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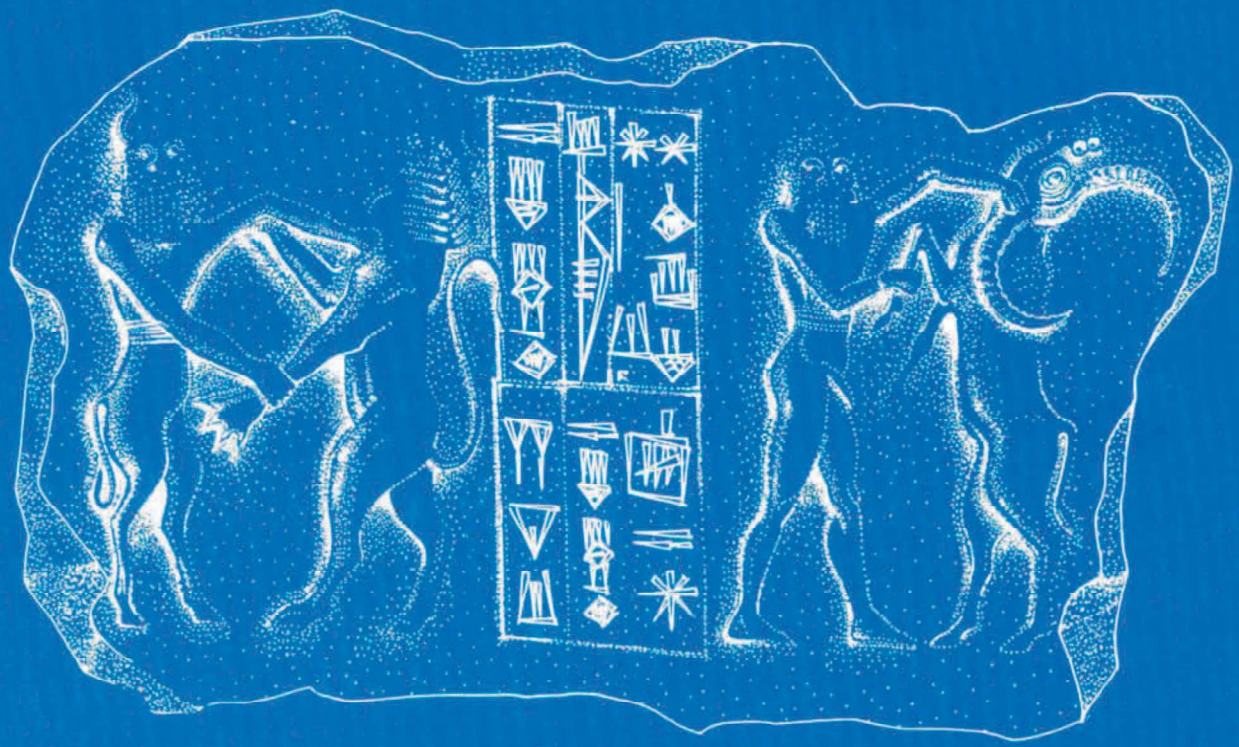
BETWEEN SYRIA AND THE HIGHLANDS

STUDIES IN HONOR OF GIORGIO BUCCELLATI & MARILYN KELLY-BUCCELLATI

Stefano Valentini - Guido Guarducci
(*editors*)



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LEARNING FROM *CANIS 203.* IMPRESSIONS OF AN ABSENT ARTIFACT

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Abstract
In a sense, the corpus of terra-cotta figurines published in 2007/8 as the fifth volume in Urkesh/Mozan Studies is hostage. Hostilities of a complex war deny access to the artifacts, preventing study and possible re-evaluation. This paper revisits a miniscule example from the collection in memory if not in fact.

It has been a number of years since I have visited the excavation site of Storehouse AK on Tell Mozan in northern Syria where I worked alongside compatriots from the village, as well as student archaeologists and professional colleagues from around the United States and the world.[1] As is generally known, the site has been all but inaccessible due to the conflict which rages in the region. It remains so.

It is some wonder that the diminutive object here under consideration (fig. 1)[2] was recovered at all from the matrix of excavation debris of Royal Building AK. It is smaller than the nail on my little finger, yet it leapt to attention as excavators sifted through dust and discards.

