






## A king who belonged to the rush and the bee?

Eva Traunmüller<sup>1</sup>

### The words for “king” and the title

The Egyptian word for “king”, , has been the subject of lively debate for many decades.<sup>2</sup> For a long time, it was read as *suten*, since it was thought that the  hieroglyph (M23)<sup>3</sup> was merely the phonogram for *su*. In 1911, however, Sethe demonstrated convincingly that the word is composed of the nisba adjective  *n(.j)* (*ni*, “belonging to”) and the plant name  *sw.t* (*sut*) which is prefixed for reasons of honor.<sup>4</sup> The *sut* plant is commonly interpreted as a type of rush and a symbolic plant of Upper Egypt.<sup>5</sup> Thus, the word must be read *ni sut* and its literal translation is: “the one who belongs to the rush”.<sup>6</sup> A second word for “king”,  *n(j)zw* (*ni su*), is a spelling variant with the loss of the *t*-suffix.<sup>7</sup> Both words appear from the first dynasty onwards.<sup>8</sup>


The king had up to five titles, probably derived from epithets.<sup>9</sup> One of these titles was

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<sup>1</sup> Vienna, Austria. Correspondence to: eva.traunmueller@gmx.net

<sup>2</sup> To my knowledge, most recently A. Imhotep, *Nsw.t Bjt.j (King) in Ancient Egyptian: A lesson in paronymy and leadership* (Philadelphia, 2016).

<sup>3</sup> Gardiner’s numbering.

<sup>4</sup> In my opinion, the  is not prefixed out of honor, but because of the aesthetic requirement of a square arrangement of characters.


<sup>5</sup> Suggested species include *Eleocharis palustris*, *Juncus acute* (formerly *Juncus maritimus*) and *Juncus rigidus* (formerly *Juncus arabicus*). Cf. P. Kaplony, “Wappenpflanze”, *LAe* VI, 1146; I. Gamer-Wallert, “Binse”, *LAe* I, 814–815; R. Hannig, *Großes Handwörterbuch Ägyptisch–Deutsch: Marburger Edition* (KAW 64; Mainz, 2006), 729 (26556).



<sup>6</sup> Cf. K. Sethe, “Das Wort für König von Oberägypten”, *ZAeS* 49 (1911), 18.




<sup>7</sup> Sethe, *ZAeS* 49, 19–20, 21–22. From the late Old Kingdom onwards, the two *s* sounds (*s*, *z*) became interchangeable.

<sup>8</sup> J. Kahl, “nsw und bit: Die Anfänge”, in E. Engel, V. Müller and U. Hartung (eds), *Zeichen aus dem Sand: Streiflichter aus Ägyptens Geschichte zu Ehren von Günter Dreyer* (Menes 5; Wiesbaden, 2008), 313, 314, 324 (fig. 3).

<sup>9</sup> For further details, see, for example, J. Von Beckerath, *Handbuch der ägyptischen Königsnamen* (MAeS 49; Mainz, 1999), Part I; K. Goebis, “Chapter Twenty: Kingship”, in T. Wilkinson (ed.), *The Egyptian World*

written . It already existed in the early dynastic period.<sup>10</sup> From the end of the 3rd dynasty it preceded the king's throne name (prenomen).<sup>11</sup> The title extends the word for "king" to include the word for "bee" (*bj.t*, *bit*) and is pronounced *nj sw.t bj.t* (*ni sut bit*), with *ni* not spelled out. The bee is considered to be a symbolic animal of Lower Egypt or of a prehistoric Lower Egyptian chieftain. Thus, according to Sethe and others, the title literally means "the one who belongs to the rush and the bee", and figuratively means "the one who rules Upper and Lower Egypt".<sup>12</sup>

The bee is often transcribed as nisba (*bj.tj*, *biti*) because a fully spelled word  (*biti*) for a ruler is found in the Pyramid Texts, among others.<sup>13</sup> This ruler is said to have been a Lower Egyptian chieftain who was called the "bee-like one" or "the one descended from the bee", or who was associated with the fertility god Min.<sup>14</sup> In fact, however, *biti* was mostly used without any reference to Lower Egypt.<sup>15</sup> I agree with Barta who suggested that the whole  title is composed of two nisbae and should be read as *suti biti*.<sup>16</sup> Since an Egyptian nisba like *suti* can mean both "like the *sut* plant" or "belonging to the *sut* plant", this explains why the adjective *ni* is not represented in the title.

