

Fig. 1 Detailed view of the first two northern basins seen from the east. The basin on the left of the picture shows the remains of an element protruding from the square outline of the block, which may indicate the level of the original pavement (photo M. Nuzzolo)

An enigmatic graffito from the sun temple of Nyuserre and the meaning of the so-called "slaughterhouse"1

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The sun temple of Nyuserre, first discovered by German archaeologist Ludwig Borchardt at the end of the nineteenth century, is the only sun temple which is nowadays still largely preserved and visible out of the six temples known from the historical sources (fig. 1). The study of this temple and the right interpretation of its different components are thus pivotal for our comprehension of the architecture and religious peculiarities of the sun temples as a whole. One part of the sun temple of Nyuserre seems to be particularly interesting in this regard, namely the so-called "slaughterhouse". In fact, new archaeological investigations at the site, as well as a reassessment of the available epigraphic and historical sources, demonstrate that Borchardt's interpretation of this area of Nyuserre's sun temple is wrong. Consequently, a new proposal can be put forward.

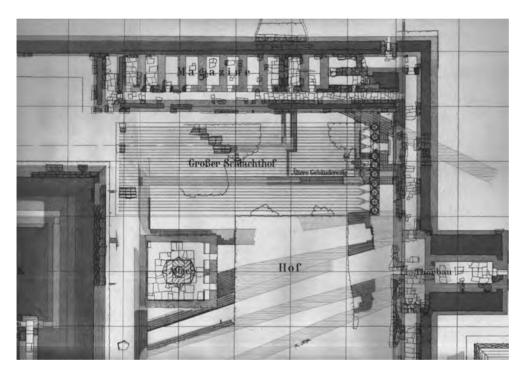
The area of the so-called "big slaughterhouse" is undoubtedly one of the largest but yet most enigmatic parts of the sun temple of Nyuserre. The area, which was the very first part of the temple to be unearthed by Borchardt in 1898 (Schäfer 1899: 6–7; Borchardt 1905: 78), actually occupies around 800 sq. m (Borchardt 1905: 46) and is located in the north-eastern sector of the sun temple, in

between the storerooms and the central altar (fig. 2). It was characterized by a limestone pavement inset with channels, each 24 cm wide. This pavement was raised about 15 cm above the courtyard level and was connected with a row of 10 alabaster basins, of which 9 were, and still are, preserved in situ (Borchardt 1905: 46, and Abb. 37; see also figs. 3-4 here).2 These basins were placed at the eastern end of the area into account, near the main enclosure wall of the solar temple, and were aligned along the north-south axis. For each of the basins but the two exterior ones, Borchardt reconstructed 3 channels, for an overall number of 28 channels set into the pavement (Borchardt 1905: 47 and fig. 2a here). The alabaster basins are circular in the middle – with a diameter of about 1.2 m and a depth of roughly 50 cm – but, from the outside, they look like cuboid objects, measuring 1.55 m in width and 76 cm in height (figs. 4-5). Only the round rim of the actual circular basin comes out from this square structure. Along the rim, there are also 26 very small round holes, whose function is still unknown (Schäfer 1899: 6-7; Borchardt 1905: 15, 46-48, Abb. 39). Each basin is characterized by a horizontal duct, placed in the upper, western part of the basins, which should have connected the above grooved pavement with the inside of the basins for the collecting of the liquids (figs. 4–5).

On the back (eastern side) of one of these alabaster basins, Borchardt found a hieratic inscription which – he assumed – should determine the original name of the area as a slaughterhouse. He read it as

and translated this as "Offering Place of the Royal Temple" (Borchardt 1905: 48; and fig. 6 here). However, a new reading can be proposed for this text, whose characteristics we shall see further below.

According to the German scholar, this part of the temple was an actual area for the butchering of the cattle, which were conducted here through the valley temple and the causeway to be sacrificed (for a 3D reconstruction, see Borchardt 1905: Bl. 1 and fig. 2b here). The basins must have had the function either to collect the blood of the victims which were sacrificed in the paved area, or the water used to clean the area itself after the sacrifice (Borchardt 1905: 48).



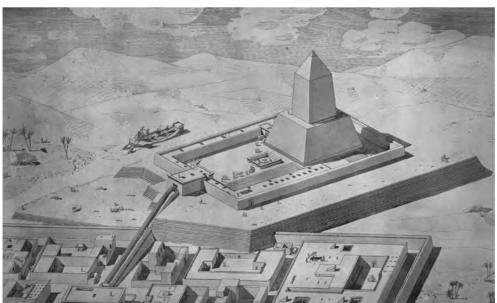


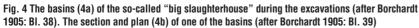
Fig. 2 Relevant part of the plan of the sun temple of Nyuserre with the different building phases (2a) and the 3D reconstruction (2b) (after Borchardt 1905: Bl. 1, 6)

Fig. 3 Area of the so-called "big slaughterhouse" during the excavations (after Borchardt 1905: Bl. 36, 54). In the first image (3a), it is clearly visible that a structure, apparently in limestone and mud bricks, seems to put the slaughterhouse and the magazines into direct communication (on the left side of the picture). The structure was then destroyed since in a later image (3b) it is no longer visible









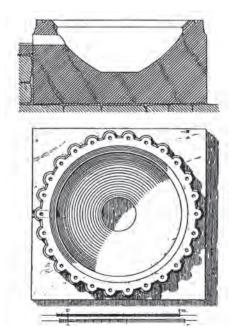






Fig. 5 The basins nowadays: (5a) the basins seen from the top of the obelisk; (5b) the basins from the north-western corner (photo M. Nuzzolo)

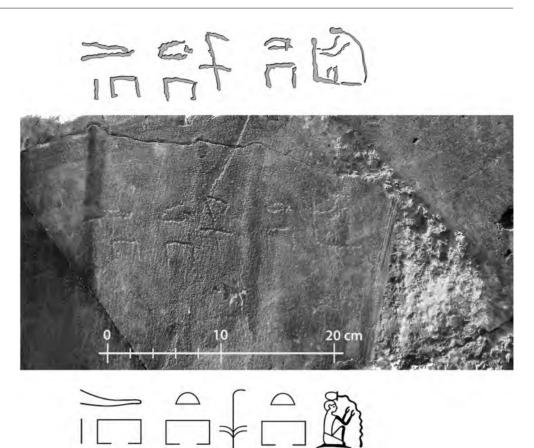
Based on Borchardt's reconstruction, the entire area must have been accessible from the western side, near the north-eastern corner of the obelisk, by means of small podiums leading up to the grooved pavement, and must have been surrounded by a balustrade, running along its whole perimeter, possibly to pen in the animals (Borchardt 1905: 46). Borchardt also expected to find some closed spaces, possibly with loopholes on the sides, where the actual slaughtering would have taken place, but no such find was actually discovered (Borchardt 1905: 47).

