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The Elephant Hunters of Bronze Age Syria

The excavations in the Royal Palace of Qatna in western Syria have been continuously carried out by the Syrian-German Mission since 1999.¹ The northwest wing of the Palace has been intensively explored since the season of 2008.² This unit, arranged in three rows of four rooms each, is distinguished from the main part of the Palace in several ways. Structurally, it is built independently, with its walls set against the foundations of the latter. Architecturally, it is characterized by a very regular rectangular grid of small chambers. Functionally, the small size of the chambers- unlike the rooms in the body of the Palace, which are for the most part much larger-and the specific fill encountered in most of them suggest that the northwest wing served a special purpose (fig. 1).

The northwest wing was added to the Palace's main unit probably shortly after its construction during the Middle Bronze Age (MB) IIA period.³ The fill of its rooms contains pottery datable to the Late Bronze Age (LB) I and IIA periods, that is, the late sixteenth to fourteenth century B.C., before the final destruction of the Royal Palace at around 1340 B.C. Based on its homogenous nature, the fill is not typical of the destruction debris of the Palace. Instead, it seems to have been intentionally deposited there during the LB I or IIA period, possibly as the result of an earthquake, which would have required the deliberate blocking of the rooms to prevent further destabilization of the entire building. The state of preservation of the northwest wing is exceptionally good. It was a terraced building, with the

upper of the two preserved stories forming a lower ground-floor level of the side wing, and the one below representing a basement level. The third, uppermost (reconstructed) story, which can be regarded as the upper ground floor level, corresponds to the main (and only preserved) floor of the other parts of the Royal Palace.

Two rooms of the northwest wing, DD and DF, contained elephant bones.⁴ Room DD is square, with a size of only 3 by 3 meters. Without an intermediate ceiling and associated floor between the two preserved stories of the wing, the room is 5 meters deep. Its walls are coated with lime plaster, and it is equipped with a simple mud floor. It lacks doorways to the surrounding rooms and would have been inaccessible, except from above, with the help of a ladder. The room was filled from bottom to top with the homogenous earth typical of the northwest wing and contained only a few LB and some earlier pottery sherds, along with five large elephant bones embedded in the lower part of the fill, close to the floor level. They must have been deliberately placed there at the onset of the filling process.

It is striking that the bones are only slightly damaged and thus could not have been thrown into the room from above. from a height of (minimally) 5 meters. They would have been broken as a result of this fall—unless they still had the meat on the bones, which is improbable as several vertebrae were disarticulated, and so already defleshed, with the connecting tendons and muscles removed. Rather, they must have been carefully lowered into the room, probably by means of cords. While one large bone (a scapula, or shoulder blade; see below) was in an isolated position in front of the north wall of the room (fig. 2), the other bones were concentrated in front of a niche in the wall in the southeast corner. The niche, originally supported by a wooden lintel, was carelessly blocked by a number of single mudbricks. Perhaps the deposition of the elephant bones was somehow related to this blocked niche.

Fig. 1. Plan of the Royal Palace of Qatna. Stars indicate the findspots of elephant bones (1-Room DD; 2-Room DF).

DM

HALL A

ALL F

HALL

DG

BC





GCU

GD

Fig. 2. Elephant scapula leaning against the north wall of Room DD

The second room, DF, is much smaller but was equipped with a ceiling covered by a sherd-paved floor between the lower ground level and the basement level. The elephant bones were embedded in the fallen debris of the floor and must have been deposited on top of the floor sometime during LB I or IIA, before the earthquake occurred. Room DF was not accessible from any of its four sides, so that, as in Room DD, bones such as the large tibia (shinbone) might have been lowered from above with the help of a rope or might have been brought down a ladder. Again, there were no other objects within the debris and only a few pottery sherds, besides the large number of pottery fragments embedded in the floor material. Thus, from a functional point of view, both rooms have no apparent use apart from being repositories of the elephant bones.

