

Report on the ivory and bone findings from Ziyaret Tepe, Operation A, in 2005

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In the final days of the 2001 excavation campaign, as usual at the end of archaeological ventures, two extremely promising findings were made in Operation A under the courtyard-paving of a Neo-Assyrian building (Fig. 1).² Stone vessels, fine ceramics and a number of sculptured ivory and bone fragments were found in two square pits. A final interpretation on both pits is still to be expected, but traces of great heat on the objects and the surrounding soil as well as slag and ash layers point towards metal-working installations.³ The main finding contexts are pit contents loc. A.242 and A.252. Further findings are from loc. A.257 which partially match the fragments from loc. A.252 as well as the locations above, A.238 and A.258.

(Fig. 1. Plan of Operation A)

During the 2001 excavations, roughly 140 ivory and bone fragments were secured. Their size range from a few centimetres to a few millimetres. During the 2005 conservation campaign, the discovered ivory and bone fragments were examined and documented as well as preserved and restored.⁴

While working on the ivory fragments it was possible to assemble a number of fragments to objects. Thus, handle ZT 18641 consists of 47 fragments, the inlays ZT 2918/1 and ZT 2918/2 were restored out of 8 and 10 fragments respectively. After the completion of the work the number of objects was reduced to 61 accordingly.

Almost all ivory and bone fragments show traces of heat. The most important artefact of the excavation, for instance, the staff ZT 18641 was severely affected (Fig. 2a):

(Fig. 2a. Staff ZT 18641 after restoration)

(Fig. 2b. Staff ZT 18641 in possible reconstruction; drawing by author)

It is distorted and splintered in its central parts along its growth rings and shows striking colour changes along the cracks. The colour spectrum ranges from black and grey to light grey; on other smaller fragments from blue-black to dove-grey. As burning experiments have shown, these colour changes point toward temperatures over 760°C.⁵ The ivory colour of the surface has been preserved in most cases but is often in a powdery state.⁶

There is a great number of slim, thin fragments whose material has not yet been clarified (Fig. 3). Spectral-analysis may possibly shed some light on the material. Additionally, there are bigger ivory fragments of unknown function like ZT 6814 (Fig. 4), but have yet preserved their ivory structure very vividly.

(Fig. 3. ZT 6879)

(Fig. 4. ZT 6814 showing the typical cone-structure of ivory)

¹ I am not only very grateful to the heads of the Ziyaret Tepe Expedition, Dr. T. Matney and Dr. L. Rainville, for their invitation to work on the material, but to the whole team for their warm welcoming. The full study of all ivory- and bone-finds from Operation A will take place in connection with a final publication of the other small-find-categories from these extraordinary findspots.

² Cf. Matney et al. 2002: 54-56.

³ Cf. Matney and Rainville 2005: 44-47.

⁴ Special thanks must be granted to the conservation-team Karen Abend, Monique Schäfer, and Christina Lincke for their cooperation.

⁵ Cf. Krzyszkowska 1990: 36f.; cf. Baer et al. 1971: 3-6. It has to be mentioned that similar changes in colour occur under different firing conditions; the white, slightly powdery surface may indicate even long term heating over 800°C (cf. Low et al. 1980: 368-370).

⁶ I am very grateful to Dr. N. Inal, Director-General of the Archaeological Museum of Diyarbakir, and his staff, who generously allowed and enabled us sampling of some finds. These samples were brought to the Institute of Mineralogy at the University of Mainz for scientific analysis with special respect to questions of identification of material and burning atmosphere.

The range of ivory and bone artefacts from Operation A is inconsistent. Otherwise widespread object groups such as vessels or decorative elements are lacking. Needles, too, which usually form the main part of ivory and bone findings, are represented by a single tiny fragment at Ziyaret Tepe only.⁷

Six ring-shaped inlays with a concentric dent (ZT 6879/2-/7) (Fig. 5) demonstrate the exchangeability of the two materials, ivory and bone: While ZT 6879/2, /3, /4 is made of bone which can be seen clearly from the spongy structure of the material, ZT 6879/5, /6, /7 are made of ivory. All artefacts show almost identical measures and a similar design. They may be decorative inlays for chests or furniture as they are known from excavation sites dating from the early first millennium.⁸

Flat inlays with dowel holes (ZT 2918/1-/6) may have had similar function as lining or decorative elements on chests or devices (Fig. 6). ZT 2918/1 and ZT 2918/4 have rounded edges. The opposite part is missing. Thus, the original shape is unknown. Comparable, differently shaped ivory inlays are also widespread in the Near East.⁹

Inlays with figurative decoration are an exception. Thus, there are small fragments of volutes that might have been parts of an object. An inlay, carved on two sides, shows traces of a palmette (Fig. 7). One dowel hole on the bottom side may hint at a fixation, probably within a frame. It may have been an *à-jour*-carved work or a square plaque as which are documented, for instance in Nimrud. Due to its bad condition, a classification into the superordinate traditions of the ancient Near Eastern ivory craft remains difficult.¹⁰

(Fig. 5. ZT 6879/2-/7)

(Fig. 6. ZT 2918/1)

(Fig. 7. ZT 7258/1)

Another interesting fragment is ZT 7251/1 showing one half of a lotus-blossom topped with a volute-palmette (Fig. 8a, b). The piece is very thin, the engraving very light. It might have formed part of a large *à-jour* inlay.