In the north-western sector of the temple, at the bottom of the obelisk (see fig. 2b), Borchardt also found very

similar facilities, namely 10 basins, which had three rounded holes (and hence three ducts) each, and were very likely connected to channels to drain in liquids, although no trace of a grooved pavement similar to the one described above was actually found in this area of the temple (Borchardt 1900: 96; Borchardt - Schäfer 1901: 92-93; Borchardt 1905: 51). Moreover the basins of this area were made in rough limestone (and not in fine alabaster as the other ones) and did not exhibit the small round cavities along the edge (Borchardt 1905: 51, Abb. 45).

Finally, in the western courtyard, namely the wide, empty area in-between the obelisk and the enclosure wall

Fig. 6 The hieratic inscription on one of the basins and its hieroglyphic transliteration. It is engraved on the third preserved basin from the north (photo M. Nuzzolo)



of the temple (see fig. 2b), Borchardt also found some relief fragments depicting slaughtering activities (Kees 1928: Bl. 23). Although the location of these reliefs was quite far from the area of the alleged slaughterhouse, their discovery was taken by the German scholar as a further hint as to the original function of the area into account. We should also not forget that slaughtering scenes are quite common in the repertoire of the contemporary tombs and pyramid complexes but, at the time of Borchardt's exploration of the sun temple, they were not known in the Old Kingdom royal monuments. This lack of data may thus have further affected Borchardt's interpretation of the discussed area.

Taking into account the above elements, Borchardt concluded that the two areas of the sun temple should originally have had the same arrangement and were used for the same butchering activities. He thus gave the structure in the north-eastern part of the temple the conventional name of "big slaughterhouse" to distinguish it from the smaller structure in the north-western sector, which he named "small slaughterhouse". The reason for the doubling of the slaughterhouses was identified by the German scholar in the complementary functions of the two areas, possibly intended for the presentation of offerings to Re and Hathor respectively (Borchardt 1905: 51–52).

In this way, he also developed a previous suggestion by Kurth Sethe, who actually argued, some years before the discovery of the sun temple, and based on the sole titles of private persons, that a joint cult of the two deities should have existed in all the sun temples and pyramids of the Old Kingdom (Sethe 1889: 114).

Criticalities of Borchardt's interpretation

Since the 1970s, Borchardt's identification of these two areas as slaughterhouses has been seriously questioned. In his study on slaughterhouses in the Old Kingdom, Arne Eggebrecht first expressed serious doubts about the actual slaughter of offering animals in the sun temple. Lacking new archaeological elements, he argued that, ideologically, the so-called sun temple slaughterhouses might have been intended only for ritual display and cleansing of the meat, which was to be carried out in the basins before being offered on the central altar. He also emphasized that the slaughtering activities did not fit the ritual purity of the temple according to the Egyptian mentality (Eggebrecht 1973: 124–137, esp. 128–131).

However, it was the discovery of the "House of the Knife" (hwt-nmt) in the 1980s by the Czechoslovak team led by Miroslav Verner that added the most important data in this regard. In the slaughterhouse located near the southeastern corner of Raneferef's pyramid complex, benches and binding-stones for the slaughtering of the animals were found, as well as a consistent number of bones, ritual flint knives and other related tools. These elements demonstrate the real use of the area for the slaughtering of the animals. To the contrary, none of these instruments or facilities was ever found in Nyuserre's sun temple (Verner 1986: 182–187).

The name itself by which the structure in Raneferef's complex is defined, *i.e. hwt-nmt*, is different from the name of the structure mentioned in the above hieratic inscription in the sun temple. The *hwt-nmt*, however, seems to be the

correct name to define the slaughterhouse in the Old Kingdom, for in the Abusir papyri of either the pyramid of Neferirkare (Posener-Kriéger 1976: 353, 431, 507–510) or Raneferef (Posener-Kriéger – Verner – Vymazalová 2006: 347–349) we have a number of mentionings of the *hwt-nmt* in a context that cannot but refer to a slaughterhouse.

From the archaeological standpoint, we also have several elements that appear to contradict Borchardt's hypothesis of a slaughterhouse inside the sun temple. First of all, the analysis of the ground plan of the Old Kingdom pyramid temples clearly demonstrates that they did not include a slaughterhouse, probably on account of its profane nature which did not fit the ritual purity of the temple (see also Posener-Kriéger – Verner – Vymazalová 2006: 348).

Furthermore, in the sun temple of Nyuserre there is no drainage system connected to the slaughterhouses.³ This draining system would have been pivotal to collect liquids and convey them out of the temple and can be indeed found, although not connected to a slaughterhouse, in the pyramid temple of Sahure (Borchardt 1910: 75–83).

Moreover, both the limestone basins of the "small slaughterhouse" and the alabaster ones of the "big slaughterhouse" were tapped at the bottom and their entrance holes seem to be mainly intended to direct liquids onto the grooved pavement rather than collecting liquids coming from it. At any rate, even if we imagine that the system described above had been intentionally made to collect the blood of the cattle which were sacrificed on the grooved pavement it is yet not clear why this blood would have been drained into the basins, not having any cultic value.

It is also worth noting that the sun temple of Nyuserre is characterized by very small and narrow entranceways (see Borchardt 1905: Bl. 6; Nuzzolo – Pirelli 2011: pl. 41–42), and this makes it practically impossible to lead cattle with broad horns into the temple.

Last but not least, from a practical point of view, carrying out slaughtering activities far from the water source, as is indeed the case with the sun temple, which is not located in the valley area, would have been very unsuitable and inconvenient.

Archeological-textual evidence for the slaughterhouses in the Fifth Dynasty royal monuments

In addition to the above elements, other archaeological-textual evidence seems to indicate that slaughterhouses were actually located in the pyramid cities, or attached to the royal palace, and never situated in the pyramid/sun temple.

