



Inscriptions in the name of governor Neby revealed by the restoration of miniature metal vases

Mélanie Cressent and Aymeric Raimon

During the last field season of the Qatar-Sudan Archaeological Project on Sai Island, which took place from 24th October to 17th December 2015, important conservation, restoration and inventorying works were carried out in the warehouses of the archaeological mission by a team of conservators-restorers specialized in pottery, organic materials and metal.

Miniature metal vases, dating to the early or mid-18th Dynasty, badly damaged by severe corrosion, were restored as a priority. They were found on 18th January 1973¹ by the team led by Professor Jean Vercoutter in the chamber of Tomb 5, in the south-eastern sector of the elite necropolis of the New Kingdom – SAC5 (Plate 1), and were published in the

(SAC5.T5.C41, inv. S. 1015d), a jar stand (SAC5.T5.C43, inv. S. 1015e) and a strainer (SAC5.T5.C44, inv. S. 1015f).

Not only did the restoration give them a better shape, it also enabled the discovery of hieroglyphic inscriptions, so far unsuspected, on most of them (Plate 3). One should note that the *nmst*-vessel SAC5.T5.C37, preserved since 2005 at the Sudan National Museum in Khartoum, had been cleaned previously and was not treated by our team (Plate 4).²

The conservation-restoration

I.1. Condition report and diagnosis

At the beginning of the season, the ensemble of miniature vessels consisted of a group of 85 copper-alloy fragments, divided among nine plastic bags. The observation of a flaring rim here, of a narrowing belly fragment there, or of almost complete pieces (*nmst*-vessel SAC5.T5.C39 and jug SAC5.T5.C41), suggest that the distribution of the fragments among the bags had been done so as to isolate each of the objects.

Each fragment was covered by a layer of copper corrosion showing the following stratigraphy (from the inside to the



Plate 1. Aerial photograph of the south-eastern sector of the necropolis SAC5. The arrow on the photograph shows Tomb 5, for which no remains of superstructure were found. Further north, to the left extremity of the photograph, one can see Tombs 8 and 9 which were restored by Irène Garcia Alonso and Gemma Torra i Campos during the last QSAP season (© Th. Nicq, QSAP – Sai, Halma – UMR 8164).

recent monograph devoted to the site (Minault-Gout and Thill 2013, 38, 40, 42 and 381-382, pl. 57 and 169) (Plate 2). They form an ensemble of vessels used for purification and libation, including eight copper-alloy vases of six different types: two *nmst*-vessels (SAC5.T5.C37 and SAC5.T5.C39, inv. S. 1015a), two *dšrt*-vessels (SAC5.T5.C38 and SAC5.T5.C42, inv. S. 1015b), a small cup (SAC5.T5.C40, inv. S. 1015c), a jug

outside): the metal core (sometimes missing), a thick layer of corrosion, very dense (copper carbonates and oxides) and finally a powdery layer of light green colour. The latter was particularly alarming, as it was the sign of an already

¹ According to the unpublished inventory established by Jean Vercoutter in 1955 and updated to 1981 (on page 35).

² At the request of Francis Geus, then director of the archaeological mission of Sai Island, the *nmst*-vessel SAC5.T5.C37 was sent to France in 1999 or in 2003 to be restored by Denis Piponnier (University of Bordeaux). On the death of the archaeologist in 2005, the object was sent back to Sudan.



Plate 2. The ensemble of eight miniature metal vessels shortly after their discovery (© J. Vercutter).



Plate 3. The same vessels after restoration, organized as on the photograph by Jean Vercutter. The nmst-vessel SAC5.T5.C37, shown on the middle left on the photograph by Jean Vercutter, does not appear on this photograph, as it has been preserved since 2005 in the Sudan National Museum in Khartoum, and was, therefore, not restored by our team on Sai. (© Th. Nicq, QSAP – Sai, Halma – UMR 8164).

advanced process of active corrosion, which might result in the entire disappearance of the non-damaged metal, and hence of the artefact. Some of the fragments already were reduced to a heap of this powder, disappearing into mere dust at the slightest handling. Apart from this partial absence of metal structure, the next phases of conservation-restoration revealed an extensive network of fissures and cracks, making these objects even more fragile.

