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Recommended Citation

Younker, Randall W. and Koudele, Katherine, "Camel Petroglyphs in the Wadi Nasib and Their Implications for the Use of Camels in the Late Bronze Age" (2007). *Faculty Publications*. 2750.

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Camel Petroglyphs in the Wadi Nasib and their Implications for the Use of Camels in the Late Bronze Age

Introduction

In July 1998, a small party of colleagues from Andrews University¹ undertook a Jeep trip to the Wadi Nasib (“the valley of the stone altar”) in Sinai (FIG. 1) to visit the well-known Proto-Sinaitic Inscriptions reported and photographed by Dr. Georg Gerster in 1961 (Gerster 1961: 62; Albright 1966: 3)². The inscriptions (designated at Gerster No.1 and Gerster No. 2), are located on the vertical face of a large rock on the north side of the pass that runs through the north-south running ridge that serves at the eastern boundary of the Wadi Nasib. The pass, itself, is at the head of tributary wadi of the Wadi Nasib that is located immediately east of the bedouin cemetery of Bir Nasib. The settlement of Bir Nasib proper is located just to the south of the cemetery. Just east of the cemetery there is a trail (actually several meandering trails) which climbs eastward along the edge of this tributary up to the cut or pass. The Proto-Sinaitic inscriptions were easy to locate and were found to be pretty much in the same state of preservation as when Gerster first found them nearly forty years earlier.

The site was already known from explorations by Sir Flinders Petrie (FIG. 2) who recorded an inscription of **Ammenemēs III** of the 12th Dynasty (FIG. 3) – Petrie documented the location of this inscription at the top of the pass by a mark in a photo which appeared in his *Researches in Sinai* in 1906 (FIG. 4). The Ammenemēs III inscription

is located two meters to the right of Gerster No. 1. The Egyptian inscription was carved into the face of the rock in the form of a “stele” and dates from the 20th year of Ammenemēs III (Gardiner and Peet 1952: Pl. XIV, no. 46; 1955: 76)³. This inscription is quite weathered and the surviving portion measures only 20 X 23cm. It is clear that the inscription was originally written in three horizontal lines of hieroglyphs at the top, while the lower part was divided into six vertical columns. It is these six vertical columns that have pretty much eroded away. The translation of Gardiner and Peet of the surviving top portion of the inscription reads: “Year 20 under the majesty of the king of Upper and Lower Egypt Nema‘rē‘, son of Rē‘ Ammenemēs, living like Rē‘ eternally” (Gardiner and Peet 1955: 76). Gardner and Peet were unsure if Petrie had seen the Proto-Sinaitic inscriptions near the Ammenemēs stele and considered the former as insignificant or simply missed them altogether.

Visiting the Proto-Sinaitic Inscriptions

Whether or not Petrie was the first to see these Proto-Sinaitic inscriptions, they definitely were made known to the world by the famous Swiss photographer Dr. Georg Gerster (FIG. 5) in 1961 (Gerster 1961: 62; Albright 1966: 3). The first of the two Proto-Sinaitic inscriptions, known as Gerster No. 1, is found two meters to the left of the Ammenemēs III inscription (Gardiner and Peet 1952: Pl.

¹ The party included the author, Dr. William Shea, Dr. Richard Davidson, Dr. JoAnn Davidson, Dr. David Merling, Devin Zinke, Rahel Davidson, John Davidson, Rebecca Younker, and Michael Younker.