(Fig. 8a. ZT 7251/1)

(Fig. 8b. possible reconstruction; drawings by author)

The most important find of the excavation is artefact ZT 18641 (Fig. 2a, b) which will be referred to as a “staff”¹¹ in the following. While working on the findings, these objects which were originally considered as different items because of their material, colour and last not least their joints, were actually part of a single object. It is a considerably bent object¹² consisting of three decorative elements. The upper part is formed by a slightly opened lotus blossom which grows out of a spheroidal chalice. Despite its bad condition, the definition of a deep socket on top is identifiable. A ribboned torus joins to a carefully carved, threepart leaf capital. A ring element with five slim discs is connected to a row of overlapping leaves with a centre rib. Below one can see a wreath of upside opened leaves which is unfortunately blurred by the crack that leads to a long bole. The 15 cm long piece of bole is decorated by rows of four slim discs between broad rings. A change of decoration in the centre is visible which is marked by a smooth dented segment between broader, ribboned rings. There is also a white mass which seems to be partly diffused into the ivory. It may be the remains of a former coloured inlay which melted due to the heat.¹³ Such material combinations of ivory with semi-precious stones, glass or quartz-ceramics are found in colourful Phoenician ivory craft but are also found in other traditions. The bole forms a spheroidal element that is decorated with horizontal rings and zigzag lines on both ends. The small fragment ZT 18641/9 demonstrates that the end of the stick is not

⁷ Even this fragment, ZT 7275/14, measuring 0,7cm in length and 0,2cm in diameter, could be regarded as a simple pin or dowel.

⁸ For comparisons, even without concentric dent, from Nimrud, Fort Salmanassar: Herrmann 1986 No. 1525 pl. 410; from Boğazköy: Boehmer 1972 Nos. 2013, 2014, 2025-2027; from Altintepe: Özgüç 1969: 55 pl. 52:1-4 and still *in situ*: pl. 21:1.

⁹ Cf. from Babylon: Reuther 1926 pl. 48:24i No. 7; from Hasanlu: Muscarella 1980: 100f., 104f. Nos. 201, 202, 210A, p. 189 with further comparisons; mind as well the differently shaped ivory-plaques of the lion's bodies from Altintepe: Özgüç 1969 pl. 37-39.

¹⁰ A very close comparison with respect to the dotted stem can, yet again, be found at Altintepe: Özgüç 1969 pls. 46f. These inlays rather seem to be of local production. Cf. also from Nimrud, Barnett 1975 G.10.

¹¹ As the original function of this object is not clear, the designation as “staff” instead of handle or sceptre was chosen as being most neutral, leaving enough space for ongoing interpretation.

¹² It is yet unclear whether the bent shape is due to heat or rather was intended, possibly following the natural shape of an elephant's tusk; cf. discussion below.

¹³ A sample could be taken for scientific analysis to provide information on that question.

reached yet; therefore, the whole length is unknown. In the present bend shape, the stick is 23 cm in length, and the bole diameter is about 1,5 cm.

The decoration of the bloom chalice, the leaf overlap capital and the geometrical decoration of the ball put ZT 18641 into the context of Assyrian craft.¹⁴ A close parallel is the staff IM 79600 found in well AJ of the North-West palace of Nimrud.¹⁵ This object shows a bend similar to ZT 18641.¹⁶ It is difficult to ascertain whether the curvature corresponds to the natural shape and growth-structure of the ivory because of its state of preservation. Therefore it must be kept in mind, that the bend form might be intentional. Moreover, there is also a decoration with four thin discs between two broad rings on IM 79600 from Nimrud. There is a spot with a differently patterned interface after which the handle continues with a broader diameter. Before that the handle – according to the photograph – seems to look worn. This was probably the real gripping section. Bud and shape of chalice do find parallels in Nimrud¹⁷, but no exact match.

Thoughts on the function of the staff have to consider its thinness, but also the hole on top. A use as a fan-handle therefore is rather unlikely. Even if ivory is sturdier than it is generally assumed, it presumably would not have stood the tension of long-time fanning, resulting in a break. Other ivory staffs, interpreted as fan-handles because of the shape of their heads show stronger measures.¹⁸ A use of ZT 18641 as the handle of a fly-whisk with strings attached to its top is more likely; IM 79600, too, was regarded as such. The interpretation of the handle being a handle of a weapon is implausible; at best, a use as a spoon-handle, a toilet accessory or a whip could be suggested. The lotus-blossom motif, however, gives a strong decorative flavour. Not to be dismissed is a suggestion in an emblematic use as a sceptre.

In any case, the parallel to IM 79600 from the Assyrian capital makes the find of ZT 18641 in the Assyrian province even more interesting and underlines the extraordinary character of the features in Operation A at Ziyaret Tepe at the upper reach of River Tigris.

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¹⁴ Cf. Muscarella 1980: 198f. with further references to lotus-blossom capitals. Very close comparisons can, e.g., be found at Hasanlu (Muscarella 1980: 144f. No. 271A-C) and Nimrud (Barnett 1975: 103-110 S.253-322). Yet, it remains to be discussed to what extent the elements should be called (North-)Syrian, Urartian, or Assyrian.

¹⁵ Safar/al-Iraqi 1987: 150 fig. 133.

¹⁶ The excavators specify the material of IM 79600 as „wood“ and trace the form back to the conserving conditions of wood in the humidity of Well AJ (Safar/al-Iraqi 1987:150). However, compared to other wooden objects from Well AJ IM 79600 seems to have kept its shape surprisingly well. Since ivory and wood can easily be confused, the specification of the item may be left open until further analysis.

¹⁷ Cf. Barnett 1975 S.257, S.319, S.270, S.271, closest S.318.

¹⁸ Cf. Barnett 1975: 104, particularly pls. LXXXII-LXXXV, XC.

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