I hesitated just a heart-beat before deciding that this diminutive object had a place in the typology of terra-cotta figurines I was cataloguing. Its value, however, was only *representational*. That is to say, A6.274 "looked like" it belonged with other figurines in the Mozan corpus – "animals" all – and it exhibited characteristics that were "dog-like".

Yet it remained apart because of its size and the material from which it was crafted; there was none other like it. In that sense, its diagnostic usefulness seemed limited. And because the physical object was no longer available for analysis, I would have to proceed by careful inference, basing myself on what was knowable, working within recognizable categories that could be measured.

1. Color

The Munsell reading that I reluctantly accepted for the artifact was "pinkish white" (2.5YR8/2). Today, at the remove of some decades, if my visual memory serves, I still find this characterization less than satisfactory. I was unhappy with the reading when we took it and preferred instead the reading from an earlier Munsell edition that had been discontinued,[3] which favored some variant of "very pale brown", a reading rather more useful diagnostically, as it tended to corroborate my own impressionistic characterization of the hue of A6.274 and did foreshadow a natural process of deterioration. But of course, "pure white" has no corollary in the Munsell tabulations and, indeed, Krzyszkowska has explicitly warned us that, even though color is "one of the first features to strike us…, [it] is not in itself a reliable guide."[4]

2. Material and Form

Be that as it may, this aspect of the artifact was indeed striking enough for me tentatively to identify the material from which it was crafted, in all likelihood, as hippopotamus ivory. Krzyszkowska credits Aegean craftspersons with an "appreciation of the resplendent appearance of hippopotamus ivory" although she allows as how this observation is well-

[1] I continued to dig at Urkesh for the better part of 35 years. I had been lucky enough to be introduced to the site by the Co-Directors, Giorgio Buccellati and Marilyn Kelly-Buccellati. Their kindness, not to mention their sturdy forbearance, remains for me the very model of friendship. Not least among their gifts to me personally was an understanding of what it means to *collaborate*, to cultivate a community of colleagues.

[2] *Canis* 203/A6.274. Head and forequarters. Left median, partial cranial view. Miniature. "Probably ivory" as noted in the catalog. Manufacturing details are visible in this photograph, showing reductive cutting, as opposed to additive modeling. Other descriptors from the original catalog: "Recovered from feature 358 locus 22 • length (snout to torso break) 1.5375 • forequarters 0.575 • neck (just under ears) 0.49 • torso (body) 0.525 • height of forequarters (crown of head to termination 1.46 • cranial measurement (snout to back of head, curve of neck) 0.85 • thickness (snout, short axis) 0.215 • thickness (snout, long vertical axis) • 0.28 • thickness (ear to ear) 0.64 • fabric hard and white, as ivory • preservation: head intact; tip of left foreleg broken off, left foreleg itself chipped • Munsell reading (approximate) 2.5YR 8/2 • color (approximate) pinkish white." Hauser 2007/8, 225.

[3] This was in 1983. I still use for reference a version published as the "1994 Revised Edition." I note with some satisfaction that the categories "8/1 to 8/4 have been added to the 2.5YR chart." (Munsell Soil Color Charts 1994, 4).

[4] Krzyszkowska 1998, 212.

nigh impossible to prove archaeologically.[5] What is more, failure to distinguish between different types of ivory influences our research agenda; the relationship of form to material is "rarely discussed, no doubt a consequence of the assumption that elephant tusk, which places few restrictions on carvers, was the only kind of ivory used in the Aegean."[6] Once we disentangle "decorative schemes and typological value" (characteristics of form), our understanding of manufacture, production techniques, and processing is revitalized.