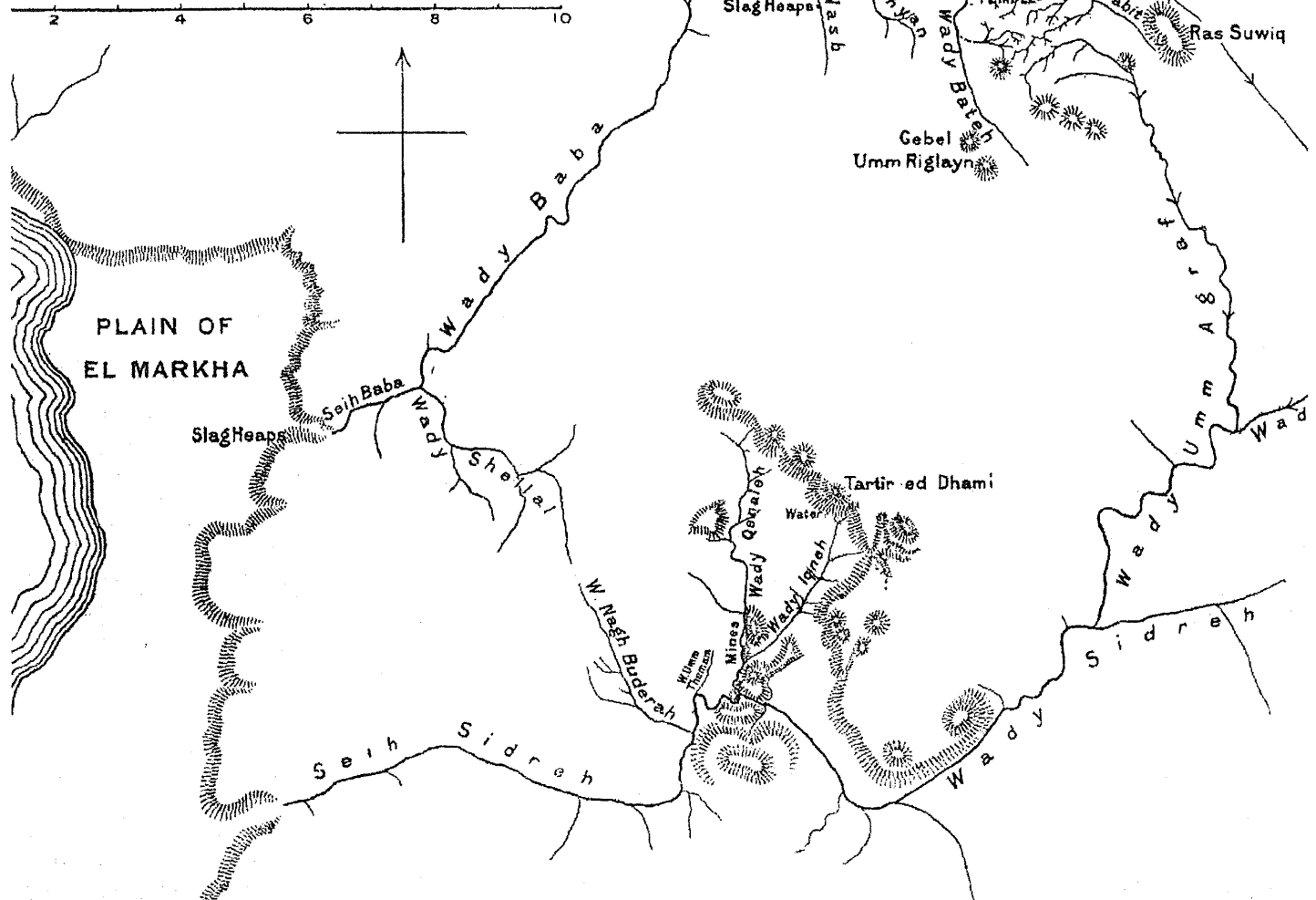
² Gerster notified William Albright about the Wadi Nasib inscriptions on March 7, 1960. The inscriptions were initially published by J. Leibovitch in *Le Muséon* 74 (1961). They were also commented on by Sir Alan Gardiner in the *Journal of Egyptian Archaeology* 48 (1961: 461ff) and by Albright, himself, in his small volume

entitled *The Proto-Sinaitic Inscriptions and Their Decipherment* (Harvard University Press, 1966: 28-29).

³ Immediately to the right of the Gerster text, No. 1 Albright thought there was the outline of a rectangular panel with a rounded corner and a cartouche which appears to enclose the name of Sekhem-re‘-khu-tawi, the 15th pharaoh of the Thirteenth Dynasty who ruled over three years (ca. 1760BC). However, Rainey doubts this reading (Rainey 1975: 108).

MAP OF THE VALLEY SYSTEM
OF MAGHAREH AND SERABIT

Scale 1:250000
Miles



Map of Wadi Nasib (Sinai).