The Identification of the Elephant Bones

According to our mission's archaeozoologist, Emmanuelle Vila-Meyer,⁵ the largest single elephant bone in Room DD was a scapula, hardly damaged. In the southeast corner of the room, the long, massive, undamaged humerus (upper arm bone) of an elephant was laid down in a position parallel to the room's south wall. Close to it, toward the center of the room, there was a large fragment of a pelvis, which was cut in the middle, with only one half still present. The other half was lost as a consequence of the 1927 excavations of Robert Du Mesnil du Buisson, who cut directly into this bone at a depth of 5.65 meters in his deep sounding (Sondage 1); Du Mesnil du Buisson remarked on the bone's "extraordinary size."6 The bone was sent to France for scientific examination, but unfortunately the sample was lost.7 In view of these circumstances, it can be argued that the pelvis bone, like all the other elephant bones from Rooms DD and DF, was originally deposited in an intact condition. There were also two single vertebrae found near the humerus and pelvis.

Room DF contained a tibia, also complete. It was found in the north part of the room, in a vertical position within the collapsed floor material. At a slightly lower level, and also associated with the debris of the fallen floor, were two more vertebrae.

Vila-Meyer discovered that all seven bones possibly belonged to a mature animal of between twenty-five and thirty years of age, as suggested by comparable growthindications of the bones.8 The reconstructed size of the animal, when compared to modern specimens of the Asiatic elephant (Elephas maximus) and the African elephant (Loxodonta africana), is approximately that of a large modern male African elephant.⁹ This provides some evidence for the dimensions of the now-extinct "Syrian" elephant, believed to be a subspecies of the Asiatic elephant and denominated Elephas maximus asurus.¹⁰ Hitherto, clear morphological data on this subspecies had not yet been available. However, we should not generalize the size indicators from one single animal, as at Qatna.

THE POSSIBLE FUNCTION OF THE ELEPHANT BONE REPOSITORY AT QATNA According to Vila-Meyer, the elephant bones from Qatna do not show cutting marks or fractures caused by human activity.11 This indicates that they were not defleshed for their meat and, thus, they cannot be interpreted as refuse from food production or consumption.¹² Furthermore, in the absence of smaller bone fragments, they are to be regarded neither as discard stemming from craft production, nor as indicating a place of such production. As they appear to have been deposited intentionally and in a careful manner inside the Palace rooms, the extraordinarily large bones seem to have possessed particular symbolic value. One possible hypothesis is that the animal had been hunted by the king or members of the royal court of Qatna and had been brought back to the Palace as a trophy and a sign of prestige. The killing of a huge and possibly fierce elephant must have been a

prestigious act indeed, as illustrated in the accounts by Thutmose III of his elephant hunt in Syria. Such a hunting event could have been memorialized over time by retaining the bones from it, or a representative sample of them.

This hypothesis would explain why the elephant bones were brought to the Royal Palace of Qatna but it does not explain why the bones were deposited in rooms inaccessible to the public or even a smaller audience. Perhaps the bones were transferred to this remote place after a period of public display—carefully deposited while still retaining their supposed symbolic value. One may further speculate about a possible association of the bone deposits with the nearby Tomb VII.13 This MB IIB-LB I chamber tomb belonged to the Royal Palace and is situated below Room DA, in close proximity to the elephant bones, that is, immediately south of Room DD and directly east of Room DF. The bones could have had a symbolic connection to the deceased members of the royal court, regarded as the royal ancestors, and were perhaps buried in the two rooms close to Tomb VII. Whether associated with the burial chamber or not, the deposition of the elephant bones in Rooms DD and DF can be understood as a ritual act.

ELEPHANT BONE DEPOSITIONS IN THE BRONZE AGE

The picture presented above highlights the peculiar situation at Qatna and leads to a specific functional hypothesis that should be evaluated through a comparison with elephant bone depositions at other Bronze Age sites in the Near East. In addition, general assumptions regarding the occurrence of elephants in the Near East,¹⁴ the importance of elephant hunts, and the value of elephants and their by-products, such as ivory, need to be considered. In this way, by combining archaeological data and theoretical approaches, a general picture of the role of elephants in the Bronze Age cultures can be retrieved.