After Sethe, several scholars proposed different etymological derivations and interpretations for the words  and , and for the  title.<sup>17</sup> Goedicke<sup>18</sup> and Otto<sup>19</sup>, for example, saw the rush and the bee as emblems of a political and a religious component of kingship rather than as symbols of territorial sovereignty. Others used a cuneiform

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(London, New York, 2007), 283–295.

<sup>10</sup> It is certain for the kings Den (or Dewen) and Semerkhet (mid-1st dynasty), e.g. vase fragment from Abydos in H. Müller, *Die formale Entwicklung der Titulatur der ägyptischen Könige* (Thesis, Bern, 1938), 49 (fig. 71); alabaster vase (Fig. 1A), and vessel inscription in P. Kaplony, "Remarks on some stone vessels with archaic royal names", *MDAIK* 20 (1965), plate 4 (no. 22).

<sup>11</sup> Goebs in Wilkinson (ed.), *Egyptian World*, 283.

<sup>12</sup> Sethe, *ZAeS* 49, 19; Kahl in Engel, Müller and Hartung (eds), *Streiflichter*, 309; W. Schenkel, "Das Wort für 'König von Oberägypten'", *GM* 96 (1986), 59.

<sup>13</sup> Wb I, 435.1–15; E. Otto, "Der Gebrauch des Königstitels *bjtj*", *ZAeS* 85 (1960), 143–152.

<sup>14</sup> E. Baumgartel, "Some Remarks on the Origins of the Titles of the Archaic Egyptian Kings", *JEA* 61 (1975), 29–30; K. Sethe, *Urgeschichte und älteste Religion der Ägypter* (AKM 18/4, Leipzig, 1930), 69–70; H. Thissen, *Des Niloten Horapollon Hieroglyphenbuch*, Band I: Text und Übersetzung (Archiv für Papyrusforschung und bekannte Gebiete – Beihefte, 6.1; Berlin, reprint 2017), 39. I find it unlikely that a male ruler would have been given the attribute of being "like a bee". The Egyptians domesticated bees in early times and had certainly observed the egg-laying, i.e. female, role of the queen bee.

<sup>15</sup> Wb I, 435.2, 435.9–15; Otto, *ZAeS* 85, 143–152; C. Peust, Zur Bedeutung und Etymologie von *nzw* 'König', *GM* 213 (2007), 59–60.

<sup>16</sup> Cf. W. Barta, "'Falke des Palastes' als ältester Königstitel", *MDAIK* 24 (1969), 55, note 1.

<sup>17</sup> Summaries of the discussion in: Kahl in Engel, Müller and Hartung (eds), *Streiflichter*, 308–313, 334–337; Otto, *ZAeS* 85, 143–145; Schneider, *ZAeS* 120, 166–181; G. Takács, *Etymological dictionary of Egyptian*, Vol. II: b-, p-, f- (Leiden, Boston and Cologne, 2001), 110–112.

<sup>18</sup> H. Goedicke, *Die Stellung des Königs im Alten Reich* (AeA 2, Wiesbaden, 1960), 37.

<sup>19</sup> Otto, *ZAeS* 85, 149–152.

tablet with a makeshift paraphrase of Ramses II's title and epithet (*in-si-ib-ia ni-ib ta-a-ua*) to support their linguistic view (we can recognize the Egyptian *ni sut bit* [title] and *neb ta'ui* ["Lord of the Two Lands"])).<sup>20</sup> Nevertheless, Sethe's view has become a doctrinal opinion. Semantically, *nj sw.t bj.t (ni sut bit)* can mean both "the one who belongs to the rush and the bee" and "the one to whom the rush and the bee belong".