According to these preliminary observations, the conservation-restoration treatments had to meet three objectives:

- highlighting the scientific value of this collection, notably by reassembling the fragments so as to obtain recognizable profiles, and by removing the corrosion products up to the supposed origin surface, which bears the archaeological



Plate 4. The nmst-vessel SAC5.T5.C37 preserved in the Sudan National Museum (© Fl. Thill, UMR 8163).

- information (traces of fabrication, of use, or even decoration and inscriptions);

- ensuring the long-term preservation of this material by stopping the degradation of the metal through stabilizing the active corrosion;

- make it possible to manipulate or even to exhibit this ensemble in a museum.

These objectives also had to meet the ethical principles of conservation-restoration: readability and reversibility of the treatments performed, stability of the products used and compatibility with the existing materials.

1.2. Conservation-restoration treatments

The homogeneous state of preservation of the whole assemblage made it easier to choose a treatment protocol common for all pieces. The identification of joining fragments in the same bag allowed a temporary reassembly of each vessel with cyanoacrylate resin.

The powdery corrosion was removed by mechanical method, using a small steel brush fitted to a micromotor. Then, the thick and dense corrosion was removed by abrasion, using a ceramic drill bit fitted to a micromotor. This thorough treatment was carried out under a binocular microscope. This step was particularly delicate: while this technique is appropriate for the removal of very hard corrosion products, it induces considerable vibration which could damage such fragile objects.

Numerous consolidation techniques were thus used concurrently with the removal of corrosion: consolidation of the mass of the fragments with an acrylic resin, injection of cyanoacrylate resin and/or epoxy into the fissures, creation of a mechanical lining by facing the fragments with Japanese paper glued with an acrylic resin, etc. When all of the original surfaces were cleared, the glueings were strengthened by the injection of an epoxy resin and by creating structural gap-



fillings with the same resin. At the end of this step, the first treatment objective was reached.

The stabilization of the artefacts was obtained by a chemical method, through immersing the objects in a solution of corrosion inhibitor (benzotriazole).

Several restoration treatments enabled the improvement of the external appearance of the vessels: gap-fillings with Japanese paper, or creating a uniform surface by adding small corrections with acrylic paint (reversible correction applied over a resin layer).

Finally, layers of acrylic varnish and microcrystalline wax were applied so as to protect the objects from exogenous sources of degradation (oxygen, pollution, humidity, etc.).

I.3. Input of the archaeological documentation to the treatment of conservation-restoration

The archaeological documentation enabled the completion of this restoration work, as we had access to the publication of the site and its material by Minault-Gout and Thill (2013). A photograph of the ensemble taken by Jean Vercoutter immediately after its discovery was particularly decisive (Plate 2). Indeed, it enabled us to ascertain the real number of artefacts (less than the number of bags), to note that they were already deformed when they were found, and finally to have more information on joining fragments, allowing us to entirely reassemble some of the vessels (like the strainer SAC5.T5.C44).

The inscriptions

II.1. State of preservation

The removal of the different corrosion layers enabled the uncovering of hieroglyphic inscriptions on five of the seven vessels restored during the last QSAP season. Some are barely legible or fragmentary, their chasing³ having strongly weakened the surface where they were inscribed. The difficulty of distinguishing the chasing from a simple corrosion mark also makes it far from easy to read some of the signs.

The inscriptions on the jug SAC5.T5.C41 and the jar stand SAC5.T5.C43 are clearly chased, the latter being unfortunately missing in its centre. The one on the strainer SAC5.T5.C44 is complete, but rather faded. Finally, the ones on the *dšrt*-vessels SAC5.T5.C38 and SAC5.T5.C42 are rather poorly preserved.