Fig. 3. Distribution map of elephant bone finds in the Early Bronze Age

The Early Bronze Age

Few archaeologically deposited elephant bones have been found in Early Bronze Age contexts in the ancient Near East (fig. 3).15 One example from Ugarit comprises foot bones and vertebrae of an elephant (or hippopotamus).16 To this we can now add a second find, from Tell Munbaga on the Middle Euphrates, which has been neglected as evidence for this period in previous discussions.17 Interestingly, this elephant bone was burnt, which could mean that its meat was roasted, or that it was thrown into the fire after a meal.¹⁸ The limited evidence does not support the assumption of intensive elephant hunting during this period,¹⁹ although the find from Tell Munbaqa indicates that elephant hunting took place in the gallery forests of the Middle Euphrates Valley as early as the Early Bronze Age IV period (ca. 2400-2000 B.C.).



Fig. 4. Distribution map of elephant bone finds in the Middle Bronze Age



Fig. 5. Elephant tusks in situ at Alalakh, Level VII Palace, Room 11. Middle Bronze Age. From Woolley 1955, pl. XVIb

The Middle Bronze Age

The first widespread evidence of elephants being hunted and their parts being carried into human settlements is observable starting with the Middle Bronze Age (fig. 4). At Alalakh a fragment of a bone with saw marks was retrieved in Level VIII.²⁰ Many ivory inlays and a text reporting the purchase of ivory were found in the Level VII palace,²¹ indicating that ivory was a traded commodity. Five well-preserved tusks from Room 11 in the Level VII palace could have been stored for use by the local ivory industry or kept for trade or gift exchange (fig. ς).²² They may have been either acquired by the palace or obtained by hunting, as is suggested by the presence of the elephant bone and molar found at the site.²³

At Middle Bronze Age Emar a complete phalanx (digital bone) of an elephant was found.²⁴ Although from a functionally undetermined context,²⁵ the find presents clear testimony of elephants being hunted during the Middle Bronze Age in the riverine region of the Middle Euphrates. According to textual evidence, the city of Emar lacked centralized political institutions,²⁶ so that the hunting of elephants in this area cannot be understood as a palatial or royal activity.

The hunting of elephants during the early second millennium B.C. is further attested in the Beqa' Valley in Lebanon, based on a fragment of an elephant femur discovered in a drainage channel in a domestic area at Kamid el-Loz.²⁷ The context dates to MB IIB (late seventeenth to early sixteenth century B.C.).²⁸ Sándor Bökönyi notes that the bone is interesting because of its cutting marks;²⁹ according to him, this hints at the local consumption of elephant meat.³⁰ Geographically, the Upper Orontes and Upper Litani valleys can be regarded as the most probable habitat of the animal from Kamid el-Loz,³¹ while the evidence of elephant bones at Alalakh points to the Lower Orontes Valley. Thus, both parts of the Orontes Valley can be seen as core regions of elephant hunting during the Middle Bronze Age.

Only a few sites outside Syria provided evidence of elephants during the Middle Bronze Age. A single, but nearly intact elephant tibia, 1.15 meters long, was found in a Middle Bronze Age domestic context, the so-called Hammurabi stratum in the central inner city area (Merkes) of Babylon (fig. 6).32 The bone may have been brought to Babylon by long-distance trade. Deposited singly and in an undamaged state, it must have had a special meaning or function, which, however, remains obscure. Elephant tusk segments were discovered in a Middle Bronze Age context at Acemhöyük in central Anatolia in a building near the palace.³³ Probably brought to this city, which was in close commercial contact with Ashur, from regions in northern and western Syria, they could have been intended for use in the local production of ivory objects.

The Late Bronze Age

Attestations of elephants are most abundant in the Late Bronze Age, based on bones discovered at settlement sites (fig. 7). After Qatna, Alalakh is one of the sites with the clearest evidence. Sir Leonard Woolley found the lower jaw of an elephant in the destruction debris of the east wing of the Level IV palace, obviously a valuable object that fell from the upper floor when the building was destroyed.³⁴ Another elephant bone, from Level II, was retrieved in the area of a private residence (House 39 B) close to the city wall.³⁵ The latter indicates that the hunting of elephants and/or the economic use of elephant bones were not exclusively a palatial affair at Alalakh.