Sahure's slaughterhouses, for example, are mentioned in some hieratic inscriptions on jar dockets found in the temple of Raneferef, and are clearly related to the palace of the king, called *wts nfrw S3h.w.R*^c (Posener-Kriéger 1993: 7–16; Verner *et al.* 2006: 272–286; Vymazalová 2011: 302).

Documents from Neferirkare's pyramid temple archive mention the sun temple *St-ib-R*^c several times as the only

source of meat used in the pyramid temple of the king for his funerary offerings *prt-hrw* (Posener-Kriéger 1976: 43–44, 47–52; Posener-Kriéger 1979: 145). The meat was transported by boat from the sun temple to the pyramid temple of the king (Posener-Kriéger 1976: 631) where it is logical to assume, although the sources are silent in this regard, that it was partially consumed and partially stocked. However, in the papyri there is no mention of a slaughterhouse located inside the sun temple that could demonstrate that the meat was actually slaughtered therein. Rather, the documents refer to the altar of Re in the sun temple as the place of provenance of the meat (Posener-Kriéger 1976: 50, 611).

In this regard, it is also interesting to note that all the other offerings which were delivered, daily or monthly, to the funerary temple – including beverages and bread (htp-ntr), as well as poultry – also came from the sun temple. In fact, the provenance of this foodstuff was recorded in the papyrus archive of the king's pyramid with different entries, including the Residence, the Palace and other estates of the king.

However, these offerings physically arrived to the pyramid only from the sun temple, where they should have been previously accumulated, in some cases most probably as raw products, such as grain or flour, and not as finished ones, such as bread (Posener-Kriéger 1976: 631–634; Posener-Kriéger 1979: 145–146). This would demonstrate that a large settlement, endowed with bakeries, breweries and a slaughterhouse did exist by the sun temple of Neferirkare, but was not located inside the sun temple itself but rather – due to the type of activities involved – nearby the sun temple, possibly in the area around its valley temple (see also Vymazalová 2011: 303).

In the case of Nyuserre, we do not have any archaeological or epigraphic element to confirm that a slaughterhouse did actually exist either by his pyramid/sun temple town, or his palace. However, around the valley temple of his sun temple, Borchardt actually found the remains of a large settlement, certainly used for a great variety of activities, which unfortunately he did not systematically excavate (Borchardt 1905: 7–8, 18–19). The possibility that the actual slaughterhouse of the sun temple was located there is, therefore, not groundless (see also Verner *et al.* 2006: 98, note 7).

A different example was actually represented by the slaughterhouse of Raneferef's pyramid complex. The archaeological evidence gives us a clear indication that the slaughterhouse of the king's pyramid complex was used as such only for a very short period, namely during the king's reign, when it was not attached to the pyramid complex. Soon after the king's death – *i.e.* at the beginning of Nyuserre's reign – the slaughterhouse was connected with the pyramid and transformed into a storehouse, with the necessary meat offering for the king's cult taken from the above-mentioned royal palace of Sahure (Verner *et al.* 2006: 285–287; Vymazalová 2011: 303).

The above elements seem thus to indicate that the actual slaughtering activities were usually carried out in the royal palace (see the complex of Sahure), or in the towns around the valley temples of sun temples and pyramids (as was the case with Neferirkare and probably Nyuserre), and that

the slaughterhouse next to Raneferef's pyramid temple is actually an exception to the rule, possibly due to the specific historical circumstances of his reign (Vymazalová 2011: 302). Whatever the case, no slaughterhouse was located in a pyramid temple or a sun temple. These remarks evidently also affect the so-called "slaughterhouses" inside the sun temple of Nyuserre, whose meaning and function must thus be sought elsewhere.

Epigraphic features of the inscription and its archaeological context

The solution to the enigma probably lies in the abovementioned hieratic inscription found by Borchardt on the back of one of the alabaster basins of the "big slaughterhouse". The inscription



was erroneously read by Borchardt as w^cbt gs-pr nswt⁴ and translated as "Offering Place of the Royal Temple", which was, in Borchardt's idea, the ancient name of the slaughterhouse (Borchardt 1905: 48).

Later scholars (Fischer 1966: 66; Verner 2014: 214; see further below concerning their hypotheses) fostered this erroneous reading, although they tried to give it a different interpretation on which I will come back to later. This mistake in the reading was very likely due to the fact that they did not have the opportunity to inspect the inscription personally.

In fact, as is clear when we approach the original hieratic inscription (see fig. 6),⁵ its correct reading is definitely



w^cbt gs-pr pr-nswt.

The sign that Borchardt read as the phonetic complement n after the sign for the king (nswt) is actually the sign for pr (for a comparison of the writing, see also Möller 1909: 32; Dobrev – Verner – Vymazalová 2011: 37). The same writing of pr-nswt is also documented in the papyri from the pyramid temple of Raneferef (Posener-Kriéger – Verner – Vymazalová 2006: 156–157, fragment 66A).

The inscription is characterized by quite small, and superficially carved, signs, engraved on the eastern side of the basin. The overall height of the inscription is 4.6 cm, although the *nswt* sign is slightly higher than the rest of the inscription, being 5 cm. The overall length of the inscription is 22.5 cm. The inscription is located almost at the top of the basin, being at around 9 cm from its rim.

The inscription presents at least two important peculiarities: first of all, it is actually a scratch or graffito – rather than a proper hieratic inscription – which thus differs from the inscriptions engraved on several monuments of the Old Kingdom, either royal or private.⁶ The latter inscriptions are usually, if not always, painted in black or red and have much larger size, while the inscription in account is quite small, and does not present, at least to the naked eye, any traces of color.

The only suitable and comparable example comes, in the present author's knowledge, from the Red Pyramid of Dahshur. Here several marks were found which were not

directly painted on the stone block, but rather scratched and then - and not always - painted (Stadelmann -Sourouzian 1982: 387–393). In this case, too, however, the inscriptions/signs are actually chiseled out and not just scratched, as is the case with the inscription from Nyuserre's sun temple.