On the *nmst*-vessel SAC5.T5.C39 (Plates 5 and 6), on the side opposite to the one bearing the rivet attaching the bottom to the belly, faint traces indicate that a text had been chased there, as the way the signs were chased may have resulted in this differential corrosion facies. In its present state, the



Plate 5. The *nmst*-vessel SAC5.T5.C39: traces of signs on the belly (© Th. Nicq, QSAP – Saï, HALMA – UMR 8164).



Plate 6. The *nmst*-vessel SAC5.T5.C39: side of the belly showing the rivet (© Th. Nicq, QSAP – Saï, HALMA – UMR 8164).

³ Chasing designates the execution of a design by indenting the front surface of the metal, i.e. without removing any material, contrary to engraving, where the design is incised. On a macroscopic level, it remains hard to know whether the decoration or inscription was created by the former or latter technique, all the more so when the artefact is very corroded, as is the case here. Although chasing seems to prevail during the period considered, only a use-wear study based on scanning electron microscope examination would enable us to determine which technique was employed.

second vessel of the same type (SAC5.T5.C37, see Plate 4) does not seem to be covered with it, but the “original” surface, i.e. where a potential inscription could be observed, was not reached. Then, if the small cup SAC5.T5.C40 (Plate 3) was ever inscribed, the text must have been chased on a portion of the rim which is now lost, most probably on the inner face.

II.2. Reading

Doc. 1. The jug SAC5.T5.C41

The best preserved text is inscribed horizontally on the wide

and flat lip of the jug (Plates 7 and 8), on the side opposite to the vertical handle.



Plate 7. The jug SAC5.T5.C41 (front view)
(© Th. Nicq, QSAP – Sai, HALMA – UMR 8164).



Plate 8. The jug SAC5.T5.C41 (from above)
(© Th. Nicq, QSAP – Sai, HALMA – UMR 8164).



h3ty-^c n [...] Nby

The circular element which appears in the upper right portion of the first quadrat is probably not a sign, but rather a corrosion stain formed around what seems to be a short vertical incision.

The basket sign shows a strange protrusion comparable to a handle, under which one can see three oblique signs. This sign, followed by the foot used as a phonetic complement, must certainly be read *nb*.

Finally, the traces which can be seen at the edge of the break certainly pertain to a determinative.

Doc. 2. The strainer SAC5.T5.C44

A horizontal line of inscription also appears on the open lip of the strainer (Plates 3 and 9), which ends in a small oblique edge.

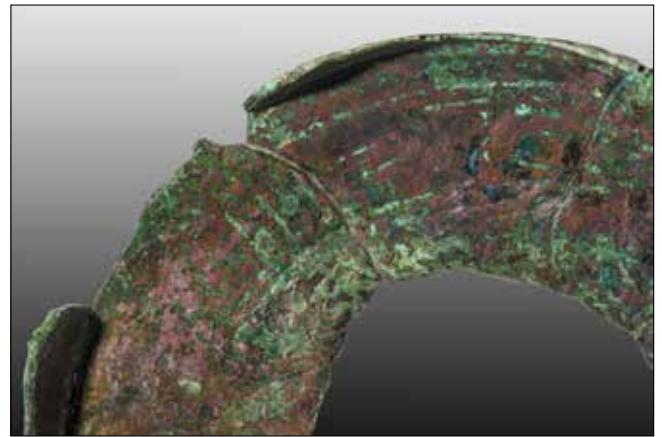


Plate 9. The strainer SAC5.T5.C44 (detail of the inscription)
(© Th. Nicq, QSAP – Sai, HALMA – UMR 8164).



[h3ty-^c n [...] Nby

The lower boundary line continuing beyond the two reeds, as well as faint traces above, suggest that the name of the owner was completed by a determinative. The upper boundary line is not preserved in the final portion.