The site of Ugarit is famous for its palatial ivories.³⁶ However, several elephant molars were found in nonpalatial residential areas throughout the city, including one discovered—together with hippopotamus tusks—in the harbor town of Minet el-Beidha.³⁷ The latter were probably stored with trade goods, including Mycenaean and Cypriot pottery, in a house built above tombs. This distribution signals that there was no palatial monopolization of elephant products at Ugarit, with regard to either consumption or production activities.

The nearest possible source for the elephant bones at Ugarit was the Orontes Valley, probably its central area, the Ghab Basin, situated some 50 kilometers east of Ugarit, across the steep Al-Ansariyeh coastal mountains. This rather long distance would explain why mainly small parts of the animals, generally molars, were present at Ugarit, with only one fragment of a long bone attested. As Can Yümni Gündem and Hans-Peter Uerpmann suggest, the flat enamel lamellae of elephant molars could probably have been used for the production of iewelry as part of the handicraft



Fig. 6. Elephant tibia. Babylon, central city area (*Merkes*). Old Babylonian period. From Reuther 1926, fig. 4

 Arslantepe T. Munbaga El-Qitar T. Sabi Abyad Alalakh Ugarit T. Sheikh Hamad Emar Qatna Nuzi Euphrates Kamid el-Loz Tigris Haft Tepe Late Bronze Age natural habitat of elephants sites with osteological evidence of elephants Basic map: R. Szydlak / M. Nová Concept: P. Pfälzne Graphic: A. Bianchi 500 km C IANES - Tübingen

Fig. 7. Distribution map of elephant bone finds in the Late Bronze Age

activities of the city—a by-product of the wider "elephant economy."³⁸

Further south, Kamid el-Loz provided an elephant rib fragment,³⁹ found in an open area in front of the temple⁴⁰ and dated to the very beginning of LB I.⁴¹ It is probably refuse from a temple workshop, or a leftover from consumption during a temple feast.⁴²

As in the Middle Bronze Age, in the Late Bronze Age elephant bones were also concentrated in the Middle Euphrates region, now under the suzerainty of the empire of Mitanni. There are, however, no indications of state or palatial control of the elephant products mentioned below. At Emar, the lower jawbones of two elephants were found on the floor of a Late Bronze Age private dwelling dating to the fifteenthfourteenth century B.C.⁴³ The jaws had evidently been cracked open-leaving traces of cutting and axe strikes on the bones⁴⁴—in order to remove the molars, probably for the production of jewelry. The molars themselves were missing. Clipped antlers and horns⁴⁵ and a manufactured bone inlay piece in the house⁴⁶ indicate a wider set of handicraft activities using bone material. It can be concluded that elephant bones were easily accessible in this area, suggesting the presence of elephants among the local fauna along the Euphrates River.

Similarly, at nearby Tell Munbaqa (ancient Ekalte), a fragment of a burnt long bone, probably food refuse, was found in a workroom of a private house,⁴⁷ where stone tools and cooking pots have also been found.⁴⁸ Five more elephant bones from the site,⁴⁹ obviously from Late Bronze Age contexts, are reported to have been cracked, thus used for either consumption or handicraft activities. An elephant femur comes from the fortified settlement of el-Qitar, north of Tell Munbaqa.⁵⁰ It was found in a modest house in the lower town, destroyed in the fourteenth century B.C.⁵¹

Farther east, at Middle Assyrian Tell Sabi Abyad, on the Balikh River, a fragment of an elephant femur was discovered in a twelfth century B.C. context of the administrative center or "fortress," from which the agricultural exploitation of the area was presumably organized and controlled.⁵² The bone shows saw marks, an indication of handicraft use,⁵³ and is an example of a state-controlled utilization of elephant products in a Middle Assyrian provincial center. The Balikh River probably offered environmental conditions for elephants similar to those in the Euphrates Valley, and could also have served as one of their natural habitats.