3. Origin and Range

I had at first taken the artifact to be a modern discard. My coworker at that time was, fortuitously, the noted archaeozöologist Sàndor Bökönyi. He apprised me of the fact that the behemoths lolled in the waters of the Euphrates and lumbered over the steppe in the time of Urkesh.[7] I would never have guessed this, because to me, uninformed as I was, "hippopotamus" was a creature that inhabited far-off fetid jungles conjured by Edgar Rice Burroughs, certainly not the arid regions that I now took to be the original state of the Mesopotamian steppe. No less surprising, we learn that

> "… the elephant throve and formed huge herds in both Asia and Africa. Elephants are adaptable in diet and habitat and are equally at home in forests or grassland, savannah and bush, or in the hills, feeding on grasses, shrubs and trees, bark and leaves, and on the roots and fruits of plants, but always within reach of water."[8]

Specification of the range of the elephant has newly recaptured interest in the field thanks to discoveries of huge elephant bones at Qatna. As the rooms where they were recovered have no doors, it is likely that the remains were ritually deposited and noteworthy in themselves, although the origin of the animal(s) is still under discussion.[9]

> "The elephant population, particularly in the jungles and savannas of Africa, must have been immense, their habitat extending in antiquity northwards into Libya and Mauritania. However in many areas general desiccation, marsh draining and cutting down of jungle, but above all slaughter by hunters and poachers in antiquity continuing into modern times greatly reduced the herds and their distribution."[10]

Now – as I naïvely assumed – if A6.274 had been crafted in ivory from the tusks of an African elephant (*Loxodonta africana*), then the artifact from Mozan would most likely have been imported, at least early on before native populations of elephant would have had a chance to become established. Issues to consider would have included possible trade networks of unworked ivory and the nature of maritime or overland exchange of what may have been trophies or luxury goods destined for the Royal Family of Urkesh.

Had the piece been crafted from the tusks of an Asian specimen (*Elephas maximus*), a discussion regarding the variable range of what is commonly termed the "Syrian elephant" would have been appropriate.

> [F]ossil elephant remains are found as far east as Japan. In ancient China in the Shang and Chou periods (1521 – 221 B.C.E.) it was evidently tamed and ridden by the emperors of those dynasties with other wild animals in parks.[11]

If this were the geographic range under consideration, material from which our *Canis* representation had been crafted would have been "local", likely from nearby marshes bordering the Orontes River.

> ". . . The remains of a large-sized elephant in the Palace of Qatna raise a number of larger issues such as animal-human relations, the introduction of exotic species (or a residual Pleistocene population), and trade routes" – [all of which remain under study by the original excavation team].[12]

4. Finish and Hue

Although not invariably the case, depending upon circumstances of conservation, elephant tusk ivory tends over millennia to rupture, to exhibit tiny fissures over all (fig. 3)[13], and to discolor. It turns brown (fig. 6).[14] Nothing could be less like the finish of the luminous minuscule sculpture that first attracted our attention in the dark soil at Urkesh.

As was Krzyszkowska, I was much taken with the radiant aura of hippopotamus ivory.[15] Not less so, presumably, than "the makers [of sculpted artifacts, who] prized hippopotamus ivory for its whiteness"–she cites Moorey who, even though he is unable to find evidence for

[5] Krzyszkowska 1998, 215.
[6] Krzyszkowska 1998, 209–210.
[7] See Bökönyi [1994 and 2001, 2], cited in Hauser 2007/8, 226.
[8] Barnett 1982, 3.
[9] Vila 2015, 487ff.
[10] Barnett 1982, 4.
[11] Barnett 1982, 5.
[12] Vila 2015, 494.
[13] See the specimen tusk in fig. 3 (below). These light breaks in a relatively unmarked surface would pose only a slight problem to the ivory craftsman, because they are not deep. Although if the medium were walrus as opposed to elephant ivory, the margin available for elaboration and sculptural niceties is limited.
[14] (Fig. 6). Ivory discards from Mycenaean workshops as collected for display in modern museum context (image courtesy Charles Skrief, 2018).
[15] Krzyszkowska 1988, 215, referenced above (n. 5).

the existence of the beast in Mesopotamia,[16] references Penniman.[17]

As shade terminology is characterized,[18] an object's hue is "not easily detected if the chroma is low". Intensity or saturation of the hue is difficult to detect in lighter/brighter shades. The surface of A6.274 had indeed been polished until it shone – "a smooth finish" is the only characterization of the secondary finishing technique in my catalog. Barnett[19] tells us that this procedure was accomplished "with abrasives or with skate or shark skin."