Doc. 3. The jar stand SAC5.T5.C43

Another horizontal line is also shown on the base of the jar stand (Plates 10 and 11).

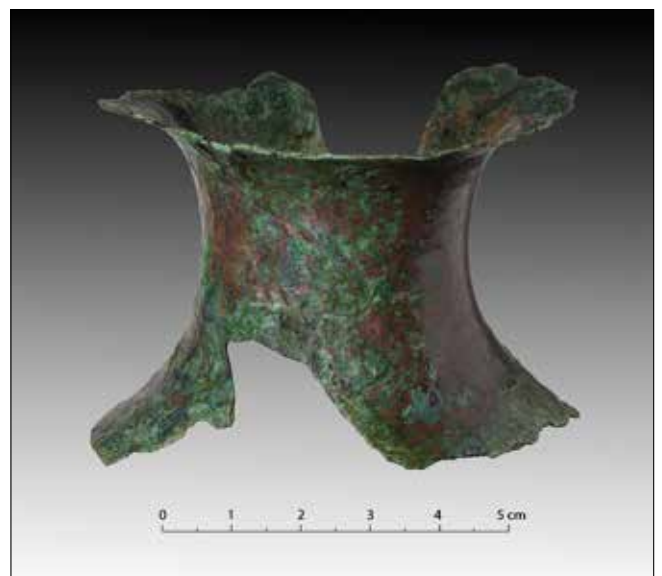


Plate 10. The jar stand SAC5.T5.C43 (front view)
(© Th. Nicq, QSAP – Sai, HALMA – UMR 8164).

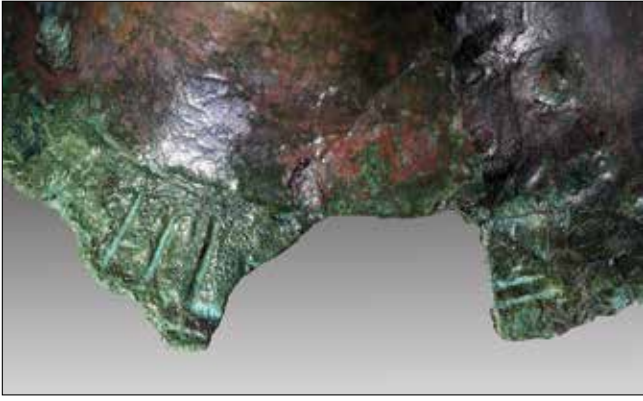


Plate 11. The jar stand SAC5.T5.C43 (detail of the inscription)
 (© Th. Nica, QSAP – Saï, HALMA – UMR 8164).



[h3ty-^c] [...] [N]by

A determinative, maybe that of the squatting man holding a flagellum, is again present after the name.

Doc. 4. The *dšrt*-vessel SAC5.T5.C38

An inscribed vertical column is chased on the belly of this particularly fragmentary small and flared *dšrt*-vessel (Plate 12) with flat edge.



Plate 12. The *dšrt*-vessel SAC5.T5.C38
 (© Th. Nica, QSAP – Saï, HALMA – UMR 8164).



[...]-^c n [...] [...]b[y]

If the text was perfectly centred on the belly side, regard-

less of the depth of the protruding bottom, there was probably one more sign in the lacuna above the first hieroglyph. The right boundary line, the only one preserved, however, does not seem to continue further up after this first sign.

Doc. 5. The *dšrt* vessel SAC5.T5.C42

A vertical column of text is also found on the belly of the second *dšrt*-vessel (Plate 13).



Plate 13. The *dšrt*-vessel SAC5.T5.C42
 (© Th. Nica, QSAP – Saï, HALMA – UMR 8164).



[h3ty-...] [...] Nb[y]

The layout of the quadrats being certainly the same for each of the columns inscribed, one may suppose that a *nb* basket was found at the bottom of the central lacuna, to the left of the high vertical sign, on the *dšrt*-vessel SAC5.T5.C38 (Doc. 4).

