



## THE WEST BEYOND THE WEST: THE MYSTERIOUS “WERNES” OF THE EGYPTIAN UNDERWORLD AND THE CHAD PALAEO-LAKES

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### ABSTRACT

*The Amduat, one of the Egyptian guides to the underworld, provides specific descriptions and measurements relating to the first three hours after sunset, during which the sun god Re passes through an interstitial realm (the first hour) before arriving at two gigantic sweet-water oceans (the second and third hours). Rather than seeing in this imagery reflections of the unconscious and antecedents of modern psychotherapy (as has been proposed by some modern scholars), the present work argues that the description was inspired by actual knowledge of the environment of the region to the distant southwest of the Nile Valley, beyond the Gilf Kebir and Gebel Uweinat on modern Egypt's southwest corner. Recent evidence has made plausible that the Abu Ballas Trail connected Egypt with the Chad Basin of Central Africa. Elements of the factual description provided in the Amduat (including environmental and linguistic details; e.g., the hitherto unexplained name “Wernes”) can be corroborated by modern palaeoecological reconstruction of the area as having comprised gigantic palaeolakes, as well as by linguistic and narrative evidence.*

The West Beyond the West”<sup>1</sup> is here used as a title to characterize the new field of exploration that has formed in the last decade as a result of continuous investigation of the eastern Sahara west of Egypt's oases, culminating in the location of the Abu Ballas Trail with Old Kingdom inscriptions on the “water-mountain of Djedefre” (Figure 1).<sup>2</sup> In March 2006, Farouk el-Baz proposed to identify a large crater in the Gilf Kebir plateau, on the modern political border between Egypt and Libya, as the impact site that had produced the Libyan glass used in Egyptian jewelry (e.g., a scarab in a pectoral of Tutankhamen).<sup>3</sup> In November 2007, Mark Borda and Mahmoud Marai discovered an inscription by Mentuhotep II on the southern continuation of the Abu Ballas Trail towards the Chad region of Central Africa, in the border zone of Egypt, Libya, and the Sudan at Gebel Uweinat (Figure 2).<sup>4</sup> It is the purpose of this article to contribute to that exploration by showing that elements of the description of the first three hours of the Egyptian Book of the Underworld *Amduat* were inspired by the palaeoecological environment of the Western Desert of Egypt and northeastern Chad in the early second millennium BCE.

According to the description given in the *Amduat*, after the first hour traveling through an interstitial realm that extends 1,260 km between the western horizon and the actual entrance to the underworld, the sun god arrives in the second hour at a large expanse of water surrounded by an abundantly fertile landscape, then an equally large sweet-water ocean in the

third hour. Erik Hornung has said of this motif that “it was certainly comforting for the Egyptians to know that the way across the Western Desert so soon led into regions where there was an abundance of water and fertile fields.”<sup>5</sup> The description of the landscape given here (and in the subsequent hours) has been understood in different ways, with on one hand the view that this was an actual description of a physical environment stretching between the western and the eastern horizons; see, e.g., E. A. Wallis Budge's *The Egyptian Heaven and Hell*:

In inventing a situation for the Tuat, the Egyptians appear to have believed that the whole of the habitable world, that is to say, Egypt, was surrounded by a chain of mountains lofty and impassable, just like the Jebel Kaf of Muhammadan writers; from one hole in this mountain the sun rose, and in another he set. Outside this chain of mountains, but presumably quite close to them, was the region of the Tuat; it ran parallel with the mountains, and was on the plane either of the land of Egypt or of the sky above it. On the outside of the Tuat was a chain of mountains also, similar to that which encompassed the earth, and so we may say that the Tuat had the shape of a valley; and from the fact that it began near the place where the sun set, and ended near the place where he rose, it is permissible to say that the Tuat was nearly circular in form. (...) Now as the Tuat was situated on the other side of the mountains which sepa-

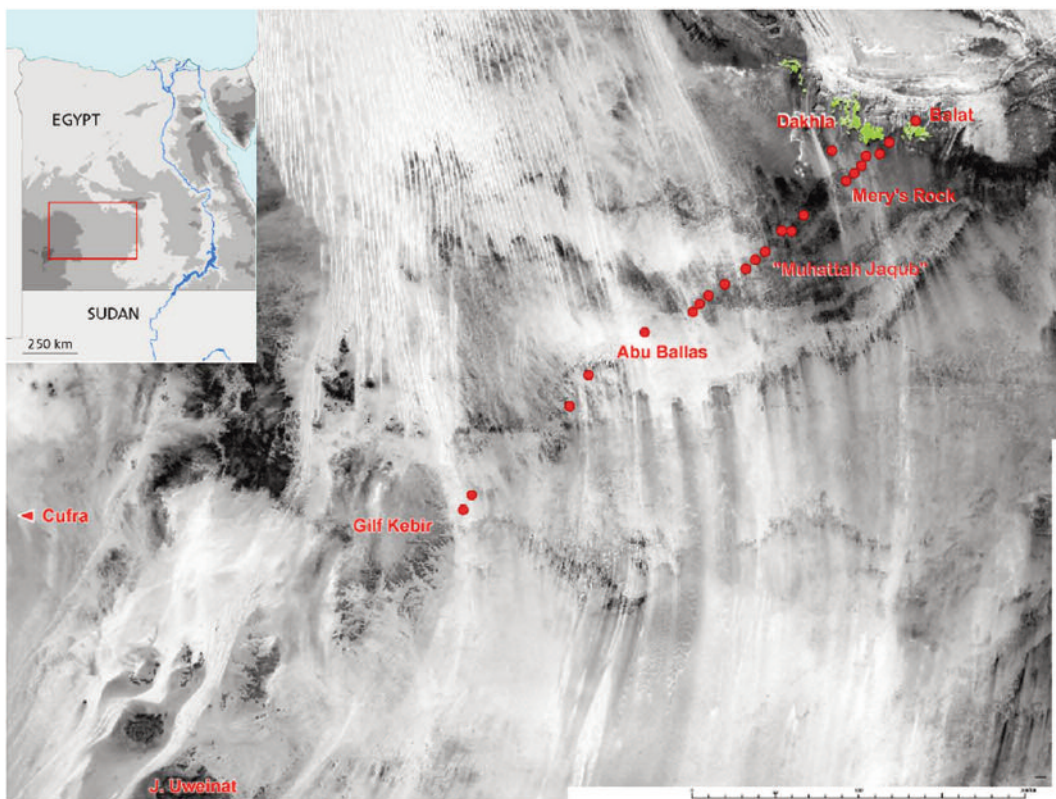


Figure 1. Satellite image with the verified trajectory of the Abu Ballas Trail (Förster [n. 2] fig. 1). The Jebel Uweinat, where the new inscription of Mentuhotep II has been found, is visible in the lower-left corner.



Figure 2. The new inscription of Mentuhotep II from the Jebel Uweinat. From [www.fjexpeditions.com/desert/archeology/ancientroute/Uweinat\\_Mentuhotep\\_3.jpg](http://www.fjexpeditions.com/desert/archeology/ancientroute/Uweinat_Mentuhotep_3.jpg).

rated it from Egypt, and from the sun, moon, and stars which lighted the skies of that country, it follows that it must have been a region which was shrouded in the gloom and darkness of night, and a place of fear and horror. At each end of the Tuat was a space which was neither wholly darkness nor wholly light, the western end being partially lighted by the setting sun, and the eastern end by the rising sun. From the pictures in the BOOK AM-TUAT and the BOOK OF GATES we learn that a river flowed through the Tuat, much as the Nile flowed through Egypt, and we see that there were inhabitants on each of its banks, just as there were human beings on each side of the Nile. At one place the river of the Tuat joined the great celestial waters which were supposed to form the source of the earthly Nile.<sup>6</sup>

More recently, the imagery extant in the *Amduat* was believed by some interpreters to be amenable to or genuinely intended for a psychoanalytical interpretation wherein the netherworld would represent the *collective unconscious*.<sup>7</sup> As Hornung has formulated:

At the same time, the journey occurs in the spaces of the human soul, in which a renewal from the depths becomes possible. That it is an odyssey of the soul is emphasized by the Egyptians through the indication that the sun god descends into the depths as a *ba*-soul (and thus is ram-headed, since *ba* is also the word for “ram”); herein lie significant antecedents of modern psychotherapy.<sup>8</sup>

In Andreas Schweizer’s comprehensive analysis, the first three hours of the *Amduat* would symbolize, to quote the subtitles he chose for the chapters on the first three hours, “Getting in Touch with the Animal Soul,” “First Encounter with the Psychic Totality: Creation and Destruction,” and “The Experience of Love through the World of Psychic Images.”

The present attempt sees it as preferable not to project modern (and anything but universally acknowledged) concepts onto the Egyptian evidence, but rather to interpret the landscape described in the *Amduat* from the environmental imagery that the actual landscape to the remote west of Egypt provided to visitors in the time when the *Amduat* was created.

