BM EA 10690, Rto x+1.11

Date: 19th Dynasty, New Kingdom

Determinative: 𓉔 (N4)

Textual genre: Medical text

Context:

k.t

another prescription

pr.t mʿr[r]j rʾ-8

Fruits/grains of *mrrj*-plant/mineral (?): 1/8

tbs.w [___]

tbsw-drug/plant: [(quantity)]

Ʇmw¹n(.j) ỉt Ʇrʾ-8¹

barley water 1/8 (Dja)

[rḏỉ] n ***ỉʒd.t*** *swr? [r] [hrw] [4]*

(It) shall be [exposed] to the dew, (it) shall be drunk (?) [for four days.]

Context: This passage appears in a fragmentary section of the Chester Beatty X papyrus, following a series of medical remedies for various ailments here likely against erectile dysfunction. The text presents a treatment procedure that begins with the heading *k.t* "another prescription", indicating it is part of a sequence of related treatments. The ingredients listed include *pr.t mʿꞱr¹[r]j* "fruits/grains of the *mrrj* plant or mineral" in the quantity of *rʾ-8* "1/8 *Dja* measure", *tbs.w* "a medicinal substance or plant" in an unspecified quantity, and *Ʇmw¹n(.j) ỉt* "barley water" in the measure of *Ʇrʾ-8¹* (1/8 Dja). The fragmentary instruction following these ingredients suggests that the prepared mixture should be exposed

to dew and then ingested for a specific duration of four days. This timed regimen indicates a systematic approach to the administration of dew-infused medicines, possibly based on empirical observations of its efficacy over a certain period. The use of barley water as a base ingredient, combined with exposure to dew, likely suggests a recognition of dew's ability to enhance the medicinal properties of the preparation, potentially increasing its potency or facilitating the extraction of active compounds from the other ingredients.

Edition: Alan H. Gardiner, *Chester Beatty Gift*, 2 vols, Hieratic Papyri in the British Museum 3 (London: Trustees of the British Museum, 1935), pl. 62-3.

ỉʒd.t ex. 20. Transliteration: *ỉr gmỉ.k 〈snf〉 ỉm.j-ḫt.f ỉr wbn.sn 〈m〉 mw ỉrỉ.ḫr.k n.f pr.wt wʿn sḥm rḏỉ.w n ỉʒd.t wdỉ{.t} ʿ.wt nb(.t) ỉm.f r snb.f*

Translation: If you find 〈blood〉 afterwards, (and) if it flows out 〈as〉 water, then you make instead: berries of the juniper will be crushed; they will be exposed (lit. placed) to the dew; be put with every part of the body so that it becomes healthy.

Source: P. Chester Beatty VI = P. BM EA 10686, 5.1-3

Date: 19th Dynasty, New Kingdom

Determinative: 𓈙 (N35a)

Textual genre: Medical text

Context overview: The prescription occurs within a section of the papyrus dealing with internal remedies, where several substances were prepared using dew as part of their processing. The preparation involves combining several ingredients that are placed in a cloth bag and formed into four pills, with instructions to "put one of them into the anus daily". Following this initial treatment, the text presents conditional instructions for complications that might arise, stating "If you find blood afterward, (and) if it runs out like water", which

leads to alternative treatments involving dew exposure. The precise specification of a four-day duration for ingesting the dew-infused substance suggests a standardized therapeutic protocol, reflecting the ancient Egyptian physicians' systematic approach to treatment scheduling and their recognition of dew's pharmaceutical efficacy over a predetermined time frame.

Edition: Alan H. Gardiner, *Chester Beatty Gift*, 2 vols, Hieratic Papyri in the British Museum 3 (London: Trustees of the British Museum, 1935), pl. 30-32A.

i3d.t ex. 21. **Transliteration:** *i‹i nn it sḥm rdi sḏr t3 pḫr.t r-ḏr.st 〈n〉* ***i3d.t***

Translation: This pounded barley shall be washed (soaked); cause the whole remedy to be exposed to the dew at night.

Source: P. Berlin P 3038, 138, 11,8

Date: 19th Dynasty, New Kingdom

Determinative: 𓉔 (N4)

Textual genre: Medical text

Context overview: The preparation is part of a treatment targeting mucous accumulations within the body. The prescription provides a detailed ingredient list with precise measurements, this elaborate mixture demonstrates the complex pharmaceutical approach and the careful measurement practices. The preparation process reveals a multi-step pharmaceutical procedure that highlights the integration of dew into medicinal preparations. The overnight dew exposure represents a critical stage in the preparation, followed by specific morning instructions: "Early in the morning, put it in a kettle with five *hins* of water". This

sequence suggests dew exposure served as an intermediate refining process between the initial preparation of ingredients and the final heating stage.

Edition: Wreszinski, Walter, and Bendix Ebbell. Der grosse medizinische Papyrus des Berliner Museums (Pap. Berl. 3038). Leipzig: J.C. Hinrichs, 1909

ỉꜣd.t ex. 22. **Transliteration:** *mw n(.j).w* ***ỉꜣd.t*** *n(.j).t p.t ꜥnṯỉ.w-šw 1*

Translation: Water from the dew of heaven, dried myrrh: 1 (dose)

Source: P. Ebers 614,77,18

Date: 18th Dynasty, New Kingdom

Determinative: (N4)

Textual genre: Medical text

Context:

bsbs 1

bsbs-plants: 1 (dose)

ḏrḏ n(.j) šnd.t 1

leaves of the thorny acacia: 1 (dose)

ḏrḏ n(.j) mꜣf.t 1

leaves of the *mꜣf.t*-tree: 1 (dose)

ḫsʒ.jt 1

ḫsʒ.jt-plants: 1 (dose)

mnḥ 1

wax: 1 (dose)

qmj.t n(.j).t šnd.t 1

gum resin of the thorny acacia: 1 (dose)

snṯr 1

frankincense: 1 (dose)

bʒq wʒḏ 1

fresh olive oil: 1 (dose)

ḫsʒ.jt 1

ḫsʒ.jt-balsam: 1 (dose)

tỉ-šps 1

East African camphor (?): 1 (dose)

gỉ.w 1

gw-grass: 1 (dose)

ḫpȝ n(.j) ʿš 1

ḫpȝ-globules (?) of the *ʿš*-conifer: 1 (dose)

ḫpȝ *n(.j)* wʿn 1

ḫpȝ-globules (?) of the thorny juniper: 1 (dose)

mw n(.j).w ***ỉȝd.t*** *n(.j).t p.t ʿntỉ.w-šw 1*

water from the dew of heaven (i.e. from the rain?)

ʿntỉ.w-šw 1

dried myrrh: 1 (dose)

sʿȝm 1

sʿʒm plants: 1 (dose)

pr.t wʿn 1

berries of the prickly juniper: 1 (dose)

pr.t-šnỉ 1

berries of the Phoenician juniper: 1 (dose)

Context overview: This formula presents a medicinal preparation designed for external application to the ankle or leg areas. The complete prescription begins with the standard introductory phrase *k.t*, followed by an extensive list of botanical, mineral, and specialized ingredients. The prescription calls for numerous plant components including *bsbs* plants, leaves of thorny acacia *ḏrḏ n(.j) šnd.t* , leaves of the *mȝf.t* tree, and various types of juniper berries *pr.t wʿn* and *pr.t-šnj*, alongside substances like wax *mnḥ*, frankincense *sntr*, and fresh olive oil *bȝq wȝḏ*. Within this pharmacological background, "water from the dew of heaven" appears paired with dried myrrh *ʿntj.w-šw,* suggesting a specialized application where celestial moisture acts as a carrier or enhancer for the aromatic resin. The text provides explicit preparation and application instructions following the ingredients list. The practitioner is directed to grind all components finely *nḏ snʿʿ* to create a uniform medicinal compound. This preparation is then applied as a bandage specifically to the ankle areas *wt ss.wt ḥr.s* for a precisely defined treatment period of four days *r hrw 4*. This temporal specification mirrors other dew-related treatments in the corpus, indicating a standardized therapeutic protocol,

Edition: See *supra*

ỉʒd.t ex. 23. Transliteration: *wrš.s n šw sḏr.s n* ***ỉʒd.t***

Translation: it will be exposed to sun by day, to dew by night.

Source: P. Ebers, 307 53,4

Date: 18th Dynasty, New Kingdom

Determinative: 𓉔 (N4)

Textual genre: Medical text

Context:

rḏỉ.ḫr.k rmn.t gs.s m mw gs m ḏʒr.t

You therefore prepare a *rmn.t* vessel, half of which is filled with water and the other half with carob.

rḏỉ.ḫr.k ỉrỉ.s hrw 4 wrš.s n šw sḏr.s n ***ỉʒd.t***

You then let it rest for 4 days, it will be exposed to sun by day, to dew by night.

rḏỉ.ḥr.k [stf.tw] [ḥsb] [n] [1/64] [m] rmn.t tn

(And) you therefore cause [[a quarter of a *Dja* (?) to be poured out]] from this *rmn.t* vessel.

rḏỉ swrỉ sw n.tj ḥr srj.t r hrw 4 r snb.f ḥr-ʿ.wj

The person with the cough should be instructed to drink it for four days so that he will immediately recover.

Context overview: This remedy appears in the Ebers papyrus as part of a sequence of treatments for respiratory ailments, specifically for *srj.t* "cough". The prescription begins with precise directions: "You therefore prepare a *rmn.t* vessel, half of which is filled with water and the other half with carob". This initial preparation establishes the foundation for the subsequent exposure process that incorporates both solar and nocturnal elements. Following the instruction for alternating exposure to sunlight and dew, the text provides specific administration guidelines : "The person with a cough should be instructed to drink it for four days so that he will immediately recover". This treatment demonstrates a sophisticated understanding of environmental factors in pharmaceutical preparation, revealing how the ancient Egyptians deliberately incorporated celestial and terrestrial elements to enhance medicinal efficacy. The four-day exposure followed by a four-day treatment regimen suggests a systematic approach based on empirical observations of therapeutic outcomes, highlighting the methodical nature of ancient Egyptian medical practice and the significant role of dew in their pharmacological tradition.

Edition: See *supra*

ỉʒd.t ex. 24. **Transliteration:** *sḏr.(w) 1/16 n mw n(.j)* ***ỉʒd.t***

Translation: it will be exposed 1/16 measure to dew.

Source: P. Ebers, 166 34,5

Date: 18th Dynasty, New Kingdom

Determinative: 𓉔 (N4)

Textual genre: Medical text

Context overview: This prescription appears as part of a series of medicinal remedies, specifically labelled to treat abdominal ailments. The preceding text introduces a treatment utilizing a plant with the peculiar name "My arm grasps, my arm grabs", highlighting the Egyptian practice of naming medicinal plants according to their perceived actions or effects.

This particular remedy is part of a larger collection of treatments in the Ebers papyrus that employ precise measurements and specific preparation methods for various ailments. The text demonstrates the Egyptian understanding of plant properties and their transformation through environmental exposure, particularly to dew, which was considered a purifying and potent natural element capable of enhancing medicinal efficacy. The prescription provides remarkably precise pharmaceutical instructions, followed by the administration guidelines that "a *Hin* (= 1.6 *Dja*) of the water is drunk daily for 4 days" This quantitative approach with exact measurements and duration reveals a precise understanding of dosage and treatment regimens in ancient Egyptian medicine.

Edition: See *supra*

ỉʒd.t ex. 25. Transliteration: *sḏr.(w) n* ***ỉʒd.t*** *m šm.w*

Translation: it will be exposed to dew in *shemu* season.

Source: P. Ebers, 57 18,1

Date: 18th Dynasty, New Kingdom

Determinative: 𓉔 (N4)

Textual genre: Medical text

Context overview: The passage containing this instruction appears to be part of a treatment regimen for a deafness or hearing difficulties, as indicated by the preceding text mentioning "being deaf" (*ỉdỉ*). The prescription is part of a larger section dealing with abdominal ailments and possible hearing problems. The treatment sequence continues with the explicit instruction to expose the prepared substance to dew specifically during the summer season, followed by the administration directive to "drink in the morning". This sequential approach reveals the ancient Egyptian understanding of optimal timing for both preparation and administration of remedies. The specification of summer for dew collection is particularly significant, as summer in Egypt was characterized by higher temperatures and lower humidity, conditions less conducive to dew formation.

Edition: See *supra*

ỉ3d.t ex. 26. Transliteration: *ʿtḫ.(w) sḏr.(w) n* ***ỉ3d.t***

Translation: it will be strained and exposed to dew.

Source: P. Berlin P 3038 117, 10.3

Date: 19th Dynasty, New Kingdom

Determinative: 𓎛 (N4)

Textual genre: Medical text

Context: The passage appears within a remedy titled "Remedies for successful treatment of the heart". This cardiac treatment begins with a precise pharmacological formula specifying both ingredients and their exact measurements. The inclusion of both botanical substances (figs, acacia) and mineral material (ochre) exemplifies the typical Egyptian pharmaceutical approach of combining ingredients from different natural domains to create efficacious remedies. Following the ingredients list, the text outlines a sequence of pharmaceutical procedures that must be performed to complete the remedy's preparation. The substance must first undergo straining (*ʿtḫ*) followed by overnight exposure to dew, creating a clear sequence of purification and potentiation. This procedural sequence is then completed with specific administration instructions: "Be drunk for four days", indicating that the dew-exposed preparation was intended for oral consumption over a prescribed duration. This multi-step procedure—straining to remove impurities, dew exposure to enhance medicinal properties, and a specific ingestion protocol—demonstrates the Egyptian pharmaceutical processing where each step played a critical role in the remedy's efficacy, with dew exposure functioning as an essential intermediary stage between purification and consumption.