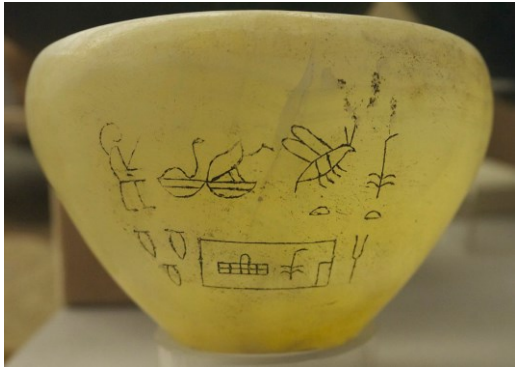


Fig. 1:<sup>21</sup>

A) Vase with inscription for King Semerkhet, alabaster, 1st dyn., approx. 2900 BC, Musée d'Archéologie Nationale, Saint-Germain-en-Laye

B) Detail of the relief from the chapel of King Senwroset I in Karnak (White Chapel), limestone, 12th dyn., 1971–1926 BC, Karnak Open Air Museum




Fig. 2:

Stele of King Snofru from Dashur, limestone, 4th dyn., approx. 2600 BC, Egyptian Museum Cairo JE 89289 C.

<sup>20</sup> Cf. Peust, *GM* 213, 61; Schenkel, *GM* 96, 60, 64; T. Schneider, „Zur Etymologie der Bezeichnung, König von Ober- und Unterägypten“, *ZAeS* 120 (1993), 179.

<sup>21</sup> All photo credits on page 9.

What is certain, however, is that Upper and Lower Egypt were represented by two goddesses called the “Two Ladies”  (*nb.tj, nebti*) from the mid-1st dynasty onward (Figs. 1A and 2). Nekhbet in the form of a vulture (Eurasian griffon vulture) represented Upper Egypt, while Wadjet in the form of a menacingly erect cobra represented Lower Egypt. Together they were the divine personification of the Double Crown.<sup>22</sup> Similarly, two plants represented Upper and Lower Egypt. In the motif *sm³ t³.wj* (*sema ta'ui*, “unification of the Two Lands”), two gods knot together the stems of the lotus<sup>23</sup> (symbolic plant of Upper Egypt) and papyrus (Lower Egypt).<sup>24</sup>

It is easy to understand that awe-inspiring animals such as the vulture and the cobra were given divine status and became territorial symbols. The lotus and papyrus were also of great significance because of the beauty and regeneration symbolism of the lotus and the importance of the papyrus for the written culture. But how can it be that the rush also became a symbol of the mighty Upper Egypt and even an ideogram for the king of Upper Egypt? Rushes are neither edible nor decorative, nor did they have any other outstanding use that would justify this. At most, one could argue that dried rushes were used as weaving material, writing brushes or surgical instruments. No less astonishing is the fact that an insect is said to have been a symbol of power in Lower Egypt. At best, the bee can be credited with the production of the coveted honey. Doubts are reinforced by the fact that the rush and the bee – in contrast to the vulture, the cobra, the lotus and the papyrus – are virtually absent from the iconography of the king and the palace.

### Hypothesis 1: The rush

The finely hammered reliefs of hieroglyph M23, depicting the *sut* plant, clearly show the leaf sheaths enveloping the main stem (Fig. 3, middle). This is a characteristic of grasses, which include rushes. The rushes are the species-rich grass family (*Juncaceae*) in the order of the sweetgrasses (*Poales*). Most of the rush species found in Egypt (e.g. *Juncus acutus*, *Juncus rigidus*, *Juncus littoralis* and others), prefer sandy and salty coastal areas and are therefore not suitable candidates for a symbol of Upper Egypt. *Juncus fontanesii pyramidatus*, on the other hand, with its preference for (freshwater) alluvial soils, is


<sup>22</sup> Nekhbet was closely associated with the city of Nekheb (El-Kab in Upper Egypt), and Wadjet with the city of Dep (Buto [Tell el-Fara'in] in the Delta). Side by side, the two goddesses symbolized the unified Egyptian kingdom (Figs. 1A and 2). Cf. Müller, Bern, 1938, 36–44; J. P. Allen, *Middle Egyptian: An introduction to the language and culture of hieroglyphs* (Cambridge, 2010), 66–67; Goebs in Wilkinson (ed.), *Egyptian World*, 283.



<sup>23</sup> Cf. H. Schäfer, “Die Vereinigung der beiden Länder: Ursprung, Gehalt und Form eines ägyptischen Sinnbildes im Wandel der Geschichte”, *MDAIK* 12 (1943), 80–81.

