

Aegyptus et Pannonia VII.



Acta Symposií anno 2021

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Aegyptus et Pannonia VII.

Acta Symposii anno 2021

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Plants and Health Conference 2021, and the Proceedings

Dr. Hedvig Győry PhD

HEFT AEC president

In 2021, the HEFS Ancient Egyptian Committee, in partnership with the HNM Semmelweis Museum of Medical History, organised an international conference entitled “*Plants and Health from Ancient Egypt to the Present Day*”. The three-day conference focused on topics related to the application of plant material in medicine, but also included other topics connected to the use of plants in any practical or theoretical area of human life. We planned four sections with the following keywords:

History of healing and nutrition from the time of ancient Egypt to the present day

Which plants were used for healing, how, where, by whom and when, which plants were used to maintain health, or prevent disease in different parts of the world; what did people eat in everyday life, what were the festive foods/drinks, what were the expected results; and what are the related issues raised by ethnographic research.

Medicines and pharmaceutical science in historical periods in the light of sources

Who, how and why recorded knowledge of medicine in each period; what principles were used to treat patients or maintain health; what were/are the popular explanations of these issues or principles.

Herbal medicine and contemporary medicine

According to our current knowledge, what can we assess about the active ingredients of a given plant, the mechanism of action and its intensity, and what biochemical relationships can be discerned from their interactions.

Religious views and beliefs about plants

By whom, where, when, and what special magical properties have been attributed to plants, what is the role of plants in the social context, how is it explained, and how have plants been incorporated into everyday life/celebrations or healing practices

The conference was held between 14 and 16 October 2021 with 40 presentations. Due to the COVID pandemic, circumstances did not allow for a face-to-face meeting, so the event was entirely online. However, the possibilities offered by the Internet also allowed for smaller group discussions. The topics presented included the appearance and use of plants in different times and places, from ancient Egypt to contemporary Europe. They were divided into thematic and language (English and Hungarian) sessions, led by recognised scholars. After the lectures, it was possible to discuss the issues raised in front of the general public, and topics of narrower interest could be further discussed in separate rooms created within the Zoom system. Valuable contacts were made and new research ideas were generated. A small exhibition was also organised by the HNM Semmelweis Museum of Medical History for the occasion, as we had hoped until the last minute that the pandemic situation would change. However, it was only available to personal visitors.



During the conference it was possible to learn about new methods, we exchanged ideas and heard about research results and ongoing projects. A significant part of the presentations were given in English, the other part in Hungarian, but the papers included in the proceedings are all in English. The first part of the proceedings, as a result of the presentations and discussions, is published in this volume; the other part can be read in the next volume of the Aegyptus et Pannonia series.

Although not all the presentations are published, most of the aspects we covered are included in the volumes. The programme covered a wider range of topics: We were able to learn about plant finds from recent Egyptian archaeological excavations, the identification and use of plants in textual sources, religious connotations, and even the possibility of reconstructing perfumes. We could also look at the trade in plants between the Hittite Empire and Egypt, and learn which plants were used by the Copts in the Middle Ages. The latest research on Roman herbaria was discussed, and hitherto unknown ancient Egyptian texts were presented. Other presentations were devoted to the reproduction of some medicines based on ancient recipes. In one of the lectures we saw on video the process of preparation and examination of an ancient Egyptian medicine. Several papers dealt with temporal and spatial changes in the everyday and liturgical use and interpretation of a given plant, e.g. pomegranate in Greece. In India, Soma. In Hungary, thorn apple. In Estonia, pelargonium. In Finland and the Arctic, roseroot. And in the Arabian desert of Egypt, the apple of Sodom. The role of plants in religious ceremonies and concepts was also discussed, as well as the variety and significance of the scent they produce.

The lectures presented a wide range of the application of herbs in ancient and medieval medical methodology, with the help of Egyptian, Greek, Anatolian, and Hungarian herbariums. The conference participants were the first to hear that many ancient Egyptian medicines can still be found in the medieval Welsh medicinal knowledge. We also learned that a significant part of Dioscorides' usage of herbs could also be observed in Anatolian folk medicine. Lectures were given on the wide range of magical effects attributed to plants, spanning from antiquity to the Renaissance, in terms of iatromagic, iatromathematics, and iatromythology.

In separate sections, the participants were introduced to Hungarian ethnobotanical research, where, in addition to the methods of the way of collecting ethnobotanical data throughout Transylvania, the lecturers presented both the botanical aspects and the therapeutic potential of the plants included in the various Hungarian medicinal herbariums and pharmacopeias. In addition to the knowledge of plants preserved in the Hungarian witch-trial documents of the 15th to 19th centuries, the possibilities of historical and folk use against various diseases – such as tuberculosis and cholera – were also presented, and in connection with diabetes and surgery we also visited India and China. We got again an idea of how wound care has changed over the centuries, how plants have influenced the toolkit of surgeons, and which plants are still used in modern wound management. In connection with the Székesfehérvár Pharmacy Museum, an overview of the museum's extensive educational activities was presented in addition to its history. We have got acquainted also with the the most important medical tariff book of Hungary in the 18th century and the drawer labels of five apothecary furniture of the same period.

The approach to the flora of ancient Egypt is also diverse, and the study of the Ancient Near Eastern relations encompasses several scientific fields, such as Assyriology, Hittiteology and Biblical studies. The classical Greco-Roman world is also included in the next volume to facilitate comparison. In addition to history, interdisciplinarity also extends to other branches of the humanities, such as – among others – archaeology, history, linguistics, ethnography, philology, the history of religion and magic or iatromathematics.

In recent decades, the development of the sciences has moved in the direction of interdisciplinary cooperation, not only between related sciences, but also between seemingly distant branches of science. In addition to textual and material sources, the results and methods of the natural sciences are of fundamental importance for a more precise understanding of the past. The role of analyses and investigation of the various materials is thus becoming increasingly important, complementing traditional descriptive studies. As we also wanted to play a role in this process, several areas of natural science, such as archaeobotany, phylogenetics, types of data investigation and plant breeding, or various facets of medicine and medical history are also represented in the proceedings.

In this volume, we publish 11 studies that approach the world of plants from different perspectives within the broad framework of the conference. The focus is on ancient Egypt, but the articles also look at other areas. In addition to the data found in the articles and the results obtained, the methodological and theoretical approaches raise many new ideas, give exciting results and draw attention to various possibilities. For example, the multifaceted role of medicinal plants in the museum world or their application from the perspective of medical history and ethnomedicine.

With this volume, we hope to arouse interest in the unique world of the past, especially Egypt, to bring closer the world of nature and its possible effects on human life, and to encourage the birth of further results that will make the ancient Egyptian world better known and our own world better understood.

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A POWERFUL SMELL, SUPERNATURAL VIRTUES THE RELIGIOUS SYMBOLISM OF THE *hdn*-PLANT

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ABSTRACT

This paper focuses on the term *hdn* attested in ancient Egyptian textual sources of various kinds, ranging from Pyramid Texts through magico-medical papyri to inscriptions related to temple rituals, and spanning three thousand years from the Old Kingdom to the Ptolemaic Period. Despite its regular occurrences, *hdn* has so far escaped all scholarly efforts to disclose its proper taxonomical identification and to fully explore both the wide semantic scope this term appears to have covered and the rich theological background that surrounds it. A revision and considerable expansion of the available textual sources is provided with notes on the pictorial attestations. This paper aims at studying the physico-chemical properties of the plant that might have formed a basis for its rich religious connotations and for the attribution of supernatural virtues. A combined approach is used, embracing conventional philological and lexicographical methods, a survey of the botanical properties of plant species considered as likely candidates for *hdn*, and an in-depth analysis on a theological and mythological plane.

When it comes to the plant's occurrences, the plant is distinguished, as early as the Pyramid Texts, by its strong odour, which led to its eponymous goddess Hedenut, and purifies the deceased king in front of the primeval gods. In the Coffin Texts, it is part of the mythical family of cosmogonic plants involved in the birth of Ra. Associated with Sia in the Litany of Re, it is reputed to provide knowledge. This extraordinary plant is also deeply linked to Thoth, through its role as scribe and ritualist. Used in the exit rites of several funerary and cultic rituals, it is notably well known as forming the broom of the *jnt-rd* ceremony in the daily ritual. Indeed, since its offensive smell frightened away pests, its stems were rubbed on the sacred ground to ward off evil forces.

* I dedicate this paper to Ms. Nadine Guilhou (Univ. Montpellier III) *in memoriam* and as a token of gratitude. I would like to thank the anonymous reviewers for their insightful comments.

According to recent publications, it also gives its name to processional festivals celebrated in honour of Hathor at Karnak (New Kingdom) and Lahun (Middle Kingdom) and participates in the ritual pacification of the Dangerous Goddess.