#### THE FIRST THREE HOURS OF THE *AMDUAT*

This description of the landscape of the first hours of the West comprises the following details:

*Hour 1.* Re gains access to the underworld through the “western portico (*ꜥrry.t*) of the horizon,” a passageway of 1,260 km that constitutes the first hour and is sealed off against the second hour by a gate named “He-who-devours-all.” This intermediate realm or passageway is called *n.t rꜥ*, “waterway of Re,” in the *Amduat* but *smj.t*, “desert,” in the Book of Gates (although there is a conflicting statement in

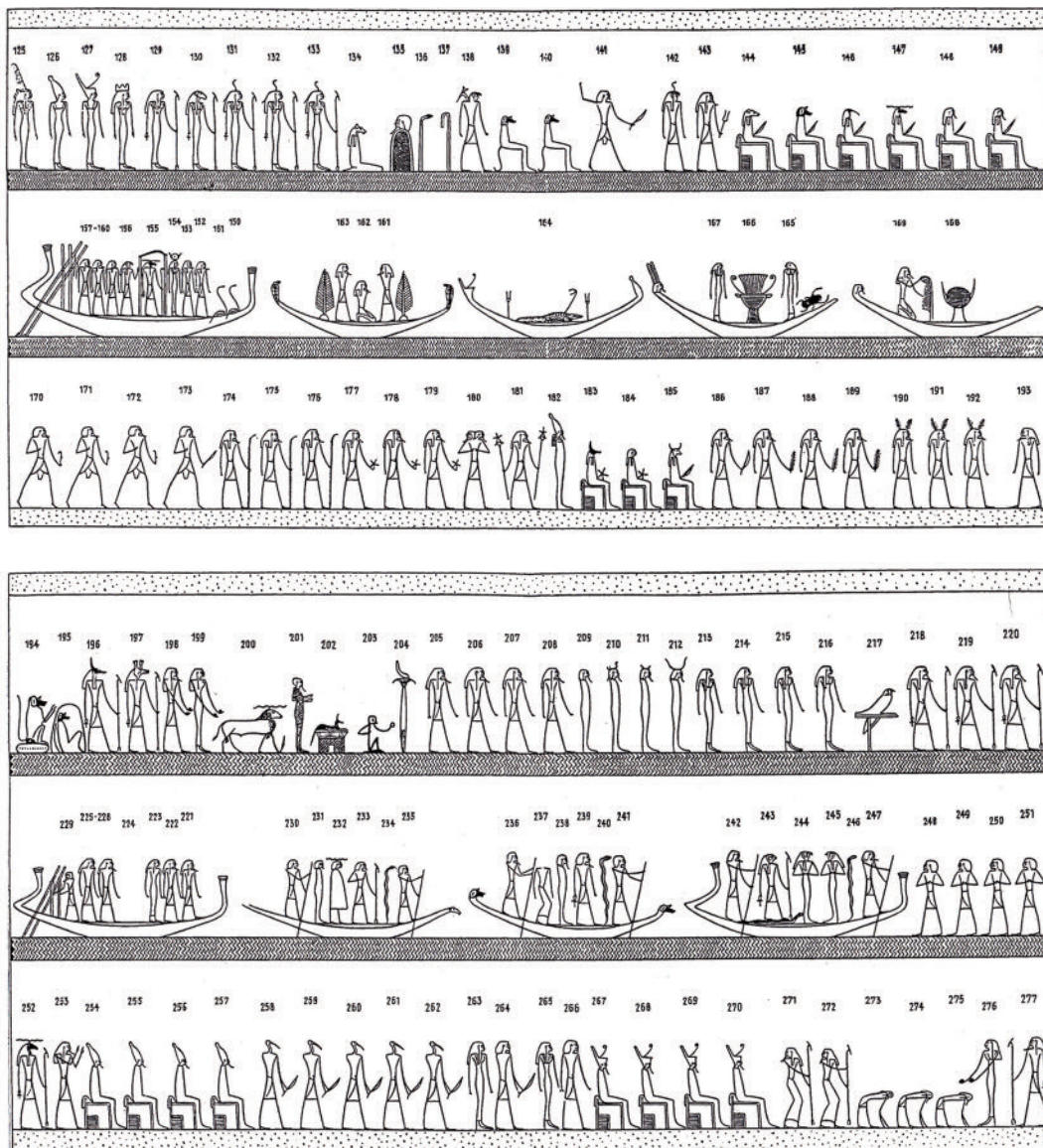
the second hour according to which the region of *Wernes*, the second hour, would be called or contain *n.t rꜥ*, “waterway of Re”). Goddesses of the *Wernes* acclaim the sun god when he leaves the first hour.<sup>9</sup>

*Hour 2.* The second hour of the *Amduat*, *Wernes* (Figure 3; see discussion below), is a region dominated by a gigantic body of water that fills the entire hour, a sweet-water ocean that is the source of abundant vegetation on its shores. The text mentions the “green plants that are in the *Wernes*”—trees and fertile fields—and speaks of the underworldly gods of the second hour as the “farmers of the *Wernes*.”<sup>10</sup> The gigantic lake with its surrounding lands is given the precise dimensions of 309 by 120 *jtrw*.<sup>11</sup> It is interesting to note that in the *Introduction to the Second Hour* (l. 307<sup>12</sup>), the term *n.t rꜥ*, “waterway of Re,” believed to be the name of the first hour, is explicitly associated with the *Wernes*: “Resting in the *Wernes* by the majesty of this god, making the rowing of the Iaru [or: of reeds?] in the waterway of Re.” A parallel formula is used in the introduction to the third hour: “Resting in the fields of the shore-dwellers, making the rowing in the waterway of Osiris.” The fact that the body of water in the third hour is called *n.t wsjr*, “water body of Osiris,” would make it indeed likely that the second hour’s ocean has the parallel Egyptian title *n.t rꜥ*. Stephen Quirke has suggested that the 309 *jtrw* given as the length of both the body of water in the second and third hours might be the total length of the stretch of water, which would be called “waterway of Re” first, then “waterway of Osiris.”<sup>13</sup>

How to reconcile those conflicting assignments of the term *n.t rꜥ*, “waterway of Re”? Line 494 states that Re passes through the gate “All-devourer,” which demarcates the first from the second hour, and adds *hnj=f N.t Rꜥ r Wrnꜥ*. The first verbal form has been interpreted as a perfective *sdm=f* by, inter alios, Hornung and Wiebach-Köpke, and translated as “when/after he has traversed the waterway of Re up to [= excluding] the *Wernes*.”<sup>14</sup> Since the intended Middle Egyptian use of the perfective *sdm=f* is not signaled here by the required preposition *m-ht*, however, it is more likely that we are dealing instead with a subjunctive *sdm=f* in a subordinate clause of purpose: “so that he may traverse the waterway of Re as far as [= including] the *Wernes*.” This would mean that the waterway of Re stretches throughout the first and the second hour of the Duat, and that the latter part of the waterway is also called “*Wernes*.” The latter name applies to the body of water—cf. here the name of the fourth barge of the middle register, “The one that the *Wernes* carries”<sup>15</sup>—as well as the fertile land characterized by that body of water.<sup>16</sup> The situation would be as follows:<sup>17</sup>

	Hour 1	Hour 2	Hour 3
Designation of waterway	<i>n.t rꜥ</i>	<i>n.t rꜥ</i>	<i>n.t Wsjr</i>
Designation of region	<i>ꜥrry.t</i>	<i>Wrnꜥ</i>	<i>šh.t Npr.tjw</i>

*Hour 3.* As mentioned before, the third hour of the *Amduat* (Figure 4) is filled by another huge body of water of equal dimension to the *Wernes* (309 by 120 *jtrw*).



**Figures 3 and 4.** Second and third hours of the *Amduat*. From S. Wiebach-Köpke, *Phänomenologie der Bewegungsabläufe im Jenseitskonzept der Unterweltbücher Amduat und Pfortenbuch und der liturgischen "Sonnenlitanei," Teil I: Untersuchungen. Teil II: Annotierte Transkription und Übersetzung. Schautafeln* (Ägypten und Altes Testament 55), Wiesbaden 2003.

This topographical structure of an intermediate realm stretching from the Nile Valley 1,260 km (120 *jtrw* of 10.5 km) to the West, and followed by two gigantic lakes, finds an exact match in the palaeo-environmental situation of the Western Desert and the Chad Basin around 2000 BCE.