II.3. Remarks

Some palaeographic details suggest that these inscriptions, of similar content on all pieces, were probably composed by the same scribe. Indeed, the *nb* basket is systematically completed by four horizontal incisions (Docs 1, 2 and 5), the peculiar writing shown on the jug SAC5.T5.C41 (see Doc. 1, Plate 8) probably being a mistake of the chaser. The flower of the two *y* reeds, which is not closed, is always detailed with six oblique strokes (Docs 1, 2, 3 and 5).

One can also observe a consistency in the choice of the location of the inscriptions. Indeed, the vessels with a lip wide and flat enough to allow the inscription of a text (Docs 1 and 2) were chased with a horizontal line of hieroglyphs

oriented towards the inside of the object, whereas the others were chased with a column on the belly (Docs 4 and 5 and SAC5.T5.C39). The jar stand (Doc. 3), with concave sides, represents an exception, as the line of inscription is found at the base of the belly; in the same way, that of the small cup SAC5.T5.C40 had probably been chased on the inner side of the rim. As mentioned above, the inscription of the *nmst*-vessel SAC5.T5.C39 was chased on the side opposite to that bearing the rivet attaching the bottom to the belly. For the text of the jug SAC5.T5.C41 (Doc. 1, Plates 7 and 8), it is found on the portion of the lip opposite to the handle, so that when the liquid was poured, it would flow over the titulary of the owner, thus purifying him in the afterlife.

The organization of the quadrats is the same everywhere, whether the inscription is displayed horizontally or vertically. Only when the text is written horizontally does a determinative follow the name of the person, as the height of the vessels would probably not allow enough space to chase all signs vertically on the same scale. Moreover, all the inscriptions are oriented to the right, and delimited in length by boundary lines.

The inscriptions on these miniature metal vases only present the identity of their owner, a certain Neby, whose name is entirely (Docs 1 and 2) or partly (Docs 3, 4 and 5) preserved on at least five of them, the texts of the others being now lost (*nmst*-vessels SAC5.T5.C37 and SAC5.T5.C39, small cup SAC5.T5.C40). The rarity and the delicacy of these vessels are a clear indication that they were elite objects, which complete the funerary equipment of this important figure of Sai, who was hitherto only known from a shabti (Minault-Gout and Thill 2013, 180-183, 408, pl. 94).⁴ This high quality statuette, inscribed with an abridged version of Chapter 6 of the *Book of the Dead*, was probably associated with a miniature uninscribed coffin (Minault-Gout and Thill 1974, 89-90, pl. VI d; 2013, 187-188, pl. 95).⁵ Since Tomb 5 was severely disturbed by looters, all these objects were scattered in the middle sector of the chamber, on an average level of -1.7m, the distance between the two most distant artefacts being about 1.75m (Minault-Gout and Thill 2013, pl. 57). The identification of the owner of the vessels was far from obvious, as the tomb had also yielded the names of two other persons: the governor Ipy (Minault-Gout and Thill 2013, 40, 42 and 219-220, pl. 102 and 111)⁶ and the chantress Henut-'at (Minault-Gout and Thill 2013, 41-42 and 384, pl. 170),⁷ whose artefacts were discovered in the same area.

⁴ Shabti SAC5.T5.C33 = Inv. 1005 = Khartoum SNM 23425, made of steatite or silicified wood, dated to the mid-18th Dynasty (Thutmose IV – Amenhotep III) according to its style.

⁵ Miniature coffin SAC5.T5.C61 = Inv. 1009 = Khartoum SNM 23428, in sandstone, which imitates the type used in the 18th Dynasty.

⁶ See the heart scarab SAC5.T5.C32 = Inv. 1008 = Khartoum SNM 23392, made of greywacke, inscribed with an extract from the BD ch. 30B in the name of Ipy, which might be dated to the reign of Thutmose III.