Regarding the botanical identification, the former hypothesis of *Ceruana pratensis* Forsk. is discussed and discarded. The physico-chemical properties that make the plant repellent are determinant. The idea of a “fairy tale herb” is swept away, since it is an unsatisfactory short-cut solution. It has been shown that the determinative of the term in the Pyramid of Pepi I strongly argues for a classification among the umbellifers. The research presented tends to confirm Jean-Claude Goyon’s botanical identification proposal of *hdn* as the umbellifer called “lanceleaf throw-wax” (*Bupleurum lancifolium* Hornem.). Indeed, it meets the most important taxonomical criteria and is very much in line with available data about material attributes and uses of the plant. In its various forms, the plant embodies three main symbolic aspects linked with deities: cosmogonic (Ra, primaeval gods), knowledge-linked (Thot as scribe, Sia), and odorously apotropaic (Hedenut, Thot as ritualist; sometimes associated/equated with the Eye-of-Horus; this latter aspect including pacifying Hathor-Sekhmet)

KEYWORDS: *hdn*, plant, Umbellifer, *Bupleurum lancifolium*, *Ceruana pratensis*, broom, botany, lexicography, symbolism, Pyramid Texts, Coffin Texts

INTRODUCTION

Plants have played an important role in the religious conceptions of the ancient Egyptians. Some were reputed to possess magical properties that were used in medical and ritual texts, highlighted in myths and associated with deities. The *hdn*-plant is attested in ancient Egyptian textual sources of various kinds, ranging from Pyramid Texts through iatro-magical papyri to inscriptions related to temple rituals, and spanning thousands of years from the Old Kingdom to the Ptolemaic Period. However, until now, the rich theological background with which it is associated has been little addressed. Indeed, regardless of its regular occurrences, *hdn* has so far escaped all scholarly efforts to disclose its proper taxonomical identification and to explore fully the wide semantic scope this term appears to have covered. A clarification based on textual sources is both necessary and desirable.

Despite past publications, the topic is far from being exhausted. Among previous works on the subject, I will briefly mention Hartwig Altenmüller¹ and his interpretation of the data from the Pyramid Texts, Zoltán Horváth², who proposes an interesting and recent reflection on the link between Hathor and

1 ALTENMÜLLER 1971.

2 HORVÁTH 2015.

the plant, and finally Jean-Claude Goyon, who, in 1984, attempted to propose a serious botanical identification. Goyon's article is the most recent work dedicated to this subject to date.³ I also recently had the opportunity to consult Serge Sauneron's unpublished notes,⁴ that are preserved in the archive of the IFAO. From these, I have taken some references and read with interest scattered memoranda. Indeed, numerous references and recent publications make it possible to project a new synthesis with extensive documentation and a particular point of view.

What can we learn from the attestations and representations of the supernatural virtues attributed to the *hdn*-plant? Which botanical identification is the most likely and how could the plant's physico-chemical properties have contributed to these beliefs? How could a peculiar plant with a particularly strong smell become an indispensable tool for interacting with the gods? These are the questions that I will try to give an answer to.

This paper aspires to revise and expand the available textual and pictorial sources, and aims at studying those physico-chemical properties of the plant that might have formed a basis for its rich religious connotations. To arrive at reasonable conclusions, I will be using here a combined approach, embracing conventional philological and lexicographical methods. Then, I will make a survey of the botanical properties of plant species considered as likely candidates for *hdn*, and an in-depth analysis on a theological and mythological level.

1. THE USES OF THE TERM *hdn*

There are some 50 attestations in total of the term and its derivatives, ranging from the Old Kingdom to the Ptolemaic period, of which about 20 occurrences predate the Ptolemaic period. These numerous attestations deserve to be examined together for the first time, in order to go beyond the frequently quoted sources. Indeed, sources⁵ numbered [3], [8], [12], [17], [18] and [21] are absent from Jean-Claude Goyon's study and some of the other sources are simply not addressed, namely [2], [4], [5], [6] and [14].⁶ Goyon focusses his research on medical texts and on the question of botanical identification to the detriment of the ritual and magical texts that shed light on the issue from an entirely different perspective.

3 GOYON 1984.

4 SAUNERON, s. d. I sincerely thank the IFAO for allowing me to benefit from Serge Sauneron's handwritten notes.

5 The numbered passages in square brackets are edited in hieroglyphs, translated and referenced at the end of the article.

6 Nor could the determinative attested in the pyramid of Pepi I be known to Jean-Claude Goyon.

*Let this N cut off your heads, you who have crossed his path!
 Straighten your heads before him,
 (for) his birth is the birth of a god on that day of the birth/blossoming
 (msw) of the hdn-plant,
 when heaven and earth had not yet come into existence,
 when water had not yet come into existence,
 when Geb and Nut had not yet come into existence,
 when Osiris and Isis had not yet come into existence,
 when Seth and Nephthys had not yet come into existence:
 this N was brought into existence at the birth of Isis! [4]*

Here, the expression *on that day of the birth/blossoming (msw) of the hdn-plant* clearly refers to the dawn of time, as shown by the following lines of the excerpt:

This N came into existence, when the sky had not yet come into existence and when the earth had not yet come into existence! This is the hdn-plant of posterity (n m-ht) that this N has burned/boiled (psw) and over which Wawa¹⁰ will have no power. [5]

A paradox emerges: although it has existed since the earliest times, the plant is associated with the future, which tends to confirm its great magical power. As said by Anthony Spalinger, this herb was “no ordinary vegetative entity!”¹¹ The last known extract from the Coffin Texts can be translated as follows:

*This N is a swallow with a forked tail that spends the night across the land,
 (but) this N cannot spend the night across the land,
 (because) it is Abab¹² that came out of the Nun!
The banks of hdn-plant were not devoid after it was burned/boiled (psw).
 There is no question of foreigners having power over this N,
 (for) the people have seen that this N is a king, a master of power, with sharp horns. [6]*

These three excerpts from the Coffin Texts share common topics about the plant: the evocation of the birth of the deceased equated to the solar demiurge,¹³

10 See LGG II, 244: *wꜥwꜥ* is translated by *der (böses) plant* because of this excerpt. This could be a reference to a demon rather than to another plant.

11 SPALINGER 1998, 57.

12 See LGG II, 88: *ꜥbꜥb*, the *Boasting*, a demiurge’s epithet.

13 KOEMOTH 1994, 7: “le contexte de cette formule évoque la mise au monde du défunt à la naissance d’Isis” and he refers to “un lien entre ce texte et le mythe de l’enfant solaire sur la fleur.”

the mention of a burning or boiling process, maybe in order to extract some substance or to spread a smell, and some passages on the enemies that must have no power on the plant nor on the deceased and who are repelled. In later occurrences, as in Abydos, this last topic about enemies being repelled is a recurring one. Furthermore, the verb *psj*, *to cook*¹⁴, written *ps*, is highly attested in the medical texts and it remains difficult to understand its role here. Existing before the creation of the earth and the sky, the herb is here closely associated with the demiurge's birth, but also plays a protective role against the demiurge's enemies. The last excerpt is more explicit: the deceased is not at risk, since there are still plants available. He can still use them against his enemies, if necessary. The access to the plant and its use for apotropaic purposes is emphasised and the cosmogonic status attributed to the plant appears to give it prestige and power. While the herb is playing its part in the birth of the Sun God on a mythological plane, the aromatic substance extracted from it through boiling obviously had a marked apotropaic function on a ritual level.

In the Pyramid texts, the plant plays a role in the purification of the deceased king as a counterpart for the respect he has shown for and the food he gave to the primaeval gods that exist, just like the *hdn*-plant, since the creation of the world:

The hdn-plant will wash him when he gives bread to those from the beginning (jmyw-p3t) and appeases those [from ancient times] (jmyw-[b3h])! [2]

3. AN APOTROPAIC VEGETATIVE ENTITY

3A. A STRONG SMELL

In the Pyramid Texts, the goddess Hedenut, a deity of the *hdn*-plant, is asked not to direct the smell against the king:

O Hedenut, O Hedenut, don't turn the smell (st) of your hdn-plant against the king, you shall not turn the smell of your hdn-plant against the king. [1]

According to Hartwig Altenmüller¹⁵, this passage refers to the strong smell of the liquid on the tuft of plants used to sweep the offering place. The deity of the *hdn*-plant is asked not to direct the apparently apotropaic smell of the liquid on the broom against the deceased himself. As early as the Pyramid Texts, the plant is characterised by its strong odour, which leads to its eponymous goddess, Hedenut. With regard to this excerpt, the smell seems to give some

14 About this verb, see VERHOEVEN 1984, 85-142, and more precisely about CT VI, 305d = Spruch 678 (here numbered [6]), see VERHOEVEN 1984, 139, doc. 57, where she says that the meaning of the text is strange, and asks the question of the use of the plant as a material used to produce heat or power by burning.