<sup>24</sup> Schäfer, *MDAIK* 12, illustrations.

predestined for the former conditions in the Nile Valley.<sup>25</sup> The morphological differences between these species are very subtle. They are low plants that form clusters of several stems. Their leaves have evolved into long cylindrical "bristles". The branched inflorescences bear small, star-shaped flowers. The *sut* plant, however, bears little resemblance to a rush, even if you look at a single rush stem (Fig. 3, far left).

Another "grass"?

Cereals, like rushes, are members of the sweetgrasses (order *Poales*).<sup>26</sup> In ancient Egypt, barley and emmer, an ancient form of cultivated wheat, were grown as staple foods.<sup>27</sup> The growth pattern is the same for all of these cereals. As it grows, the cereal plant forms a total of ten long, narrow, lancet-shaped leaves, five of which remain close to the ground and wither. The so-called flag leaf at the tip is the last to develop. The ear grows out of its sheath. Shortly before this happens (in growth stages [GS] 45–47),<sup>28</sup> the young cereal plant is a suitable natural model for the *sut* plant. The Egyptians' stylized depiction cleverly show two growth stages at the same time – leaves close to the ground (as in GS 30–32), but only four leaves plus the flag leaf (from GS 37).<sup>29</sup> The leaf node and the swollen sheath of the flag leaf are clearly visible in the relief in Fig. 3, center. The identification of the *sut* plant as a cereal plant is supported by the word  *sw.t* (*sut*) for a type of wheat.<sup>30</sup> Accordingly, *ni sut* does not mean "king of Upper Egypt", but simply "the one to whom the grain belongs" ("the one who owns the grain").<sup>31</sup> In fact, this was the prehistoric chieftain and the king in the later times.

The  hieroglyph already appears in inscriptions on storage jars (for grain?) of predynastic kings.<sup>32</sup> It should not be confused with  (M26, flowering rush), although

<sup>25</sup> The taxonomy of *Juncus* species has been revised frequently, so they have synonyms; <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:442636-1>; <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:443427-1>; <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:443141-1>; <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:442981-1> (August 12, 2024).

<sup>26</sup> Wikipedia, *Poales*, <https://en.wikipedia.org/wiki/Poales> (August 22, 2024).

<sup>27</sup> R. Haaland, "Porridge and pot, bread and oven: food ways and symbolism in Africa and the Near East from the Neolithic to the present", *Camb. Archaeol. J.* 17 (2007), 176.



<sup>28</sup> Classification of growth stages of cereal plants: Agriculture and Horticulture Development Board, <https://media.ahdb.org.uk/media/Default/Imported%20Publication%20Docs/Cereal%20growth%20stages.pdf> (August 14, 2024). Note that the drawings in this publication each show a group of three cereal plants.

<sup>29</sup> It is a well-known peculiarity of ancient Egyptian art that spatial or temporal aspects are often combined in a single image or scene.

<sup>30</sup> Wb III, 426.13–16, Wb IV, 57. The occurrence of this word in activities such as weaving or boat building (Tb 99A, quoted in Kahl in Engel, Müller and Hartung (eds), *Streiflichter*, 332, note 188) probably refers to grain straw.

<sup>31</sup> This includes the entire grain crop, both food grain and seed.

<sup>32</sup> Cf. W. M. F. Petrie, *Abydos*, Vol. I (London and Boston, 1902), plates I–II.

Egyptian scribes occasionally did so. Unlike ,  is actually a symbol of Upper Egypt, but has no connection to a royal title.<sup>33</sup>