5. A6.274, The Urkesh Figurine Corpus and Catalog

Whatever material comprised the object, it had obviously been crafted and subsequently finished by a human artisan. Less for its form than its manufacture and substance, it was an outlier, anomalous. When I wrote that the material was "probably ivory", back when we discovered the piece, I had seen few examples for comparison. I simply could not be certain about the medium – that is why my published catalog hedged its bets somewhat.

A representational impulse seemed clear – this was *an animal*, most likely familiar to its human creator. Since only forequarters were intact, two important diagnostic features for canids – a deeply-curved back and a curly tail – were absent. The manner in which the head joined the body, depending upon orientation, was "dog-like" – head, neck and forequarters were close to being the same width. When viewed in profile, the head was "wedge-shaped". Finally, when seen frontally, the head/muzzle was carried high (see "Attitude" in my volume on the Urkesh figurine corpus).[20] So did A6.274 find a place in the corpus of terra-cotta animal representations recovered from the Royal Storehouse. "Dog", it was.[21]

6. Tools and Procedures

In the Mediterranean region, since at least the Bronze Age, plaques of ivory carved in relief were used to decorate wood furniture and boxes. "While the subjects, decorative motifs, and styles of these plaques [do vary] over time and place, many of the tools and procedures for decorating and attaching them changed little over more than two millennia."[22] We can therefore speculate that this tiny artifact may have been elaborated in somewhat the same manner as other coeval "ivory" artifacts.[23] A6.274 had been drilled through in two passes. As a single piece, it could have been attached to a garment by a thread.

7. A Domestic Corpus

But the artifact was not a single instance of a domestic animal before it was lost in the Royal Storehouse. I believe that it was part of a grouping along with other animals in a setting (the folds of a garment might serve in effect as "backdrop" for this pastoral) that provided some perspective on domestication. This ivory representation, very like its terra-cotta counterparts, I wager, bore some relationship to *the everyday lives of the inhabitants of Urkesh*. It is a "domestic" corpus. By studying it, we learn about what animals were kept, and in some cases, how they were kept. It is noteworthy that there is not a single fantastical creature represented in the entire corpus – 335 creatures, more or less. Not every animal at Urkesh was "wild", by any means. Some were untamed, true; but each and every animal would have been familiar to the citizenry, rather like companions on a shared journey of urban development, a co-creator of still-developing community. That the craftspersons who lived and worked in Urkesh fashioned animal likenesses in clay is testimony to this experiment in contemporality.

8. A Violent, Reductive Carving Technique

Our minuscule example of *Canis* had been "carved" reductively; that is to say, the form had been achieved by removing sections of the original material in bold strokes using generally simple "manufacture methods …, involving sectioning and cutting rather than elaborate carving".[24] In some cases, the simplest shapes – cylinders, for example, made from incisors – are "scarcely more than transverse disk sections … with the cementum removed".[25] Strictly speaking, the sections are not "carved"; one might rather say they had been "abraded", the surface of the ivory selectively worn away by repetitive action. Finer details, such as shallow incisions that continue the mouth or legs, or that outline an eye, as with A6.274, might have been elaborated using a stick or, alternatively, a sturdy cord dipped first in some adhesive and subsequently

[16] Moorey 1994, 115: "If, and when, hippopotamus ivory was used in Mesopotamia it would have been imported raw or as ready-made artefacts from the west… [O]nly some of these [objects] may at present be tentatively cited as examples [from Mesopotamian context]…" See Oates 1987, 187-188 and pl. XLII: a–d. Also, see Caubet and Poplin, 1987, 279ff.

[17] Penniman 1994, 115 *in* Hauser 2007/8, 226.

[18] – in a table documenting shade and hue provided courtesy, University of Minnesota Faculty Dental Practice.

[19] In *Qedem* 14, 14.

[20] Hauser 2007/8, 201.

[21] See https://janedogs.com/head-shapes-and-outlines/.

[22] Stern, Thimme 2007, 13, n. 1.

[23] See fig. 9. No less than a "gash", this cut, a break in the surface of the walrus tusk, actually has much to tell us about the resistance of the material to the carver and to his/her blade. It should be compared with the manner in which the carver laid out his/her lines on A6.274. The "slice" in the same image of the walrus incisor convinces us that the merest adjustment of blade could result in a vastly different sculptural technique.