(IV, no. 46; 1955: 76 see FIG. 6). Gerster notified Villiam Albright about the Wadi Nasib inscriptions on March 7, 1960. The inscriptions were initially published by J. Leibovitch in *Le Museon* 74 (1961). They were also commented on by Sir Alan Gardiner in the *Journal of Egyptian Archaeology* 8 (1961: 461ff) and by Albright himself, in his small volume entitled *The Proto-Sinaitic Inscriptions and Their Decipherment* (Harvard University Press 1966: 28-29).

The actual reading of the inscriptions has been a matter of some discussion. Albright (1966) failed to recognize the 4th column as belonging to the inscription and tried to make sense of only the remaining three. Albright's transcription was: D {L} T{N}

LHB{R} {N} `LW. He translated the inscription as "O father E[1], gra[nt] to Heber re[st] beside him!" Rainey (1975), who was able to personally examine the inscription, subsequently noted that there is a 4th column that Albright ignored or overlooked. Also, he modified the readings of a few of the characters. Rainey's reading of the whole text is: BRKT 'D' RB HWT WL`H[. . .] or "Blessing(s) (on/of) 'Ad(d)a', chief of the stockades(s), and (on/of) `h[. . .]." Other scholars have proposed still other variant readings (e.g. Shea 1987).

About 20cm to the right of the Ammenemēs III stele is the second, brief Proto-Sinaitic inscription (Gerster no. 2)⁴. Only two characters and part of a third have survived the ravages of time. The two dis-

There was originally some confusion on the precise spatial relationship of Gerster 2 and the Ammenemēs III stele. The original artist depiction, from whom Gardiner worked, showed the bull's

head as directly under the Ammenemēs III stele. In actuality it is about 20cm to the right (Gardiner 1962: 45-6).



2. Sir Flinders Peetrie.

cernable characters include the bull's head (*aliph*) and the zigzag (*mīm*). Obviously, there is too little of this inscription to make out a coherent translation. Like Gerster no. 1, this second Proto-Sinaitic



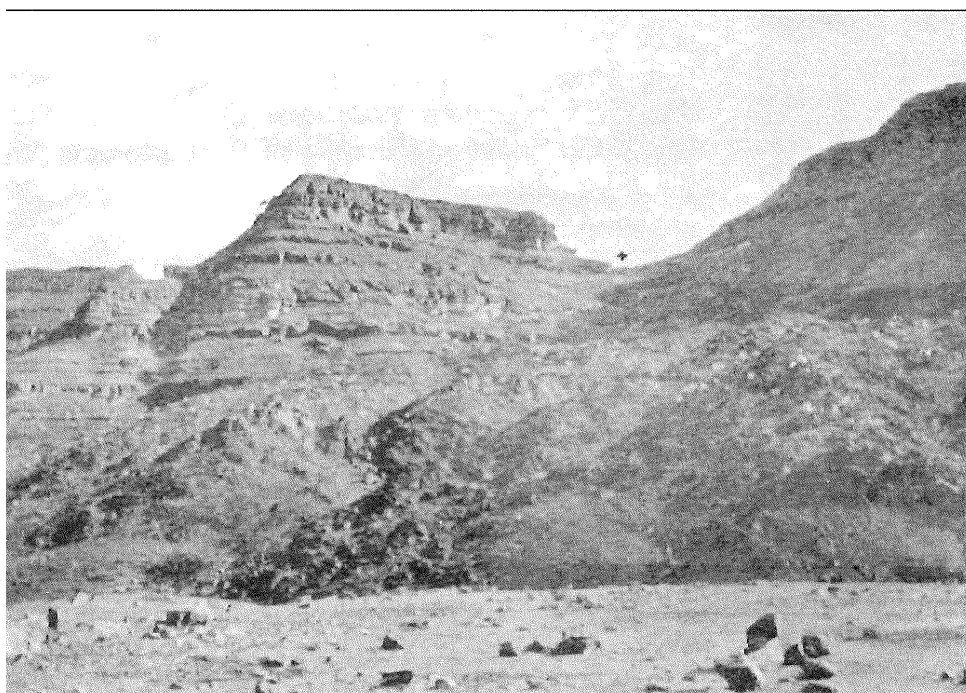
3. Ammenemēs III Inscription.

inscription is later than the Ammenemēs III stele. It is better preserved and the patina is lighter than the Ammenemēs III inscription, indicating that Proto-Sinaitic was carved more recently. Most scholars agree that based on the style of the characters and the color of the patina, both Gerster nos. 1 and 2 are contemporary.