Yet - and this is the second different feature of the inscription from the sun temple of Nyuserre – the nature of the inscriptions engraved on the above Dahshur blocks, as well as in all the other known cases, is very different from the inscription here considered. In fact, all the hieratic inscriptions on the royal and private monuments are basically intended to serve as masons' marks or quarry marks⁷ to record either the different phases of the construction works of the monuments (or its previous quarry activities), or the final destination of these blocks, namely the monument or place for which the blocks were quarried.8

One of the main features of all types of hieratic inscriptions and marks, whatever the site of provenance, is also a record of the titles and/or names of people somehow participating in the building and quarrying activities, either as donors of the blocks themselves, or simply as personnel in charge of the building/quarrying activity.9 In all these cases, the name of the specific monument is indicated – often associated with the king's name and/or a provisional date of the inscription – but never a specific part of the monument itself.¹⁰

A more complex and differentiated situation is to be found in the inscriptions and graffiti in Hatnub (Anthes 1928; Shaw 2010: 135–170), 11 the main quarry of Egyptian alabaster/travertine in the Old Kingdom, from where the basins of the sun temple and the altar probably also came. 12 Contrary to all the other sites, we do have here many inscriptions which are simply carved or chiseled out without being painted. But we can also find inscriptions which are carved and then painted and, in a minor part, even inscriptions which are only painted (Anthes 1928: 13–80). In the large majority of cases, however, these inscriptions are engraved on limestone and not on alabaster. Yet, they share the characteristics of the above inscriptions from the other sites, being mainly intended to record building activities for the kings, as well as to celebrate the people in charge of these quarrying expeditions (Anthes 1928: 4-5). Furthermore, in the Hatnub inscriptions, too, when a monument is mentioned (quite rarely in fact), it is mentioned as a whole, and not in its specific parts as is the case, instead, of the inscription from the sun temple.

In the entire Old Kingdom, we have only two cases of specific parts of a monument named without the indication of the name of the monument itself: these are in the Fourth Dynasty pyramid of Djedefre, and in the Fifth Dynasty pyramid of Raneferef. In both cases, and very interestingly, the hieratic inscription mentions a w bt in connection with the burial chamber of the king's pyramid, where both inscriptions were found (see Valloggia 2011: 49, fig. 180; Verner et al. 2006: 195–196). Both inscriptions, however, still partake of the main characteristics of all the other known inscriptions (see above), namely they are engraved on blocks from the masonry of the pyramids, and are painted in red or black.

Therefore, the hieratic inscription on Nyuserre's sun temple basin does not share any of the features of the above-mentioned inscriptions, except for the two latter inscriptions found in the pyramids, with which it shares, at least, the mentioning of a specific part of a royal monument without any reference to the main name of the monument itself.

A very important aspect of the question is also that the inscription in Nyuserre's sun temple is to be found on an artefact, *e.g.* the alabaster basin, which was part of a cultic installation and not, as is usually the rule, on blocks intended for the core masonry of a building. The latter blocks were not intended to be visible once the construction works were completed.

In the case of Nyuserre's sun temple, instead, it is not entirely clear if the inscription was actually visible or not during the basin's period of use. Borchardt argued that the basins were mostly sunken in the ground, in order that the interior duct could be aligned, horizontally, with the grooved pavement, for the draining of the liquids (see Borchardt 1905: 48, fig. 39; and fig. 4 here). This situation, however, was certainly valid for the western side of the basins – namely the one facing the central courtyard – which was aligned with the afore-mentioned grooved pavement. However, we do not know if the back (eastern side) of the basins, where the inscription actually is, was also arranged the same way with respect to the pavement. In fact, in-between the basins and the main wall of the

eastern corridor, namely the corridor giving access to the area coming from the main entranceway of the temple, there is still a space of around 2.5 m which should also have been paved (see also fig. 2a). Borchardt (1905: 47–48), however, does not specify what the level of the courtyard was in this part of the temple, and the present state of disrepair of the area does not allow us to say anything more precise on the level of the floor.

We can note, however, that the second basin from the north (fig. 1), at the bottom of the eastern side, shows the remains of an element protruding from the square outline of the block, which may likely indicate the level of the original pavement. If this is correct, a large majority of each basin, on its eastern side, would have been visible at the time of the completion of the temple, including the inscription.

This remark, however, does not mean in any way that the inscription was intended to be visible. In fact, the inscription is located at around 63 cm from the bottom of the alabaster basin. Therefore, even if the eastern façade of the basin was really left completely uncovered by the pavement, as just assumed, the inscription would still have been in quite a low position to be clearly visible to the people moving around it. We should also bear in mind that the technique of the slight carving/scratching of the signs would have not facilitated the visibility of the inscription (see further below).

Another important aspect of the issue is to define if the basins were finished or not. Actually all the basins –









Fig. 7 The basin with the inscription seen from the eastern (7a), northern (7b) and western (7c) side, with detail of the inscription (7d). The corners and the lower parts seem to have been left unfinished. The basins rest on stones and not directly on the pavement. This would lead us to suppose that they were moved by Borchardt during the excavation (photo M. Nuzzolo)

including the one holding the inscription – appear mostly ended up and smoothed on both the main sides (eastern and western), especially in their upper parts. The corners and the lower parts, instead, seem to have been left unfinished, possibly because they had to be set in the ground or to join the contiguous pieces. This is particularly true of the basin with the inscription which is visibly broken at the bottom, as well as on both its northern and southern sides (fig. 7).

In addition, we should consider that our perception of the basins is somehow affected by the fact that the basins were probably moved by Borchardt to investigate the structures underneath. Although he does not say anything about this, it may be inferred by the analysis of the artefacts (see fig. 5 and 7). This movement may have further damaged the weak parts of the basins, *i.e.* the corners and the lower parts, which are thus not perfectly preserved nowadays.

Whatever the case, the inscription on the basin clearly appears, nowadays, as if it was written on a polished surface. This would lead us to conclude that the inscription was not carved in the quarry, but rather in the workshop where the basin was finished, or directly in the temple, when the basin was put in place (for more details, see further below).

A final hypothesis still remains, namely that the inscription was a graffito scratched on the basin by a visitor to the temple in later periods. This hypothesis seems, however, very unlikely, for visitors' graffiti are usually quite different from the inscription here taken into account as concerns either their content or their features (for a comparison of signs and discussion, see Navrátilová 2007 with further references). Additionally, if somebody had intended to reuse the basin for another monument and thus left the inscription on it to mark its new destination – something which frequently happened throughout Egyptian history – the basin would have been found reemployed somewhere else. However, even in the case of a reuse of the basin, the inscription would have been clearly painted on the block, with the same characteristics we have already seen for the quarry/masons' marks, and this is not the case of the inscription here considered.