[24] After Krzyszkowska 1988, 215.

[25] Krzyszkowska 1988, 216.

in sand or another abrasive material, then dragged across the surface. In the doing is the telling.[26]

So we scrutinize A6.274. This "object" has a story to tell, a biography. Social practice, Conkey reminds us, may be recovered by studying materials and technologies of approach to the imagery as elaborated in the era under consideration, asserting that

> "[t]he ways in which materials are worked and the maintenance or changes in particular technological styles are often . . . nonverbal ways through which communities may enculturate, elaborate, and challenge all sorts of values and ideas. People do organize their technical behaviors along lines that are socially, economically and ideologically meaningful."[27]

What we may take to be a civilizing impulse epitomized by a singularly refined artifact may rather be a gesture of extreme violence. Whether elephant or narwhal, walrus or shell, the raw material – the brute "ivory" – had to be extracted from an animal. This involved the death of some creature, whether mollusk, walrus, or mastodon. Subsequently, the craftsperson worked to disengage a representational image from the raw material.

All commentators – Herrmann, Moorey, Caubet and Poplin, Krzyszkowska – describe the medium as being somewhat intransigent, difficult to carve, not unlike a hard wood. We should expect the medium, whether discard or finished relic, to bear the marks of this struggle. And, indeed, this turns out to be the case.

Herrmann provides a surprising assessment of the skill of the makers, given our admiration for the ivory overlays, appliqués and small sculptures that have come down to us from the 2nd and 3rd millennia:

> "There is little indication that the Assyrians were more than competent ivory workers. Ivory works like a hard wood, and hard woods were not readily available in Assyria, so such craftsmanship would have been indigenous, as it was in the Levant with its excellent supplies and long tradition of woodworking."[28]

9. Figures and Analogical Reference

In the remainder of this essay, I have chosen to document this process of not-quite-routine craftsmanship by macro photographic examination of a walrus task that I received from an anonymous source. In post-juvenile elephants (as well as their extinct relatives, the mammoths), the ever-growing tusks are completely composed of dentine, the tiny amount of enamel capping the ends having long since been worn away. Much the same happens in walruses.

Of course, walrus ivory is not elephant ivory. With elephant ivory, a substantial portion of the tusk can be carved, as it is in large part composed of unremodeled or primary dentine and is thus, depending upon where it is sectioned, available for carving. Life is comparatively easy for the worker in elephant ivory.

In the case of walruses, the tooth also grows throughout life, but its center is taken up by a relatively large pulp cavity around which *secondary* dentine may form. The outer parts are formed by both primary dentine and cementum. [29]

This void is something of a headache for the carver in walrus ivory (see figs. 2, 3, and 4), who must negotiate both curvature in the walrus tusk and the relative thinness of the brittle cementum layer. But for purposes of illustration, ivory from the walrus – *Odobenus* ("tooth-walker" in Latin) – can provide useful analogical detail that helps us understand how A6.274 might have been fashioned. As the millennium advances, the native population of hippopotamus declines and the carver's preferred medium is eventually extinguished.[30]

No wonder the artifact is tiny! It is the result of an understandable need to salvage absolutely every available scrap of ivory remaining from what must have been a cautious production process.

I acknowledge that the differences amongst the various types of ivory available to craftspersons of the era render this discussion analogical rather than literal. The "absent" artifact – *Canis* 203 (A6.274) – does indeed loom large.

Fig. 1. Canis 203 (A6.274), before cleaning. As noted, anyone who encounters this miniature artifact is first struck by surface finish and color, both seemingly unvarying and remarkably uniform. Once cleaned, the surface has been brought to a high gloss by repeated polishing. Our little guard dog (if such he be – an acolyte of Gula/Ninkarrak's, helpmate/companion animal in healing) aims, we think, to be a model of perfection. It is rather the imperfections of the artifact that will enable us to think more closely about processes of manufacture. We should ask ourselves "Are there places where the finish is broken, not perfect? And if so, where does dirt adhere? Is the color uniform and unvarying? Was it a single blow cleanly struck that opened the little jaws or do the irregularities of the jaw betoken a lapse of craftsmanship? If so, how did this come to be? Is it perhaps due to the scale, which certainly would be daunting for detail work without magnification?"