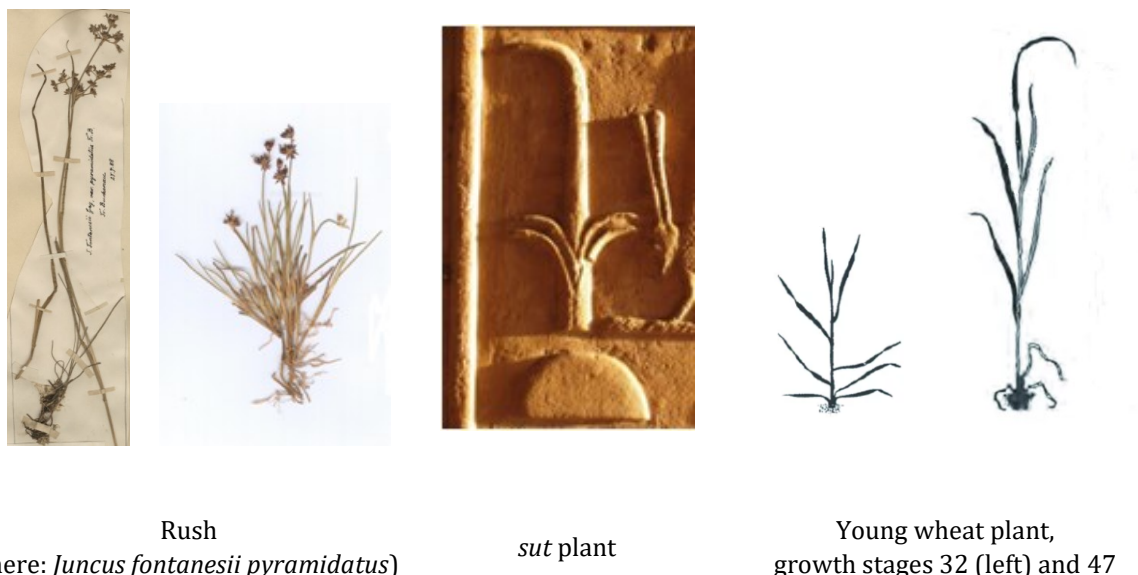






Fig. 3: The natural model for the *sut* plant – old and new hypothesis<sup>34</sup>

## Hypothesis 2: The bee

The winged insect undoubtedly represents a honeybee (hieroglyph L2). But does  really mean a bee? The word *bj.t* (*bjt*) is also the name of a flat bread. This was usually written .<sup>35</sup> The word  *bj* (*bi*, “groats, coarsely ground flour”) is probably related.<sup>36</sup>

You don't need an oven to make flatbread; you can bake it on a hot stone over a campfire. It goes back to the semi-nomadic lifestyle of the Epipaleolithic.<sup>37</sup> My hypothesis is that the

<sup>33</sup> Cf. K. Sethe, “Die Namen von Ober- und Unterägypten und die Bezeichnungen für Nord und Süd”, *ZAeS* 44 (1907), 8–10. See also Schäfer, *MDAIK* 12, 80, Fig. 11. The natural model for  may be a member of the *Cyperaceae*, such as the Purple Nutsedge. Cf. Wikipedia, *Cyperus rotundus*, [https://en.wikipedia.org/wiki/Cyperus\\_rotundus](https://en.wikipedia.org/wiki/Cyperus_rotundus) (August 20, 2024).

<sup>34</sup> Explanation in the text.

<sup>35</sup> Wb I, 433.2–4, 6, 7; Hannig, *Handwörterbuch*, 261 (9472), also in *bj.t n(j).t sw.t* (“flatbread of wheat”), *ibid.*, 261 (9475), 730 (26598); Takács, *Etymological dictionary II*, 119.


<sup>36</sup> Takács, *Etymological dictionary II*, 116–119; Wb I, 432.10–11.


<sup>37</sup> Beginning of flatbread baking: In the Middle East: 12,000 BC (oldest find), Pre-Pottery Neolithic (roughly 8300–7600 BC); in Egypt: 6th millennium BC; in Europe: 5th–4th millennium BC. Cf. H. Briggs, *Prehistoric bake-off: Scientists discover oldest evidence of bread*, <https://www.bbc.com/news/science-environment-44846874> (August 15, 2024); Haaland, *Camb. Archaeol. J.* 17, 173–176; M. Währen, “Pain, pâtisserie et religion en Europe pré- et protohistorique: Origines et attestations culturelles du pain”, *Civilizations* 49



bee (*bit*) is a rebus for *bit*, the "primeval" flatbread made from emmer wheat (not the flat, round date bread associated with the word *bit* in the New Kingdom<sup>38</sup>). The use of a pictogram with a given phonetic value to write any syllable or word with the same phonetic value (homophone) is fundamental to the Egyptian writing system and is called the "rebus principle".<sup>39</sup> In the early dynastic period, when the first royal titles were created, the Egyptian writing system was still in an experimental stage.<sup>40</sup> In any case, the rebus principle was perfectly implemented with the bee as a rebus for the flatbread. (The image of the bee is also much more decorative than a flatbread would be.)<sup>41</sup>

## Conclusion: So who was the *ni sut bit*?

In light of all the above, the symbolism behind  must be interpreted as a completely different pair of terms – grain and bread instead of rush and bee or Upper and Lower Egypt. The ancient Egyptians loved pairs of terms such as always and eternally, beginning and end, standing and sitting, rejoicing and cheering, useful and effective, prosperous and healthy, birds and fish, bread and beer, or, to add one more, grain and bread<sup>42</sup>.