In conclusion, the hypothesis that the inscription was engraved in the time of Nyuserre, either in the workshop or directly in the temple, remains the most plausible.

W'bt gs-pr pr-nswt: the reading of the inscription and the possible meaning of the slaughterhouses of Nyuserre's sun temple

Regardless of the above epigraphic and archaeological characteristics of the inscription, what seems to be extremely interesting is its interpretation and possible meaning. We have here the record of three names determined with the pr sign. This implies the existence of three institutions, the last one of which (gs-pr) is put in direct relation with the second one (pr-nswt) by means of the usual honorific ante-position. The meaning of the inscription, however, is not quite as obvious and clear as it seems, since each of the three terms involved in it has a very debatable translation.

The w^cbt

In the Old Kingdom the term w^cbt , whose literal meaning is the "pure place", is most commonly understood as a "workshop" in the broadest possible sense (Erman – Grapow 1955 I: 284). In fact, based on scenes and texts in private tombs, most scholars concluded that the term should designate primarily a "mortuary workshop" involved in the construction and decoration of the tomb, as well as in the production of a variety of goods for the afterlife of the deceased, such as false doors, statues and funerary furniture (Brovarski 1977: 110–115; Drenkhahn 1976: 144, 147–151; Coppens 2007: 57). The body of the deceased is also said to be treated in the w^cbt before being buried (Wilson 1944: 202).

However, in titles of private individuals, the term w^cbt is often part of the title imy-r w^cbt and, more rarely, of the title $sh\underline{d}$ w^cbt (Jones 2000: 87, no. 922). The first title is regularly associated with that of wr hrp hmwt, which is usually understood as the designation of the "High Priest of Ptah" in Memphis and chief of the artisans/craftsmen of the temple workshop (Maystre 1992: 18–19, 223–250). Therefore, in this context, the w^cbt seems rather a "temple workshop" connected with the production of cult statues (and more in general, other cultic material) and possibly located in the temple itself, notably the temple of Ptah in Memphis. ¹³

In the royal context, as we have seen, the term occurs on masons' blocks of two pyramids and seems to designate the burial chamber or, as suggested by Verner, the entire pit for the construction of the burial chamber (Verner et al. 2006: 196). The term is not documented at all in Nefereirkare's papyrus archive, while it occurs only once, in a very fragmentary piece of papyrus, in Raneferef's archive. The context of the mentioning of the w'bt is, however, too obscure to try to attempt a reconstruction of its possible meaning (Posener-Kriéger – Verner – Vymazalová 2006: 253).

In all the cases known so far, the term w t is never attested in combination with the other two terms here taken into account (gs-pr and pr-nswt), if we exclude two titles of private individuals where the title of imy-r w t is associated with that of imy-r gs (Fischer 1966: 67), which, however, is not the same as gs-pr as other scholars have noted (Moreno García 1999: 124; Posener-Kriéger – Verner – Vymazalová 2006: 357–358). This combination of w t with gs-pr and pr-nswt thus stands as a hapax legomenos.

The *pr-nswt*

The term *pr-nswt*, literally the "king's domain", has frequently been the focus of past scholarship but has not yet received an unequivocal interpretation. Wolfgang Helck (1975: 95–110), for example, presumed that the *pr-nswt* was the administration of the country as an institution, not connected with a concrete king's name and thus serving every ruling king, as was also the case with the terms *hnw* "residence" and 'h "palace".

Eva Martin-Pardey (1995: 285) also reached a similar conclusion based on the analysis of the term *pr-nswt* as it occurs in association with other terms in the titles of private individuals and official inscriptions. She maintains

that the name does not really designate the "house of the king" (as translated in Erman – Grapow 1955 I: 513) but rather our concept of "State" or "administrative apparatus".

Ogden Goelet (1982: 521), more specifically, thought that the term designated the complete ensemble of the different entities of the central administration which were under the king's control. Petra Andrássy (2009: 2) very recently tried to reconcile these different readings by stating that "the term *hnw* and *pr-nswt* were used synonymously to designate the principal residence of the rulers, with its management and the seat of the various branches of the state administration".¹⁴

What seems to be particularly interesting in this context, however, is the mentioning of the term in the Abusir papyri, for its chronological and thematic proximity to the sun temples. Textual evidence from Neferirkare's archive indicates that the *pr-nswt* was "le domaine royale" or "l'administration des biens du roi". In fact, from this institution, several kinds of deliveries came to the funerary temple of the king, particularly the cereals (Posener-Kriéger 1976: 620).

This hypothesis seems confirmed by the evidence of Raneferef's papyrus archive, where the *pr-nswt*, attested twice, occurs as the source of deliveries of wheat, barley and fruit (Posener-Kriéger – Verner – Vymazalová 2006: 356). In one of these two cases, the *pr-nswt* occurs in association with the *gs-pr* and seems connected with a phyle division of Raneferef's temple to which the products delivered from the *gs-pr pr-nswt* were destined (Posener-Kriéger – Verner – Vymazalová 2006: 358).

In any case, it is clear that the meaning of the term *pr-nswt* is quite debatable not just for its real obscurity but rather on account of its variable meanings, and the changing nature of the institution throughout Egyptian history.¹⁵

The gs-pr

The meaning of the *gs-pr* has also been the subject of animated debate among scholars. Different readings have been provided, ranging from "one of the two halves of the royal administration" (Helck 1954: 118; Baer 1960: 122, 243–244), to a sort of "troop house of workers" in the necropolis or the quarry (Fischer 1966: 65–68), to conclude with the very recent hypothesis by Juan Carlos Moreno García that the *gs-pr* was a kind of royal domain in marginal zones assigned to the task of cattle breeding (Moreno García 1999: 116–131).¹⁶

In fact, texts and private biographies appear rather contradictory as to the meaning of the term, testifying, once again, the variable meanings and implications of several terms of the Egyptian language, as well as our incomplete knowledge of it.