Edition: See *supra*

ỉ3d.t ex. 27. **Transliteration:** *sḏr.(w) n* ***ỉ3d.t*** *qnqn.(w) ḥr mw*

Translation: it will be exposed to dew and crushed in water.

Source: P. Berlin P 3038, 159 14, 5

Date: 19th Dynasty, New Kingdom

Determinative: 𓏏 (N4)

Textual genre: Medical text

Context overview: This passage appears within a sequence of medical remedies, where it forms part of a detailed prescription for an anal treatment for abdominal ailment. The recipe begins with the specification of precise measurements of five ingredients, this careful measurement of ingredients likely demonstrates the systematic approach to pharmaceutical preparation in ancient Egyptian medicine. The preceding remedy in the text concludes with instructions to be consumed orally for a period of four days, indicating that the text presents a progression of treatments with specific administration methods. Following the list of ingredients, the text provides precise instructions for the preparation process, in which the mixture must first be exposed to dew overnight and subsequently crushed in water. This dual-stage process suggests that the nocturnal exposure to dew was likely believed to activate or enhance the medicinal properties of the botanical ingredients before their further processing in water. The text then specifies the administration method, directing that the prepared remedy should be "poured into the anus for a day". This treatment regimen demonstrates how dew exposure was integrated into complex pharmaceutical procedures that included precise measurements, numerous preparation steps, and specific application methods.

Edition: cfr. *supra*

ỉ3d.t ex. 28. **Transliteration:** *sḏr.(w) n* ***ỉ3d.t*** *sỉn.(w) ḥr ḏr.t sḫnk.(w) m ḥbs.w*

Translation: It will be exposed to dew, rubbed with hand, strained through cloths.

Source: P. Berlin P 3038, 188 20,8

Date: 19th Dynasty, New Kingdom

Determinative: (N4)

Textual genre: Medical text

Context:

Context overview: The passage details a complex remedy involving several carefully measured ingredients. The text provides explicit instructions for a multi-step pharmaceutical process, beginning with exposure to dew at night, followed by rubbing the mixture with beer by hand and finally straining it through cloths. This elaborate preparation procedure demonstrates the importance of specific processing techniques to maximize the efficacy of medicinal compounds. The prescription continues with administration instructions, specifying a structured treatment regimen with a defined duration. Interestingly, the preparation is accompanied by a recitation formula (*rˀ n(.j) swrj pḫr.t)* that was to be spoken when consuming the medicine: "May you awaken well, O abiding one in eternity!" (*rs.k nfr mn r nḥḥ*). This integration of verbal incantation with physical treatment highlights the holistic approach to healing in ancient Egyptian medicine, where physical remedies were complemented by magical or spiritual elements.

Edition: cfr. *supra*

ỉʒd.t ex. 29. Transliteration: *psỉ.(w) sḏr.(w) n* ***ỉʒd.t***

Translation: it will be boiled and exposed to dew.

Source: P. Berlin P 10456, x+1.6

Date: 26th Dynasty, Late Period

Determinative: (N35a)

Textual genre: Medical text

Context overview: This prescription treats conditions related to excessive heat or inflammation in the body. The preceding section introduces "Another remedy" for patients suffering from internal heat, suggesting this is part of a series of treatments for similar conditions. The ingredients listed include precise measurements, indicating a carefully formulated mixture. Several fatty substances would likely have been chosen for their cooling or soothing properties when applied to inflamed tissues. The preparation instruction "Be boiled and exposed to dew" is followed by a specific duration "for four days", highlighting the importance of timing in the treatment process. The text continues by specifying that this remedy is intended for "the man (or) woman who suffers from heat in their belly", indicating its application for internal heat conditions affecting the digestive system regardless of the patient's gender. This contextual information suggests the ancient Egyptians recognized dew as having cooling or anti-inflammatory properties that could counteract excessive internal heat when combined with appropriate fats and grains. The boiling process would have facilitated the blending of the ingredients, while the subsequent exposure to dew for multiple nights might have been believed to impart additional therapeutic properties, perhaps drawing on dew's associations with coolness, purity, and divine essence as seen in other medical and religious texts.

Edition: Wolfhart Westendorf, 'Papyrus Berlin 10456: Ein Fragment Des Wiederentdeckten Medizinischen Papyrus Rubensohn', in *Festschrift Zum 150jährigen Bestehen Des Berliner Ägyptischen Museums*, ed. Anonymous (Akademie-Verlag, 1974).

ỉʒd.t ex. 30. **Transliteration:** *ḥr-ntj ỉr prỉ{.t} tʒ mtw.t r-ḥr.j šʒj.ỉn wỉʒ n(.j) Rˁ ḥr ṯʒs{.t} pf n(.j) ˁʒpp ỉmḥ m ḫsf.w* ***ỉʒd.t***

Translation: (the magician speaks:) For if the poison should rise to the surface, then the barge of Ra will run aground on that sandbank of Apophis, which (?) fills up at the arrival of the morning dew.

Source: P. Chester Beatty VII = P. BM EA 10687, ro 5,2-5 5,4

Date: 19th Dynasty, New Kingdom

Determinative: 𓏏 (N35a)

Textual genre: Magical-medical text

Context:

ỉnk rw.t.j

I am the lion couple,

ỉnk Bn.w ḫpr-ḏs.f s n(.j) ḥḥ nn rḫ.tw rn.f

I am the phoenix that came into being by itself, the man of millions (of cubits) whose name is not known.

ḥr-n.tj ỉr prỉ{.t} tꜣ mtw.t r-ḥr.j šꜣj.ỉn wỉꜣ n(.j) Rʿ ḥr ṯꜣz{.t} pf n(.j) ʿꜣpp ỉ.mḥs mḥ ỉf

(the magician speaks:) For if the poison should rise to the surface, then the barge of Ra will run aground on that sandbank of Apophis, which (?) fills up at the arrival of the morning dew.

šp.ṯ wḥʿ.t

Flow forth, scorpion venom!

Context overview: This passage appears within a series of powerful self-identification statements and incantations against scorpion stings. The text begins with the magician's forceful proclamations of divine identity: "I am the lion couple" and "I am the phoenix that came into being by itself, the man of millions (of cubits) whose name is not known". Through these declarations, the practitioner assumes the power of primordial divine beings before addressing the scorpion venom directly. This self-identification with potent mythological entities establishes the magician's authority to confront and neutralize the poison, creating a powerful ritual framework that precedes the mythological reference to Ra's barge and Apophis. Following this divine self-identification, the text presents the conditional

mythological scenario involving Ra's cosmic journey and the threat posed by Apophis, using this divine struggle as a parallel to the battle against poison in the human body. The sandbank of Apophis being inundated by morning dew creates a vivid image of cosmic conflict where the dew represents a transformative natural force within the mythological landscape. This cosmic battle imagery is immediately followed by the direct command "Flow forth, scorpion venom!", likely revealing how the mythological narrative directly empowers the magical command that follows. The text thus establishes a correspondence between cosmic and bodily domains, where the removal of obstacles in Ra's journey (through dew's intervention) parallels the desired expulsion of venom from the patient's body.

Edition: Pierre Lacau, *Stèles Du Nouvel Empire: 34001-34189*, Catalogue Général Des Antiquités Égyptiennes Du Musée Du Caire 50, 81 (Le Caire: Imprimerie de l'institut français d'archéologie orientale, 1909), 17–21, pl. VII.

ỉȝd.t ex. 31. Transliteration: *ỉȝd.t.k ḫt ʿwt.ỉ nb.t*

Translation: Your dew is (now) through every one of my limbs.

Source: Theogamy cycle at Deir el-Bahari, specifically in the fifth dialog; Urk. IV, 221,4

Date: 18th Dynasty, New Kingdom

Determinative: 𓉐 (N4)

Textual genre: Temple inscription

Context:

ḫnm.n.k ḥm.t.ỉ m ȝḫ.w.k

You have united My Majesty with your radiance. [Or: You have united yourself with my Majesty through your radiance.]

i3d.t.k *ḫt ʿwt.i nb.t*

Your dew is (now) through every one of my limbs.

m-ḫt nn irí.n ḥm n(.j) nṯr pn mrí.t.n.f nb.t ḥnʿ.s

After that (= the speech of Iahmes) the majesty of this god did with her whatever he wanted.

Context overview: This passage appears within the theogamy cycle at Deir el-Bahari, specifically in the fifth dialog of the divine conception scene depicting the mythological birth of Hatshepsut. In this crucial scene, Queen Ahmose (Iahmes) addresses the god Amun directly after their divine encounter. The scene begins with a formal introduction: "The following is the speech of the King's wife, the Queen's mother Iahmes, to the majesty of this exalted god, Amun, Lord of the Thrones of the Two Lands". Queen Ahmose then proceeds with reverent praise: "My lord, how great is your Ba-power. It is sublime to see your front parts". This acknowledgment of Amun's divine power serves as a prelude to her description of the divine union that has taken place, where she states: "You have united My Majesty with your radiance", directly preceding the pivotal line about Amun's dew permeating her body. The statement "Your dew goes through all my limbs" represents the culmination of the divine conception narrative, signifying the moment when Queen Ahmose acknowledges that Amun's divine essence has thoroughly penetrated her physical being, resulting in her impregnation with the future queen-pharaoh. This intimate moment in the narrative serves a crucial political function within Hatshepsut's legitimization strategy, as it establishes her divine parentage and right to rule. Portraying Amun's essence—metaphorically represented as "dew" —as completely permeating Queen Ahmose's body, the text creates a powerful image of divine conception that transcends ordinary human reproduction. This divine union elevates Hatshepsut's birth to the realm of the miraculous and establishes her as the literal offspring of the state god Amun, thereby reinforcing her claim to the throne despite her female gender in a traditionally male-dominated position.

Edition: Kurt Sethe, Urkunden der 18. Dynastie: Historisch-biographische Urkunden (vol. IV), Urkunden des aegyptischen Altertums (Leipzig: J.C. Hinrichs, 1906-1958).

ỉꜣd.t ex. 32. **Transliteration:** *sʿꜣỉ.n.ỉ Mꜣʿ.t mrỉ.t.n.f ỉw rḫ.n ʿnḫ.f ỉm t.ỉ pw sʿm.ỉ m* ***ỉꜣd.t.****s*

Translation: I have increased the Maat which he desired, for it is known that he lives by it; it is my bread, (and) I swallow her dew.

Source: Speos Artemidos, Historical Inscription of Hatshepsut, 9; Urk. IV, 615, 15

Date: 18th Dynasty, New Kingdom

Determinative: 𓉐(N4)

Textual genre: Temple inscription

Context:

ḥꜣ.tj bj.tj ḫmt.n.f nḥḥ ḥr tp.(j)t-rꜣ wpj ỉšd ỉmn nb-ḥḥ

The king's heart has thought of eternity because of the saying of the one who split the Isched tree, Amun, Lord of Millions.

sʿꜣỉ.n.ỉ Mꜣʿ.t mrỉ.t.n.f ỉw rḫ.n ʿnḫ.f ỉm t.ỉ pw sʿm.ỉ m ***ỉꜣd.t.****s*

I have increased the Maat which he desired, for it is known that he lives by it; it is my bread, (and) I swallow her dew.

wn.kwỉ m ḥꜥ.w wꜥ ḥnꜥ.f sḫpr.n.f wj r rdỉ.t wsr qfꜣ.t.f m tꜣ pn

I was one (lit. a single body) with him; he brought me forth to cause his fame to be mighty in this land.

Context overview: The passage appears within the broader context of Hatshepsut's historical inscription at Speos Artemidos, where multiple metaphorical references to divine sustenance and royal legitimacy are developed. This passage presents the intimate relationship between royal authority and divine order, with the queen declaring his symbiotic connection to Maat and the role of dew as both a literal and metaphorical sustenance in this sacred relationship. The opening declaration "The king's heart has thought of eternity because of the saying of the one who split the *Isched* tree, Amon, Lord of Millions" creates the cosmic background within which the royal conscience operates, linking the pharaoh's contemplation of eternal matters directly to the divine wisdom of Amon, whose mythological role as the splitter of the *Isched* tree positions him as the creator and maintainer of cosmic order. This reference to Amon's primordial creative act provides the theological foundation for the subsequent declarations about Maat and its nourishing properties. The queen's claim "I have increased the Maat which he desired, for it is known that he lives by it; it is my bread, (and) I drink from its dew" likely represents a profound expression of the reciprocal relationship between divine order and royal sustenance in Egyptian theological literature. Here, Maat is not merely conceptualized as an abstract principle of cosmic order, but as a living, nourishing entity whose dew provides both physical and spiritual sustenance to the pharaoh. The metaphor of "drinking from its dew" transforms the celestial moisture associated with Maat into a divine elixir that maintains the queen's connection to cosmic order, suggesting that dew serves as the medium through which divine justice and harmony are transmitted to and internalized by royal authority. This understanding of dew as the concentrated essence of Maat reflects the sophisticated Egyptian conception of how abstract theological principles manifest in tangible, life-giving forms. The concluding statement "I was one body with him; he brought me forth to cause his fame to be mighty in this land" completes this theological context by establishing the queen's role as the earthly manifestation of divine will, with his very existence designed to magnify Amon's reputation and authority throughout Egypt.