15 ALTENMÜLLER 1971.

efficiency to the herb and should be turned against enemies rather than towards the king.¹⁶

However, no other known attestation explicitly refers to its strong smell and it is not clear whether it is a good or a bad smell. The *hdn*-plant's smell could be compared to that of lemongrass, which has a strong but not unpleasant smell. In this respect, Richard Parker and his co-authors refer to it as “an unidentified sweet-smelling plant”.¹⁷ If the plant's smell is unpleasant, it seems difficult at first sight to understand why a broom made of this plant would have been allowed in the preserved space of the sanctuary.¹⁸ Interestingly, the *dhrt* animal skin, quoted in the Temple Sanctuary Ritual, has given rise to similar debates, as it has logically been prohibited in the Sanctuary.¹⁹ According to Alexandre Moret²⁰ and Nicolaus Tacke, the skin would cover the divine statue during the night, but the relevant passage is unclear. The Egyptian context is playing an important role: nature in Ancient Egypt is both admired and feared or frowned upon, which justifies certain precautions surrounding places of worship. It should be noted, however, that the excerpt suggests that the smell of the plant has a potentially aggressive quality.

One of the potential uses of the plant as an apotropaic element appears in the Coffin Texts around the possible interpretation of the verb *psj*: *burning* to keep pests away or *boiling* to calm the enemy, or even poisoning with a drink or an inhalation? Text excerpts frequently refer to keeping enemies away, especially in the Coffin Texts (see [4], [5] and [6]). Also effective against enemies in the Daily Ritual [14], the shrub possesses magical properties that are beneficial both to the demiurge and to the eyes, possibly associated with the Eye of Horus [7]. Its magical role as repellent can also help conjure scorpion venom, in this case around the root *whꜥt*, which seems to be used in a paronomasia (*whꜥt*, “scorpion” – *whꜥt*, “to catch (bird or fish)”) ²¹:

Another (spell): “Mouth against mouth, tooth against tooth.

Re, beware of the poison of the scorpion (whꜥt), which I have made of clay, (with) a base of turquoise, which I have set on your [... from bunches of?] hdn-plant, to catch (whꜥt) what is hidden in the body (i.e., the venom?). Come on my saying when I speak. I am Horus who made you. Flow from the scorpion (whꜥt).” [13]

16 According to L. POPKO in TLA ID 99700, Sethe, Pyr. Übers. III, 273-274, argues that the smell of the *hdn* plant is intended to cancel out the smell of incense; similarly TACKE 2013, 157, n. 243.

17 PARKER ET ALII 1979, 50, n. 24.

18 I am grateful to Dora Goldsmith (FUBerlin) for bringing this aspect to my attention.

19 TACKE 2013, 29, 32.

20 MORET 1902, 42-45.

21 A similar pun is attested in the Metternich Stele, l. 73 (*whꜥt n.s whꜥt*), between *whꜥt* (“Skorpion”) and *whꜥt* (“ablassen”). See SANDER-HANSEN 1956, 45.

The analgesic and astringent effects of the plant, which I will discuss later, may have been used to expel the venom on a symbolic level, or even in reality. On another note, the verb *psj* can also be found in a recipe for an ophthalmic treatment from pEbers [10] (*hot preparation (psw)*). Moreover, it is precisely in a preparation that the plant is involved as a soothing substance to pacify Hathor-Sekhmet.

3B. USE AS A BROOM IN EXIT RITES

The *h₃dn*-plant is notably well known for forming the broom of the *jnt-rd* ceremony²² in the Daily Ritual. The name of the *jnt-rd* ceremony literally means *bringing the foot*, but it is often understood as *removing footprints from the sanded ground, while leaving the sanctuary*. This ceremony followed the pouring of the sand on the ground of the Holy of Holies (*st-wrt*, i.e., the Sanctuary).

Particularly, the question of how to translate *rd* (literally *foot*) has given rise to much debate. Nina de Garis Davies and Alan Henderson Gardiner²³ proposed in 1915 that the *h₃dn* could be a symbol of a demon's foot that would serve to repel demons from the shrine. This interpretation was set aside in favour of erasing footprints to make any intrusion obvious.

The *h₃dn*-plant is mentioned in one of the exit formulae of the Temple Sanctuary Ritual that can be seen in the temple of Seti I at Abydos.²⁴ Located in each divine chapel on the east wall, on the east side and in the lower register, the scene shows the king making a libation and dragging a broom behind him as he walks toward the chapel door. In Abydos the god is never represented in this scene, and the king turns his back upon him. The king, who is depicted instead of the incumbent high priest, is leaning forward, holding one or more libation vessels in one hand and a broom in the other. He frequently looks behind him towards the god as he moves, as it is the case in Luxor, in Medinet Habu, in the Hatshepsut Chapel²⁵ or in Edfu [21].²⁶ This broom looks as if it is made of stems, the branches of which have been cut and tied together to form a sort of large stick. The scene is best preserved in the Chapels of Horus and Amun-Ra. The text goes as follows:

Utterance of bringing the foot with the h₃dn-plant (i.e., erasing

22 About the *jnt-rd* rite, see notably ALTMANN-WENDLING 2016; NELSON 1949. According to Filip Coppens, the *jnt-rd* rite is already attested in OK tombs in Giza and Saqqara. See COPPENS 2022, 105-106.

23 DAVIES – GARDINER 1915, 93-94.

24 CALVERLEY – BROOME 1935, pl. 13.

25 NELSON 1949, 86.

26 In temple reliefs, the god is normally present in the scene, except for Abydos. In Qurna, the king is looking ahead with his back turned, while the god sits behind him.

footprints from the sand with a broom made in *h3dn*-plant) *in the Holy of Holies for Divine Name by King Name*: “*Thoth comes, after having saved the Eye of Horus from his enemies. No enemy, male or female, shall enter this temple. Close the door by Ptah. Fix the door by Thoth. Close and fix the door with a lock.* [14]

This scene is textually and iconographically consistent with an episode of the Daily Offering Ritual attested at Karnak (K10) in the Hypostyle Hall. In the Offering Ritual, the beginning of the text does not mention the plant in the current state of preservation of sources and differs: *May the feet be held <by> Thoth, so that <he> may protect [the Eye] of Horus from his enemies.*²⁷ The *jnt-rd* rite is also attested in the Opening of the Mouth Ritual, but the plant is not quoted.

It is precisely the link between the plant and the god Thot, with whom the priest identifies himself in the ritual formula, that is very interesting. At the mythological level, Thot, in his role as protector of the sanctuary and performer of the ritual, is equipped with this famous *h3dn*-plant broom while he performs his task. The quoted formula focusses on repelling enemies and tightly closing the door-leaves of the sanctuary with a lock. These details clearly reflect the apotropaic nature of the plant due to its strong smell.²⁸

Other illustrations of this ritual object can be found elsewhere in depictions of the same rite, as in the Hatshepsut’s Red Chapel, the Osiris heqa-djet Chapel in Karnak, the Ramses III Temple at Medinet Habu, the Hatshepsut and Thutmose III Temple of Amun at Medinet Habu, the Luxor Temple (Amenophis III), in Seti I Temple in Qurna (Room XVI) and in later times in Edfu Temple.

A Ptolemaic rewriting of the *jnt-rd* rite from Edfu [21] gives us a late attestation of the *h3dn*-plant broom in the form of an uncommon ideogram. The title of the rite in Edfu [21] is very similar to the one in the Temple Sanctuary Ritual (TSR) [14] and in the aforementioned parallel in the Temple Offering Ritual (TOR 40), but also comparable to the version found in Osiris heqa-djet Chapel [15]. As explained in COPPENS 2022, the passage (*the one*) *who preserves the Eye-of-Horus from its <enemies/him (Seth?)> (nḥm(w) jrt-Ḥr m-‘ <hftyyw’>.s)* [21] results from the evolution of passages from the TSR (*Thoth comes, after having saved the Eye of Horus from his enemies*) and the TOR (*May the feet be held <by> Thoth, so that <he> may protect [the Eye] of Horus from his enemies*), which attest this same expression. The rest of the text from Edfu [21] emphasises the idea of the preservation of the Eye of Horus and the apotropaic function of the plant, which is, like any offering in daily rituals, associated with the Eye of Horus.