However, when we turn to the evidence from the Abusir papyri the situation seems less confused. In Neferirkare's papyri, the *gs-pr* is mentioned twice as an unspecified part of the royal treasury delivering products for the cult of the temple, either (and primarily) foodstuff, or cult objects (Posener-Kriéger 1976: 426). In Raneferef's papyri, as already said, the *gs-pr* is associated with the *pr-nswt* as the source of deliveries of wheat, barley and fruit for

the pyramid temple personnel (Posener-Kriéger – Verner – Vymazalová 2006: 356, 358). Moreover, in this archive, the term *gs-pr* never stands alone, being only documented in relation to other institutions, such as a temple (*gs-pr hwt*), the state administration/royal domain (*gs-pr pr-nswt*), and the mortuary temple of Nyuserre (*gs-pr hwt nt Ḥr Śt-ib-t3wy*). The term *gs-pr* in Raneferef's papyri is thus likely to be translated as "administrative office" or even simply "office" (Posener-Kriéger – Verner – Vymazalová 2006: 357–358).

Triangular sign below the inscription

Although it is not clear to me if there is an actual connection with the meaning of the inscription, it is also worth noting, for the sake of completeness, that below the inscription a triangular sign can be found. This triangular sign, which exhibits the same scratch technique as the above inscription, is aligned with the sign of the *nswt* and is oriented in the same direction as the overall inscription, namely rightwards.

Although it may apparently look like intentional damage to the surface, done much later than the inscription above it, the analysis of the rest of the surface of the basin, where other signs of intentional – possibly modern – scratches are visible, seems to demonstrate that it is an ancient sign, very likely contemporary with the inscription.

In fact, similar triangular signs are documented in other Old Kingdom pyramids, and particularly in the Fourth Dynasty pyramid of Menkaure (Reisner 1931: 273–277, and pls. XI–XII) and in the Fifth Dynasty pyramid of Neferirkare (see Borchardt 1909: 52–55). They are always painted in black or red and they are usually associated with vertical and horizontal lines. Their significance is unclear, although it has been suggested that they mainly served to mark the direction from which the distance was measured when the vertical/horizontal line was set to write the hieratic inscriptions with which these triangular signs are regularly associated (Reisner 1931: 273).

Once again, however, the triangle on the basin of Nyuserre's sun temple does not share any of the features of the previously mentioned examples, being neither painted nor associated with any other lines/signs. Its meaning in this context remains, thus, quite enigmatic.

Conclusion: Correlating the elements

Besides Borchardt's, two interpretations of the inscription have been given so far. The first reading was given by Henri George Fischer (1966: 66) who translated the inscription as: "the workshop of the royal house of workers". However, as the newly considered documentation shows, the reading of the inscription is wrong, since the term *nswt* is in fact *pr-nswt*.

The second translation has recently been provided by Verner (2014: 214), who translated the inscription as the mentioning of two distinct places, *i.e.* w^cbt nswt: gs-pr—the "royal workshop (place of purification): the administration office". This translation is also erroneous, for the term nswt, as already said, is in fact pr-nswt, and has to be associated with gs-pr and not with w^cbt for

the matter of the honorific ante-position (see above and fig. 6).

Although both readings are incorrect from the epigraphic standpoint, they nevertheless contain interesting elements of discussion. Fischer's interpretation, in particular, appears very interesting for he argued that, contrarily to Borchardt's opinion, the inscription did not indicate the destination of the basin but rather its origin. This idea is certainly reasonable when we consider the style of the inscription, which was in fact only lightly scratched on the basin. If we imagine that the basin was produced, as all the other artefacts of the sun temple, in a royal workshop, it would not be surprising to find a lightly carved/scratched inscription which may have acted as a sort of mark/stamp of the completed production of the artefact by the workshop.

The inscription was hence not chiseled out or painted on the basin since it was not intended to be visible after the basin was moved to the temple and put in place. In fact, as already recalled, the basin was partially unfinished when it was installed in the sun temple. In addition, we should remember that nowadays the inscription is visible and clearly readable only with certain conditions of light or if wet with water, which makes the contrast between the inscription and the background sharper.

Even in the event that this hypothesis is correct, we still have to clarify what the meaning of the word *gs-pr* was. Fischer's interpretation of the term *gs-pr* as a "house of workers" or "troop house" (depending on the *pr-nswt* and not on the *nswt* as in Fischer's reading) would be theoretically reasonable in this context. However, in many of the examples Fischer himself mentions as a support to his hypothesis – such as the relief representing a steer led by a herdsman with the inscription *gs-pr pr-nswt* painted on the flank of the animal (Fischer 1966: 66) – the reading of the *gs-pr* as a "house of workers" or "troop house" is definitely not tenable (see also Moreno García 1999: 124).

Furthermore, and most importantly, the main obstacle to this interpretation of the term gs-pr is the most reliable and authoritative source of the time, *i.e.* the Abusir papyri, where the meaning of the gs-pr seems to be that of a "department" or "administration office" of the central administration of the state.

Based on the latter element, one may conclude that the inscription recorded the origin of the basin to be in the "workshop (w^cbt) of the royal (pr-nswt) administration office (gs-pr)". This interpretation, too, however, is not devoid of pitfalls. In fact, in both the papyrus archives of Neferirkare and Raneferef (see above) the gs-pr is associated with the delivery of offerings (and sometimes cult objects) and not with the production of artefacts or cult objects, such as the basins of the sun temple. This production would have required the presence, inside the gs-pr, of workshops, or at least facilities, which are not documented, in the current state of our knowledge, either in the papyri or anywhere else.

These remarks seem to demonstrate that we cannot completely rule out the possibility that the inscription, although with its unique peculiarities, did actually record the destination of the basin to be in the temple and, consequently, the function of that area. In this case, we should search for a suitable solution to the enigma in the correct reading of the components of the inscription in relation to the archaeological context of the sun temple.

The key to the reading may lie in the correct interpretation of the term w^cbt . The difficulty of interpreting this term as designating an actual "workshop" for the production of cult objects/statues is clear-cut when we consider that nothing can be materially produced or generated in a basin and, more in general, in the area of the so-called slaughterhouse, unless we admit that the entire area was indeed a huge workshop for the production of cult statues/objects. However, the presence of a workshop in the temple precinct is not only unsuitable with the sacred nature of the temple, but also dismissed by the absolute lack of archaeological elements in the case of the sun temple.