Edition: Kurt Sethe, Urkunden der 18. Dynastie: Historisch-biographische Urkunden (vol. IV), Urkunden des aegyptischen Altertums (Leipzig: J.C. Hinrichs, 1906-1958).

ỉ3d.t ex. 33. Transliteration: *ḏỉ.ỉ mȝ.sn ḥm.k mỉ sšd stỉ bs.f m sḏ.t ḏỉ.f* ***ỉ(ȝ)d.t.f***

Translation: I will let them see Your Majesty like lightning, which radiates its glow as flame when it spreads (lit. gives) its essence (lit. "dew").

Source: Thutmosis III, Poetic Stela (Cairo, CG 34010),15; Urk. IV 610.8-619.2

Date: 18th Dynasty, New Kingdom

Determinative: 𓏏 (N4)

Textual genre: Royal inscription (poetic stela)

Context:

jj.n.ỉ ḏỉ.ỉ tjtj.k tȝ ỉỉb.tj ḫnd.k n.tj.w m ʿwt n(.j).w Tȝ-nṯr
I have come that I may make you tread down the land of the East, and that you may trample down those who are in the regions of the land of God.

ḏỉ.ỉ mȝ.sn ḥm.k mỉ sšd stỉ bs.f m sḏ.t ḏỉ.f ***ỉ(ȝ)d.t.f***

I will let them see Your Majesty like lightning, which radiates its glow as flame when it spreads (lit. gives) its essence (lit. "dew").

Context overview: The passage appears in the famous "Poetic Stela" of Thutmose III, specifically within the third stanza of a structured composition where Amun addresses the king. This passage appears to be part of a divine speech or royal proclamation concerning conquest and dominion over eastern territories, with specific reference to the "land of God", which likely refers to regions associated with divine presence or sacred geography in Egyptian cosmology. The declaration "I have come that I may make you tread down the land of the East, and that you may trample down those who are in the regions of the land of God" creates a background of divine authorization for territorial conquest. This context becomes particularly relevant to the broader theme of dew and celestial moisture when considered

within the framework of Egyptian imperial ideology, where conquest of foreign lands was often conceptualized as bringing Egyptian cosmic order (including proper seasonal cycles, agricultural fertility, and divine blessing) to regions previously outside the sphere of pharaonic and divine influence. The act of "treading down" foreign territories can be understood as a metaphor for imposing Egyptian agricultural and cosmic systems, including the proper management of water resources and seasonal cycles that ensure fertility through dew and rainfall. In this ideological framework, the divine mandate to conquer eastern lands represents not merely military expansion but the extension of Egyptian cosmic order, with its associated benefits of proper water cycles, agricultural abundance, and the life-giving properties of celestial moisture, to territories that had previously been outside the realm of Egyptian divine blessing and natural harmony.

Edition: Pierre Lacau, *Stèles Du Nouvel Empire: 34001-34189*, Catalogue Général Des Antiquités Égyptiennes Du Musée Du Caire 50, 81 (Imprimerie de l'institut français d'archéologie orientale, 1909), 17–21, pl. VII.

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RÉSUMÉ EN FRANÇAIS

La section suivante constitue un résumé en français de la thèse. Ce résumé expose les objectifs, le corpus et la démarche méthodologique de l'étude lexicographique consacrée aux hydrométéores dans la langue égyptienne ancienne, ainsi que ses principaux apports théoriques et empiriques. Il restitue la trame argumentative et les résultats majeurs sans reproduire l'intégralité de l'appareil critique. Toutes les citations, références bibliographiques, numéros de notes et renvois internes demeurent ceux de la version originelle en anglais, à laquelle il convient de se reporter pour la documentation détaillée et la vérification des sources.

Les conventions de translittération et les codes des signes hiéroglyphiques (par exemple N4, N35A, E21) ont été conservés afin de garantir la fidélité aux données et la compatibilité avec les corpus et dictionnaires spécialisés. Les choix terminologiques privilégient des équivalents français consacrés par l'usage académique, en respectant autant que possible les distinctions sémantiques et contextuelles établies dans le texte anglais. L'ensemble vise à offrir une lecture claire et accessible aux spécialistes francophones tout en maintenant un alignement scientifique strict avec la version de référence en langue originale.

INTRODUCTION

ʿnd pw ḫw.t m sp3.wt rsw

Les pluies sont rares dans les régions du sud.

(Stèle de Dafenneh, x + 13)

Ce témoignage lapidaire saisit une réalité climatique cruciale des régions méridionales de l'Égypte, où la rareté des pluies constitue un enjeu majeur qui façonne en profondeur la vie locale. L'irrégularité des précipitations n'est pas un simple fait météorologique; elle est un trait climatique durable depuis des millénaires, qui règle les rythmes mêmes de l'existence. Pour appréhender la dimension lexicale inhérente aux dynamiques météorologiques, cette étude examine la manière dont cette question a été conceptualisée au moyen d'une analyse du champ des hydrométéores, c'est-à-dire des multiples formes des eaux atmosphériques.

Dans l'expérience humaine, rares sont les forces aussi vitales et symboliquement chargées que celles des hydrométéores. Ce terme recouvre l'ensemble des particules d'eau liquides et solides présentes dans l'atmosphère, incluant non seulement la pluie, la neige et la grêle, mais aussi la rosée, le givre, le brouillard et la brume. À ce titre, il offre un cadre plus souple et englobant pour l'analyse de la terminologie égyptienne ancienne que la notion plus étroite de « précipitations ».

Notre recherche vise à éclairer de manière détaillée la façon dont les anciens Égyptiens percevaient, catégorisaient et exprimaient les différentes formes de ce lexique. Dans de nombreuses cultures, les phénomènes atmosphériques ont invariablement captivé l'imaginaire collectif. De la pluie vivifiante à la fureur destructrice des tempêtes, ces manifestations ont scandé le rythme des sociétés, nourri les croyances religieuses et laissé des traces durables dans les langues et les cultures du monde.

Les sociétés humaines ont été façonnées par les rythmes du ciel. Le flux et le reflux des saisons, la chorégraphie cadencée du soleil et de la lune, la draperie protéiforme des nuages ont imprimé

durablement leurs marques dans la conscience collective des cultures à travers le monde. Ce lien intime entre ciel et terre, entre météorologie et mythologie, constitue un trait définitoire de l'expérience humaine depuis l'aube des civilisations.

Dans de nombreuses cultures traditionnelles, les régimes météorologiques ont été perçus comme des manifestations de la volonté divine ou de l'ordre cosmique, influençant croyances religieuses et pratiques sociales. Les Inuits de l'Arctique, par exemple, tenaient les aurores boréales pour le jeu de balle des esprits des défunts avec un crâne de morse. Dans la Mésoamérique ancienne, le dieu de la pluie Tlaloc occupait une place centrale au panthéon, associé à la fertilité, à l'agriculture et aux cycles de la vie et de la mort. L'interprétation des phénomènes atmosphériques comme signes ou présages était également répandue, des traditions astrologiques de Babylone aux pratiques divinatoires des Azandé.

Mais au-delà de leur portée symbolique et religieuse, les conditions météorologiques ont joué un rôle crucial dans la configuration des réalités matérielles des sociétés humaines. Le calendrier et l'intensité des pluies pouvaient faire la différence entre prospérité et famine. Dans son œuvre ethnographique fondatrice, E. E. Evans-Pritchard souligne la dépendance profonde du peuple Nuer aux régimes pluviométriques. Il montre que le moment et la quantité des pluies règlent les rythmes de la vie nuer, des migrations pastorales aux activités sociales et rituelles. Le succès de l'élevage bovin, pilier de leur économie de subsistance, dépend de la disponibilité de l'eau et des pâturages, tous deux directement tributaires des pluies.

De même, dans la Chine ancienne, le concept de « Mandat Céleste » liait la légitimité du pouvoir à la capacité du souverain de maintenir l'équilibre cosmique et d'assurer un temps favorable à l'agriculture. La dimension météorologique est donc un facteur déterminant dans la structuration des sociétés, des croyances religieuses et des réalités matérielles.

Si la crue du Nil fut capitale pour la vie égyptienne, la présente recherche s'attache plus spécifiquement à la manière dont les anciens Égyptiens ont conceptualisé les hydrométéores. Elle examinera la manière dont ces notions furent encodées dans la langue, ainsi que l'importance de l'eau céleste, complémentaire ou opposée à l'eau fluviale.

L'Égypte ancienne offre un cas privilégié d'interaction entre climat, culture et langue. Lovée le long de la vallée du Nil, la société égyptienne s'est épanouie dans un paysage de contrastes prononcés, où l'abondance du grand fleuve faisait face aux étendues desséchées du désert. Dans cet environnement aride, l'occurrence épisodique des pluies revêtait une portée profonde, tant pratique qu'idéologique.

Le climat de l'Égypte a conservé une remarquable stabilité depuis l'Ancien Empire (2686–2181 av. J.-C.), marqué par l'opposition entre la vallée fertile du Nil et le désert environnant. Cette stabilité permet une analyse plus précise de l'évolution des concepts météorologiques. Les archives archéologiques et paléoclimatologiques attestent la présence de pluies dans la région, au moins dès l'époque Thinite, comme l'indique l'existence de systèmes d'évacuation et de techniques de gestion de l'eau élaborés. Des modèles de maisons en bois de Haute-Égypte munis de gargouilles aux chéneaux lithiques cérémoniels des temples, les vestiges architecturaux témoignent d'un climat proche de l'actuel, où des précipitations, quoique rares, ont laissé une empreinte « impérissable ».

Sur cet arrière-plan environnemental, les anciens Égyptiens ont élaboré un vocabulaire foisonnant pour les diverses manifestations de l'humidité venue du ciel. Ce lexique saisit non seulement les réalités pratiques de leur milieu, mais aussi la profonde résonance symbolique de ces phénomènes dans leur vision du monde.

Malgré l'importance manifeste de l'eau atmosphérique, l'étude de la terminologie météorologique, notamment des eaux atmosphériques en égyptologie, demeure relativement peu explorée. Cette recherche comble cette lacune en proposant une analyse systématique du lexique météorologique, avec un accent particulier sur la terminologie des hydrométéores, dont elle examine les attestations et réalisations en langue et en écriture égyptiennes.

Cette enquête se veut particulièrement opportune au regard d'un intérêt croissant pour la météorologie de l'Antiquité et son impact lexical, tendance perceptible dans les études récentes des sources grecques, latines, étrusques et assyro-babyloniennes. Ce regain d'attention, en lien avec les défis collectifs contemporains, offre un puissant levier pour élargir les recherches en ce domaine et réévaluer les conceptualisations des phénomènes naturels dans les cultures anciennes.

Dans cette perspective, l'étude suivra la « piste » de trois termes à travers le lexique égyptien, en mettant au jour leurs formes, contextes et associations, et en examinant leurs réalisations graphémiques, tendances syntaxiques, cooccurrences et usages rhétoriques afin de les situer dans un champ sémantique cohérent et d'en cartographier les associations conceptuelles. Des données comparatives d'autres langues seront également mobilisées pour éclairer leurs étymologies et leur arrière-plan culturel. Ce cadre élargi permettra de saisir avec assurance les frontières fluides et les associations conceptuelles entre les différentes formes d'eau atmosphérique telles qu'elles se reflètent dans les sources textuelles.

Notre étude adoptera une approche rigoureuse, fondée sur les corpus, garantissant que les relations et significations proposées s'enracinent dans des attestations textuelles effectives plutôt que dans l'intuition du chercheur. Elle prendra également en compte les déterminatifs et logogrammes hiéroglyphiques associés aux termes atmosphériques, afin d'en évaluer la portée sémantique et les associations culturelles. Outre les lexèmes, l'analyse portera sur leurs unités lexicales, en reconnaissant que chaque terme peut présenter plusieurs acceptions distinctes selon les contextes. Cet examen approfondi situera leurs relations sémantiques au sein du réseau plus large des termes météorologiques, en mettant au jour leurs associations avec des notions connexes telles que « ciel », « écoulement » et « eau ».

Un aspect essentiel de la recherche consiste en une analyse fine de l'usage contextuel de ces termes dans divers genres textuels — religieux, administratifs et littéraires — afin d'en dégager les régularités. Elle prendra en compte l'évolution diachronique de leurs sens et emplois afin de retracer le développement de ces concepts. Une attention particulière sera portée au signe (N4),

représentant le ciel avec chute d'eau, fréquemment associé au champ sémantique des eaux atmosphériques ainsi qu'à leurs connotations métaphoriques et symboliques.