#### THE CHAD PALAEO LAKE(S) IN THE THIRD AND SECOND MILLENNIA BCE

During the Holocene, North Africa possessed several megalakes; Lake Mega-Chad (in the Chad Basin) was the largest, with an approximate surface area of 350,000 km<sup>2</sup>, fol-

lowed by Lake Mega-Fezzan (in the Fezzan basin in the southwest of modern Libya), with an approximate surface area of at least 76,000 km<sup>2</sup>.<sup>18</sup> Both lakes were located at similar distances from Egypt as were Egyptian trading and diplomatic partners in the Ancient Near East (Figure 5), and the aforementioned evidence from the Abu Ballas Trail demonstrates that trail systems linking Egypt and those regions actually existed, even if the final segments of the trail still await discovery. Of the two palaeolakes, Lake Mega-Fezzan last existed between 11,000 and 9000 cal. B.P.,<sup>19</sup> and is therefore too early to be relevant to the present research issue. Lake Mega-Chad (LMC) existed, however, during the historical times of Ancient Egypt (Figures

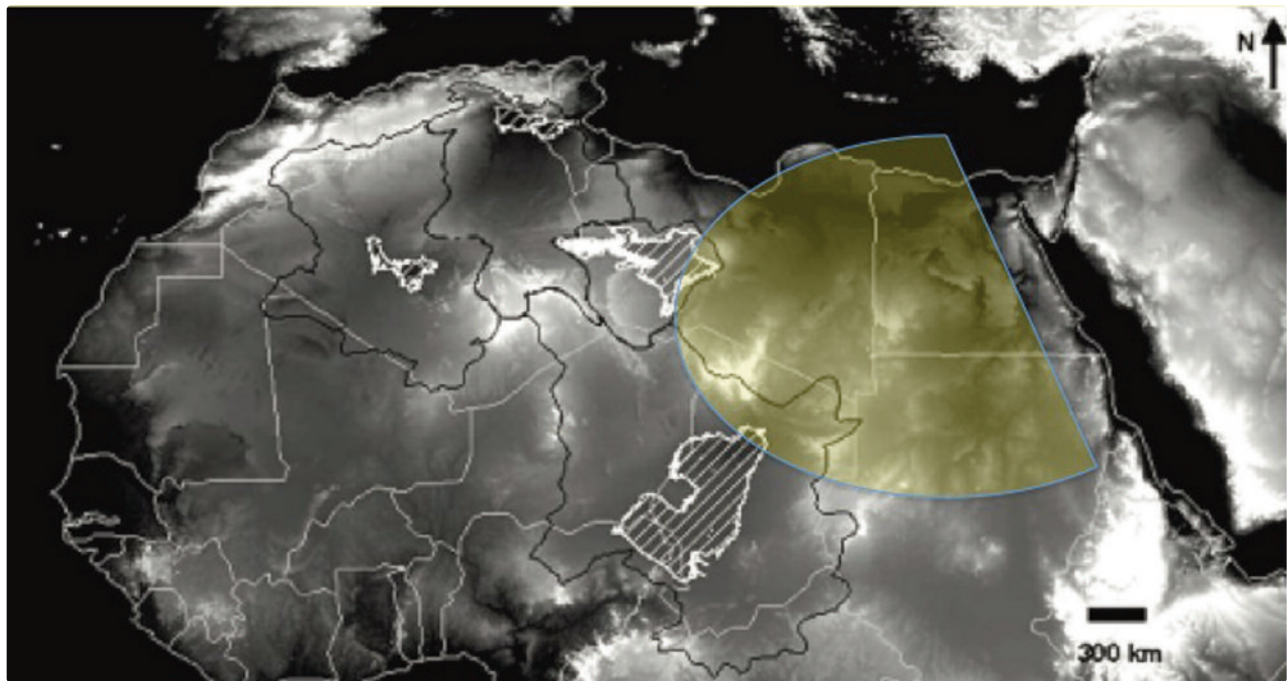
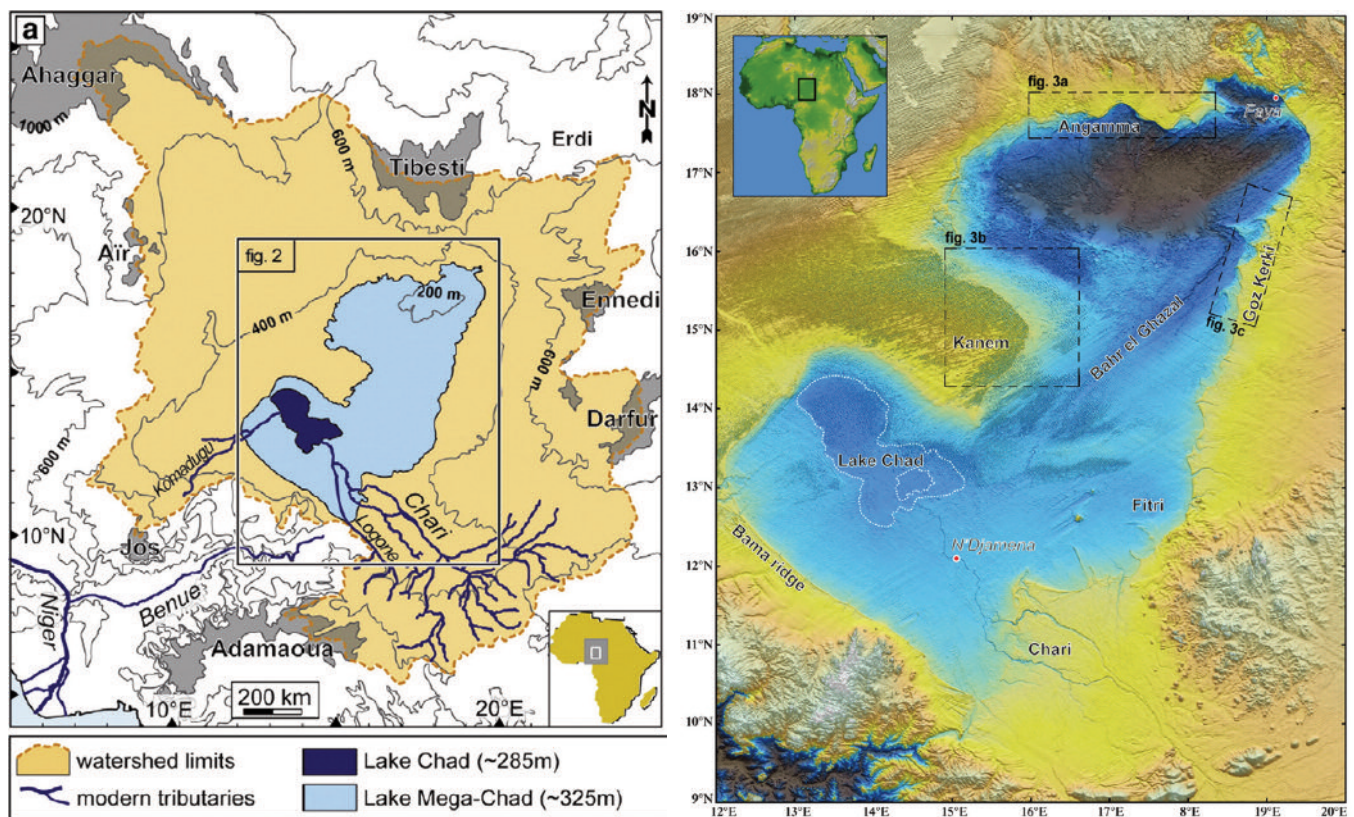
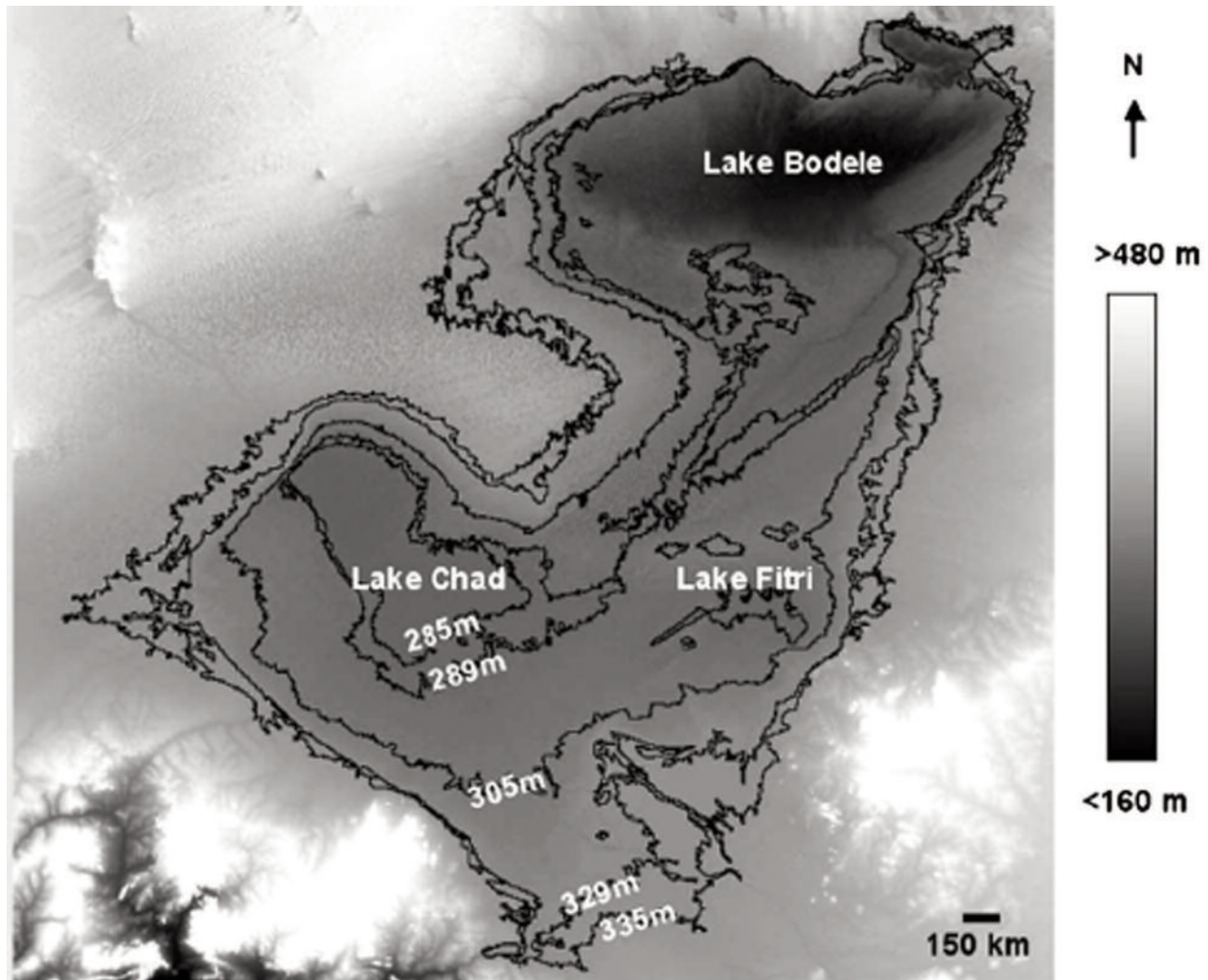