27 Translated after TACKE 2013, II, 156.

28 GOYON 1984, 243; EL-SHOMOUHI 2004, 227.

The text from the Osiris heqa-djet Chapel²⁹ differs by the explicit mention of the sand (*šꜥj*) in the ritual process:

Erasing footprints on the sand (with the broom of) hdn is what he does for every god, (in front of) his face, by stretching his arm. [15] (compare with [16])³⁰.

Finally, a stela of Taharqa from the Temple of Kawa (now in Copenhagen), which lists the royal donations to the local temple from year 2 to year 8 of his reign, reveals the interesting detail of the presence of gold in the ritual object, whether wholly or partially:

The King of Upper and Lower Egypt Taharqa, l.p.h.! He made as his monument <for his father> Amun-Ra, Lord of Gematen: (...). The equipment of the new temple that His Majesty built: a golden hdn-broom, (...). [17]

According to Miles F.L. Macadam, it is clear that we are talking about a broom here and not about the plant from which it is made, since we are dealing with an inventory of a place of worship. Macadam adds that representations sometimes show an object that spreads out on the ground in the manner of a broom (e.g. in Luxor), but that more often it is carefully bound at regular intervals along its length and must have been merely symbolic and totally ineffective as a broom.³¹ This raises the question of the relationship between images and reality, since the depictions could show a standardised or simplified image of reality. The gold probably refers to the ties³² that hold the stems together, which leaves open the possibility that the plant was used as the main material for the broom attested in the temple of Kawa. However, ritual objects are known to have been made of some precious material reflecting its distinguished status and thus overwriting functionality, as exemplified by throw sticks made of faience or fashioned as blue glazed composition instead of wood retrieved from Amarna and the Hathor shrine at Deir el-Bahari. It follows that the broom, the

29 The middle register shows a priest performing the *jnt-rd* rite whose torso is decorated with two crossed bands. He looks back to the left as he exits and wipes his footprints with a *hdn*-plant broom held in his left hand. He carries an offering tray in his right hand, the shape of which is reminiscent of the *jpt*-shrine. See PARKER ET ALII 1979, 50.

30 According to VERHOEVEN 1984, 106-107, the sign N25, here attested in sources [15] and [16], can refer both to the desert (nature), but also to a hearth to destroy something by heat (culture). It is possible that the sign N25 is related to the use of the plant as fuel, as attested in the CT, but this is not certain.

31 MACADAM 1949, 12 n. 53.

32 *Ibidem*.

material of which is specified as *gold* on the stela in question, may be explained in terms of its prestigious character. Furthermore, most representations of the *hdn*-broom show a long stick compound of tied branches, rather than a broad-headed broom. Nevertheless, a stick can be sufficient to scatter sand on the ground in order to restore its virginity.

4. A HERB OF KNOWLEDGE

4A. BORN BEFORE TIME, GROWN BY PERCEPTION

In the Litany of Re, associated with Sia, the divinised Perception, which is a support and tool of the demiurge during the creation of the universe, the herb is reputed to provide knowledge to the dead king or the demiurge:

*It is Sia (Perception) who is my protection, he who grows the hdn-plant, so that I am no longer ignorant.*³³ [11]

The connection between Sia, who ensures the growth of the plant, and the action of writing is well known. Indeed, Sia was often shown holding a papyrus scroll. This papyrus was thought to embody intellectual achievements. The idea of knowledge thus also connects the plant with the scribe god Thoth.

4B. THOTH, LORD OF *hdn*, MASTER OF THE PALETTE

The plant is deeply linked to Thoth,³⁴ not only through his role as ritualist in the *jnt-rd* ceremony, but also because of its relation with knowledge.³⁵ This link appears for the first time in the Daily Ritual, then is later abundantly present in the Ptolemaic period through the epithets *nb hdn*, *Lord of hdn* and *hdny*, *The One of the hdn*. In addition to this periphrastic function of the term, in which the divine epithet simply replaces or completes the name of the god, the plant is found in the offering scenes of the scribal palette. In the Ptolemaic offering scenes of the scribe's palette, some passages parallel the word *hdn* with the word *rw*, which traditionally designates the *calamus* used by scribes to write.³⁶ The strong odour attributed to the plant, however, prevents any taxonomic comparison with rushes, the calamus being generally made of *Juncus rigidus* C.A.Mey.³⁷ It is possible that the term *hdn* had a different botanic equivalent at the Ptolemaic Period, but it seems unlikely. According to Jean-Claude Goyon, if the plant is irrevocably linked to Thoth, particularly in later times, it is

33 HORNING 1975, 178 (the version of the text attested in the Tomb of Thutmose III).

34 "Thoth was the great magician, Lord of *hdn*, which therefore possibly had magical properties". See NELSON 1949, 86.

35 About the link between Thoth and knowledge, see JASNOW – ZAUZICH 2021.

36 GOYON 1984, 243. See *Edfou*, I, 127.1; IV, 299.6.

37 GOYON 1984, 243. Derchain-Urtel favours identification with *Arundo Donax* L., the marsh reed of the species *Phragmites communis*. See DERCHAIN-URTEL 1981, 122.

through the idea of knowledge, not through the idea of writing.³⁸ However, two Ptolemaic passages, from Edfou and Karnak respectively, seem to give more credence to the thesis of an equivalence with the calamus:

(The king says to the god:) *Take for yourself the palette and your hdn (...)* [19]

(The king says to the god:) *This is your beautiful palette, which the gods lift up before your face. I have made your arm straight by doing its work with it, I fill your arm with its beauty [i.e., with the palette]. I have made your fist to embrace your hdn (...).* [20]

According to Patrick Boylan quoted by Ricardo Caminos³⁹, “*hdn* is a reed and it therefore sometimes refers to a calamus”⁴⁰. On the other hand, Caminos puts forward “the extreme uncertainty of the equivalence *hdn* = calamus (normally expressed as *rw*)”. The stem of the plant could be used as a calamus⁴¹ or, more likely, the *hdn* could symbolically refer to the scribe’s calamus. This is the point of view of Goyon, who maintains that the association between calamus and *hdn* merely serves as a rhetoric sacerdotal figure and is in no way evidence of the use of a part of the *hdn* plant as a calamus.⁴² But one can also think of other uses for the *hdn* during the Ptolemaic period, e.g., maybe as a component of ink or used to erase. The symbolic association of the *hdn* with the calamus could have been fuelled by a formal similarity of the herb topped by an inflorescence that gives an umbrella-like appearance, to the tip of the writing brush, chewed to separate the stem of the rush into fibres. However, L. Popko objects: “It should be discussed why Thoth is already referred to once as *nb hdn* in the chronicle of Prince Osorkon – the assumption that the use of this epithet in the Ptolemaic period is due to the transition of the Egyptian scribes from the rush to the calamus cannot in any case be invoked for this first text” (text here translated). It seems to me that the epithet of Thoth can already be explained at that time via the link between the god, the plant and knowledge and ritual action.⁴³

38 AUFRÈRE 1999, 30: “Didn’t the Egyptian scribes use this plant, which repels certain undesirable insects, in preference to any other to make their calami? Wasn’t the smell of the scribe’s calamus a way of guaranteeing the presence and inspiration of the god?” (here translated). Based on Goyon’s article, Sydney Aufrère concluded that the calami were made of *hdn* and that their smell revealed the presence of Thoth.

39 CAMINOS 1958, 44 n. m.

40 So says WILSON 1997, 609: “reed brush for writing”.

41 In fact, in this matter, everything depends on the botanical identity of the plant.

42 GOYON 1984, 243.

43 See the entry by L. POPKO in TLA ID 99700.

5. AN APPEASING SUBSTANCE

5A. THE FEAST OF HATHOR AND THE *hmn*-JUG

The *hmn*-plant gives its name to processional festivals celebrated in honour of Hathor in Lahun in the Middle Kingdom, and then at Karnak in the New Kingdom, where it participates to the ritual pacification of the dangerous goddess, Hathor-Sekhmet.

A block from Karnak mentioning an eponymic feast in Karnak [12] (Figure 1) is preserved in the Musée de Plein Air (B. 585) and dated from the 18th Dynasty. It was found by M. Azim in April 1980, during the excavation of the South Wadjyt.⁴⁴ A Festival *hmn* of Hathor is also to be found at Lahun⁴⁵ in pBerlin 10282 rto and pBerlin 10344 c rto [8]. In the list of Hathors of Edfu, the goddess is named *mistress of the hmn-plant*.



Figure 1. Fragment of sandstone block B.585. Photo © CNRS-CFEETK n°22818 / C. Simonnet. The text of the inscription is now upside down.