La recherche entreprendra un examen approfondi de ce champ lexical, en portant un accent particulier sur trois termes clés : *ḥw.t* « pluie », *ỉgp* « nuage », et *ỉʒd.t* « rosée, humidité ». Ils ont été retenus comme représentatifs du champ sémantique des hydrométéores en raison de leurs attestations nettes dans divers contextes et de leur importance tant pratique que symbolique dans la vie égyptienne ancienne.

À travers l'examen de ces termes, la recherche entend préciser la manière dont les Égyptiens percevaient, catégorisaient et exprimaient les différentes formes d'eau atmosphérique. L'étude suivra la « piste » de chacun dans le lexique égyptien, en dévoilant ses formes, contextes et associations, et en examinant ses réalisations graphémiques, tendances syntaxiques, schèmes de cooccurrence et usages rhétoriques selon les contextes, afin de les situer dans un champ sémantique cohérent et d'en cartographier les associations conceptuelles. Des parallèles linguistiques externes seront mobilisés pour éclairer leurs étymologies et leur arrière-plan culturel.

Le champ lexical des hydrométéores, qui comprend les termes de la pluie, de la rosée, de la brume et du nuage, dépasse les seules préoccupations pratiques pour embrasser des résonances symboliques et mythologiques. Par exemple, les inscriptions d'Ankhtifi décrivent une période de crise; le passage suivant illustre la manière dont les conditions atmosphériques étaient liées aux temps d'adversité.

p.t ỉgp tʒ m ṯʒw [s nb mt] n ḥḳr ḥr ṯs pn n ʿpp

Quand le ciel était couvert et la terre dans le vent [et chaque homme mort] de faim sur ce banc de sable de l'Apep.

(Ankhtifi 10, IV, 8-10)

En outre, une formule des Textes des Sarcophages décrit la tempête comme l'émanation (rosée) du dieu Shou, soulignant la diversité des sens associés à la terminologie des eaux atmosphériques:

ỉd.t.ỉ pw nšn ỉḫḫw

La tempête du crépuscule est mon émanation (rosée).

(CT II, 30 a-f)

Ces exemples mettent en relief la variété des acceptions attachées au vocabulaire de l'eau atmosphérique. Cependant, malgré la force évocatrice de ces attestations, la lexicographie de la terminologie météorologique égyptienne ancienne demeure peu développée. Si des travaux antérieurs ont abordé ce domaine sémantique, il manque encore une analyse systématique intégrant les perspectives linguistique, philologique et culturelle.

En appliquant une méthodologie ancrée dans la sémantique lexicale et cognitive, cette étude cherchera à élucider le complexe de sens qui sous-tend le lexique égyptien des eaux atmosphériques. En conjuguant rigueur linguistique et sensibilité culturelle, elle proposera un exposé nuancé et holistique de la manière dont, dans un paysage rythmé par le Nil, les anciens Égyptiens ont perçu, éprouvé et encodé la présence fugace mais puissante des eaux atmosphériques, à la fois vivifiantes et secrètes, profanes et divines.

Afin de structurer notre enquête et de guider le lecteur à travers nos résultats, nous diviserons l'étude en cinq chapitres principaux, chacun se concentrant sur une étape clé de la recherche :

Chapitre 1 : Méthodologie et sélection du corpus

Dans ce chapitre fondamental, nous exposerons le contexte théorique et les approches méthodologiques qui sous-tendront notre analyse. S'appuyer sur le « Lexical Trail » développée par J. Winand et S. Polis, nous établirons et adapterons une procédure systématique d'examen des dimensions graphémiques, morphologiques, syntagmatiques et sémantiques de nos lexèmes choisis. Cette méthodologie nous permettra de retracer le « parcours » de chaque terme à travers le lexique égyptien, en découvrant ses différentes formes, contextes et associations. Nous aborderons également les critères de sélection de notre corpus, en privilégiant les textes qui couvrent différentes périodes, genres et registres afin d'assurer un échantillon représentatif. L'analyse du corpus confirme que *ỉʒd.t* (113 attestations), *ḥw.t* (31 attestations), et *ỉgp* (30 attestations) sont les lexèmes hydrométéorologiques les plus solidement documentés avec des profils sémantiques stables et fiables.

D'autres vocabulaires atmosphériques, plus liés aux perturbations que les eaux atmosphériques en tant que telles – y compris *šnỉ.t* « grêle/tempête » (24 attestations), *qrỉ* « tempête » (29 attestations) et *nšn.ỉ* « rage/tempête » (86 attestations) – malgré des fréquences comparables, sont exclus des études de cas primaires car leurs profils sémantiques sont fondamentalement liés au concept de « tempête en tant que perturbation **»**. Cela est notamment manifeste dans l'alternance des déterminatifs, qui brouille la frontière entre phénomènes météorologiques purs et notions de violence ou de désordre. En outre, du point de vue scientifique, les « tempêtes » sont catégorisées distinctement des hydrométéores (particules d'eau liquide ou solide). Ce lexique exclu semble dès lors constituer un champ analytique à part, nécessitant un traitement spécialisé qui dépasse l'objectif central du présent travail. Cette méthodologie privilégie la profondeur analytique sur quelques lexèmes stables à une couverture globale de tous les termes apparentés. Néanmoins, ces vocabulaires de la perturbation sont intégrés contextuellement lorsqu'ils s'avèrent pertinents, afin de reconnaître leur importance dans le champ sémantique élargi.

Chapitres 2, 3 et 4 : Études de cas de *ḥw.t , ỉgp,* et *ỉʒd.t*

Cette partie constitue le cœur de l'analyse : études détaillées de trois lexèmes clés du champ des hydrométéores. Il s'agira d'investigations approfondies sur la formation, l'attestation et l'évolution de chaque terme. Nous étudierons leurs réalisations graphémiques, motifs de cooccurrences, formes dérivées ou composées, ainsi que les usages rhétoriques en contexte, avec pour visée de situer ces termes dans un champ sémantique cohérent et d'en cartographier les associations conceptuelles. Une attention particulière sera portée au développement diachronique du lexème, afin de suivre les déplacements de forme et de sens au fil du temps.

Chapitre 5 : Synthèse et conclusions

Dans ce dernier chapitre, nous rassemblerons les fils de l'analyse pour composer une vision cohérente de la conceptualisation égyptienne ancienne des hydrométéores. À partir des apports de chaque étude de cas, sera proposée une cartographie sémantique des relations entre *ḥw.t , ỉgp, ỉʒd.t* et d'autres termes associés, en les situant dans le réseau élargi du vocabulaire météorologique égyptien. Seront également examinés les croisements de ce champ sémantique avec d'autres sphères de la pensée égyptienne, telles que la cosmologie, la religion et la médecine. Ce chapitre analysera également les associations symboliques et métaphoriques de ces termes dans divers contextes afin de comprendre la portée culturelle des hydrométéores dans la vision du monde des anciens Égyptiens.

CHAPITRE 1 : CORPUS ET MÉTHODOLOGIE

Introduction : Délimitation et Justification Méthodologique

Ce chapitre fondateur a pour vocation d'établir les bases théoriques et les démarches méthodologiques qui soutiennent l'analyse du lexique des hydrométéores en égyptien ancien. Il est impératif de souligner que cette approche vise à tracer la « piste lexicale » (lexical trail) des termes choisis, en dévoilant leurs contextes, leurs associations et leurs réalisations graphematiques. Nous procéderons en trois étapes principales : la contextualisation linguistique du phénomène atmosphérique, la constitution du corpus et la justification des critères de sélection, et enfin, l'établissement du cadre théorique d'analyse.

Expressions des Phénomènes Atmosphériques en Linguistique

Pour contextualiser l'étude de l'égyptien, il est essentiel d'examiner comment les phénomènes atmosphériques sont généralement exprimés et analysés en linguistique comparée. Les travaux s'appuient souvent sur la typologie linguistique et les structures spécifiques des langues.

Les études translinguistiques du Professeur P. K. Eriksen et de son équipe ont proposé un arrière-plan étendu de la langue météorologique, fondé sur l'analyse des schémas de structure d'argumentation des expressions météorologiques. Cette typologie identifie trois types fondamentaux d'expressions : le prédicat, l'argument et le verbe. Il est important de noter que l'impersonnalité dans ces constructions n'est pas uniquement liée à l'association centrale du sujet ou de l'agent.

Plus récemment, les recherches sur les langues sinitiques (Dong, Huang, Ren) ont proposé une nouvelle typologie en classifiant les expressions météorologiques selon deux approches. La première s'appuie sur les catégories linguistiques pour étendre les études sur la structure d'argumentation des

expressions météorologiques, démontrant que différentes langues conceptualisent et classifient les événements météorologiques de diverses manières. La seconde approche relie la notion linguistique de cinèse (kinesis) aux théories de la cinétique en météorologie. Cette dernière met en évidence l'importance de la masse des substances météorologiques et de la vitesse des processus météorologiques ; par exemple, les événements impliquant des substances plus massives et des processus plus rapides tendent à privilégier les verbes d'action à haute transitivité. Cette perspective souligne la pertinence des connaissances empiriques en météorologie pour la classification des phénomènes tels que le brouillard, la rosée et le givre.

Analyse des Lexèmes de Phénomènes Naturels en Égyptologie

Dans le domaine de l'égyptologie, les études linguistiques pertinentes couvrent les domaines sémantiques et les taxonomies des phénomènes naturels. Les travaux de M. Franci, A. Loprieno et H. Rotsch sur le champ sémantique de l'eau et ses liens avec la médecine et la valeur rituelle sont notables.

Concernant spécifiquement le lexique météorologique, les études d'A. Rosati sur le Lessico meteorologico sont significatives pour appréhender la vision du monde égyptienne antique et le rôle des phénomènes météorologiques dans la vie terrestre et funéraire.

Une observation cruciale, déduite des travaux de G. Roquet, met en lumière les coïncidences de motivation sémantique entre l'égyptien et d'autres langues, comme le français. Ces parallélismes sémantiques témoignent d'une expérience consciente analogue : tant en égyptien qu'en français, on a pu observer la pluie « battre » le sol, suggérant un lien étymologique transparent entre le nom égyptien de la pluie (*ḥw.t*) et le verbe « frapper » (*ḥwỉ*). Ce lien, bien que probablement disparu à l'époque copte, est reconnaissable par l'historien de la langue. Cette approche comparative démontre comment la langue reflète le psychisme collectif d'une culture.

Malgré ces avancées, une part significative de la recherche existante a historiquement abordé les phénomènes naturels sous des angles principalement religieux, idéologiques ou divinatoires. Notre démarche, en privilégiant une approche linguistique et cognitive rigoureuse, vise à révéler les structures sous-jacentes qui motivent la signification des lexèmes dans ce domaine sémantique.

Constitution et Interrogation du Corpus

Critères de Sélection, d'Inclusion et d'Exclusion des Lexèmes

L'objet de la présente étude est de fournir une compréhension détaillée de la manière dont les anciens Égyptiens percevaient, catégorisaient et exprimaient les formes variées d'hydrométéores. Le terme « hydrométéore » est préféré à « précipitation » car il est plus « perméable et inclusif », englobant l'ensemble des particules d'eau liquides et solides dans l'atmosphère (pluie, neige, grêle, rosée, givre, brouillard, brume).

Le corpus englobe une période chronologique vaste, s'étendant de la Période Dynastique Archaïque (3085-2675 av. J.-C.) à la Troisième Période Intermédiaire (1069-664 av. J.-C.), ce qui permet l'observation des schémas d'usage à long terme et du développement sémantique.

Notre processus de sélection est ancré dans une compréhension émique de la conceptualisation égyptienne, privilégiant la classification indigène plutôt que l'imposition de catégories scientifiques modernes. Les données ont été recueillies à partir d'une revue exhaustive de la littérature scientifique et de bases de données en ligne, dont le Thesaurus Linguae Aegyptiae (TLA v2.01), Ramses Online, et MORTEXVAR. Seuls les témoins « exploitables » ont été inclus, excluant ceux considérés comme trop fragmentaires.

L'étude se concentre sur trois lexèmes principaux, choisis comme études de cas centrales en raison de leur fréquence relativement élevée et de leur richesse sémantique : *ḥw.t*, *ỉgp*, et *ỉʒd.t*. Ces termes sont considérés comme les plus « solidement documentés » du lexique hydrométéorologique.

La sélection de ces lexèmes a reposé sur quatre critères quantifiables appliqués systématiquement:

1. Seuil de fréquence : Au moins 30 attestations (les chiffres sont : *ỉʒd.t* (113 attestations), ḥw.t (31 attestations), *ỉgp* (30 attestations)).

2. Stabilité diachronique : Attestation continue couvrant au moins 3 périodes historiques.

3. Cohérence sémantique : Utilisation cohérente du déterminatif (au moins 70 % de co-occurrence de N4/N35A).

4. Densité collocationnelle : 5 schémas de co-occurrence distincts ou plus avec la terminologie atmosphérique/divine.

Des termes connexes tels que *šnỉ.t* (« grêle/tempête ») et *qrỉ* (« tempête »), bien qu'approchant les seuils de fréquence, ont été exclus de l'analyse approfondie en raison de leur instabilité sémantique (alternance de déterminatifs) et parce qu'ils représentent un domaine analytique distinct, privilégiant la profondeur d'analyse sur un nombre limité de lexèmes stables.