Additionally, the non-mortuary context of the sun temple immediately prevents us from regarding the reading of the term as "mortuary workshop", which is connected with the tomb equipment and construction (for the different meanings of the term w^cbt , see also above).

The sole suitable solution in this context is therefore that we take the term w^cbt very literally, as a "place of purification" of the offerings which were stored in the magazines of the sun temple and were eventually consecrated on the central altar of the sanctuary. These offerings may possibly include the products which were usually delivered to the pyramid temple by the *gs-pr pr-nswt*, *i.e.* barley, wheat and fruit (see above), ¹⁷ as well as the meat, the most precious part of the food offerings for the king's cult. As recorded in the Abusir papyri, the meat always came to the funerary temple of the king via the altar of Ra in the sun temple (Posener-Kriéger 1976: 611).

At the same time, we know that also cult objects were occasionally delivered from the *gs-pr* (see the mentioning in Neferirkare's papyri archive above). These cult objects were used in the daily cult of the temples (both pyramid and sun temples) and had to undergo a ritual purification before being used. This ritual purification, in a certain way, must have symbolically implied a sort of *ex-novo* creation in the "(divine) workshop/place of purification of the *gs-pr pr-nswt*".

In any case, and regardless of whether the inscription did record the provenance or the origin of the basins, it has to be noted that the use of the white alabaster/travertine for the basins was certainly not a matter of chance. Several scholars have already underlined how deliberate the choice is of specific materials in Egyptian architecture to express the concepts of darkness and the underworld, on the one side, and the ideas of light and purity, on the other side (Spence 1999: 115 with further bibliography). The alabaster/travertine is certainly associated with the latter idea, as well as with the concept of the ritual purification of the space/persons/objects associated with it (Aufrère 1991: 695–698). The fact that an entire area of a divine temple is made in alabaster and may be associated with the idea of ritual purification ($w^{c}bt$) is thus, all in all, not very surprising.

The latter remarks seem to demonstrate that, even if the inscription recorded the origin of the basin, the area of the

slaughterhouse could not be interpreted in any way as an actual place of slaughtering, but rather as a huge "place of purification", where cult objects and foodstuff were symbolically consecrated, ritually purified, and finally prepared to be presented to the sun god on the central altar of the temple. Before being purified – but in some cases probably also after the ritual purification and use – these products/offerings were stored in the magazines, a set of 10 rooms placed next to the slaughterhouse, in the sun temple's north-eastern sector (see fig. 2a).

It has already been noted in another contribution that the storerooms are strongly connected, topographically and symbolically, with the slaughterhouse, and that the typology of products they held, while certainly including foodstuff, was very likely not limited to that (Nuzzolo – Pirelli 2011: 673–679). The plan of the magazines, the precious material they are made of (mainly quartzite and fine, white limestone), and the presence of the royal protocol on each of the doorways of this area, further testifies to the special nature of this part of the sun temple which we cannot simply define as "magazines", but rather "rooms of the treasure" or "Schatzkammern", being very likely also endowed with other important cultic implications (Nuzzolo – Pirelli 2011: 675–677).

The number of the rooms of the storehouse is surprisingly ten, exactly as the number of the basins in the so-called "big slaughterhouse". The connection between the two areas was probably not only symbolical but also geographical. In fact, the two areas may possibly have been accessible to one another. Nowadays the area is largely destroyed and the stripping away of the slabs of the original pavement does not allow us to clarify the original plan of the area. However, in some pictures taken by Borchardt during the excavation (fig. 3a) we can see the remains of two low walls (access/corridor?) which seems to put the two areas into direct communication. The wall was later dismantled, as is shown in another picture (fig. 3b), and it is still not clear what the nature of this structure was and even if its destruction was intentional or not.

Taking into account all the above remarks, the term gs-pr pr-nswt in this context, as well as in the pyramid temple context (for the mentioning of the papyri of Raneferef and Neferirkare, see above), should probably be translated as the "office of the royal administration", namely the specific part of the central administration which was in charge of the delivery of the foodstuff and the cultic items necessary for the daily and extraordinary ceremonies carried out in both the king's pyramid temple and the sun temple. These offerings arrived to the sun temple, were stored in the "magazines/rooms of the treasure" and were finally purified, consecrated and offered to the sun god Re on the central altar.

If this hypothesis is correct, the inscription w^cbt gs-pr pr-nswt may thus be finally translated as the "place of purification of (the offerings) of the royal administration office".

We are not able at the moment to say more about the nature of this institution (gs-pr pr-nswt) which seems pivotal in the complex economic and ritual system of redistribution of sources and temple offerings. Nor we can add more data on the meaning of the other so-called "small

slaughterhouse", placed in the north-western sector of the sun temple, of which we lack, as already said, the basic archaeological elements.

What we can note, at the moment, is the location of both structures in the temple. Either "big" or "small" slaughterhouse – one of which very likely dedicated to ritual purification of offerings – are located in the northern part of the sun temple, in close connection with a place designated as the storage of the above offerings, *i.e.* the warehouse. These areas thus seem connected to the concepts of prosperity, wealth and abundance, whose main source is in the north, namely the sun god Re and Heliopolis.

In the southern part of the temple, on the contrary, we have an ensemble of cult rooms, the so-called "chapel" and the so-called "room of the seasons" (Borchardt 1905: 49–50), with specific decorative programs (Nuzzolo 2007: 225–229), which were certainly devoted to the regenerative aspects of kingship, and are oriented to the south, namely to the king's pyramid and to the idea of the king as Horus and Osiris.

We cannot but hope that future investigation in the field may contribute to clarify the nature of the inscription and the relationship with the overall plan and meaning of the sun temple.