Figure 5. The distance from the Nile Valley to the Fezzan and Chad Megalakes is equivalent to the distances from the Aegean, Anatolia, and Mesopotamia. After N. Drake/C. Bristow, “Shorelines in the Sahara: Geomorphological Evidence for an Enhanced Monsoon from Palaeolake Megachad,” *The Holocene* 16(2006), 901–911, fig. 10.



Figures 6 and 7. F. Bouchette et al., “Hydrodynamics in Holocene Lake Mega-Chad,” *Quaternary Research* 73(2010), 226–236: figs. 1 and 2.



**Figure 8.** The situation in the Chad Basin around 2000 BCE, with two major lakes: Bodélé and Chad. N. Drake/C. Bristow, “Shorelines in the Sahara: Geomorphological Evidence for an Enhanced Monsoon from Palaeolake Megachad,” *The Holocene* 16(2006), 901–911: fig. 9.

6 and 7), for which its changes can be reconstructed with a high degree of accuracy.<sup>20</sup> LMC had its largest extent between 7500 and 6950 cal. B.P. (5500–4950 BCE), when the lake’s surface area measured approximately 361,000 km<sup>2</sup>. The lake was therefore equivalent in surface area to the Caspian Sea, in surface area the largest lake that exists on earth today. In the northern section, LMC reached an approximate depth of at least 150 m; in its southern part, around 40 m.<sup>21</sup> The desiccation and decrease of LMC can be dated to the third millennium BCE, between 5280 and 4410 cal. B.P. (3280–2410 BCE).

By 4000 cal. B.P. (2000 BCE), the beginning of the Egyptian Middle Kingdom, the lake had retreated from an earlier 305 m shoreline and, as a consequence, had split into a larger northern lake in the Bodélé Depression and smaller Lake Chad in the south (with an insignificant third lake, Lake Fitri, to the east; see Figure 8). First settlement sites can be located around 4000 cal. B.P. (2000 BCE) at an altitude above the shoreline of 298 m.

The surface areas of Lake Bodélé and Lake Chad were still enormous by any standard. Lake Bodélé (with a shoreline at 285 m), had a surface of 91,000 km<sup>2</sup>—larger than present-day Lake Superior, the largest of the North American Great Lakes at 82,400 km<sup>2</sup>. To the south, Lake Chad (with a shoreline at 289 m) had a surface area of 22,000 km<sup>2</sup>, roughly equivalent to Lake Erie’s 25,740 km<sup>2</sup>. The situation of these two subsequent giant lakes corresponds to the topography of the *Amduat*, and could be reflected there if the relevant parts of that composition can be dated to the Middle Kingdom (as will be considered).

Two pictures illustrating the comparatively small modern Lake Chad in 1965 and its habitat in the 1870s (Figures 9 and 10) give an idea of the impression Egyptian visitors—or their informants—must have carried away from the palaeolakes around 2000 BCE. Elements of the fauna that figure in the *Amduat* (e.g., snakes, baboons, and crocodiles) will be discussed below.



**Figure 9.** On the shores of Lake Chad, February 1965. From G. Connah, *Three Thousand Years in Africa: Man and his Environment in the Lake Chad Region of Nigeria*, Cambridge 1981, 25: fig. 2.3.



**Figure 10.** The northwestern part of Lake Chad in the 1870s (illustration by Gustav Nachtigal). From G. Connah, *Three Thousand Years in Africa: Man and his Environment in the Lake Chad Region of Nigeria*, Cambridge 1981, 23: fig. 2.2.

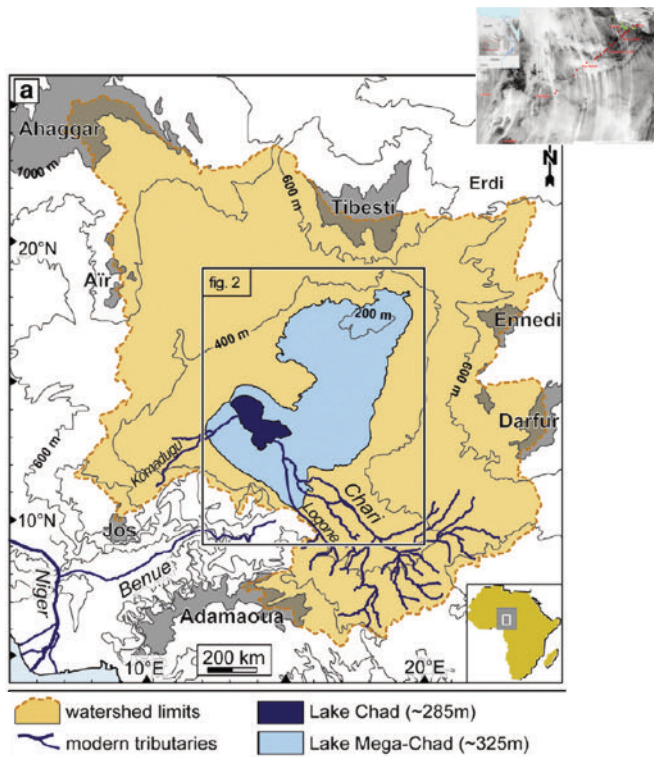


Figure 11. Superimposition (to scale) of the maps of Figure 1 (Abu Ballas Trail and the location of the Mentuhotep II relief at Gebel Uweinat) and Figure 6 (Chad Basin with Lake Mega-Chad).

Can anything be said about the measurements given for distances and lake extensions in the first three hours? The length of the interstitial realm of the first hour between the “horn of the West” (the place where the sun sets) and the second hour is given as 120 *jtrw* of 10.5 km each, or 1,260 km. If this number has any factual basis, it could be seen as the distance between the oasis of Dakhlah (from where the Abu Ballas Trail departed) and the northern shore of Lake Bodélé and the original Lake Mega-Chad (Figure 11).

This intermediate realm between the sunset and the second hour is designated, in the first hour of the *Amduat*, as a “gateway” or “portico” (*rry.t*), an architectural term for the approaches to palaces or temples.<sup>22</sup> It is tempting to consider here the imposing rock formations of the Tibesti-Erdi-Ennedi belt (Figures 12–14), whose plateaus and mountains bordered the basin of LMC to the northeast. Around 2000 BCE, rivers from the Ennedi mountains were still regularly active and discharged into Lake Bodélé, while rivers from the Tibesti did so sporadically.<sup>23</sup> The sun god could therefore sail on the *n.t rʿ*, “waterway of Re,” through the gateway of the first hour into the Wernes lake, passing through the gate “All-Devourer” that gave him access to the region.

For each of the two lakes of the second and third hour, the length is given as 309 *jtrw* (3,244.5 km) and the width as 120 *jtrw* (1,260 km). The fact that both lakes are given identical extensions seems to indicate intentional standardizing and



Figure 12. Aloba Arch, Ennedi. From [www.naturalarches.org/big10-5.htm](http://www.naturalarches.org/big10-5.htm).



Figure 13. Guelta d'Archei, Ennedi. From [es.treknature.com/gallery/Africa/Chad/photo18948.htm](http://es.treknature.com/gallery/Africa/Chad/photo18948.htm).



Figure 14. Ennedi, Bamena Massif. From [www.naturalarches.org/gallery-Chad-BamenaMassif.htm](http://www.naturalarches.org/gallery-Chad-BamenaMassif.htm).