Fig. 2. Schematic, walrus tusk (rough sketch).

[26] The waste (filings and powder) from such a procedure extended to its use as medicine. The practice continues in modern times (Barnett 1982, 77, n. 49).
[27] Conkey 1993, 114.
[28] Herrmann 2009, 108.
[29] McPhee 2011.
[30] Moorey 1999, 115.

This is not a precise rendering as would be required for archaeological analysis, but rather a reference drawing only, giving approximate dimensions and their relation to one another. In particular, the vertical cross-section (EG) does not give a true sense of tusk thickness, and the relation of secondary dentine to cementum as illustrated in Penniman's definitive and very useful "pictures of ivory, other animal teeth, bone and antler" (Plate VIII, left. Oxford 1952) and fig. 4, herein below (fig. 4).

Fig. 3. Tusk corresponding to schematic (DSC0485). All close-up images are of this surface. Note how the shallow fractures follow the curvature of the tusk. Another image of the tusk at closer range is shown in fig. 5. The discontinuous nature of surface fractures can be appreciated at this magnification. Secondary dentine (pulp) is visible to the left of the image, at the center of the shattered tusk. The enamel (cementum), as is usual in the species, is mostly worn away, due to the animal's mode of locomotion – heaving itself forward across the ice by means of the tusks.

Fig. 4. Walrus tusk transverse section (US Fish & Wildlife Service, Forensics Laboratory (https://www.fws.gov/lab/ivory_natural.php#walrus)

The dentine (D) in walrus teeth is mainly primary dentine (PD). The center of the tooth may contain a small core of apparent secondary dentine (SD). The dentine is completely surrounded by a cementum layer. Enamel may or may not be present according to the extent to which the tooth has been carved or worn. A cross-section of a walrus tooth will show very thick cementum with prominent cementum rings. (Legend following the referenced manual).

Fig. 5. Untreated walrus tusk/surface (DSC0104). See fig. 3, a close image of a portion of the tusk.

Fig. 6. Discards from an ivory-carving workshop (Cretan). Different processing modes can be recognized, including deep and regular incisions, subsequently rounded (bottom / foreground). Other pieces are tentatively sculptural (lower right), possibly the fashioning of a peg or chair-leg (in process).

Fig. 7. Walrus tusk with irregular chopping (DSC0131). These markings should lay to rest any thought we may have had regarding the pacific nature of the encounter between walrus and hunter. The hunter must've "laid about", chopping wherever and however he could to sever the tusk from the animal's skull.

Fig. 8. Walrus tusk with successive hatch-marks (DSC0152). These cuts must've been laid down in quick succession; it's rather unlikely that they should have been measured and precisely laid down in successive and separate episodes of chopping. By the time these marks were made, the walrus must've been dead for a time – these are test marks, calibrating for the hunter the hardness of the tusk and the possible difficulty that lay ahead in its disengagement from the animal's skull.

Fig. 9. Deep cut/adjacent "slice" (DSC0176). Close-up, we can see the exact nature of how the "cut" was delivered – powerfully, forcing a blade down into the dentine of the tusk. It is almost as if the surface of the ivory were pried apart, rather than incised. This mark can be taken as diagnostic. Slightly above and to the right, the outer surface (cementum) has been sliced away, leaving behind a slightly off-white smooth inner layer where the blade passed.

It is rather the *imperfections* of the artifact that will enable us to think more closely about processes of manufacture.[31] We should ask ourselves "Are there places where the finish is broken, not perfect? And if so, where does dirt adhere?[32] Is the color uniform and unvarying? Was it a single blow cleanly struck that opened the little jaws or do the irregularities of the jaw betoken a lapse of craftsmanship? If so, how did this come to be? Is it perhaps due to the scale, which certainly would be daunting for detail work without magnification?"

> The dentine (D) in walrus teeth is mainly primary dentine (PD). The center of the tooth may contain a small core of apparent secondary dentine (SD). The dentine is completely surrounded by a cementum layer. Enamel may or may not be present according to the extent to which the tooth has been carved or worn. A cross-section of a walrus tooth will show very thick cementum with prominent cementum rings. (Legend following the referenced manual).