⁷ See the baggy-type bottle SAC5.T5.C62 = Inv. 1020 = Khartoum SNM 23299, of green faience, bearing a black paint inscription in the name of the *Sm^{yt} Hnwt-st*.

Minault-Gout and Thill proposed to read the titles



h3ty-^c hrp/shm n h3st

« chief governor of the region »

in lines one and seven of the shabti of Neby, without excluding the possibility that the second element could be a toponym specifying the function of governor (Minault-Gout and Thill 2013, 182 a, n. 48).⁸ In the inscriptions of the miniature metal vases, we find again the title *h3ty-^c* followed by a group of signs consisting in a horizontal stroke *n* under which appears a large vertical sign, hardly legible here due to the state of preservation of the material, as well as a short vertical stroke placed above the sign of the city, but not that of the hill-country as on the funerary statuette. We first thought that it might be a toponym determined by the hill-country or the city sign, because of the presence of the *n* right after the title *h3ty-^c*. Besides, one would expect that a governor buried on Sai exercised his authority if not on the island, at least in the region. According to Vivian Davies, Neby's title should probably be read *h3ty-^c n shm* "governor of Sekhem", Sekhem being the name of a Nubian locality, possibly Semna.⁹ We also considered the possibility that this title could include the more general term *w* "region, district", one of the graphic variants of which is written with the scepter S 42 of Gardiner's list 𓏏 (Meeks 1980, 77, n° 77.0798; Willems 1990, 31 n. 15; Devauchelle 1992, 207, n. 10). In this case, Neby would serve as *h3ty-^c n w* "governor of the region" and the determinatives used would describe the nature of the lands under his authority, i.e. the city (of Sai) and the neighbouring territories.

Finally, whatever reading of Neby's title is chosen, one must probably revise that of the three rock inscriptions at Tangur 𓏏 𓏏 𓏏 , which Hintze and Reineke (1989, 170, pl. 235, Inschrift 553 a; 171, pl. 236, Inschrift 554 a; 174, pl. 244, Inschrift 573) had translated as "Graf und Leiter *Nbjj*" (count and chief *Nbjj*) in spite of the fact that the title *hrp* "director, chief, administrator" is always followed by a complement specifying the profession or the domain which was placed under the authority of the person. We consider that the writing of the element completing the title *h3ty-^c*, whether a toponym or not, is here reduced to the main element. For us,

⁸ Minault-Gout and Thill note that it would have been tempting to consider it as a toponym formed with the sign *shm* or *hrp* and propose Sekhem, metropolis of the 2nd nome (Letopolite) of Lower Egypt, as a possibility.

⁹ Vivian Davies has drawn our attention to the fact that the title and toponym are attested several times on a family-stela from Semna (Dunham and Janssen 1960, 47, 28-1-69 & 116, with fig. 3); that the toponym also occurs in the epithet "Lord of Sekhem" as applied to the deified Senwosret III, *H^c-k3w-^r-^c, nb Shm*, "Khakaure, Lord of Sekhem", for example in a statue-inscription of the viceroy Usersatet from Uronarti (Sudan National Museum no. 32; Dewachter 1974, 55, 58; Davies, forth.; see also Dewachter 1971, 90, n. 2; El-Enany 2004, 212, n. 46); and that with regard to the identity of Sekhem, there is a possibility that the toponym refers to Semna, being an abbreviated form of Sekhem-Khakaure, the original name of Semna fortress (Dunham and Janssen 1960, 47, n. 1; Bryan 1991, 201, 237, n. 327; Davies, forth.).



the unusual writing of this title suggests that the man Neby buried on Sai and the one mentioned in Tangur among other officials of the 18th Dynasty, were one and the same person.¹⁰

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¹⁰ For the other occurrences of a governor named Neby, see Minault-Gout and Thill 2013, 182 b, n. 49-54.