Aperçu du Champ Sémantique des Phénomènes Atmosphériques

Nous avons opté pour le champ sémantique plus large de « phénomènes atmosphériques » (au lieu de « météorologiques »), suivant l'argument que le second est sémantiquement dérivé et représente un sous-ensemble plus spécifique.

L'analyse du corpus révèle trois schémas de regroupement émiques fondés sur la co-occurrence des déterminatifs et le comportement collocationnel :

• Groupe 1 : Précipitation directe (déterminatifs N4/N35A) : Inclut *ḥw.t* et *ỉʒd.t*, termes associés au mouvement de l'eau du ciel vers le sol.

• Groupe 2 : États atmosphériques (déterminatifs N4/N1) : Inclut *ỉgp*, mettant l'accent sur les conditions atmosphériques visibles.

• Groupe 3 : Perturbations (déterminatifs N4/E21) : Inclut *nšn.i̯* et *qrí̯*, qui lient l'eau atmosphérique à la sémantique de la violence ou du désordre.

Bien que, d'un point de vue scientifique moderne, les tempêtes ne soient pas classées comme hydrométéores, leur inclusion contextuelle est indispensable. Ce choix méthodologique reflète une compréhension émique égyptienne selon laquelle ces phénomènes étaient intrinsèquement liés dans la conceptualisation de l'eau atmosphérique.

Pour affiner la cartographie sémantique, nous exploitons des outils lexicaux externes comme Wordnet pour la disambiguation et les relations lexicales, et le Dictionnaire Explicatif et Combinatoire du Français Contemporain (DECF) pour une description exhaustive des propriétés sémantiques, syntaxiques et morphologiques des unités lexicales. Enfin, la nécessité d'un corpus de grande taille pour une analyse linguistique complète est confirmée par la loi de Zipf, qui souligne la rareté de nombreux mots par rapport à la haute fréquence de quelques-uns.

Cadre Théorique et Méthodologie du « Lexical Trail »

Approche Relationnelle et Sémantique Cognitive

Notre analyse examine les lexèmes de précipitation non pas comme des unités isolées, mais comme des éléments d'un réseau relationnel élargi. Conformément à l'approche de J. Winand, un lexème doit être constamment actualisé par rapport à d'autres lexèmes dans un domaine notionnel donné. Cette méthode permet de cartographier le champ sémantique en éclairant la toile de connexions et les relations associatives, souvent appelées « halos » sémantiques, qui lient les termes et structurent leur usage.

Le cadre théorique est ancré dans la sémantique lexicale, la linguistique cognitive, et la philologie afro-asiatique comparative. Nous adoptons initialement une perspective descriptive, qui est ensuite adaptée aux exigences précises de la recherche.

La Méthode de la « Piste Lexicale » (Lexical Trail)

L'importance de disposer d'un cadre méthodologique adapté à l'analyse des langues anciennes dotées de systèmes d'écriture logographiques, tel que l'égyptien, est primordiale. Nous nous appuyons sur la méthode du « Lexical Trail » (La Piste Lexicale) développée par S. Polis et J. Winand. Cette approche systémique est adaptée pour examiner en profondeur les différentes dimensions de chaque lexème choisi.

Cette méthode se déploie selon cinq axes d'analyse :

1. Axe Grapématique (Graphematic Axis) : Il se concentre sur l'apparence visuelle des lexèmes, leurs graphèmes et allographes, et le déterminatif distinctif.

2. Axe Phonématique (Phonematic Axis) : Il analyse la phonologie du lexème, sa prononciation reconstruite et sa relation avec d'autres mots homophoniques, fournissant des indices sur ses origines historiques.

3. Axe Morpématique (Morphematic Axis) : Il vise à identifier la famille de mots, en examinant les racines, préfixes et suffixes, afin d'établir des liens étymologiques au sein de l'égyptien ou avec les langues apparentées de la famille afro-asiatique.

4. Axe Syntagmatique (Syntagmatic Axis) : Il concerne les contextes syntaxiques et les patrons de collocation pour déterminer le comportement grammatical du lexème dans les environnements discursifs.

5. Axe Sémantique (Semantic Axis) : Il étudie les significations et les relations conceptuelles du terme, essentielle pour la cartographie du champ lexical.

Notre étude se concentrera principalement sur les dimensions sémantiques, syntagmatiques et morphologiques, mais exploitera les informations graphématiques et phonologiques pour soutenir l'analyse.

L'Analyse des Classificateurs : Approche Cognitive et Paléographique

Afin d'enrichir l'analyse de l'axe graphématique, nous employons une double perspective sur les déterminatifs.

Principes de l'Approche Cognitive

L'approche cognitive des déterminatifs, principalement développée par O. Goldwasser et son équipe, est fondée sur la théorie des prototypes (E. Rosch et G. Lakoff). Cette méthode permet de révéler comment les anciens Égyptiens observaient et classifiaient le monde.

Elle identifie deux systèmes de catégorisation :

1. Le système Taxonomique : Il est structuré du plus abstrait au plus concret, avec l'hyperonyme au sommet (e.g., mammifère), suivi du niveau de base (e.g., chien), et enfin de l'hyponyme (e.g., teckel).

2. Le système Schématique : Il établit une connexion métaphorique ou métonymique entre le classificateur et l'élément classifié, comme le signe  (I3) qui détermine les mots exprimant l'agressivité ou la voracité.

Étude Paléographique et le Signe N4 (𓉔)

Bien que l'approche cognitive soit éclairante, elle doit être complétée par l'étude paléographique (D. Meeks). Cette dernière révèle que les frontières entre les signes n'étaient pas rigides pour les Égyptiens. La combinaison des deux approches offre des angles d'étude différents mais complémentaires sur la représentation graphémique.

L'analyse graphique se focalise sur le signe 𓉔 (N4), le déterminatif pour le « ciel pluvieux ». Ce signe est crucial pour la classification des hydrométéores. Il ne s'agit pas d'une représentation réaliste, mais d'une convention. Le N4 fonctionne comme un « monogramme émergent » (emergent monogram, selon P. Vernus), dont la valeur sémantique dérive de la synthèse de ses parties constituantes.

L'approche comparative s'inspire du système chinois liùshū (六書), en particulier de la catégorie *zhuǎn zhù* (转注, « cognats transformés »). Le *zhuǎn zhù* décrit des caractères partageant une racine sémantique qui se sont séparés graphiquement tout en conservant leur parenté conceptuelle.

Ce principe trouve un parallèle frappant en égyptien dans la coexistence de signes encodant des phénomènes célestes divers, tels que l'émission lumineuse (𓇋 S15) et la précipitation (𓉔 N4). Le fait que ces signes soient placés séquentiellement dans des documents comme le Papyrus-Signe de Tanis et partagent souvent la voûte céleste (𓇼 N1) comme composante structurelle suggère une taxonomie sémantique structurée. Cette superposition conceptuelle entre les émissions de lumière et d'eau pourrait refléter un modèle cognitif où ces phénomènes sont encodés comme des expressions parallèles de l'agence céleste.

En conclusion, l'établissement de ce corpus et de cette méthodologie, conjuguant la profondeur de la philologie au cadre systématique du « Lexical Trail » et aux outils de la sémantique

cognitive et comparative, fournit un fondement solide pour l'examen des trois lexèmes pivots (*ḥw.t,* *ỉgp,* et *ỉʒd.t*) qui composeront le cœur analytique des chapitres suivants.

CHAPITRE 2 : ANALYSE LEXICALE DU PREMIER LEXÈME : *ḤW.T* « PLUIE »

Le lexème ***ḥw.t*** est attesté sur une période diachronique étendue, allant de l'Ancien Empire à la Période Ptolémaïque-Romaine, manifestant une polysémie stable incluant à la fois « pluie » et « inondation ». Une concentration notable des attestations se situe durant le Nouvel Empire. L'analyse de *ḥw.t* se révèle complexe en raison de ces chevauchements sémantiques.

Étymologie et Motivations Sémantiques de la Racine *ḥwỉ*

L'origine de *ḥw.t* comme nom déverbatif est sujette à deux hypothèses principales : celle le dérivant de *ḥwỉ* signifiant « couler », et celle le rattachant à *ḥwỉ* signifiant « battre » ou « frapper ». L'observation de coïncidences de motivation sémantique (*semantic motivation*) est critique ici. Selon G. Roquet, la langue égyptienne, à l'instar du français, a conceptualisé la pluie comme un phénomène qui « bat » ou « frappe » le sol. Ce lien entre la pluie et le verbe « frapper » (*ḥwỉ*) était probablement perçu comme transparent par les locuteurs de l'Ancien et du Moyen Empire, bien qu'il ait disparu à l'époque copte.

La racine *ḥwỉ* présente une étendue sémantique remarquable, dont le sens motivationnel central est défini comme la « projection et la dispersion par la force ».

• Action Physique et Force : Le sens premier est l'action physique de « battre, frapper, ou jeter ».

• Métaphore de Conquête Intellectuelle : Le sens s'étend métaphoriquement à « vaincre dans un argument », transformant le combat physique en une bataille intellectuelle.

• Manière de Mouvement : *ḥwỉ* est utilisé comme verbe de manière de mouvement pour signifier « piétiner une route » ou « errer sur terre ». Dans ce contexte, l'égyptien semble se comporter

comme une langue de type *satellite-framed*, où la manière (force, impact) est encodée dans le verbe (*ḥwỉ*), tandis que le chemin ou la destination est exprimé par un élément séparé (*tz*).

• Énantiosémie : La racine manifeste un glissement énantiosémique notable. Elle signifie à la fois « battre » (le grain lors du battage) et « rassembler/collecter ». Ce dualisme est aussi observé dans la racine √*nš* (« rassembler le grain » vs. « emporter, expulser »). L'acte de la pluie, qui « frappe » le sol, est ainsi lié à l'idée d'une dispersion dynamique.

Analyse Contextuelle et Déterminatifs

Le déterminatif le plus descriptif est N4 (), représentant un ciel avec de l'eau qui tombe, mais celui-ci est rarement utilisé dans l'orthographe de *ḥw.t*. Au lieu de cela, la préférence écrasante pour le déterminatif N35a (), associé à l'« eau » en général, suggère que les Égyptiens ont priorisé la connexion sémantique de *ḥw.t* aux significations intransitives de *ḥwỉ* (c'est-à-dire « couler » ou « surgir » de l'eau). Le signe N35a est souvent associé à l'eau non domestiquée ou « sauvage ».

La pluie est fréquemment désignée par la périphrase *mw n p.t* « eau du ciel ». Dans les textes iatromagiques, *mw n p.t* est un ingrédient clé, comme dans le *Papyrus Berlin P. 3038*, où l'on prescrit de piler le « fer du ciel » (*bỉz.t n p.t*) avec de l'eau de pluie.

Les collocations illustrent la force et la rareté du phénomène :

• Puissance de la Pluie : Dans la Stèle de la Tempête d'Ahmose, la pluie (*ḥw.t*) et la tempête (*qrrt*) sont étroitement liées, la construction suggérant que la pluie est une partie intégrante du phénomène orageux. Dans une inscription de Taharqa, la pluie (*ḥw.t*) est vue comme une force capable de faire en sorte que les montagnes soient « prises grâce à son flot » (*ỉṯ.t(w) ḏw.w ḥr ḥw.(j)t.f*).

• Rareté Divine : Le tétrastique de la Stèle de Dafenneh confirme la réalité climatique de l'Égypte méridionale où la pluie est rare (*ʿnd pw ḥw.t m spz.wt rsw*). L'inscription souligne que

l'occurrence de la pluie est un événement miraculeux, dépendant de l'ordre divin : « La pluie (arrive) selon son commandement » (*ḥw{î.t} ḫft wḏ.f*).

CHAPITRE 3 : ANALYSE LEXICALE DU DEUXIÈME LEXÈME : *ỉGP* « NUAGE »

Le lexème *ỉgp* (« nuage » ou « nuage de pluie ») occupe un espace sémantique unique, servant de pont entre la pluie (*ḥw.t*) et la rosée (*ỉʒd.t*). La majorité de ses attestations se concentrent au Moyen Empire, principalement dans les textes funéraires et religieux.

3.1. Polyfonctionnalité de la Racine *(ỉ)GP*

La racine verbale *(ỉ)gp* possède une polyfonctionnalité qui englobe le mouvement et l'état atmosphérique : elle signifie « s'envoler, planer » et « être couvert, obscurcir ». Cette sémantique dynamique est éventuellement renforcée par son lien phonétique et sémantique avec la racine *gp/gb* qui signifie « déborder » ou « inonder ».