Cereals have been the basis of the Egyptian diet since the Neolithic.<sup>43</sup> The ancient Egyptian state can be compared to a large corporation. Farmers, bakers and brewers did not work for themselves. The grain harvest was collected in sealed granaries and distributed by officials. The king was at the top of the organizational chart, so to speak. His  title was a clever "logo". The image of the growing grain plant is the promise of a secure supply, and also a powerful symbol of regeneration, which played a central role in ancient Egyptian beliefs<sup>44</sup>. The bee is a rebus for flatbread. There is also a hidden pun in the group



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(2002), 2–18.

<sup>38</sup> W. Helck, *Das Bier im Alten Ägypten* (Berlin, 1971), 39; W. Helck, "Zur Opferliste des Amenophis IV", *JEA* 57 (1973), 98; Z. S. Mohamed, *Festvorbereitungen: Die administrativen und ökonomischen Grundlagen altägyptischer Feste* (Fribourg, Göttingen, 2004), 136.

<sup>39</sup> The rebus principle is often confused with Egyptian play on words.




<sup>40</sup> Cf. Schenkel, *GM* 96, 57.


<sup>41</sup> One could argue that it would also be possible to translate  as "honey" (fully spelled out  *bj.t*) (Wb I, 434.6–12). Cf. T. Schneider, "Zur Etymologie der Bezeichnung ‚König von Ober- und Unterägypten‘", *ZaZ* 120 (1993), 175–177, 181. However, grain and honey make a less meaningful pair of terms than grain and bread, because grain was the staple food par excellence, while honey was a luxury food and sweetener.



<sup>42</sup> Parallels in other languages: English: "grain and bread"; German: "Brot und Korn"; Latin: "*panis et granum*"; Hebrew: לחם ותבואה

<sup>43</sup> C. Felske, *Essen und Trinken*, <https://www.selket.de/leben-im-alten-aegypten/essen-und-trinken> (August 13, 2024); K. A. E. Weber, *Brotbacken und Bierbrauen: Hochkultur Altes Ägypten*, <https://historisches-museum-hellental.de/brotbacken-und-bierbrauen-im-alten-aegypten.html> (August 13, 2024).

<sup>44</sup> Also realized in the image of the "corn Osiris" (cf. Arta Albă, *The Blessing of Isis: Bread in Ancient Egypt*,

of characters: The two t-suffixes can also be seen as loaves of bread, since the hieroglyph  is the image of a loaf of bread. It was also used as an ideogram to write *t'* (*ta* oder *tj*?), a collective term for all baked goods.<sup>45</sup> This makes  and  catchy motifs in addition to their phonetic value – the grain plant over a loaf of bread to reinforce the message, and the bee (rebus for flatbread) over a loaf of bread as a double reference to bread in general. An advertising graphic designer would be really delighted with this.


From the earliest times, the royal titles were descriptions of the king's divine status and main functions. The *nebti* title represented his function as the political ruler of Upper and Lower Egypt, he did not need a second title in this respect. The *ni-sut-bit* title, on the other hand, had nothing to do with territories. Its traditional translation as "king of Upper and Lower Egypt" is therefore incorrect (it would be much more appropriate for the *nebti* title).<sup>46</sup> Also, the  (*biti*) was not a "bee-like" king, but a king who made sure that everyone had bread, as was expected of him.<sup>47</sup>

Until the late Old Kingdom, the *nebti* title and the *ni-sut-bit* title were occasionally used as double titles preceding the same royal name.<sup>48</sup> While  identified the king as the ruler of unified Egypt,  – whether pronounced *ni sut bit* or *suti biti* – referred to his function as "the one to whom the grain and the bread belong". This means that the king was the master of supplies and thus the guarantor of the survival of the community.