The date of the Proto-Sinaitic inscriptions has also been a matter of some discussion. Originally, it was thought that they should be dated to the Middle Kingdom. This date seemed to make sense in view of the presence of the Ammenemēs III stele (Gardiner 1962). Currently, however, most scholars seem to agree that these should be dated later to the New Kingdom's 18th Dynasty, the Late Bronze Age in archaeological terminology. This is because additional examples of this script, which were subsequently found in Israel at Shechem, Gezer and Lachish, appear to be older because they are associated with an archaeological context dating to the 17th-16th centuries BC and they are drawn more realistically (i.e. "primitively"). The characters of the Bir Nasib inscriptions, on the other hand, are drawn in a more schematized form suggesting some "streamlining" of the pictographs through time. Most scholars thus accept a date in the 15th century BC for the Proto-Sinaitic inscriptions (Naveh 1987: 26).

Discovery of Camel Petroglyphs

After examining and photographing the Proto-Sinaitic inscriptions and the Ammenemēs III stele,



4. Petrie's Picture Showing Location of Ammenemēs III Inscription in Wadi Nasib.



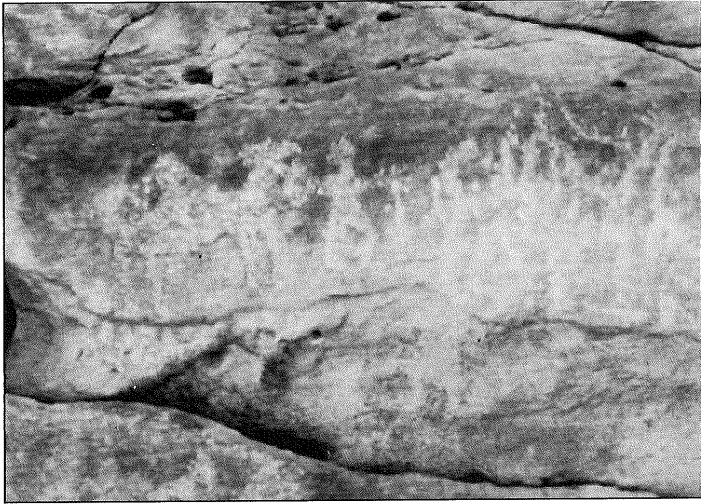
5. Dr. Georg Gester.



6. Proto-Sinaitic Inscription at Wadi Nasib.

we stepped back to look at the rest of the rock. Generally not mentioned in the reports of the inscriptions is the presence of a number of petroglyphs found on the same rock face near the inscriptions. From the color of the patina and the close association with the inscriptions, it appeared that the petroglyphs generally span the same time period as the Ammenemēs III and Proto-Sinaitic inscriptions.

As we examined the petroglyphs, we followed the rock face to the right (east) two or three meters until we could look down the other side of the pass. As we continued to scan the petroglyphs, we suddenly noticed a couple of distinctive animal petroglyphs, camels, that were represented as walking caravan-style across the rock to the right (in an easterly direction) (FIG. 7). The camels are about



7. Wadi Nasib Camel Petroglyph.

10-12cm high and 16-20cm in length. The camel figures were quite distinctive, although the first camel (to the right) had been somewhat defaced by later engravings. The trailing camel, however, was not defaced or eroded so it is quite distinct. The long neck, large head and single hump of the dromedary can easily be discerned. What made the camel petroglyphs even more interesting was the presence of human figures in association with them. The lead camel appears to be followed by a walking man. A second walking man is clearly leading the trailing camel. The petroglyphs certainly are depicting domesticated camels.