3.2. Le Nuage comme Véhicule et Métaphore Cosmique

L'analyse contextuelle révèle trois catégories conceptuelles principales pour *ỉgp*:

1. Véhicule de l'Ascension Céleste : Les nuages sont conceptualisés comme des véhicules pour le défunt lors de son voyage post-mortem. L'usage de la forme accomplie *gp.n* dans les Textes des Pyramides, dans la comparaison à un héron (*mỉ bỉk*), met en évidence le caractère achevé et décisif de l'action de planer. Le nuage est un élément dynamique, associé à l'ascension et à la lumière divine, en collocation avec le terme *ỉ(ʒ)ḫḫ.w* (« radiance »).

2. Obstacle et Entrave : Le nuage est aussi une métaphore d'obstruction, lié à l'idée d'une clarté ou d'une fonction entravée. Dans les textes magiques, le contrôle des nuages est un signe de pouvoir divin. La formule *dr.k šnʿ.tỉ sḫḏ.n.k ỉgp* (« Puisses-tu chasser la tempête après avoir illuminé

les nuages ») souligne que les nuages (*ỉgp*) et la tempête (*šnỉ.t*) sont perçus comme des obstacles que le dieu Shou doit dissiper pour rétablir l'ordre. Par analogie, le « passer des nuages » (*swʒỉ ỉgp*) est employé dans la littérature iatromagique pour symboliser la disparition de la fièvre ou du mal.

3. Métaphore de Conquête Militaire (Nuée d'Eau) : L'usage le plus frappant de *ỉgp* est sa transposition dans le discours royal comme métaphore de puissance et de conquête. Dans l'Enseignement pour Merikarê, la conquête des régions est comparée à une « nuée d'eau » (*mỉ gp n(.j) mw*). Cette métaphore est soulignée par l'orthographe (*gp n(.j) mw*), où la présence du déterminatif de l'eau (𓈖 N35a) insiste sur la nature liquide et submergeant du nuage de pluie. Ceci confère à la conquête les attributs de rapidité, de totalité et de force écrasante.

CHAPITRE 4 : ANALYSE LEXICALE DU TROISIÈME LEXÈME : *ỉ3D.T* « ROSÉE »

Le lexème *ỉʒd.t* « rosée, humidité » se distingue par une forte concentration au Nouvel Empire et une spécialisation fonctionnelle notable dans les textes médicaux, suggérant une codification des pratiques liées à la rosée dès la 18e Dynastie.

Nexus Sémantique : Rosée, Parfum et Rituels de Pacification

Il existe une convergence sémantique, et morphologique moins probable, entre *ỉʒd.t* et le *terme ỉd.t* « huile parfumée, fragrance ». Le *Wörterbuch* (Wb) note que les deux termes ont coïncidé ou ont été interchangeables à l'écrit dès le Moyen Empire. Ce lien est motivé par la perception commune de ces substances comme des émanations subtiles et pénétrantes.

Le verbe associé, *ỉdỉ* « fumiger », connaît une extension sémantique vers « apaiser », « rafraîchir » ou « éteindre une flamme ».

• Fumigation et Apaisement : L'usage impératif dans les Textes des Sarcophages, tel que *ỉd rf sḏ.t ʿḫm ḫ.t* « Apaise donc la flamme, éteins le feu ! », démontre que *ỉdỉ* prend le sens abstrait de pacification d'une force hostile (le feu) par l'acte rituel.

• Déterminatif de l'Émanation : La présence récurrente du déterminatif de l'eau du ciel (𓈗 N4) dans les graphies de *ỉdỉ* et *ỉʒd.t* est significative. Il suggère un lien conceptuel entre l'action de verser un liquide pour éteindre ou censer et l'acte d'apaisement divin.

Rosée dans la Pratique Iatromagique

Le rôle de la rosée en médecine est formalisé par l'expression standardisée : *sḏr(.w) n ỉʒd.t* « être exposé à la rosée [pendant la nuit] ».

• Protocole Standardisé : Cette séquence est attestée 94 fois et est concentrée dans les papyrus médicaux du Nouvel Empire (notamment P. Ebers, 53 occurrences).

• Processus Terminal : L'exposition à la rosée est souvent l'étape finale dans une série de préparations complexes, impliquant que la rosée servait à activer ou potentialiser les propriétés médicinales. Le verbe *sḏr* (« passer la nuit ») insiste sur la durée et le moment nocturne de l'exposition.

• Terminologie Spécifique : L'usage de l'expression *mw n ỉʒd.t* « eau de rosée » dans les recettes et le recours à la construction génitive indirecte (*n(.j)*) soulignent que la rosée était reconnue comme une source d'eau unique et distincte des autres formes d'humidité.

Usages Poétiques, Cosmologiques et Linguistiques

• Descente et Mouvement : La collocation de *ỉʒd.t* avec le verbe *hʒỉ* « descendre » est fréquente (*ỉʒd.t hʒỉ.f*). Cette association, commune dans d'autres langues (akkadien *nalšu* « tomber comme la rosée », hébreu *tal yored* « la rosée descend »), confirme la perception de la rosée comme une substance qui descend ou se dépose.

• Rosée Divine et Régénération : Dans le cycle de la Théogamie d'Hatchepsout, *ỉʒd.t* est métaphoriquement le pouvoir procréateur d'Amun, infusant le corps de la reine (*ỉʒd.t.k ḫt ʿwt.ỉ nb.t*).

Elle est également associée à la radiance (*ỉʒḫw*), la rosée de Rê ayant le pouvoir de dissiper la souffrance (*ỉʒd.t.k ḫsr mn m sk m ws*).

• Culmination du Voyage Cosmique : Dans les Textes des Sarcophages (CT V, 272a-d), *ỉʒd.t* est la destination finale du voyage cosmique du défunt, atteint après avoir traversé la tempête (*šnỉ.t*) et Nut (le ciel).

SYNTHÈSE DES CAS D'ÉTUDE : LE RÉSEAU SÉMANTIQUE DES HYDROMÉTÉORES

L'analyse de ces trois lexèmes révèle un réseau sémantique des hydrométéores qui est à la fois structuré et perméable, illustrant comment les Égyptiens ont conceptualisé ces phénomènes non seulement d'un point de vue météorologique, mais aussi selon leurs implications culturelles et cognitives.

Lexème	**Sens Primaire (Dén.)**	**Racine/Motivation Sémantique**	**Catégories Conceptuelles Clés**	**Déterminatifs Clés**
ḫw.t	Pluie	***ḫwỉ*** : Frapper, Disperser, Projeter par la force	Force violente et dynamique, Mouvement de dispersion, Eau non domestiquée	N35a 𓈖 (Eau, Inondation)
ỉgp	Nuage, Nuée	***(ỉ)gp*** : Planer, Déborder, Couvrir	Véhicule pour l'ascension céleste, Obstacle à dissiper (magie), Métaphore militaire (force submergeante)	N1 𓇋 (Ciel), N4 𓇼 (Ciel pluvieux)
ỉʒd.t	Rosée, Humidité	***ỉd.t*** : Émanation/Parfum ;	Substance émanante (parfumée), Agent de purification/régénération (médecine), Essence divine, Point de culmination céleste	N4 𓇼 (Ciel pluvieux/Liquide), N1 𓇋 (Ciel)

Le chevauchement sémantique et la polysémie motivée soulignent la pensée cognitive égyptienne :

• La Force de l'Eau : *ḥw.t* et *ỉgp* partagent un lien avec la force et le mouvement (frapper, déborder), une association cognitive transférée à la conquête militaire (*gp n(.j) mw*).

• L'Émanation Subtile : *ỉʒd.t* et *ỉd.t* sont unis par le concept de l'émanation subtile (parfum ou rosée), ce qui intègre la rosée dans un réseau de rituels de pacification (via *ỉdỉ*).

• Le Rôle des Classificateurs : L'utilisation de déterminatifs généralistes (N35a 𓈙 pour *ḥw.t*) ou de classificateurs partagés (N4 𓈖 pour *ỉgp* et *ỉʒd.t*) montre que le système d'écriture hiéroglyphique lui-même encodait les liens sémantiques entre ces phénomènes atmosphériques et l'eau dynamique. L'approche cognitive des classificateurs (O. Goldwasser) révèle que la classification égyptienne n'était pas rigide, permettant le chevauchement sémantique entre les états de l'eau.

En définitive, cette analyse a démontré que le lexique des hydrométéores n'était pas purement descriptif, mais fonctionnait comme un système complexe d'analogies et de métaphores, où la nature était intrinsèquement liée aux rituels, à l'idéologie royale et à la cosmologie.

SYNTHÈSE ET CONCLUSION

Synthèse de l'étude lexicographique

Cette étude lexicographique des hydrométéores dans la langue égyptienne ancienne a mis en lumière un réseau sémantique distinct qui révèle les structures culturelles, cognitives et linguistiques sous-jacentes à ces phénomènes. Cette section condense les tendances morphologiques, les modèles syntaxiques, les associations contextuelles et les développements diachroniques des lexèmes *ḥw.t , ỉgp* et *ỉʒd.t*, et situe ces résultats dans le contexte plus large de la culture et de la tradition de l'Égypte ancienne.

Le choix de *ḥw.t , ỉgp* et *ỉʒd.t* comme points focaux de notre étude s'est fondé sur leur importance et leur charge sémantique dans un corpus étendu de textes égyptiens anciens, couvrant une vaste palette de genres, registres et périodes historiques. Grâce aux méthodologies exposées dans la section introductive, notamment la nécessité d'une approche contextuelle prenant en compte la diversité des documents textuels, cette recherche a cherché à combler le fossé entre analyse linguistique et interprétation culturelle.

Champs sémantiques des lexèmes hydrométéorologiques

Notre enquête a révélé un champ sémantique étendu, dans lequel les mots liés à la pluie, aux nuages et à la rosée sont profondément associés aux concepts de force, de mouvement, d'action rituelle et de manifestation divine. Les analyses étymologiques et morphologiques des lexèmes *ḥw.t* « pluie », *ỉgp* « nuage de pluie » et *ỉʒd.t* « rosée », ainsi que de leurs verbes morphologiquement apparentés *ḥwỉ, (ỉ)gp* et sémantiquement liés à *ỉdỉ,* illustrent un modèle constant d'extension sémantique et d'usage métaphorique.

Le verbe *ḥwỉ* et son lien avec *ḥw.t* révèlent une évolution sémantique ancrée dans la notion de projection et de dispersion puissantes. Parmi le large éventail de significations de *ḥwỉ*, le sens de « jeter » plutôt que de « battre » se distingue comme particulièrement approprié à la compréhension de la conceptualisation ancienne égyptienne de la pluie. Cette connotation dépasse l'action physique simple ; elle suggère un lien cognitif entre l'acte de lancer et la nature dynamique, quasi autonome, de certains phénomènes. Il est intéressant de noter que ḥwỉ comprend également des significations intransitives liées à l'écoulement de l'eau, telles que « surgir », « déborder » et « inonder ». Ces sens évoquent l'image de l'eau se projetant elle-même en avant, se déversant avec force. C'est cette idée de dispersion vigoureuse et auto-motivée qui constitue le cœur du développement sémantique de *ḥwỉ* pour signifier « pleuvoir ».

Plutôt que d'une association directe entre frapper et pleuvoir, la connexion semble provenir de la notion partagée de projection et de dispersion. La pluie, dans la conception égyptienne ancienne, n'est pas simplement de l'eau qui tombe, mais un événement puissant et dynamique — le ciel jetant l'eau, les nuages déversant leur contenu. La signification de *ḥwỉ*, avec son accent sur la projection et la dispersion puissantes, a probablement été étendue pour englober le phénomène de la pluie, perçue comme une émanation vigoureuse, presque autonome, provenant du ciel. Ce concept pourrait refléter la capacité du Nil à transformer puissamment et dynamiquement le paysage.

Le réseau sémantique de *ỉgp*

À l'inverse, l'analyse du lexème *ỉgp* « nuage de pluie » et de son lien avec le verbe *(ỉ)gp* dévoile un réseau sémantique centré sur le mouvement, tant physique que métaphorique. Le verbe *(ỉ)gp* signifie « s'élever, gonfler » et « être nuageux, couvert », ce qui implique un lien direct probable entre le mouvement des oiseaux dans le ciel et la perception égyptienne ancienne de la formation des nuages, d'autant que ce verbe apparaît fréquemment en collocation avec des oiseaux en vol tels que le héron. Le héron, symbole du vol, est significatif, car il est associé à la création, à la régénération et

au voyage entre les mondes terrestre et céleste. Cela suggère une association cognitive des nuages comme un état de mouvement perpétuel et de transformation.

L'étendue sémantique de *(ỉ)gp* va de « s'élever, enfler » à des significations possibles comme « déborder » ou « inonder », établissant un lien entre les effets d'obscurcissement des nuages et la nature enveloppante des eaux de crue. La connexion possible avec d'autres racines telles que *gp/gb* « déborder » et le verbe *ʒgbỉ* « inonder » indiquerait que les nuages étaient perçus comme des masses dynamiques plutôt que comme des entités statiques, reflétant le mouvement de l'eau dans le ciel et sur terre. La réinterprétation de *(ỉ)gp* pour signifier « nuageux » au sens de « flotter », « s'élever » ou « enfler » souligne cet aspect dynamique, dépeignant le ciel comme un espace actif et fluide. Cette voie sémantique diffère manifestement de celle de *ḥwỉ*, privilégiant le mouvement actif et le dynamisme des formations nuageuses.