Notes:

- ¹ I am very grateful to Miroslav Verner, Hana Vymazalová, Hana Navrátilová and Vassil Dobrev for calling my attention to several important aspects of the issue here taken into account, especially as regards the characteristics of the hieratic inscriptions and the masons' marks in the Old Kingdom. Any mistakes remain, of course, my own responsibility.
- No trace of the tenth basin was actually found by Borchardt, either in the nearby area, or as a trace on the pavement. He thus concluded that the basins might have been either destroyed/reused in later times, or not even included at all in the overall plan of the area (Borchardt 1905: 48). From a symbolical standpoint, it is logical to argue that the tenth basin did exist, also considering that the contiguous area of the magazines is also composed of a set of ten rooms. However, it is also worth noting that behind the missing basin, on the same east-west axis, there is a huge break in the enclosure wall which might have been another doorway to the temple (see Nuzzolo Pirelli 2011: 673). Future investigation in the field will hopefully help clarify the question.
- Borchardt was also quite surprised by the lack of any drainage system: "Dass ein Auslauf zum Ablassen der angesammelten Flüssigkeit nicht vorhanden ist scheint sonderbar" (Borchardt 1905: 48).
- ⁴ As a matter of fact, Borchardt did not provide a transliteration of the hieroglyphic text. However, based on his translation, we can certainly transliterate the text as indicated here.
- The picture was taken during one of the first seasons of field-work of the Italian Archaeological Mission at the sun temple of Nyuserre co-directed by the present author and Rosanna Pirelli, from L'Orientale University of Naples (for further information on the mission, see Nuzzolo Pirelli 2011). During that campaign we also carefully investigated the surfaces of the other basins and were not able to find any other example of scratching, inscription, or graffiti. It cannot be ruled out, however, that the use of some of the new technologies of photo-imaging and analysis, such as Reflectance Technology Imaging, may help us discover, in the future, any new inscriptions/graffiti on the basins. The present author would like to thank to the Ministry of State for Antiquities for permission to work in

the site and publish the related material as well as the other members of the mission, especially A. D'Andrea who is in charge of the project of 3D virtual reconstruction of the sun temple of Nyuserre, representing the Italian Ministry of Foreign Affairs.

- ⁶ For a comparison with the Fifth Dynasty royal monuments, see Borchardt (1907: 151–155; 1909: 46–47, 53–55; 1910: 86–92), Haeny (1969: 23–47, esp. 41–45), Verner (2006: 187–204, pl. I–II). Inscriptions from private contexts are too numerous to all be mentioned here. At any rate, the ones from the mastaba of Ptahshepses in Abusir certainly represent quite an exhaustive repertoire, which can be usefully employed as a point of reference: see Verner (1992: 207–292). For an updated overview of these inscriptions, see Andrássy (2009: 1–16) with further references. See also Dobrev Verner Vymazalová (2011) for a complete catalogue of the evidence known so far from Saqqara and Abusir in the Old Kingdom.
- We may also define them, in a more generic and comprehensive sense, as "building marks", following the definition as "marques sur pierres de construction" given by Dobrey (1996: 103–142).
- Petra Andrássy (2009: 2) also classifies another type of mark that she defines as "short notes or single signs applied to the stone before its fitting into the building, thus concerning the block itself". However, in my view, this kind of mark still belongs to the above first category of mason marks aimed at facilitating, in different ways, the construction activities. Whatever the case, and most importantly, they all significantly differ from the inscription coming from the sun temple.
- These inscriptions also frequently document the presence and organization of crews of workers in either the quarry or the necropolis, giving us valuable insights into the construction schedule and the organization of the work-force (see Haeny 1969: 23–47; Roth 1991: 119–143).
- In very few cases, we also have the names of previous monuments attested on blocks from the core masonry of later monuments, as is the case with the name of Sahure's sun temple which was found on blocks which were originally intended for the temple but later reused in the pyramid of Neferirkare (Borchardt 1909: 55).
- Rudolf Anthes (1928: 6) actually distinguishes, quite arbitrarily, between "Graffiti" and "Inschriften". Both of them are inscriptions, but the first type is actually painted while the second is scratched.
- The alabaster/travertine used in the Old Kingdom pyramid complexes is usually considered to come mainly from Hatnub, since intensive exploitation of the site is documented textually and archaeologically throughout the Old Kingdom (Shaw 2010: 16). As regards the sun temple of Nyuserre, the Klemms list two samples of calcite/alabaster taken there (Klemm Klemm 2010: 11, tab. 2), but no report of this analysis is actually presented in the publication. At any rate, the provenance from Hatnub remains very plausible.
- ¹³ It is also worth noting that in many cases the two titles (*wr hrp hmwt* and *imy-r w^cbt*) are also associated with the title of "He who participates in the festival of Re" n(y) hb R^c which, while being considered a regular epithet of the high priest of Ptah, is nonetheless associated with a festivity for the sun god (see Jones 2000: 472–473).
- 14 "Zusammenfassend läßt sich sagen: hnw und pr-nswt werden im Alten Reich synonym für die Residenz als Hauptwohnsitz des Herrschers mit ihrer Verwaltung und Sitz der obersten Instanzen der verschiedenen Zweige der Landesverwaltung gebraucht" (Andrássy 2008: 31).
- ¹⁵ See also Martin-Pardey (1995: 269–285), with further bibliography, for a resume of the values of the term in the New Kingdom.
- ¹⁶ A connection with the cattle administration/management (Herden Verwaltung) is also supported by Erman Grapow (1955 V: 198). For an overview of all the different interpretations of the term in the Old Kingdom, see also Jones (2000: 269), Posener-Kriéger Verner Vymazalová (2006: 357–358).

17 Although these goods are recorded in the archive documents of Raneferer's pyramid temple as allocations to the temple personnel and not as cultic offerings (Posener-Kriéger – Verner – Vymazalová 2006: 356, 358, 398–399), it is quite logical to assume that they may have also been used as offerings to the sun god in sun temples and pyramids, or better, that they were used as the raw material for the production of the other products (mainly bread and the related foodstuff) which were eventually offered in the temple. This seems to be also indirectly indicated by Neferirkare's temple archive (Posener-Kriéger 1976: 631–634; Posener-Kriéger 1979: 145–146).

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Abstract:

For a long time the presence of a "slaughterhouse" in the sun temple of Nyuserre has been taken for granted as the result of the investigation conducted by Ludwig Borchardt in Abu Ghurab in 1898–1901. However, several pieces of archaeological and textual evidence, including the documents from the Abusir papyri, which are contemporary with the sun temples, challenge this

reconstruction. An important element in this discussion may probably come from the correct reading and interpretation of a hieratic inscription found inside the so-called "slaughterhouse" and later on completely forgotten. To this inscription, and the important institutions mentioned therein, we shall pay attention in this article.

Nyuserre – sun temple – slaughterhouse – alabaster basins – gs-pr pr-nswt – w^cbt

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