Dating the Camel Petroglyphs

Petroglyphs are, of course, notoriously difficult to date. One way is to note the archaeological evidence for human activity in this region. In this case we have a record of activity from the Middle Kingdom down to the New Kingdom of Egypt. Archaeologically, the peak of activity in this region was during the 12th and 18th dynasties of Egypt. There is evidence for later activity during the 19th and 20th dynasties over at Sarābiṭ al-Khādīm, although this was at a reduced scale when compared with the earlier periods of activity. At Wadi Nasib proper, there is presently no evidence for activity later than ca. 1500BC, during the Late Bronze Age. This wadi is somewhat isolated and was probably not the main route between Sarābiṭ al-Khādīm and Egypt. This route likely had a more restricted use, perhaps connecting the mines with the smelting area (Gardiner and Peet 1955: 5, 30). Camels may have been used to bring ore to the smelting area.

A second way of dating is to attempt to reconstruct the sequence of rock engravings (e.g. Anati

1968). As noted, the amount of erosion and the color of the patina of the camel petroglyphs are close to that of the Proto-Sinaitic inscriptions, providing yet another small piece of evidence that the two are roughly contemporaneous. That the camels are not the latest rock engravings is indicated by attempts to draw new characters over the outlined of the lead camel.

A third, and perhaps better, way to date a petroglyph is via its accompanying inscriptional evidence. In the case of Wadi Nasib Camel Petroglyph, we have already noted at least two datable inscriptions that appear on the same rock face. The first is the rock stele of Ammenemēs III of the 12th Dynasty. The second inscription is the Proto-Sinaitic inscription known as Gerster Inscription I. As noted, there is virtually universal agreement that these inscriptions date to the 15th century BC (i.e. the transition from LB I to LB IIA). The date of the inscriptional evidence at Wadi Nasib correlates precisely with the archaeological data that show that the peak of activity was during the 12th and 18th dynasties of Egypt. There is evidence for later activity during the 19th and 20th dynasties over at Sarābiṭ al-Khādīm, although this was at a reduced scale when compared with the earlier expeditions. Again, at Wadi Nasib proper, there is presently no evidence for activity later than ca. 1500BC.

Taking all three lines of evidence together, it seems quite reasonable to date the camel petroglyphs to about the middle of the period of peak activity in this region at nearby Sarābiṭ al-Khādīm. That is, around 1500BC.

Implications of the Wadi Nasib Camel Petroglyphs

The possibility that these camel petroglyphs are contemporary with the mining activity at Sarābiṭ al-Khādīm provides new insights into the copper and turquoise industry with regards to transport of the mined materials. Previously, it had been assumed that donkeys were the primary mode of transporting copper and turquoise from the mining centers back to Egypt. Certainly donkeys were used. However, this petroglyph suggests that camels were in use, too. Indeed, these two camels could represent a small caravan. (interestingly, full-size representations of a camel caravan have been recently found at Petra — however, these are carved in relief). Camels would be ideally suited for transporting loads of copper and turquoise, especially as part of

he trail crosses over sandy stretches. Camels cannot only travel across sand more easily, they carry twice the load of a donkey, move faster and need less food and water (Davis 1987: 166). There does not appear to be a load on the back of the camels depicted in the petroglyph, although this may not be surprising since the camels are shown as headed in the direction toward Sarābiṭ al-Khādīm and may not have picked up their loads [of ore?] as yet. Another possibility is that these camels were employed locally and may have just dropped off loads of ore near the smelting center in Wadi Nasib and were returning to Sarābiṭ al-Khādīm a few miles to the east to pick up more ore.

These camel petroglyphs also have implications for the broader history of camel domestication in the Levant. Unfortunately, the question of the date of camel domestication has become entangled with the question of the historicity of the Biblical references to camels, introducing an emotional element into the discussion that has influenced objective attempts to understand the nature, timing, and process of camel domestication on its own terms. This issue can largely be traced to William F. Albright's skepticism (1942, 1945, 1949: 207) that references to camels in the patriarchal narratives (generally dated as pre-Iron Age) are "anachronistic". According to Albright camels were not domesticated (and hence used in by humans for travel and transport) until sometime into the Iron Age, i.e. after 1200BC. As far as we are aware Albright had nothing against camels *per se*. However, his awareness of the use of donkey caravans in Mesopotamia during the Middle Bronze Age and his development of the donkey caravan hypothesis (Amorite hypothesis), in which he superimposed the patriarchal narrative of Abraham's migration from Ur to Palestine upon the phenomenon of these donkey caravans, seems to have encouraged him, and others, to dismiss isolated bits of data that suggested camels could have been in use in earlier times.