La complexité sémantique de *ỉʒd.t*

L'examen de *ỉʒd.t* « rosée » et de sa possible conflation sémantique avec *ỉd.t* « huile parfumée » et *ỉdỉ* « fumiger » révèle une densité sémantique supplémentaire, exposant des liens et confusions possibles entre fragrance, humidité et rituel. L'association de *ỉd.t* avec « huile parfumée » ou « parfum », et de *ỉʒd.t* avec « rosée », peut suggérer une perception égyptienne ancienne d'une relation sémantique entre ces deux termes, malgré leurs états physiques différents. Cela pourrait s'expliquer par le caractère partagé d'émanation ou d'origine, puisque rosée et parfum peuvent être vus comme des effluves provenant de leurs sources respectives.

Le verbe *ỉdỉ*, apparemment lié à *ỉd.t*, possède un large éventail de significations centrées sur les rituels : « répandre des effluves rafraîchissants », « rafraîchir », « calmer » et « éteindre », ce qui lie l'acte de fumigation aux idées de rafraîchissement, purification et apaisement. La connexion manifeste à *qbḥw* « libation liquide » et l'association graphique avec le déterminatif des gouttelettes tombantes (N4) observée dans *ỉdỉ* renforcent ce lien entre liquide, parfum et divinité.

L'interprétation proposée du sens secondaire de *ỉdỉ* comme « apaiser » ou « pacifier » souligne aussi son rapport spécifique aux pratiques rituelles, expression d'une restauration de l'équilibre et d'une garantie d'harmonie cosmique. Ceci contraste avec *ḥwỉ* et (*ỉ*)*gp,* qui sont davantage associés à des phénomènes physiques. Le rôle de *ỉdỉ* axé sur l'apaisement rituel marque sa différence vis-à-vis de *ḥwỉ* et *(ỉ)gp,* mettant en avant l'aspect rituel et transformateur du parfum, de l'humidité et de l'interaction divine.

Modèles partagés d'extension sémantique

À travers ces trois études de cas, un fil conducteur de « dispersion et de mouvement de la force » semble relier ces concepts apparemment disparates. L'accent mis par *ḥwỉ* sur l'impact dynamique et la dispersion peut être observé dans les significations du verbe relatives à la fois aux actions physiques et au mouvement puissant de l'eau. L'association de *ỉgp* avec le mouvement des oiseaux et des nuages pourrait lier le mouvement physique aux phénomènes atmosphériques. Le lien de *ỉdỉ* avec les actes rituels d'encensoir et de libation montre probablement comment la dispersion du parfum et du liquide était liée aux notions d'apaisement. L'utilisation de déterminants similaires dans la représentation graphique de ces racines pourrait prouver qu'elles faisaient partie d'un réseau sémantique cohésif, où ces différents domaines sémantiques ne sont pas séparés mais partagent un lien plus profond avec une idée centrale de mouvement dynamique. De plus, les extensions métaphoriques de ces termes pourraient exposer la tendance de l'Égypte ancienne à imprégner les phénomènes naturels d'une implication figurative. L'inondation annuelle du Nil, décrite par le verbe *ḥwỉ*, n'était pas seulement un événement naturel, mais un élément fondamental du cycle agricole, et donc un emblème d'abondance et de fertilité. La pluie, également liée à *ḥwỉ*, a peut-être été comprise comme une émanation puissante du ciel, reliant l'idée de dispersion forcée au don d'eau vitale. Les nuages, liés au verbe (ỉ)gp, étaient considérés comme des entités dynamiques qui pouvaient obscurcir ou inonder, agissant comme un support pour le mouvement divin et cosmique. Le lien entre la fumée,

la rosée et le royaume divin semble montrer une interconnexion métaphorique similaire, la fumigation et les substances aromatiques étant utilisées comme moyens de communiquer avec les divinités et de les apaiser et comme symbole de transformation et de purification.

Schémas syntaxiques et cadres conceptuels

Les études de cas de *ḥw.t* , *ỉgp* et *ỉʒd.t* révèlent des champs sémantiques étroitement liés mais aussi des schémas syntaxiques distincts et partiellement chevauchants. L'une des plus remarquables convergences syntaxiques de ces lexèmes réside dans leur apparition fréquente au sein de constructions qui soulignent le mouvement radial descendant et l'origine céleste des hydrométéores qu'ils incarnent. Ainsi, le lexème *ḥw.t* se rencontre souvent en étroite association avec des verbes de mouvement et de chute, tels que *ỉwỉ* « venir » et *hʒỉ* « descendre », employés pour décrire le déplacement de la pluie du ciel vers la terre. Dans les cas étudiés, le verbe ỉwỉ s'associe au nom *p.t* « ciel » pour véhiculer l'idée de pluie descendant du ciel, *ḥw.t* étant alors l'objet direct du verbe.

De même, le lexème *ỉgp* apparaît fréquemment dans des contextes soulignant son rôle de véhicule ou de médium dans les voyages célestes des divinités ou des défunts. On le retrouve en collocation parallèle avec le verbe *hʒỉ* « descendre », ce qui renforce l'idée d'une trajectoire verticale entre domaine terrestre et domaine céleste, le nuage étant le moyen de transport.

Le lexème *ỉʒd.t* manifeste également une affinité forte avec le verbe *hʒỉ* « descendre », comme le montrent les passages où celui-ci s'associe directement au nom *ỉʒd.t,* suggérant la conceptualisation — linguistiquement répandue — de la rosée comme phénomène descendant ou évoluant depuis une position élevée. Ce schéma syntaxique s'appuie aussi sur la préposition *m* « depuis », spécifiant l'origine physique du mouvement, et mettant en relief la dimension spatiale de la trajectoire supposée de la rosée.

Particularités et récurrences syntaxiques

La récurrence de ces schémas syntaxiques entre les trois lexèmes souligne la connexion des hydrométéores, en tant que phénomènes naturels, à la sphère céleste et leur manifestation à travers une dynamique orientée. La constance de l'emploi des verbes de descente et des prépositions vectorielles suggère un arrière-plan conceptuel commun qui insiste sur l'origine céleste et la nature dynamique, spatiale et orientée de la pluie, des nuages et de la rosée.

Cependant, si ces correspondances syntaxiques dominantes signalent une perception commune des hydrométéores comme phénomènes célestes descendants, un examen attentif des structures grammaticales et des schémas collocationnels associées à chaque lexème révèle des distinctions importantes qui traduisent les nuances sémantiques et les associations contextuelles spécifiques à chaque terme.

Par exemple, le lexème *ḥw.t* se distingue par sa fréquence dans des constructions mettant en avant son impact direct sur le paysage naturel et son association au potentiel destructeur des phénomènes météorologiques extrêmes. Ceci se manifeste dans les passages où le nom *ḥw.t* est employé dans des constructions de comparaison avec *snm.w* « averses » pour exprimer la force submersive de la pluie, ou encore en cooccurrence avec le verbe *bʿḥỉ* « inonder » pour décrire l'effet de la pluie sur les vallées (*ỉn.wt*). Cette structure syntaxique met l'accent sur le pouvoir physique et transformateur de la pluie, sa capacité à submerger et bouleverser le paysage, ainsi que son association métaphorique à la violence et à la destruction guerrière.

À l'inverse, ỉgp est caractérisé par sa prévalence dans des structures soulignant ses dimensions métaphoriques et symboliques, notamment dans l'expression de la puissance divine ou royale, la force militaire ou la puissance irrésistible de la nature. Cela apparaît dans des passages où *ỉgp* figure dans une comparaison avec *mw* « eau » afin d'exprimer la force irrésistible des conquêtes pharaoniques. La collocation avec le verbe *ỉṯỉ* « conquérir, s'emparer de » sert à décrire l'action du pharaon, l'objet renvoyant aux territoires conquis.

Contextualisation culturelle des hydrométéores

L'analyse contextuelle de *ḥw.t , ỉgp* et *ỉʒd.t* met en lumière leur association commune au ciel et aux entités divines, tout en éclairant les rôles pratiques et symboliques distincts de chaque hydrométéore dans la culture égyptienne. Dans une large variété de genres textuels et d'époques, ces lexèmes apparaissent étroitement liés au ciel et souvent en contexte de manifestation tangible du pouvoir ou de la présence divine sur terre.

Toutefois, si ces analogies d'association céleste offrent un cadre unificateur pour comprendre la conceptualisation des hydrométéores dans la pensée égyptienne, un examen plus attentif révèle des nuances sémantiques, des patterns contextuels et des significations culturelles propres à chaque lexème et au phénomène qu'il représente.

Par exemple, le lexème *ḥw.t* entretient un lien particulièrement fort avec l'acte physique de la pluie et son effet direct sur le paysage naturel. Tout au long des extraits analysés, *ḥw.t* est systématiquement associé à des éléments géographiques tels que les montagnes (*ḏw*), les champs (*ʒḫ.t*) et les lacs (*š*), ce qui illustre la capacité transformatrice de la pluie à façonner et à nourrir la terre. L'association fréquente de *ḥw.t* à l'inondation du Nil et à la fertilisation des terres agricoles souligne l'importance vitale de la pluie dans la perpétuation de la vie et de la prospérité égyptienne. Par ailleurs, son occurrence dans des contextes liés au potentiel destructeur des intempéries accentue la double nature de la pluie : force vitale et menace potentielle.

Nature plurielle de *ỉʒd.t*

Le lexème ỉʒd.t se distingue par la complexité et la richesse de son réseau sémantique, qui comprend des aspects pratiques et symboliques de la rosée en Égypte ancienne. Dans les textes médicaux et magiques, *ỉʒd.t* apparaît comme ingrédient majeur d'une série de remèdes, associé à des

concepts de purification, régénération et bénédiction divine. L'analyse des séquences procédurales impliquant des expositions nocturnes à la rosée (*sḏr n ỉʒd.t*) éclaire le rôle attribué à ses propriétés et bénéfices thérapeutiques. L'intégration de la rosée dans des processus pharmaceutiques élaborés, en association à d'autres substances et étapes techniques, peut mettre en avant le savoir empirique et l'habileté pratique des thérapeutes égyptiens à exploiter la puissance transformative de l'humidité atmosphérique.

Au-delà de ces usages concrets, la métaphore de la rosée dans les textes littéraires et religieux révèle sa profonde signification comme symbole de l'essence divine, de la nutrition et de l'influence cosmique sur le monde terrestre. Les métaphores conceptuelles ROSÉE COMME SUBSTANCE DIVINE et ROSÉE COMME NOURRITURE VITALE, qui émergent de l'analyse collocationnelle et sémantique détaillée, soulignent la perception égyptienne de la rosée comme manifestation physique de la présence divine et source de subsistance pour les entités physiques et métaphysiques.

Signification symbolique et variations orthographiques

L'analyse contextuelle de *ḥw.t, ỉgp* et *ỉʒd.t* pourrait également clarifier la signification symbolique considérable de ces termes hydrométéorologiques dans l'articulation de la conception égyptienne ancienne de l'eau comme élément fondamental de la vie, de la fertilité et de la présence divine. L'incorporation des hydrométéores dans la cosmologie et la théologie de l'Égypte ancienne, comme en témoigne leur apparition fréquente dans les textes religieux et funéraires, peut mettre en évidence le rôle central de l'eau dans la médiation de la relation entre les sphères humaine et divine. L'exemplification linguistique de la pluie, des nuages et de la rosée en tant qu'émanations ou manifestations de la puissance divine, de la bienveillance ou de la colère souligne la profonde signification symbolique de l'eau dans l'ancienne *Weltanschauung* égyptienne, en tant que source de vie, de régénération et de transformation spirituelle.

Les variations orthographiques observées dans les représentations écrites de *ḥw.t , ỉgp* et *ỉʒd.t* illustrent la nature de ces hydrométéores. L'emploi délibéré de signes déterminatifs spécifiques, comme le signe de l'eau courante ( N35a) pour *ḥw.t* et le signe (N4) pour *ỉgp* et *ỉʒd.t,* témoigne d'une perception fine de leurs propriétés physiques et de leur impact. L'adjonction occasionnelle de déterminatifs végétaux ou divins, surtout dans les graphies de *ỉʒd.t*, met en valeur le lien perçu entre rosée, fertilité agricole et influence divine.

Connexion conceptuelle et continuité

Le lien conceptuel, potentiel, entre le signe N4, largement utilisé pour *ỉgp* et *ỉʒd.t,* et le signe S15, porteur d'idées d'éclat et de lumière, suggère que les Égyptiens reconnaissaient une relation entre humidité atmosphérique et diffusion de la lumière. Tout comme les gouttelettes d'eau se dispersent et se propagent dans l'air, dispersant et réfractant la lumière du soleil, les Égyptiens ont peut-être compris que la lumière pénètre et se diffuse également dans l'atmosphère, illuminant le ciel et la terre. Ce lien aurait pu être inspiré par des interprétations aiguës de la façon dont les rayons du soleil interagissent avec les nuages, la brume ou la rosée, créant des phénomènes visuels tels que des arcs-en-ciel, des halos ou le scintillement de la lumière sur les gouttelettes d'eau. L'association des trois termes à la lumière et au rayonnement céleste dans certains contextes, en particulier dans les textes religieux et mythologiques, pourrait encore attester d'une reconnaissance du lien conceptuel postulé concernant le comportement de la lumière et des hydrométéores.