According to Françoise Le Saout and Zoltán Horváth, the plant was to play an important role during the Feast of Drunkenness, which was held exactly two months before the *hmn*-feast, said to be performed on Akhet III 20. Hathor

44 LECLANT – CLERC 1990, 386.

43 HORVÁTH 2015, 130.

is also mentioned in connection with the plant and the dates of Akhet III 1 and 20 in the Geographical Papyrus of Tanis⁴⁶ [18]. The *hdn*-feast is reportedly related to the preparation of the *mnw*-jug of Hathor. The soothing substance obtained, which includes the plant among other ingredients, was intended to appease the goddess.⁴⁷

5B. USE IN OPHTHALMIC TREATMENTS

The *hdn*-plant is also attested in healing documents,⁴⁸ of which one is iatro-magical, the pHieria Turin 54003, and the other, medical, the pEbers. The first source preserves a formula for protecting the eye⁴⁹ that Alessandro Roccati dates back to the Middle Kingdom:

(Another spell:) **“You will expel (*tp*) the eye-sore (*thn*), O upper part (*tpi*) of the *hdn*-plant which resides in the bush⁵⁰. The shepherd (i.e., Min) led his ox, after he was stung by the fresh *hdn*-plant. Do not descend on the dark part, do not crawl on the light part, do not spoil fertile land! O Min, give me my eyes that I may see with them, you must give me my eyes that I may see with them.”** [7]

The end of the formula probably refers to the eyes of Horus as a symbol of recovery, but it also reminds one of the solar Eye associated with Hathor-Sekhmet.⁵¹ The spell begins with a paronomasia around the root *tp* (*tp*, “*expe*” – *tpi*, “*upper part*”). Is it possible that the plant stings metaphorically, i.e., that it has a nasty odour? Could there be a symbolic link with the scorpion’s sting evoked above? Moreover, the expulsion of an eye ailment can be related to the magical

46 See SPALINGER 1998, 57.

47 LE SAOUT 1989, 69-71.

48 See GOYON 1984, 243-247, who focusses on the medical sources.

49 Note that the text is explained in a totally different way by Jean-Guillaume Olette-Pelletier, as quoted in note under [7].

50 ROCCATI 1970, 34, translates: *Spit, O thn-disease that is on the hdn-plant*. The parallel with pEbers, on the basis of the information in Jean-Claude Goyon’s article, allows us to understand that *tp(i) hdn* actually refers to the upper part of the plant, and that we should therefore give up translating *thn-disease that is on the hdn-plant*. The reference to the plant in the context of a treatment for an eye injury is considered unclear by Alessandro Roccati. According to the note of POPKO in TLA ID 99700, the construction *tp hdn*, can either be a prepositional compound *on the plant hdn* (so GRÄSSLER 2017, 89; OLETTE-PELLETIER 2016, 61), or the same compound *tp(i) hdn* as in pEbers (according to GOYON 1984, 245). The *tpi* part of the plant is often thought of as the upper or perhaps spherical tip of a plant. Popko also remarks, that Derchain-Urtel, on the other hand, thinks of an *excellent part*, and more concretely of the rhizome of the reed. She therefore thinks rather of the nisbe adjective *tpy*: *first, best*. See DERCHAIN-URTEL 1981, 114.

51 HORVÁTH 2015, 133.

conjunction of scorpion venom, as seen above [13]. Lutz Popko remarks on this text that one might wonder whether the presence of the plant in a magic formula against scorpions could be motivated by the fact that the plant can sting.⁵²

In pEbers 337, one of the components of a remedy for the *thn*-disease is the *hdn*-plant:

*Another preparation against a trauma (thn) in the eye. Day 1: Marsh water, 1 measure. Day 2: honey, 1 measure, galena, 1 measure; apply all day. If it bleeds: honey, 1 measure, galena, 1 measure; (apply) as a bandage on it for two days. If, in addition, there is much liquid flowing from it, you shall make a medicine (spw) for this (i.e., the eye) and it shall be applied as a bandage;⁵³ (composition:) copper silicate (j3w), 1 measure, malachite, 1 measure, terebinth resin, 1 measure, **upper part of hdn-plant** (tpt hdn), 1 measure;⁵⁴ hot preparation (ps.(w)). [10]*

The medicine must be applied on the diseased part of the eye affected by a *trichiasis* (eyelashes growing towards the inside of the eye) or by the action of a foreign body in contact with the eye.⁵⁵ The upper part of the plant clearly had an effect on eye trauma, and both the fresh plant or a hot preparation could be useful. According to Goyon, the upper part of the plant was to serve as a calming agent, as was the honey, while the other ingredients acted as astringent elements. Although honey can play a weak calming role, what is missing is a substance that is both antispasmodic and analgesic and that can alleviate pain and irritation of the eyeball. Such an active ingredient can be extracted from the seeds of umbellifers, which contain coniine⁵⁶ which, when used externally, have analgesic and antispasmodic effects. This substance gives this group of plants a strong, penetrating and unpleasant smell. Coniine also lends the plant a burning taste and its ingestion is highly poisonous to humans and livestock alike. On the religious plan, it seems logical that a very ancient plant, linked to knowledge, helps to recover sight and to ward off the forces of evil.

52 See L. POPKO's entry in TLA ID 99700.

53 Reading *djdj.fs(w) (m) wt*, according to GOYON 1984, 245.

54 The mention of a measure of the plant could suggest that the plant was common enough in medicine to have a standard quantity associated with it. It may therefore be purely coincidental that it is not attested in any other 'medical' text so far. See the entry by Popko in TLA ID 99700. Nevertheless, as there are many medical recipes where all quantities are given by the number 1, it cannot mean a special quantity for a given plant, but a general one.

55 GOYON 1984, 246-247.

56 Coniine is a poisonous chemical compound, an alkaloid that may be extracted from the seeds of certain plant species belonging to the family of *Apiaceae* (formerly *Umbelliferae*).

6. BOTANICS AND BELIEFS

6A. POTENTIAL BOTANICAL IDENTIFICATION

“A critical evaluation of the sources paralleled with surveying the plant’s key botanical properties has led Jean-Claude Goyon to believe that *hdn* should be looked for in the large genus *Bupleurum* (whose common name is Hare’s Ear) of the family *Umbelliferae*”.⁵⁷ He sought to demonstrate that a native species, *Bupleurum lancifolium* Hornem. (Figure 2) or in English the “lanceleaf thorrow-wax”, was the ideal candidate for botanical identification. It is a tall, dark green plant that can grow up to 50 cm high and has lance-shaped leaves. The plant is distinguished by its poisonous and violent smell.

The arguments put forward by Jean-Claude Goyon are essentially the following: according to botanists, the plant may have been used to make brooms from the dried stems,⁵⁸ it has a strong and unpleasant odour; it is an indigenous species; its umbel was used as an analgesic in ophthalmic treatments and it grows near damp places, as mentioned in the Coffin Texts, and particularly in Lower Egypt.⁵⁹ His arguments appear solid and convincing, but are mainly based on the few medical sources. The ritual sources, however, give rise to some doubts about this identification, if one considers the bringing of an object with an unpleasant odour into the heart of the temple or the problematic Ptolemaic file. On the other hand, a powerful smell seems to be required to drive out hostile forces from the Holy of Holies and the Ptolemaic epithets probably result from a symbolic association between the plant and the calamus.

Geographically, the *hdn*-plant must grow in Egypt, since, according to the *Mefky* Ritual [9] and the Kanefer mastaba [3], it is present at least in the Egyptian Delta. Among its technical aspects, the Pyramid Texts report on the possible purifying properties of the herb; both pEbers and Coffin Texts mention a boiling or burning process of the plant; both pHiera Turin 54003 and pEbers specify a healing use of the head of the plant (*tpt hdn*); *fresh hdn* but also a *bush* of *hdn* are attested in the pHiera Turin 54003; the Coffin Texts state the

57 HORVÁTH 2015, 133.

58 The closely related plant *Bupleurum rigidum* L. (sc. *falcatum*) is attested for this use. See GOYON 1984, 249. Lutz Popko notes: “On this last criterion, Goyon refers to [Engler]/Wolff, Pflanzenreich IV.228, notebook 43, Umbelliferae-Apioideae-Bupleurum, Trinia et reliquae Ammineae heteroclitae, 24 and 152-153; it should be pointed out that according to ibid. 154, the reference to broom-making refers to Aragon, and thus to (modern?) Spain” (here translated). See Lutz Popko’s note in TLA ID 99700. While this does not detract from Jean-Claude Goyon’s argument, it would obviously be preferable to have an Egyptian source attesting the use of a *Bupleurum* for making brooms.

59 This location in the marshy areas of the Delta fits well with the meaning of the Coffin Texts excerpts which present the plant as primordial.

existence of *hdn* on the banks of the Nile. In addition, Pepi's determinative in [2] is particularly remarkable and is one of the most "naturalistic" representations of the plant itself. The form of the determinative rather suggests that it is an umbelliferous plant, which is the case for *Bupleurum lancifolium* Hornem.