**Figure 15.** Depiction of a rock python on the Nile mosaic of Palaestrina. From: L. Bodson, “A Python, *Python sebae* (Gmelin, 1789) for the King: The Third Century B.C. Herpetological Expedition to Aithiopia (Diodorus of Sicily 3.36–37),” in *Museum Helveticum* 60(2003), 22–38.

speaks against their topographical accuracy, even if the lakes themselves are to be seen as actual bodies of water. The resulting surface area of 4,088,070 km<sup>2</sup> for each of the two lakes is roughly ten times too large if applied to LMC as a whole, and applies even less to the two differently sized lakes that had actually emerged by 2000 BCE. What can be noted, however, is that 309 *jtrw* (3,244.5 km) must have been the approximate total length of the shoreline of the larger Lake Bodélé (the total shoreline of the slightly smaller Lake Superior amounts to 2,783 km<sup>24</sup>), and that in turn, 120 *jtrw* (1,260 km) is roughly equivalent to the original total length of the shoreline of the southern Lake Chad (again, comparable to Lake Erie, with its 1,285 km shoreline). It would be speculation to postulate that the numbers originally reflected the lengths of the palaeolake shorelines that the sun god had to follow in order to allocate plots of land to the deities of the underworld.

#### THE NAMES “APOPHIS” AND “WERNES”: BORROWINGS FROM TUBU/TEDA?

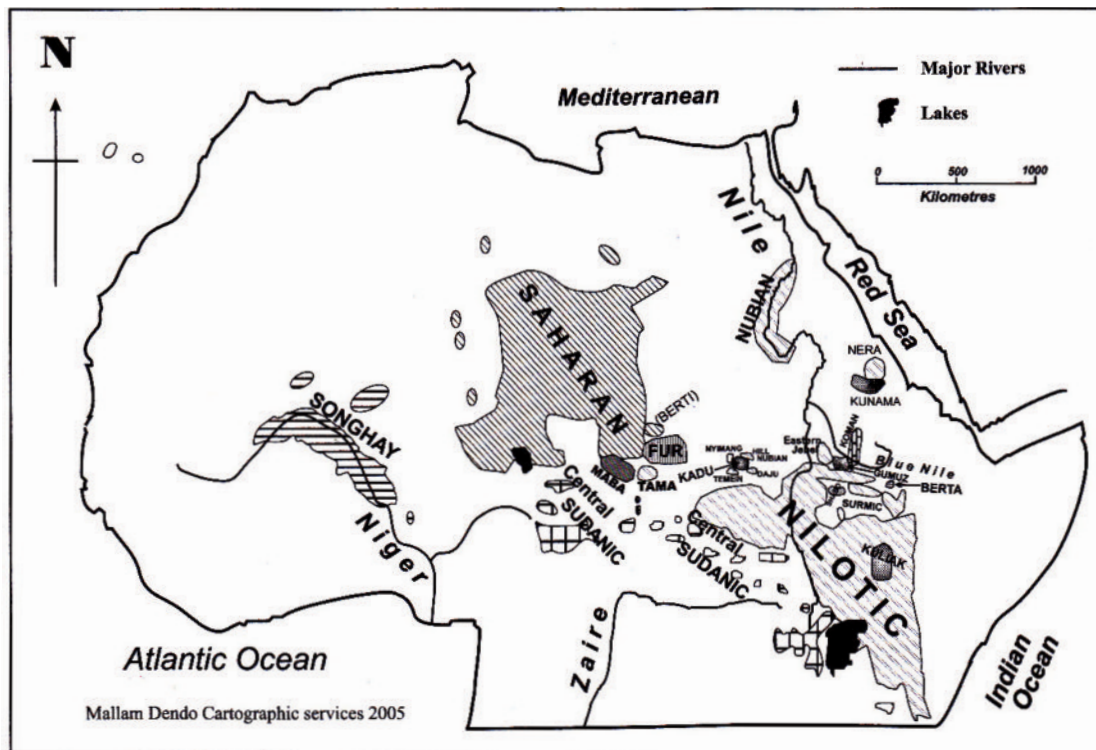
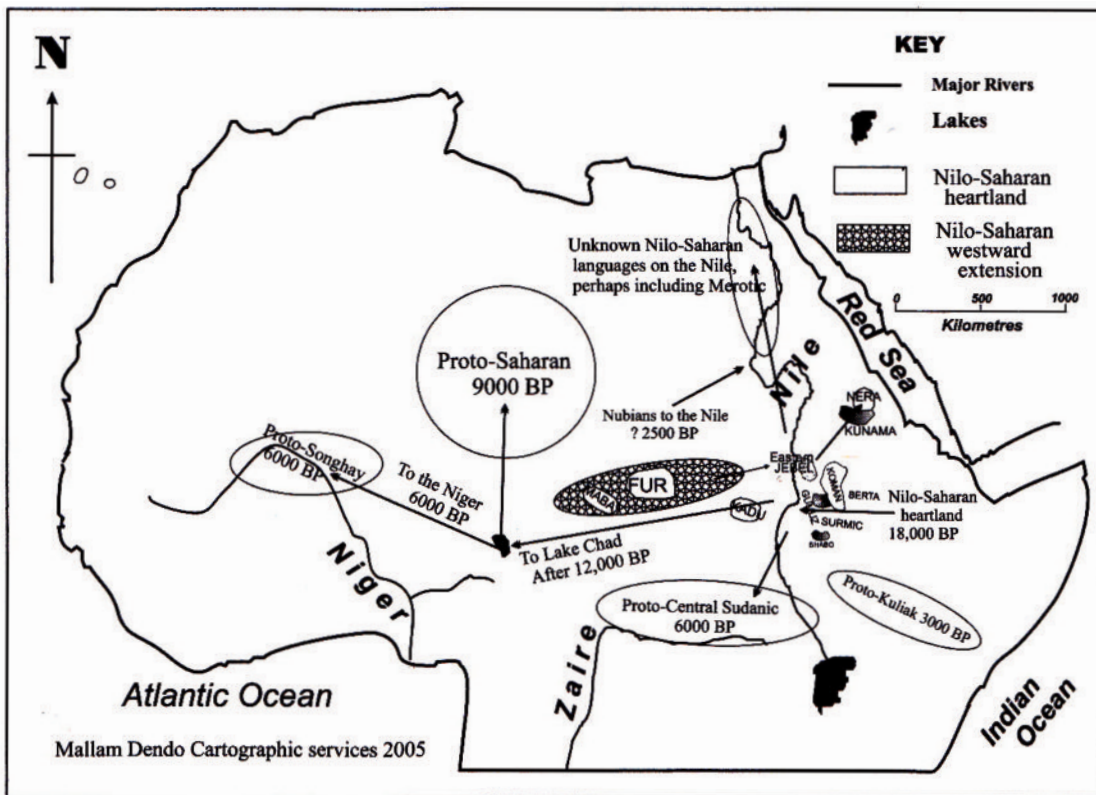
This section tries to provide additional evidence in support of the outlined hypothesis by explaining the name “Wernes” used in the *Amduat* as a rendering of a term from the Tubu/Teda language spoken in northern Chad. This etymology would align with an earlier attempt in which I had suggested an etymology for “Apophis,”<sup>25</sup> the name of the snake, archenemy of the sun god, first encountered by Re in the second hour of the *Amduat*.<sup>26</sup> The earliest documented occurrence of “Apophis” in Egyptian texts is in the description of a time of famine in



**Figure 16.** Detail of the rock python on the Palaestrina mosaic; [commons.wikimedia.org/wiki/File:Praeneste\\_-\\_Nile\\_Mosaic\\_-\\_Section\\_1a\\_-\\_Detail.jpg](https://commons.wikimedia.org/wiki/File:Praeneste_-_Nile_Mosaic_-_Section_1a_-_Detail.jpg).

Ankhtift of Moalla’s autobiography (ca. 2150 BCE) with the generic determinative of a snake. Its metaphorical use—“everybody dies of hunger on this sandbank of Apophis”—shows that the name and concept of Apophis must have been familiar at the time, and the concept is further elaborated in the Coffin Texts, where Apophis appears as a snake attacking the dead and the sun god. The reality underlying Apophis was most likely a very large snake species—perhaps a rock python (*Python sebae*), attested in Africa anywhere south of the Sahara and more widely in antiquity, reaching lengths up to ten meters (and, in extreme cases, up to fourteen meters). A famous ancient account from the reign of Ptolemy II is the capture of a rock python in the region of Meroë, described by Diodorus Siculus.<sup>27</sup> A Roman mosaic found at Dermesh near Carthage depicts a python attacking an elephant.<sup>28</sup> The Nile mosaic of Palaestrina depicts a giant rock python on the river bank (Figures 15 and 16).