Ironically, while Albright's donkey caravan, or Amorite hypothesis, has been rejected by most scholars today, there continue to be some scholars who follow Albright's skepticism that references to camels in the patriarchal narratives are "anachronistic" (e.g. Köhler-Rollefson 1993: 183).

However, there is now a growing body of scholars who believe that camel domestication must have occurred earlier than previously thought (prior to the 12th century BC). This is especially evident among archaeologists working in pre-historic periods. These conclusions are increasingly being integrated into the understandings of archaeologists working in the historic periods of the Bronze and Iron Ages and has forced them to reassess the patriarchal narratives in view of this new information (e.g. Ripinsky 1984; Coote and Whitlam 1987: 102; Zarins 1992: 826; Borowski 1998: 112-18)⁵. This is not to say that domesticated camels were abundant and widely used in the ancient Near East in the early second millennium BC. However, the patriarchal narratives do not necessarily require large numbers of camels. As Borowski (1998: 118) notes, the biblical evidence indicates that the camel was used primarily as a pack and riding animal during patriarchal times. These data do not require large herds associated with later camel-breeding nomads. In this regard Gottwald (1974, 1978) is correct in not characterizing the patriarchs as "pastoral nomads" camel or otherwise. Indeed, the Hebrews had a prohibition against eating camel meat (cf. Lev. 11:4; Deut. 14:7) that probably extended to the drinking of camel milk (Davis 1986: 147). Thus, the patriarchs were not likely keeping large herds of camels for subsistence in the tradition of later camel nomads. Rather, camels were used in smaller numbers, primarily as pack and riding animals. The smaller amount of evidence for domestic camels in the late 3rd and early 2nd millennium, especially in Palestine, is in concordance with this more restricted use.

Moving beyond the question of the references to camels in the patriarchal narratives, the camel petroglyph from the Wadi Nasib, adds to the growing body of evidence for the use of domesticated camels (albeit on a modest scale) in the ancient Near East prior to the 12th century BC. Beyond the fairly frequent appearance of camel bones in pre-Iron Age archaeological contexts (which do not necessarily support domestication), there are numerous artistic depictions of camels being utilized by humans. Examples include: (1) the Abusir el-Melek camel figurine of the 1st Dynasty which

⁵ This discovery evokes a parallel found at Aswan, Egypt that also depicts a man leading a camel by a rope. This petroglyph was originally described by Georg Schweinfurth in 1912 (a picture of this petroglyph appears in Ripinsky 1983: 27, and 1985:139). Again,

the petroglyph can be possibly be dated by an accompanying inscription. The inscription is hieratic and was dated by Müller to 2423-2263BC. (6th dynasty), making it considerably older than The Wadi Nasib Camel Petroglyph.

shows a recumbent camel carrying a load (Keimer 1929; Monten 1959: notes 6 and 7); (2) the Rifeh Cemetery camel statuette (near Memphis) dated to between 1550-1200BC, which depicts a camel carrying two jars (Petrie 1907: 23, pl. 27); (3) the Benha figurine of a camel carrying jars (1300BC); (4) Hama (Syria) a camel figurine (ca. 2300BC) which seems to be harnessed with ropes (Ingholt 1940: 38 and Pl. XIII:1); (5) the Syrian Cylinder Seals (18th century BC) which depict riders (deities)? on two-humped camels (Prodoa 1977).

This growing body of evidence which geographically spans Egypt, Cis- and Transjordan and Syria (not to mention Mesopotamia), and now includes the Wadi Nasib Camel petroglyph, would seem to require us to reassess the role of the camel in trade and transport throughout the eastern Levant, including Transjordan, during the Bronze Ages.

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