Figure 2. *Bupleurum lancifolium* Hornem⁶⁰ – A, A1: habit; B: umbellule; C: flower, D: petals; E: fruits. – Material: A, B-D: Egypt, Abu Sir, Björkqvist & al. 249 (LD); A1: Spain, Malaga, Nilsson 692 (LD); E: Greece, Kikladhes, Astipalea, Runemark & Nordenstam 15149 (LD). Plate from SNOGERUP – SNOGERUP 2001, fig. 4.

⁶⁰ Botanical drawing by the Swedish botanist Ingemar Björkqvist. In the present drawing, A, B and

The identification with *Bupleurum lancifolium* Hornem. is to be preferred to the old hypothesis about *Ceruana pratensis* Forsk.,⁶¹ because some characteristics of this latter plant do not match with the medical sources and with the Egyptian origin of the plant.⁶² The identification with *Ceruana pratensis* Forsk. prevailed for a long time, before being discarded by Jean-Claude Goyon. Indeed, if the use of *Ceruana pratensis* Forsk. to make brooms is well attested,⁶³ it comes from Nubia and has no possible medical use, which is invalidated by the textual sources. Moreover, *Ceruana pratensis* Forsk. has no particular smell.⁶⁴ Nonetheless, the preservation of real brooms made of *Ceruana pratensis* Forsk.⁶⁵ constituted the strong point of the hypothesis of identification with this plant, whereas *Bupleurum lancifolium* Hornem. seems at first sight less convincing for this use. It should be remembered, however, that the exact nature of this ritual broom is itself disputed and that it may have been a stick rather than a proper

D come from Egypt (Abu Sir) and were described by Björkqvist et al, 249 (LD), i.e. in the herbarium of the Lund University Botanical Museum in Sweden. The plant grows in the Copenhagen Botanical Garden, where it was brought from Egypt as a seed via Paris in 1803. Indeed, the herbarium sheet *(back cover) designated as the lectotype is based on a specimen in the Copenhagen Botanical Garden that was brought back from Egypt by Hippolyte Nectoux, a French botanist who took part in the Napoleonic French campaign in Egypt and Syria. The Copenhagen Botanical Museum also has two plates of the plant with dried parts (Museum Botanicum Hauniense, Univ. Copenhagen, C10008355, dated 1949; C10008356, coming from the plant grown in the Copenhagen Botanical Garden). The herbarium of the University of Tübingen also houses a sheet with dried parts which is said to have come from the Egyptian Sinai and was collected by G. W. Schimper (TUB003113). According to Snogerup & Snogerup 2001, the plant is flowering from February to May, and fruiting from March to July. In its North African area, the plant is known to make its home in “various open, dry habitats” and is also “occurring as a segetal weed”. Common in North Africa, Syria, Palestine, Iraq, Iran and Transcaucasia, the plant has been found in a few places in the South Aegean and in one place in the Southern Iberian Peninsula.

61 Opinion taken up by TÄCKHOLM 1975, col. 273-274, and BORGHOUTS 1981, 274. Earlier, Heinrich Karl Brugsch (Wb. VI, 768-771) envisaged a connection between *hdn* and Coptic (ⲉ)ⲁⲚⲌⲚ, *spearmint*. The etymology proposed by Heinrich Karl Brugsch may, however, be considered outdated, as the Coptic term in question is said to descend from *hkn.w* (sacred oil) according to ČERNÝ 1976, 307 and VYČIHL 1983, 321. See Popko's entry in TLA ID 99700.

62 See DARESSY 1916, who gives a misinterpretation of the document [9] (erroneous theory of the Nubian origin of *hdn*) and J.-C. Goyon's correction in his paper.

63 KEIMER 1932.

64 However, brooms made from another plant (e.g., *Ceruana pratensis* Forsk.) and scented with the *hdn*-plant can be considered.

65 KEIMER 1932.

broom.⁶⁶ In addition, the fact that brooms, made of another plant, *Ceruana pratensis* Forsk., have been preserved, don't affect the validity of Goyon's proposal. Neither do the point that it is problematic to think of bringing anything with a strong, unpleasant smell into a temple's holiest place, as John Baines rightly refers to the gap between ritual ideal and cultic reality in the subject of ritual objects.⁶⁷ To sum up, Goyon's suggestion, *Bupleurum lancifolium* Hornem. is still the most plausible candidate as it meets the most important taxonomical criteria.

6B. BELIEFS VS. CHEMICAL PROPERTIES

As seen in various ritual contexts and considering the fact that its offensive smell could frighten away pests, the stems could have been rubbed on the sacred ground to ward off evil forces. According to Hartwig Altenmüller, the *hdm*-plant has physico-chemical properties that make it repellent, under the effect of an unpleasant smelling exudate, which may take on a liquid appearance.⁶⁸ This old depiction fits quite well with the proposed identification. Indeed, one of the main characteristics of the *Umbelliferae* is having a hollow stem with resin and fragrance-secreting channels.

As said by Zoltán Horváth, "Species in this family [of *Umbelliferae*, also called *Apiaceae*] contain the highly poisonous alkaloid coniine that lends the plant a rather fetid smell, and is also known for its sedative, antispasmodic and analgesic properties. It is most likely the coniine's sedative and narcotic effect that links the plant with Hathor." Maybe this efficiency has also led to connect the plant with Thoth through the idea of performative knowledge.

6C. OBJECTIONS AND PERSPECTIVES

A FEW OBJECTIONS DESERVE TO BE TAKEN INTO ACCOUNT.

According to Eric Hornung⁶⁹ echoed by Nicolaus Tacke,⁷⁰ since it is endowed with special powers, the plant would be a chimera, a "fairy tale herb" (*Märchenkraut*). In that sense, it would be a plant dreamed of, fantasised about and still enigmatic. In this perspective, Goyon evokes a "végétal quelque peu fabuleux" ("a somewhat fabulous plant").⁷¹ This loophole seems too simplistic

66 The scene from Luxor (under the reign of Amenophis III) is the only representation I know of, that shows the "*hdm*-ritual-object" in the form of a broad broom in contact with the ground. In the other cases, it is more a kind of bat or a soft stick that is ideally touching the soil.

67 This idea comes from an exchange following an online conference given by J. Baines.

68 ALTENMÜLLER 1971, 149 ff.

69 HORNUNG 1975, 137, n. 405.

70 TACKE 2013, II, 156.

71 GOYON 1984, 241.

and does not correspond to what the sources tell us, even though the plant is distinguished by its extraordinary capabilities. Taking advantage of the discrepancies concerning the botanical identification, the idea of considering *hdn* as a *Märchenkraut* would be nothing else than a short-cut solution and thus should be swept away.

On the botanical plane, Zoltán Horváth argues that: “The variance in its iconography as well as the different ways and purposes the *hdn* was used, is a major obstacle to the botanical identification of the plant species”.⁷² While the iconographic variations here seem slightly overestimated, the aim of this paper is precisely to make progress in understanding the sources, their interactions and their coherence. Also, the chronological evolution of the term makes its religious symbolism more difficult to understand. Nevertheless, as already mentioned, Pepi’s determinative in [2] strongly argues for a classification among the umbellifers.⁷³

Zoltán Horváth goes on saying that: “(...) depending on the context, *hdn* may have referred to either a plant (a specific species or genus), or implements made of various parts of that plant (e.g., “fan”, “broom”, “calamus”). What makes the taxonomic identification of *hdn* particularly difficult is the difference between the ancient Egyptian way of naming the plants, based on criteria-like appearance, and our modern system of classification and nomenclature that follows the principles laid down by Carl Linné. For an Egyptian, similarities in appearance or in some distinctive feature would easily link together otherwise unrelated items, like the calamus or reed brush of Thoth and the broom (...).” This passage suggests a key to interpreting the sources based on symbolism and associations of ideas instead of botanical logic. The Egyptians could have combined different ways of looking at plants, which would have resulted in the complexity of the corpus collected here. This hypothesis would make it possible to reconcile the impressions left by the confrontation between the medical sources and the documents of a religious nature.