The name “Apophis” (‘3pp) has been explained by Jürgen Osing<sup>29</sup> as an intensive formation ‘u3pāp’(w) (> B ΔΦΩΦ, “giant”) from a trilateral root ‘3p. The root is attested once in the Old Kingdom (tomb of Ti; *Urk. I*, 174, 5f.) and again in the Coffin Texts, and seems to signify “to press a charge/voice a grievance.” In conformity with other intensive nouns of that pattern, the name would mean “fierce complaining.” Certainly preferable would be “the one who fiercely brings charge” or “the aggressive one.” More recently, Ludwig Morenz has proposed to explain the name as a compound: “great babbler” (more accurately, “The one whose babbling is great”) from the two elements ‘3, “great,” and pp, “roar, babbler, babble.”<sup>30</sup> However, a root pp, “roar, babbler, babble,” is *not* attested in Egyptian and



Figures 17 and 18. Dispersal and Distribution of Nilo-Saharan. From R. Blench, *Archaeology, Language, and the African Past*, Lanham/New York/Toronto/Oxford 2006, maps 2.2 and 2.3.

is merely hypothesized by Morenz (as admitted by Morenz himself); therefore, the etymology has to be rejected. Alternatively, Morenz considers the aforementioned root *ʿ3p*, which he again wishes to segment into the elements *ʿ3*, “great” and an unattested *p*, “stammer”—or, finally, that the entire trilateral root could be onomatopoeic, since “in combination, the glottal stop and the *ʿayin* were used to characterize foreign, barbaric languages by onomatopoeia in the root *jʿ3*.”<sup>31</sup> Unfortunately, Morenz here ignores all pertinent phonological research of the last forty years, which has clearly demonstrated that *ʿ3* was a liquid *r* or *l* until the late Middle Kingdom, while *ʿayin* had the value of a dental or alveolar stop before the Middle Kingdom—the very time when the name *ʿ3pp* is first attested at Moalla.<sup>32</sup> It is therefore imperative to postulate an original consonantal sequence such as */d-r-p-p/* for the First Intermediate Period. On that basis, an appropriate etymology is provided by the Tubu *\*dūro bu bu*, “very big snake.”<sup>33</sup> The lexemes in Tubu and the closely related dialect of Teda are as follows:<sup>34</sup>

Tubu: <i>dūro</i> , “snake,” expanded by ending <i>-no</i> :	<i>drēno</i>	<i>bu, buj, bo,</i> <i>bwo</i> , “big”
Teda:	<i>direno,</i>	<i>bo, bu</i>
	<i>derenoō</i>	

Tubu/Teda and the related Dazza are a branch of the family of Saharan languages, spoken to this day in the area at the border of Egypt, Libya, and northern Chad, where the Abu Ballas Trail seems to have ended. It is assumed that speakers of Proto-Saharan were present in the region since 7000 BCE, which would make the presence of Tubu/Teda around 2000 BCE highly likely (see figures 17 and 18).<sup>35</sup> While it is clearly difficult to make assumptions about the appearance of the Tubu language 4,000 years ago, the two lexemes belong to the body of “excellent” and “good” Nilo-Saharan isoglosses, respectively, according to the study by Lionel Bender.<sup>36</sup> At any rate, the palaeoecology of the Chad palaeolakes confirms the presence of pythons and other animals mentioned in the second and third hours of the *Amduat*, such as baboons and the crocodile<sup>37</sup> (whose depiction in the fourth barge of the middle register of the second hour has been understood by Hornung as presenting the crocodile as the master of the Wernes<sup>38</sup>). Again, the illustration of the northwestern part of Lake Chad provided by Gustav Nachtigal in the 1870s (Figure 10) gives a vivid idea of what the Egyptians might have seen at (or been told about) the shores of giant LMC and the subsequent lakes Bodélé and Chad around 2000 BCE.

It is striking to note that, at least to my knowledge, no one has yet ventured to explain the name “Wernes” given to the lake and the region of the second hour. Beyond the *Amduat*, the term is attested in Theban Tomb 82 of Amenemhet (from the time of Thutmose III), where it is said that Re *jmj-mhn=f*, “traverses the Wernes.”<sup>39</sup> While the name “Apophis” is attested from about 800 years before the earliest preserved versions of the *Amduat*, it is unclear when the term “Wernes” may have first become known

to the Egyptians. The *Amduat*, though edited to its final form during the early Eighteenth Dynasty, is today believed by numerous scholars to predate the New Kingdom in at least some of its components.<sup>40</sup> More particularly, Louise Gestermann has pointed to the analogy between the topography of the Books of the Underworld and the layout of the Middle Kingdom pyramid complexes.<sup>41</sup> If essential components of the *Amduat* predate the New Kingdom, then, with some likelihood, this also applies to the term “Wernes.” The name has no obvious Egyptian etymology, although the Egyptians may have recognized in it Egyptian sequences such as (1) *wr n=s* “great for her” or (2) *wr nsw* “the king is great” (both of which would appear to be awkward designations for a lake and a fertile region of the underworld), or rather used words of their own language to render a foreign sound sequence—a process called, in German, *Wortschreibungen*. The reconstruction of the two *Wortschreibungen* is as follows: (1) *wūr ʿi-nis*, (2) *wūr ʿi-iensəy*.<sup>42</sup> It is further imperative to observe that Egyptian *r* was used in the Middle Kingdom Excruciation Texts to render Semitic *d* and *l*, so the actual pronunciation of the two sequences around 2000 BCE was closer to (1) *wūd ʿi-nis* and *wūd ʿi-iensəy* or (2) *wūl ʿi-nis* and *wūl ʿi-iensəy*. I wish to propose here that “Wernes,” in its possible contemporary 2000 BCE pronunciation as *wūd ʿi-iensəy*, was the exact rendering of the Tubu expression for *n.t rʿ*, “waterway of Re,” with which Wernes, as we saw above, coincided in the second hour. The Tubu/Teda word for an expanse of water (either a river or a lake) was *fódi*, and is also used as the names of Lake Chad and the country Chad.<sup>43</sup> It corresponds in meaning very precisely to Egyptian *n.t*, whose semantic spectrum covers “*Wasser, Wasserflut, Gewässer, Überschwemmungswasser*” (*Wb. I*, 198). Tubu/Teda *f* is pronounced as a bilabial and has an affinity with *v* and *w*.<sup>44</sup> The Tubu/Teda/Daza word for “sun” is *yezze* (*yizze, ezzé*).<sup>45</sup> The genitive is expressed by the suffix *-u*.<sup>46</sup> Therefore, “waterway/lake of the sun” is, in Tubu/Teda, *fʷódi-yezze-u*. This is almost identical with the postulated pronunciation of “Wernes” as *wūd ʿi-iensəy*. It seems therefore plausible to assume that the term, like “Apophis,” is a loanword from Tubu/Teda whose Egyptian translation was *n.t rʿ*, “waterway/water expanse of Re.” If we apply this to the statement from line 307 in the second hour, we can understand it as the juxtaposition of the Tubu term and its Egyptian equivalent:

Resting in the Wernes / <i>wūd ʿi-iensəy</i>	(Tubu/Teda for “water
(≈ <i>fʷódi-yezze-u</i> )	expanse of the sun”)
by the majesty of this god,	
making the rowing of Iaru <sup>47</sup> in the	
water expanse of Re / <i>n.t rʿ</i>	(Egyptian translation)

This etymology would not only explain the mysterious expression “Wernes,” but would also provide linguistic evidence for the proposed context for the first three hours of the *Amduat*, highlighting an intriguing example of intellectual and cultural contact around 2000 BCE.

## APPENDIX

One might wonder whether this contextualization of the Egyptian descent into the underworld could find additional support in traditions about a “well of the sun” in the Saharan desert where the sun disappears in the evening.<sup>48</sup> According to current Tubu/Teda tradition, the Teda worshipped the sun as the creator of the earth before the advent of Islam, and they would pray to Mamadu and Dimadu (“Red of the East” and “Red of the West”), the sun of morning and evening, respectively.<sup>49</sup> They also preserve a narrative about a “well of the sun,” located in Western Fezzan or the Central Sahara, into which the sun descends in the evening:

Westlich von den Teda leben Menschen, die kein Feuer kennen. Sie heißen Yezei-uni-da, Sonne-Feuer-Menschen (yezei: Sonne, uni: Feuer; da: Menschen; also sinngemäß übersetzt: Menschen, die die Sonne als Feuer verwenden). Sie leben an einem großen Guelta [einer natürlichen Wasserzisterne], in das die Sonne jeden Abend versinkt. Dann kocht das Wasser; nun können sie ihre Speisen darin kochen, und daher essen sie nur einmal am Tag.<sup>50</sup>

This tradition, still alive with the Tubu/Teda, seems to be of significant age, as both Herodotus and Pliny record similar legends about a “Well of the Sun” at the oasis of Siwa and in the Central Sahara, respectively:

Herodotus IV, 181: “Thus then have been mentioned those nomad Libyans who live along the sea-coast: and above these inland is the region of Libya which has wild beasts; and above the wild-beast region there stretches a raised belt of sand, extending from Thebes of the Egyptians to the Pillars of Heracles. In this belt at intervals of about ten days’ journey there are fragments of salt in great lumps forming hills, and at the top of each hill there shoots up from the middle of the salt a spring of water cold and sweet; and about the spring dwell men, at the furthest limit towards the desert, and above the wild-beast region. First, at a distance of ten days’ journey from Thebes, are the Ammonians, whose temple is derived from that of the Theban Zeus, for the image of Zeus in Thebes also, as I have said before, has the head of a ram. *These, as it chanced, have also other water of a spring, which in the early morning is warm; at the time when the market fills, cooler; when midday comes, it is quite cold, and then they water their gardens; but as the day declines, it abates from its coldness, until at last, when the sun sets, the water is warm; and it continues to increase in heat still more until it reaches midnight, when it boils and throws up bubbles; and when midnight passes, it becomes cooler gradually till dawn of day. This spring is called the fountain of the Sun.*