10. Concluding Remarks

As I take leave of A6.274 and associated animal representations, I cannot deny that I experience a humbling surge of irony. I think of the redoubtable Georgina Herrmann and her colleagues confronted by the "enormous jigsaw puzzle" of some "tens of thousands" of ivory artifacts recovered at Nimrud and her patient rediscovery of their form and outline.[33] At Mozan, I recovered a single piece of ivory among some three hundred terra-cotta figurines. Its very rarity invites speculation and prompts a host of questions about the Royal Family and their relationship to the fauna and to the land and to the urban peoples who were such canny and careful observers of their lifeways.

This essay only suggests possible avenues of investigation. I am grateful for the opportunity to come home again.

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[31] I have "pushed" the CURVES adjustment in PhotoShop in this image so as to heighten modifications to the surface of the ivory.

[32] Agatha Christie, wife of the excavator, Max Mallowan, describes gently prying the debris from the face of the Nimrud ivories with an orange-stick and cleaning it thereafter with face-cream. I remember being taken aback by this bold tactic, https://www.theguardian.com/culture/2011/mar/07/british-museum-assyrian-treasures-agatha-christie.

[33] Chandler 2019, 29.

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Fig. 1. *Canis* 203 (A6.274), before cleaning.

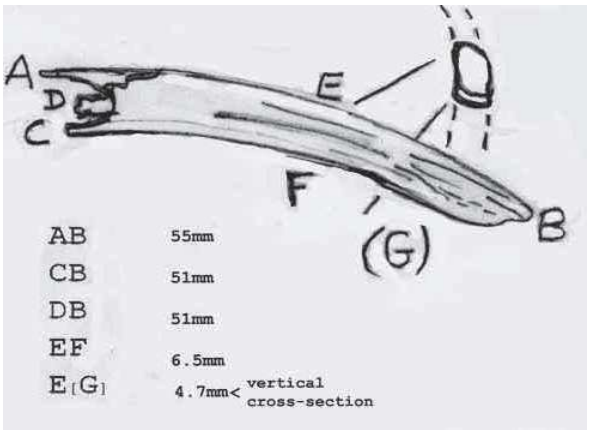

Fig. 2. Schematic, walrus tusk (rough sketch).

Fig. 3. Tusk corresponding to schematic (DSC0485).

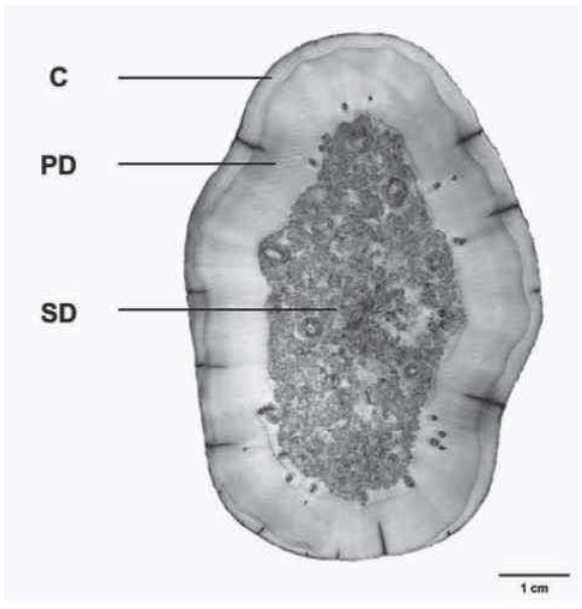

Fig. 4. Walrus tusk transverse section (US Fish & Wildlife Service, Forensics Laboratory, http://www.fws.cgov/lab/images/walrtus.jpg)

Fig. 5. Untreated walrus tusk/surface (DSC0104) See fig. 3, a close image of a portion of the tusk.

Fig. 6. Discards from an ivory-carving workshop (Cretan).

Fig. 7. Walrus tusk with irregular chopping (DSC0131).

Fig. 8. Walrus tusk with successive hatch-marks (DSC0152).

Fig. 9. Deep cut/adjacent "slice" (DSC0176).