If it seems unlikely that a well attested plant that had an important function and boasted ritual and medicinal uses in different forms, could exist independently from a species to which the term refers, it should be reminded that the “corpus” chronologically extends over two thousand years. Therefore, it could be questionable to assign the same botanical identification for all

72 HORVÁTH 2015, 133.

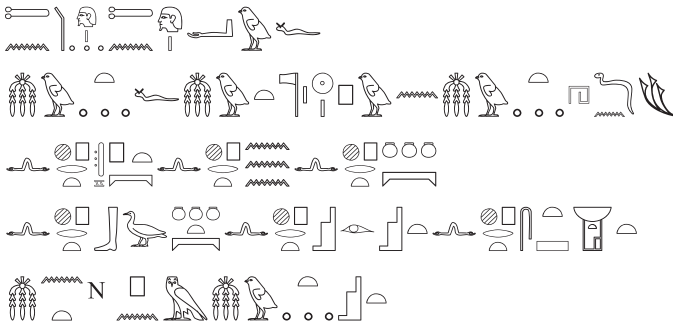
73 Popko notes that Goyon does not discuss the attestations with the determinatives of wood (M3) and tree (M1), which argue against *Bupleurum*. However, as the collected corpus shows, these attestations are very rare, since the word *hdn* is most frequently determined by M2 before the Ptolemaic period. See the entry by Popko in TLA ID 99700.

preserved sources, which, moreover, reflect only part of the reality and belong to different types that obey distinct logics.

After providing an outline of the sources for the term *hdn* and its derivatives, I highlighted the ritual apotropaic function of the plant in the Coffin Texts, in parallel with its cosmogonic role. The following section focused on the *jnt-rd* ceremony of the daily temple ritual, where the *hdn*-made broom is used by Thoth in his capacity as the god who saved the Eye of Horus from his enemies. Then, I established a link between the cosmological and epistemological aspects of the plant. Indeed, the herb, used to extend the king's intelligence in the Litany of Ra, is deeply associated with knowledge, so that this explains its relationship with Thoth. From this idea, the term *hdn* seems to have been used in later times to qualify symbolically the writing brush, resulting in the Ptolemaic epithets of Thoth.⁷⁴ The latest sources discussed were more revealing about the plant's phytochemical properties. Blending mythos and praxis, these excerpts enhance the appeasing substance extracted from the plant.

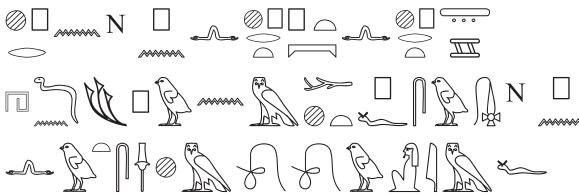
The corpus of the source material has been considerably expanded, including hitherto unstudied references, and the areas, whether for mythological reference, ritual function or medical purposes, have been clearly delineated. The results seem to corroborate some of the main ideas already put forward in former literature, by building links between elements. The outcomes, and especially the repository of sources for *hdn*, offer a perspective for further investigations to come hopefully with additional references. The research presented, which has broadened the field of investigation, confirms Jean-Claude Goyon's botanical identification proposal (*Bupleurum lacifolium* Hornem.), based on the sources that address the material aspect or use of the plant, even if there are still shaded areas.

74 However, the expression *nb hdn* is first attested under the 23rd Dynasty.



Let this N cut off your heads, you who have crossed his path! Straighten your heads before him, (for) his birth is the birth of a god on that day of the birth/ blossoming of the hdn-plant, when heaven and earth had not yet come into existence, when water had not yet come into existence, when Geb and Nut had not yet come into existence, when Osiris and Isis had not yet come into existence, when Seth and Nephthys had not yet come into existence: this N was brought into existence at the birth of Isis!

[5] CT VI 282a – 282c:



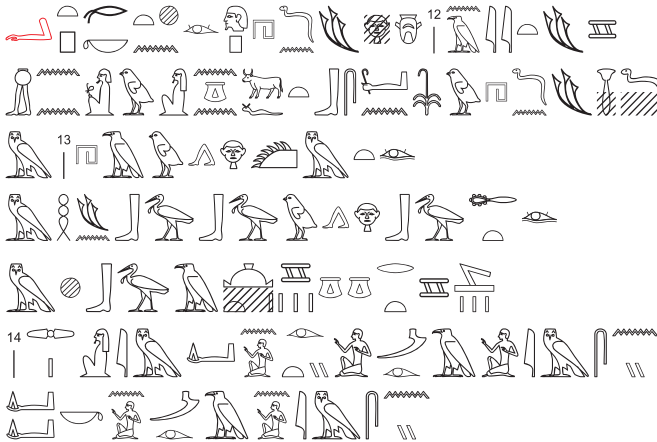
This N came into existence, when the sky had not yet come into existence and when the earth had not yet come into existence! This is the hdn-plant of posterity that this N has cooked (psw) and over which Wawa will have no power.

[6] CT VI 305a – 305g (Spell 678):



This N is a swallow with a forked tail that spends the night across the land, (but) this N cannot spend the night across the land, (because) it is Abab (litt. the Boaster) that came out of the Nun! The banks of hdn-plant were not devoid after it was burned/cooked (psw). There is no question of foreigners having power over this N, (for) the people have seen that this N is a king, a master of power, with sharp horns.

[7] pHiera Turin 54003, vs. 11 ff. (magical text) (according to Alessandro ROCCATI 1970; dated from late First Intermediate Period – early Middle Kingdom)



(Another spell:.) You will expel (tp) the eye-sore (t_hn), O upper part (tpt) of the hdn-plant which resides in the bush. The shepherd (i.e., Min) led his ox, after he was stung by the fresh hdn-plant. Do not descend on the dark part, do not crawl on the light part, do not spoil fertile land! O Min, give me my eyes that I may see with them, you must give me my eyes that I may see with them.⁷⁶

76 Jean-Guillaume Olette-Pelletier adopts a more literary reading of the text, which he interprets differently: “My eyes, I did not give my eyes. My eyeballs, I have not given (my) eyeballs either to counter the Shu-light, or to embrace the darkness [...] the day presided over by the Morning Star. O Min! Give me my eyes that I may see with them! It is so that I may see with them that you must give me my eyes. (Pause) You will expel the eye-sickness-t_hn on a plant-h_dn mixed with plant-n_yt, after the Shepherd has brought back his ox and a fresh plant-h_dn has stung him (= the ox). Application to the black part (of the eye) massaging on the white (of the eye) and destroying the established boils. O Min! Give me my eyes so that I can see with them! It is so that I may see with them that you must give me (them)” (here translated in English). See OLETTE-PELLETIER 2016,

[8] pBerlin 10344 c recto (see HORVÁTH 2015; according to the photo by Ulrich Luft)



(The sign of the lotus is uncertain)

The *hdn*-festival of Hathor. (add the similar mention in pBerlin 10282 recto)

SECOND INTERMEDIATE PERIOD

[9] Ritual of Mefky (13th dyn.) (Offering Lists) (according to DARESSY 1916)⁷⁷

(III, 6)

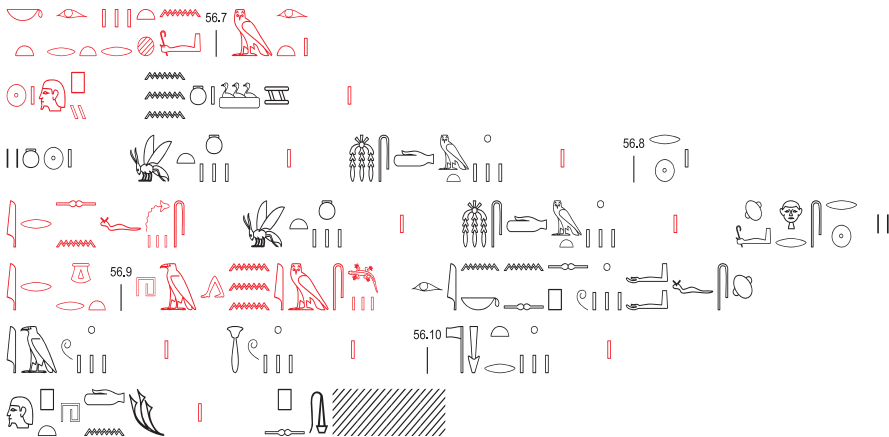
hdn-plant: a handful

(VIII, 10)

hdn-plant: a handful from this place (i.e., the IIIrd nome of Lower Egypt called *Jmnt*).

NEW KINGDOM

[10] pEbers 56.8-11 [337-338] (text according to WRESZINSKI 1913, 97) (about eye illness) (XVIIIth Dyn.)



Another preparation against a trauma (*tḥn*) in the eye. Day 1: Marsh water, 1 measure. Day 2: honey, 1 measure, galena, 1 measure; apply all day. If it bleeds: honey, 1 measure, galena, 1 measure; (apply) as a bandage on it for two days. If in addition, there is much liquid flowing from it, you shall make a

59-64.

77 See the new edition of the text in DHENNIN 2022 (*non vidi*).

medicine (*spw*) for this (i.e., the eye) and it shall be applied as a bandage;⁷⁸ (composition:) copper silicate (*j3w*), 1 measure, malachite, 1 measure, terebinth resin, 1 measure, upper part of *hdn*-plant (*tpt hdn*), 1 measure; hot preparation (*ps.(w)*) [...].