Pliny, *Naturalis Historia* (trans. Macaulay) II, 106 (103.): *The pool of Jupiter Ammon, which is cold during the day, is warm during the night. In the country of the Troglodyte, what they call the Fountain of the Sun, about noon is fresh and very cold; it then gradually grows warm, and, at midnight, becomes hot and saline.*

V, 5 (5.): The region of Cyrenaica, also called Pentapolis, is rendered famous by the oracle of Hammon, which is distant 400 miles from the city of Cyrene; also by the Fountain of the Sun there, and five cities in especial, those of Berenice, Arsinoë, Ptolemais, Apollonia, and Cyrene itself. After the Nasamonies we come to the dwellings of the Asbystæ and the Macæ, and beyond them, at eleven days’ journey to the west of the Greater Syrtis, the Amantes, a people also surrounded by sands in every direction. They find water, however, without any difficulty, at a depth mostly of about two cubits, as their district receives the overflow of the waters of Mauritania. They build houses with blocks of salt, which they cut out of their mountains just as we do stone. From this nation to the Troglodytæ the distance is seven days’ journey in a south-westerly direction, a people with whom our only intercourse is for the purpose of procuring from them the precious stone which we call the carbuncle, and which is brought from the interior of Æthiopia. Upon the road to this last people, but turning off towards the deserts of Africa, of which we have previously made mention as lying beyond the Lesser Syrtis, is the region of Phazania; the nation of Phazanii, belonging to which, as well as the cities of Alele and Cilliba, we have subdued by force of arms, as also Cydamus, which lies over against Sabrata. After passing these places a range of mountains extends in a prolonged chain from east to west: these have received from our people the name of the Black Mountains, either from the appearance which they naturally bear of having been exposed to the action of fire, or else from the fact that they have been scorched by the reflection of the sun’s rays. *Beyond it is the desert, and then Talge, a city of the Garamantes, and Debris, at which place there is a spring, the waters of which, from noon to midnight, are at boiling heat, and then freeze for as many hours until the following noon;* Garama too, that most famous capital of the Garamantes; all which places have been subdued by the Roman arms.

## NOTES

1. The title is inspired by J. Barman, *The West Beyond the West: A History of British Columbia*, Toronto: University of Toronto Press, 1991.
2. F. Förster, “With Donkeys, Jars and Water Bags into the Libyan Desert: the Abu Ballas Trail in the Late Old Kingdom/First Intermediate Period,” *BMAES* 7, 2007; R. Kuper, “Les marches occidentales de l’Égypte: dernières nouvelles,” *BSFE* 158(2003), 12–34; K.-P. Kuhlmann, “Der ‘Wasserberg des Djedefre’ (Chufu 01/1): Ein Lagerplatz mit Expeditions-inschriften der 4. Dynastie im Raum der Oase Dachla,” *MDAIK* 61(2005), 243–289; H. Riemer, “Out of Dakhla: Cultural Diversity and Mobility Between the Egyptian Oases and the Great Sand Sea during the Holocene Humid Phase,” in K. Kroeper, M. Chlodnicki, and M. Kobusiewicz (eds.), *Archaeology of Early Northeastern Africa: In Memory of Lech Krzyżaniak* (SAA 9), 2006, 493–526.
3. *Science*, March 3, 2006: Vol. 311, no. 5765, 1223
4. J. D. Degreef, “The Jebel Uweinat Relief of Mentuhotep II: a Jubilee Scene?” *Sahara* 20(2009), 121–124.
5. E. Hornung, *Die Nachtfahrt der Sonne. Eine altägyptische Beschreibung des Jenseits*, Zürich and München 1991, 37.

6. E. A. W. Budge, *The Egyptian Heaven and Hell*, London: Kegan, Paul, Trench, Trübner & Co., 1905 (and reprints), 88ff.
7. Most recently, A. Schweizer, *The Sungod's Journey Through the Netherworld: Reading the Ancient Egyptian Amduat*, Ithaca/London: CUP 2010; T. Abt in T. Abt and E. Hornung, *Knowledge for the Afterlife. The Egyptian Amduat: A Quest for Immortality*, Zurich: Living Human Heritage Publications, 2003.
8. E. Hornung, *The Ancient Egyptian Books of the Afterlife*. Ithaca: Cornell University Press, 1999, 27.
9. E. Hornung, *Das Amduat. Die Schrift des Verborgenen Raumes herausgegeben nach Texten aus den Gräbern des Neuen Reiches. Teil I: Text, Teil II: Übersetzung und Kommentar* (ÄA 7), vol. 2, Wiesbaden 1963, 3, 17, 19 (10), 40, 44. Hornung 1991, 29f.
10. Hornung 1963, 43, 51, 56, 61.
11. Hornung 1963, 60.
12. The numbering follows S. Wiebach-Köpke, *Phänomenologie der Bewegungsabläufe im Jenseitskonzept der Unterweltbücher Amduat und Pfortenbuch und der liturgischen "Sonnenlitanei," Teil I: Untersuchungen. Teil II: Annotierte Transkription und Übersetzung. Schautafeln* (Ägypten und Altes Testament 55), Wiesbaden 2003. See also the treatment of these passages in I. Hegenbarth-Reichardt, *Der Raum der Zeit. Eine Untersuchung zu den altägyptischen Vorstellungen und Konzeptionen von Zeit und Raum anhand des Unterweltbuches Amduat* (ÄAT 64), 2006, 105f.113.
13. S. Quirke, "Measuring the Underworld," in D. O'Connor and S. Quirke (eds.), *Mysterious Lands*, London 2003, 161–181: 179f. Cf. also E. Hornung, "Die Vermessung der Unterwelt. Altägypten als Kultur des Masses," in E. Hornung and A. Schweizer (eds.), *Schönheit und Mass. Beiträge der Eranos Tagungen 2005 und 2006*, Basel 2007, 219–229.
14. Hornung translates: "nachdem er die 'Wasserfläche des Re' durchfahren hat (bis zum) Wernes"; Wiebach-Köpke: "wenn er das Gewässer-des-Re durchfahren hat bis zum Wernes."
15. Hornung 1991, 46; M. Minas-Nerpel, *Der Gott Chepri. Untersuchungen zu Schriftzeugnissen und ikonographischen Quellen vom Alten Reich bis in griechisch-römische Zeit* (OLA 154) Leuven 2006, 154–161; I. Hegenbarth, "'O seht, ich gehe hinter meinem 3h.t-Auge . . .' Einige Überlegungen zu den Barken des mittleren Registers der zweiten Stunde des Amduat," *Studien zur Altägyptischen Kultur* 30, (2002), 169–185.
16. Similarly, the country of Chad was named after the name of Lake Chad in Kanuri (*Sádā*); N. Cyffer and J. Hutchison (eds.), *Dictionary of the Kanuri Language*, Dordrecht 1990, 151.
17. I would like to thank S. Wiebach-Köpke for providing useful feedback on this debate. Alternatively, it could be noted that both in l. 95 and l. 3431, the labeling as *N.t R<sup>c</sup>* follows a mention of Wernes. Accordingly, ll. 94–98 and ll. 3431–33 could be understood as an anticipated excursus on the Wernes so that *N.t R<sup>c</sup>* would actually denote the latter. On that view, the interstitial realm of the first hour would exclusively be called "gateway." I give here a translation based on that premise:  
  