La perspective diachronique qu'offre l'analyse de textes couvrant différentes périodes historiques met en évidence la continuité et l'évolution de l'usage et de la conceptualisation de ces termes hydrométéorologiques au fil du temps. Alors que les associations sémantiques de base et les modèles syntaxiques semblent présenter une stabilité, les preuves d'extension sémantique, d'élaboration métaphorique et d'intégration de ces lexèmes dans des genres et des contextes textuels reflètent la nature dynamique et évolutive de l'utilisation et de la conceptualisation de la langue.

L'importance croissante de l'utilisation métaphorique de ỉgp pour transmettre des notions de conquête militaire et de pouvoir royal dans les périodes ultérieures, par exemple, pourrait refléter le paysage politique et idéologique changeant de l'Égypte ancienne et l'adaptabilité des ressources linguistiques pour exprimer et renforcer les réalités sociales émergentes et les structures de pouvoir.

Savoirs environnementaux et importance sociale

La cooccurrence fréquente de *ḥw.t* avec des termes relatifs au vent (*ṯzw*), aux tempêtes (*ḏ'*) et même à la neige (*srq*) renvoie à une connaissance fine des relations atmosphériques et du cycle de formation des hydrométéores. La langue témoigne d'une capacité d'observation et de compréhension des phénomènes météorologiques dans leur ensemble. De même, l'association de *ỉzḏ.t* à la lumière et à la radiance céleste dans certains contextes atteste de la reconnaissance du lien entre formation de la rosée et cycle diurne, révélant la profondeur du savoir environnemental égyptien.

L'analyse contextuelle met aussi en avant le rôle crucial de ces lexèmes dans différents aspects de la culture, la religion et la société. Dans les textes mythologiques et religieux, *ḥw.t , ỉgp et ỉzḏ.t* sont intimement liés aux actes, attributs et épithètes des divinités, servant souvent à figurer leur pouvoir, leur munificence ou leur colère. L'intégration de ces termes dans les inscriptions royales, le discours idéologique et les stratégies de légitimation de la règle pharaonique démontre leur importance dans l'articulation et le renforcement du mandat divin et de l'ordre cosmique qui sous-tendaient l'ancien État égyptien. L'association des hydrométéores avec le maintien de la Maat, principe fondamental de vérité, de justice et d'harmonie, souligne leur centralité dans la conception égyptienne ancienne du bon fonctionnement de l'univers et du rôle légitime du roi en tant que médiateur entre les domaines divin et humain.

Conclusion de l'axe de recherche et de la méthodologie

Cette étude a cherché à exposer les nuances lexicographiques et sémantiques de trois termes hydrométéorologiques clés – *ḥw.t* « pluie », *ỉgp* « nuage de pluie » et *ỉʒd.t* « rosée » – dans la langue égyptienne ancienne. Notre recherche a mis en évidence un réseau sémantique articulé reliant ces lexèmes aux cadres culturels, environnementaux et théologiques plus larges de la société égyptienne ancienne. En situant ces termes dans leur environnement textuel et contextuel, cette enquête a tenté de démontrer comment le langage servait de moyen par lequel les anciens Égyptiens conceptualisaient, catégorisaient et répondaient aux phénomènes naturels et aux hydrométéores.

En intégrant des méthodes philologiques aux connaissances de la linguistique cognitive, cette recherche a tenté de fournir une compréhension plus holistique de la perception naturelle et atmosphérique de l'Égypte ancienne. L'approche méthodologique a privilégié la sensibilité contextuelle, en tenant compte non seulement des caractéristiques linguistiques de chaque lexème, mais aussi de leur signification culturelle, de leurs applications rituelles et de leurs référents environnementaux.

Principales constatations et leurs implications

L'analyse a révélé plusieurs modèles significatifs qui éclairent la conceptualisation égyptienne ancienne des hydrométéores :

Réseaux sémantiques et métaphores conceptuelles

Les trois lexèmes présentent des profils sémantiques distincts mais interconnectés. Le terme *ḥw.t* démontre une évolution sémantique enracinée dans les concepts de projection puissante et de mouvement dynamique, suggérant que la pluie n'était pas simplement perçue comme une chute

d'eau, mais comme une émanation active et puissante du ciel. Cette perception reflète probablement l'expérience de l'Égypte ancienne du pouvoir transformateur du Nil.

Le terme *ỉgp* révèle un réseau sémantique centré sur le mouvement et la transformation, avec des liens avec l'imagerie aviaire suggérant que les nuages ont été conceptualisés comme des entités dynamiques en flux constant. Les associations sémantiques avec l'élévation et le gonflement indiquent une perception des nuages comme des participants actifs dans les processus cosmiques plutôt que comme des formations atmosphériques passives.

Le lexème *ỉʒd.t* présente peut-être le profil sémantique le plus complexe, avec des connexions ou des amalgames potentiels avec l'huile parfumée (*ỉd.t*) et la fumigation (*ỉdỉ*), suggérant des liens conceptuels entre l'humidité, le parfum et la purification rituelle. Cette constellation sémantique expose l'intégration de la rosée dans un fond raffiné de pratique rituelle et d'interaction divine.

Modèles syntaxiques et associations célestes

Les modèles syntaxiques cohérents observés sur ces lexèmes – en particulier leur association avec les verbes de descente et les origines célestes – pourraient souligner la perception de l'Égypte ancienne des hydrométéores comme des phénomènes ayant une trajectoire verticale du domaine céleste au domaine terrestre. L'utilisation récurrente de verbes tels que *hʒỉ* « descendre » avec les trois lexèmes renforce leur cadre conceptuel en tant que manifestations des forces célestes dans le domaine terrestre.

Cependant, chaque lexème présente également des comportements syntaxiques distinctifs qui reflètent leurs nuances sémantiques spécifiques. Le terme *ḥw.t* apparaît fréquemment dans les constructions soulignant son impact physique sur le paysage, tandis que *ỉgp* apparaît souvent dans les expressions métaphoriques du pouvoir royal et divin. Le terme *ỉʒd.t*, en particulier dans les contextes médicaux et religieux, est syntaxiquement conçu comme un moyen de l'essence divine et du potentiel régénérateur.

Importance culturelle et rituelle

L'analyse contextuelle a mis en lumière la profonde signification culturelle de ces hydrométéores dans la pensée de l'Égypte ancienne. La pluie (*ḥw.t*) apparaît à la fois comme une force vitale et une puissance potentiellement destructrice, reflétant sa double nature dans le cycle agricole. Les nuages (*ỉgp*) fonctionnent comme de puissants symboles du mouvement divin et de la domination royale, apparaissant fréquemment dans des expressions métaphoriques de force écrasante et de voyages célestes.

La rosée (*ỉʒd.t*) démontre des associations culturelles particulièrement riches, de ses applications pratiques dans les remèdes médicaux à sa représentation symbolique de la bénédiction divine et de l'ordre cosmique. Les procédures impliquant l'exposition nocturne à la rosée (*sḏr n ỉʒd.t)* dans les textes iatromagiques révèlent une connaissance empirique sophistiquée de ses propriétés, tandis que ses extensions métaphoriques dans des contextes religieux soulignent son lien perçu avec l'essence divine et le potentiel régénérateur.

Forces et limites

Bien que cette étude ait fourni des résultats détaillés concernant la conceptualisation de l'humidité atmosphérique par l'Égypte ancienne, il est important de reconnaître certaines limites. L'accent mis sur trois lexèmes principaux, bien qu'il permette une profondeur d'analyse, limite nécessairement la portée de l'enquête. D'autres termes, moins fréquents, dans le champ sémantique des hydrométéores restent inexplorés. De plus, le fait de s'appuyer sur des preuves textuelles, bien qu'essentiel pour l'étude lexicographique, signifie que notre compréhension est façonnée par le corpus survivant, qui ne représente qu'une fraction de la production linguistique égyptienne ancienne et est biaisé en faveur des contextes d'élite.

En étudiant ces lexèmes non pas de manière isolée, mais en tant que composants d'un réseau sémantique plus large ancré dans les pratiques culturelles et les réalités environnementales, cette étude a révélé les cadres conceptuels possibles à travers lesquels les anciens Égyptiens comprenaient et répondaient aux phénomènes atmosphériques.

Orientations des recherches futures

Sur la base de ces résultats, plusieurs pistes de bon augure pour de futures recherches se présentent. Tout d'abord, une étude complète du champ lexical des inondations et des inondations compléterait cette enquête, révélant potentiellement des liens sous-jacents entre les manifestations atmosphériques et terrestres de l'eau dans la langue et la conception de l'Égypte ancienne. L'encodage linguistique de la crue annuelle du Nil, avec son importance cruciale pour la civilisation égyptienne, mérite un examen approfondi à la lumière des modèles observés dans la terminologie hydrométéorologique.

Deuxièmement, l'extension de l'analyse pour inclure des termes hydrométéorologiques moins fréquents, tels que ceux relatifs aux tempêtes, au vent, fournirait une image plus complète du lexique atmosphérique de l'Égypte ancienne. Troisièmement, l'intégration de preuves archéologiques et paléoclimatologues pourrait contextualiser davantage les modèles linguistiques observés, révélant potentiellement des corrélations entre les développements lexicaux et les changements environnementaux.

Enfin, des études comparatives explorant des champs lexicaux similaires dans d'autres anciennes civilisations de vallées fluviales pourraient mettre en lumière des modèles communs et des caractéristiques distinctives dans la façon dont différentes cultures ont codé linguistiquement leurs expériences environnementales.

Implications plus larges

Cette étude contribue à notre compréhension de la relation complexe entre la langue, l'environnement et la culture dans les civilisations anciennes. Il démontre comment l'enquête lexicographique peut mettre en évidence des modèles linguistiques ainsi que des structures culturelles et des perceptions environnementales plus profondes.

Nos recherches ont tenté d'améliorer notre appréciation de leurs connaissances environnementales et de leur créativité culturelle en explorant comment les anciens Égyptiens encodaient linguistiquement leurs expériences de la pluie, des nuages et de la rosée. Il révèle une civilisation profondément en phase avec les rythmes et les manifestations de l'humidité atmosphérique, capable d'articuler des relations conceptuelles complexes par le langage, et innovante dans l'intégration de ces phénomènes naturels dans leurs pratiques religieuses, médicales et sociales.

RÉSUMÉ

Cette thèse propose une étude lexicographique de la terminologie des hydrométéores en égyptien ancien, notion plus englobante que « précipitations ». Sur un corpus diachronique (Ancien Empire–Troisième Période Intermédiaire), l'analyse, fondée sur le Sentier lexical, (axes graphématique, phonématique, morphémique, syntagmatique, sémantique), examine *ḥw.t* « pluie », *ỉgp* « nuage » et *ỉȝd.t* « rosée ». Le signe N4 est traité comme indice grapho-sémantique majeur. Les résultats montrent: (i) *ḥw.t*, lié à *ḥwỉ* « frapper/jeter », sert au Nouvel Empire de marqueur de faveur et de légitimation; (ii) *ỉgp* fonctionne comme véhicule céleste, obstacle à dissiper (contextes magico-rituels) et métaphore de conquête « nuage d'eau », surtout au Moyen Empire; (iii) *ỉȝd.t*, hautement spécialisé, est central en iatromagie (*sḏr n ỉȝd.t*) et converge parfois avec *ỉd.t* « parfum ». L'ensemble cartographie un domaine multimodal, étroitement arrimé à cosmologie, religion et idéologie royale (Maat).

MOTS-CLÉS

Eaux atmosphériques; lexicologie; précipitations; météorologie, hydrométéores

ABSTRACT

This thesis proposes a lexicographic study of the terminology of hydrometeors in ancient Egyptian, a notion more encompassing than "precipitation". On a diachronic corpus (Old Kingdom–Third Intermediate Period), the analysis, based on the Lexical Path (graphematic, phonematic, morphemic, syntagmatic, semantic axes), examines *ḥw.t* "rain", *ỉgp* "cloud" and *ỉȝd.t* "dew". The N4 sign is treated as a major graphosemantic index. The results show: (i) *ḥw.t*, related to *ḥwỉ* "to hit/throw", served in the New Kingdom as a marker of favor and legitimation; (ii) *ỉgp* functions as a celestial vehicle, an obstacle to be dispelled (magicoritual contexts) and a metaphor of conquest "cloud of water", especially in the Middle Kingdom; (iii) *ỉȝd.t*, highly specialized, is central to iatromagic (*sḏr n ỉȝd.t*) and sometimes converges with *ỉd.t* "perfume". The whole maps a multimodal domain, closely linked to cosmology, religion and royal ideology (Maat).

KEYWORDS

Atmospheric waters; lexicology; precipitations; weather; hydrometeors