[11] Litany of Ra (Version attested in the Tomb of Thutmose III):



It is Sia (Perception) who is my protection, he who grows the *hdn*-plant, so that I am no longer ignorant.

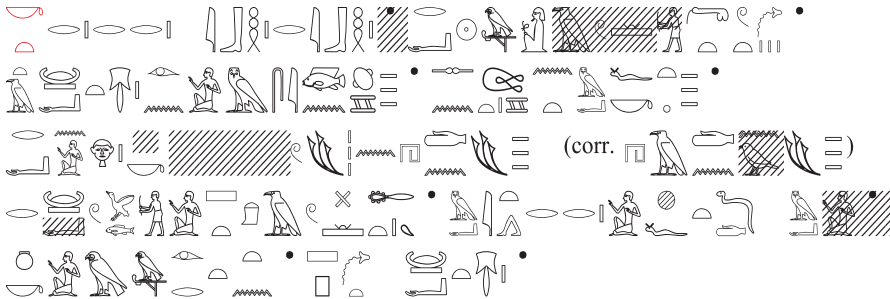
[12] Block B. 585 MPA Karnak (18th Dyn.)



(...) the day of the *hdn*-festival of Hathor which resides in Thebes (...).

(The form of the determinative of *hdn* is as presented right. This peculiar determinative could refer to the umbel of the plant.)

[13] pChesterBeatty VII, recto, 7.5-7 (magic spell against scorpion venom; text according to DZA 26.411.100) (19th Dyn.)



Another (spell): “Mouth against mouth, tooth against tooth. Ra, beware of the poison of the scorpion (*wḥꜥt*), which I have made of clay, (with) a base of turquoise, which I have set on your [... from bunches of?] *hdn*-plant, to catch (*wḥꜥ*) what is hidden in the body (?). Come on my saying when I speak. I am Horus who made you. Flow from the scorpion (*wḥꜥt*)”.

78 Reading *djdi.f s(w) (m) wt*, according to GOYON 1984, 245.



The list goes on with other gifts.

The King of Upper and Lower Egypt Taharqa, l.p.h.! He made as his monument <for his father> Amun-Ra, (Lord of Gematen: ...). The equipment of the new temple that His Majesty built: a golden hdn-broom, (...).

[18] Geographical Papyrus from Tanis, fragment 35 and 36 (see PETRIE 1889, pl. XII, fr. 36)



Third month of Akhet-season, day 20: Hathor, mistress of [...]

Third month of Akhet-season day 1 (...): the hdn(-festival) of Hathor [...].

Chronicle of Prince Osorkon, inscription in the Temple of Amun at Karnak, southern bubastid gate of the 1st court (see CAMINOS 1958, 44; LD III, 257): first known mention of “*Thoth nb hdn*”.

PTOLEMAIC PERIOD⁷⁹:

MAINLY IN DIVINE EPITHETS

Hathor *nbt hdnwt* (2 occurrences):

Edfou, III, 310.11 [n° 20] (Hathor *nb(t).Jwnt, nb(t) hdnwt*) = Hathor’s List or List of the 750 Sekhmets (= on the date of Akhet III 20); *Edfou* IV, 82.8 (Hathor *nb(t) hdnwt*).


Thoth *nb hdn* (22 occurrences):

Temple of Hathor at Dendera, inscription of Year 27 of Ptolemy XII, about the construction of the temple (frieze band of the outer north wall) (see AMER – MORARDET 1983, 256-257 and 257, n. f); *Dendera* IV, 171, 6 ; V, 68.11 (giving the *wnšb*); VI, 9.13 (<*nb*> *hdn*); VI, 100.13 (giving the *wnšb*).

Edfou I, 56 (Sanctuary, outer walls, right series, west wall, 1st register, scene 4: offering of Maat); II, 67.14 (*offering the palette to the master of the palette* [i.e., Thoth]); III, 272, 11; IV, 57.2; 90.8 (*nb htn*); 390.4 (*nb htn*); V, 98, 6 ; 155,

79 From a palaeographical point of view, it seems interesting to note the forms of the determinative of the term, which often looks like a brush with a stem and branches at the top, when the determinative is not the common M2.

13; 276, 14; VI, 263.5; 277.7; 320.2; VII, 6, 2; 127, 12 (palette scene).
Philä, Vorhalle, Westwand, 3. Reihe v. Süd, 2. Darst. v. oben, Phot. 1322 (DZA 26.411.210); *Philä*, Co. II Ostwand, Tür 4 von Süd, die zur Bibliothek führt, Phot. 857 (DZA 26.411.200).

ME 76, 17 (unidentified source quoted by Sauneron): 

Toth *hdny* (3 occurrences):

Philä I, Abb. 57 (= 110, 10); *Dendera* V, 53, 7; *Dendera Mariette* III, 53r.

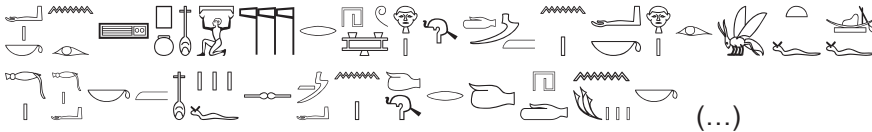
Other mentions from the Ptolemaic Period: two palette offering scenes

[19] *Edfou* I, 63 (Sanctuary, outer walls, right series, west wall, 3rd register, scene 4 (palette and stylus offering scene dating from Ptolemy IV), king's speech in front of Khonsu and Toth:



(...) *Take for yourself the palette and your hdn* (...).

[20] Temple of Amun at Karnak, Evergetes' Gate, north face, east jamb, 2nd register, palette scene (CLÈRE 1961, pl. XXII; Urk. VIII, 83; see DERCHAIN-URTEL 1981, text 12, 20 et ff.), king's speech in front of Khonsu and Hathor:



This is your beautiful palette, which the gods lift up before your face. I have made your arm straight by doing its work with it, I fill your arm with its beauty [i.e., with the palette]. I have made your fist to embrace your hdn (...).

A PTOLEMAIC REVIVAL OF THE *jnt-rd* RITE

[21] *Edfou* I, 483 (photograph published in *Edfou* XV, pl. 26; Horus Temple, Hall of the Offerings, north wall, west side, 4th register; translation according to COPPENS 2022, 107-108; see ALLIOT 1949, 97, n. 6, where the *jnt-rd* rite is already identified, but not the plant):





*The last sign, used to represent the plant, is not attested in the standard Ptolemaic sign lists. The reading of the sign is based on the occurrence of similar titles in the NK rituals. ** Abbreviated cartouches.

TITLE: *Going out and removing the footsteps* (lit., *bringing the feet*) with the *hdn-broom*.

{PTOLEMY IV PHILOPATOR} *The King of Upper and Lower Egypt (The heir of the two excellent gods, chosen by Ptah, Userkara, the living image of Amun)**, the son of Ra (Ptolemy, living forever, beloved of Isis)**, the sacred image of the one who protects the divine throne, who preserves the Eye-of-Horus from its < enemies/him (Seth?) >.*

{RANDZEILE} *Recitation: "I direct towards him the Eye-of-Horus, by my hand taking it in its name of hdn, after I have seized the one that performs evil against your hm-ntr-priest, who lays down the knife among them, who darkens [...] the footsteps for his god (?)."*

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Lexica and indices: MEEKS 1998, 77.2536; 79.1848; BORGHOUTS & VAN DER PLAS 1998, 194 (*hdn*); 194 (*hdn.f*); LGG IV, 816 b-c (*hdny*); CAUVILLE 2004, 289; WILSON 1997, 609; LAPP & LÜSCHER 2020, s.v. *hdn*; TLA (lemma n°) 99690; 99700; 99710 (*hdny*); 855838 (*hdn.f*).

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Gothersgade 130, København K.

1830 1149

These plants has been cultivated in Hort. Bot. in
Copenhagen from seeds received from Paris in 1803.
To Paris came these seeds from Egypt with the label:
"Bupleurium d' Egypte Nectoux O. P. sur Ch."
O. Lagetrip.



Bupleurium d' Egypte
Nectoux O. P. sur Ch.
Original collection
1803

ОБРАЗЦА ДЛЯ ФЛОРИ СССР
Bupleurum lancifolium Hornem.
Typus!
1949. Teste I. Lincevski

MUSEUM BOTANICUM
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! Bupleurum lancifolium
Hornem.
LECTOTYPE
Sven Snogerup Nov. 2000

Lectotype of
Bupleurum lancifolium Hornem.
Susana S. Neves Jan. 2000