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*Bread in Human History* Part II, <https://artaalba.ro/en/binecuvantarea-lui-isis-painea-in-egiptul-antic-painea-in-istoria-umanitatii-partea-a-ii-a/> [August 13, 2024]].

<sup>45</sup> Wb V, 209.4–7.

<sup>46</sup> The hymn to Senwosret III (late 12th dynasty), which reads "He has come after uniting the Two Lands and adding the rush to the bee", does not speak of the unification of Upper and Lower Egypt (which had already taken place about 190 years earlier), but in poetic terms of two royal titles. The ideogram strokes also indicate that the hieroglyphic images are meant. The king united them, so to speak, before his name. The preceding sentence (III,1) is similar: "after he has united the two powers upon his head" (reference to the Double Crown). Cf. Papyrus London UC 32157 (= Kahun LV.1) recto, III,2 according to the translation by L. Popko et al., <https://thesaurus-linguae-aegyptiae.de/sentence/IBUBd2Jb9U8JikTkrNtuYtMlxz4> [August 20, 2024]]. In contrast, the phrase  (*dmḏ sw.t n(j) wṣḏ* "union of *sut* and *wadj* [= papyrus]", Karnak, Gate of Pylon 8) refers to the *sema ta'ui* motif. The correct hieroglyph should be M26 instead of M23 (see page 5–6).

<sup>47</sup> In a 3rd dynasty tomb relief there is the statement: "My food is the king" (R. Drenkhahn, *Ägyptische Reliefs im Kestner-Museum Hannover* [Hannover, 1989], 23, figs. 3–5).

<sup>48</sup> Kaplony, *MDAIK* 20, 25 (fig. 47), 26 (figs. 50, 56); Müller, *Titulatur*, 50–53.



## Abbreviations:

AeA: Ägyptologische Abhandlungen (Wiesbaden); AKM: Abhandlungen für die Kunde des Morgenlandes (Leipzig); BC: before Christian era; Camb. Archaeol. J.: Cambridge Archaeological Journal; cf.: compare; dyn.: dynasty; ed./eds: editor/editors; et al.: et alii; Fig.: figure; GM: Göttinger Miszellen; GS: growth stage; JE: Journal d'Entrée (du Musée du Caire); JEA: Journal of Egyptian Archeology; JNES: Journal of Near Eastern Studies; KAW: Kulturgeschichte der Antiken Welt (publication series); KUB: Keilschrifturkunden aus Boghazköi (cuneiform letters); LAe: W. Helck, E. Otto and W. Westendorf (eds), Lexikon der Ägyptologie, Vol. 1–7 (Wiesbaden, 1972 –); MAeS: Münchner Ägyptologische Studien (Berlin/Munich/Mainz); MDAIK: Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo; Tb: Totenbuch (Book of Death); UC: University College (London); Vol.: Volume; Wb: A. Erman and H. Grapow, Wörterbuch der ägyptischen Sprache, Vol. I–VII, Berlin 1897–1961 (unchanged reprint 1971); ZAeS: Zeitschrift für Ägyptische Schrift und Altertumskunde.

## Photo credits:

Fig. 1: A) Photo: Iry-Hor, [https://commons.wikimedia.org/wiki/File:Semerkhet\\_Vase.jpg](https://commons.wikimedia.org/wiki/File:Semerkhet_Vase.jpg) (August 23, 2024; CC BY-SA).

B) Photo: Meretseger Books, [https://www.meretsegerbooks.com/images/custom/Chapel\\_of\\_Sesostris\\_I-011.jpg](https://www.meretsegerbooks.com/images/custom/Chapel_of_Sesostris_I-011.jpg) (August 13, 2024; courtesy of Meretseger Books).

Fig. 2: Photo: Meretseger Books, [https://www.meretsegerbooks.com/images/gallery/729\\_17419\\_sm.jpg?v=1489262888](https://www.meretsegerbooks.com/images/gallery/729_17419_sm.jpg?v=1489262888) (August 13, 2024; courtesy of Meretseger Books).

Fig. 3: Left image:

Photo: The Trustees of the Royal Botanic Gardens, Kew, Kew Royal Botanic Gardens, Plants of the World Online, *Juncus fontanesii* subsp. *pyramidatus* (Laharpe), image detail, <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:883703-1> (August 12, 2024; CC BY).

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Middle image: section of Fig. 1B.

Right image:

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