*l. 91ff.*: Sailing in the gateway of this place. It is 120 miles. It is TOWARD THE WERNES that he sails
18. S. Kröpelin et al., "Climate-Driven Ecosystem Succession in the Eastern Sahara: The Past 6000 Years," *Science* 320/5877 (2008), 765–768. Other palaeolakes were significantly smaller—e.g., the West Nubian Palaeolake, with a maximum surface area of 5330 km<sup>2</sup> ca. 9000 cal. B.P.; P. Hoelzmann et al., "Environmental Change and Archaeology: Lake Evolution and Human Occupation in the Eastern Sahara During the Holocene," *Palaeogeography, Palaeoclimatology, Palaeoecology* 169(2001), 193–217. 202. Some relic lakes still exist today, such as Lake Yoa/Ounianga (see the aforementioned study by Kröpelin).
19. S. J. Armitage et al., "Multiple Phases of North African Humidity Recorded in Lacustrine Sediments from the Fazzan Basin, Libyan Sahara," *Quaternary Geochronology* 2(2007), 181–186.
20. For these reconstructions, see N. Drake and C. Bristow, "Shorelines in the Sahara: Geomorphological Evidence for an Enhanced Monsoon from Palaeolake Megachad," *The Holocene* 16(2006), 901–911: 906–909.
21. F. Bouchette et al., "Hydrodynamics in Holocene Lake Mega-Chad," *Quaternary Research* 73(2010), 226–236: 228.
22. P. Spencer, *The Egyptian Temple. A Lexicographical Study*, London: Kegan Paul International, 1984, s.v.
23. M. Schuster et al., "Holocene Lake Mega-Chad Palaeoshorelines from Space," *Quaternary Science Review* 24(2005), 1821–1827: 1825ff.; Kröpelin et al. 2008, 765.
24. For the measurements, see [atlas.nrcan.gc.ca/auth/english/learning/resources/facts/coastline.html](http://atlas.nrcan.gc.ca/auth/english/learning/resources/facts/coastline.html).
25. T. Schneider, "Nichtsemitische Lehnwörter im Ägyptischen. Umriss eines Forschungsgebiets," in T. Schneider (ed.), *Das Ägyptische und die Sprachen Vorderasiens, Nordafrikas und der Ägäis. Akten des Basler Kolloquiums zum ägyptisch-nichtsemitischen Sprachkontakt Basel 9.-11. Juli 2003*, Unter Mitarbeit von F. Breyer, O. Kaelin und C. Knigge (AOAT 310), Münster 2004, 11–31: 17.
26. For references and literature, see C. Leitz (ed.), *Lexikon der ägyptischen Götter und Gottesbezeichnungen* (OLA 110–116), vol. 2, Leuven 2002, 72–75.
27. L. Bodson, "A Python, *Python sebae* (Gmelin, 1789) for the King: The Third Century B.C. Herpetological Expedition to Aithiopia (Diodorus of Sicily 3.36–37)," *Museum Helveticum* 60(2003),

- 22–38. Further discussion of the ancient evidence in R. B. Stothers, “Ancient Scientific Basis of the ‘Great Serpent’ from Historical Evidence,” *Isis* 95(2004), 220–238. The scientific taxonomy and biology is discussed in B. Lanza and A. Nistri, “Somali Boidae (genus *Eryx* Daudin 1803) and Pythonidae (genus *Python* Daudin 1803) (Reptilia Serpentes),” *Tropical Zoology* 18(2005), 67–163 (on the ancient evidence, 110–112).
28. Depiction in B. Dexter Hoyos, *Truceless War: Carthage’s Fight for Survival, 241 to 237 B.C.*, Leiden 2007, cover and ill. 8.
29. J. Osing, *Die Nominalbildung des Ägyptischen*, 2 vols, Mainz 1976, 297 with n. 1192.
30. L. Morenz, “Apophis: On the Origin, Name, and Nature of an Ancient Egyptian Anti-God,” *JNES* 63(2004), 201–205: 203.
31. Morenz 2004, 204.
32. See, e.g., W. Schenkel, *Einführung in die altägyptische Sprachwissenschaft*, Darmstadt 1990, 34.50.53; C. Peust, *Egyptian Phonology. An Introduction to the Phonology of a Dead Language*, Göttingen 1999, 82.88.100–102.127–128; T. Schneider, “Etymologische Methode, die Historizität der Phoneme und das ägyptologische Transkriptionsalphabet,” in *Lingua Aegyptia* 11(2003), 187–199; id., *Ausländer in Ägypten während des Mittleren Reiches und der Hyksoszeit* (Ägypten und Altes Testament, 42), Teil 2: Die ausländische Bevölkerung, Wiesbaden 2003, 116–118.
33. This etymology was positively received by Erik Hornung (E. Hornung, “Söhne der Erde”—Schlangen im Diesseits und Jenseits der Ägypter,” in E. Hornung/A. Schweizer [eds.], *Die Weisheit der Schlange*, Eranos 2003/2004, Basel 2005, 71–93: 78) and more skeptically by D. Klotz (rev. of T. Schneider [ed.], *Das Ägyptische und die Sprachen Vorder-asiens, Nordafrikas und der Ägäis. Akten des Basler Kolloquiums zum ägyptisch-nichtsemitischen Sprachkontakt Basel 9.–11. Juli 2003*. Unter Mitarbeit von F. Breyer, O. Kaelin und C. Knigge [AOAT 310], Münster 2004, *BiOr* 64[2007], 101–105).
34. See n. 24. The references can be found in J. Lukas, *Die Sprache der Tubu in der zentralen Sahara*, Berlin 1953, 199.199 (*drënu*); C. Le Coeur, *Dictionnaire ethnographique Têda* (Mémoires de l’Institut Français d’Afrique Noire 9), Dakar 1950, 29.47; C. and M. Le Coeur, *Grammaire et textes Têda-Daza* (Mémoires de l’Institut Français d’Afrique Noire 46), Dakar 1956, 321.377; for the double use of the adjective as a means to express an elative, see C. and M. Le Coeur 1956, 233 with n. 2.
35. See R. Blench, *Archaeology, Language, and the African Past*, New York 2006, chapter 2: Nilo-Saharan (95–108).
36. L. M. Bender, *The Nilo-Saharan Languages. A Comparative Essay*, München/Newcastle 1997, 81 [2.1.] and 78 [6.].
37. Hegenbarth 2002; Minas-Nerpel 2006, 154–161.
38. Hornung, *Amduat* (see n. 9), vol. 2, 46; K. de Smet, “Status of the Nile Crocodile in the Sahara Desert,” *Hydrobiologia* 391 (1999), 81–86.
39. N. de G. Davies/A. H. Gardiner, *The Tomb of Amenemhet (No. 82)*, 2 vols, London 1915, 103.
40. See the comprehensive overview of the debate in part I of S. Wiebach-Köpke, *Phänomenologie der Bewegungsabläufe im Jenseitskonzept der Unterweltbücher Amduat und Pfortenbuch und der liturgischen “Sonnenlitanei,” Teil I: Untersuchungen. Teil II: Annotierte Transkription und Übersetzung. Schautafeln* (Ägypten und Altes Testament 55), Wiesbaden 2003.
41. L. Gestermann, “Königliche Vorstellungen zu Grab und Jenseits im Mittleren Reich, Teil II: Osirisgräber des Mittleren Reiches in königlichem Kontext: Amduat, 6. Stunde,” in R. Gundlach and W. Seipel (eds.), *Das frühe ägyptische Königtum. Akten des 2. Symposiums zur ägyptischen Königsideologie, Kunsthistorisches Museum Wien 24.-26.9.1997* (ÄAT 36,2), Wiesbaden 1999, 97–110.
42. For wr: W. Schenkel, *Zur Rekonstruktion der deverbalen Nominalbildung des Ägyptischen* (GOF IV.13), Wiesbaden 1983, 93.158; J. Osing, *Die Nominalbildung des Ägyptischen*, 2 vols, Mainz 1976, 149. For n=s: Schenkel, *Einführung in die altägyptische Sprachwissenschaft*, Darmstadt 1990, 90. For nsw: J. Zeidler, “Die Entwicklung der Vortonsilben-Vokale im Neuägyptischen,” in L. Gestermann and H. Sternberg-El Hotabi (eds.), *Per aspera ad astra: Wolfgang Schenkel zum neunundfünfzigsten Geburtstag*, Kassel 1995, 195–237: 224ff.; J. Zeidler, “Beiträge zur Nominalbildung des Ägyptischen,” *Welt des Orients* 29, 1998, 21–32: 27f.
43. Lukas 1953, 189.200, 35 (Fluss, See, Wasseransammlung); Le Coeur 1950, 101: “rivière, eau qui coule; nappe importante: le Tchad”; C. and M. Le Coeur 1956, 330.
44. Lukas 1953, 3 (who mentions also Têda *fwéd*); C. and M. Le Coeur, 1956, 21: “Le f qui est bilabial, c’est à dire soufflé en allongeant et arrondissant les deux lèvres, est un cas à part. En tēda, Il est accompagné de v, également bilabial et très proche de w, sans que j’aie bien pu déterminer s’il s’agit d’un dédoublement ou d’une simple variante, en même temps que variante ou dédoublement de w et b.”
45. Le Coeur 1950, 195; C. and M. Le Coeur 1956, 378; Lukas 1953, 200.
46. Lukas 1953, 36f.
47. Some commentators have seen this as a possible epithet of the sun god. C. Leitz (ed.), *Lexikon der ägyptischen Götter und Gottesbezeichnungen* (OLA 110–116), vol. 1, Leuven 2002, 107 lacks the *Amduat* reference.
48. For another attempt at elucidating Ancient Egyptian traditions by reference to modern motifs in North Africa, see T. Schneider, “Contextualizing the Tale of the Herdsman,” in T. Schneider and K. Szpakowska (eds.), *Egyptian Stories. A British Egyptological Tribute in Honour of Alan B. Lloyd on the Occasion of His Retirement* (AOAT 347), Münster 2007, 187–196.
49. A. Kronenberg, *Die Têda von Tibesti* (Wiener Beiträge zur Kulturgeschichte und Linguistik, Bd. 12), 1958, 105. Cf. on the Têda/Tubu also V. Beltrami, *Il Sahara centro-orientale. Dalla Preistoria ai tempi dei nomadi Tubu* (Cambridge Monographs in African Archaeology 71 = BAR International Series 1667), Oxford 2007.
50. Kronenberg 1958, 127f.