At the Middle Assyrian provincial capital of Dur-Katlimmu (Tell Sheikh Hamad), on the Khabur River, three fragments of elephant bones were found in Building P on the citadel mound.⁵⁴ Erected in the thirteenth century B.C. and used until ca. 1130 B.C., this was the seat of the Middle Assyrian governor.55 One of the bones, found in a storage context along with bones and skulls of sheep, equids, and pigs, appears to have been associated with the food supply.⁵⁶ Two fragments of a femur, dated to the last phase of the building, in the mid-twelfth century B.C.,⁵⁷ were found with administrative devices: pottery jars and bowls, jar covers, and clay sealings. Thus, as at Tell Sabi Abyad, the elephant bones from Dur-Katlimmu throw light on the importance of the elephant hunt in the centrally administered areas of the Balikh and Khabur vallevs during this late phase of the Middle Assyrian empire and clearly attest to statecontrolled elephant hunts.

Farther east, an elephant ulna or radius (the bone on either the inside or outside of the forelimb) was discovered at Nuzi (fig. 8).⁵⁸ It is one of very few intact elephant bones from the Bronze Age in the ancient Near East. As the eastern Tigris region can for geographical reasons be excluded as an area where elephants lived naturally, the bone must have been imported, probably from the Khabur or Euphrates Valley. The bone was not found in the Palace, but in a building complex in the northeast, domestic quarter of the upper city, dated to the fourteenth century B.C.⁵⁹ Purposefully imported, it may have served either an economic or ritual function.

At Haft Tepe, in the lowland of Khuzestan (Iran), an "elephant skeleton" was found, comprising a large number of bones, including a mandibula (lower jaw) and probably ribs.⁶⁰ The bones were discovered in a large hall, along with ivory and bone objects, bowls with dried paint, a mass of bronze arrowheads, bronze tools, and shells, all hinting at handicraft production.⁶¹ The hall is on the east side of the huge mudbrick platform of the high-status Terrace Complex I, dated to the fourteenth century B.C.⁶² The elephant bones carry saw marks,⁶³ indicating their use for handicraft production as well.

Whether the animal was part of a natural population of elephants in the humid region of Khuzestan, or an individual animal brought alive to Elam from Syria or India-the more likely scenario-has to remain a matter of speculation. What seems certain, however, is that the elephant bones at Haft Tepe are too numerous to have been traded individually over long distances. The elephant might have arrived alive, probably as a royal gift to the newly founded capital or residence of king Tepti-Ahar and his dynasty in Elam during the late fifteenth and fourteenth centuries B.C., which was in contact with the contemporary kingdoms of Babylonia, Assyria, and Mitanni.64

A molar and four small pelvis fragments with traces of cutting were found in a Hittite imperial context (fourteenth to twelfth century B.C.) at Arslantepe on the Upper Euphrates.⁶⁵ Bökönyi believes that the meat of the animal was eaten and assumes that the animal came from the colony of wild elephants living in the Middle Euphrates, some 250 to 300 kilometers to the south.⁶⁶

FUNCTIONAL DIFFERENCES IN THE "Elephant Economy"

From a functional point of view, there are significant differences visible in the contexts where elephant bones occur. For the sites in the Middle Euphrates region and



Fig. 8. Elephant bone in situ at Nuzi, northeast quarter of the upper city, Room C35. Late Bronze Age. From Starr 1937, pl. 28 C

Ugarit, activities in connection with elephant bones are located in private households, while at Alalakh, Qatna, and the Middle Assyrian provincial centers of Tell Sabi Abyad and Dur-Katlimmu, the elephant bones are related to palatial contexts. The Trans-Tigridian region, Elam, and the Upper Euphrates in Anatolia, with probably no indigenous populations of elephants, participated in the Late Bronze Age "elephant economy," an exchange network of elephants and elephant bones, with evidence of handicraft activities and the consumption of elephants as food.

Furthermore, other elephant bones were found in Late Bronze Age religious contexts, such as at Kamid el-Loz and at Tell Munbaqa, and these ought perhaps to be Fig. 9. Reconstruction of the natural environment of the Khabur Valley during the Late Bronze Age



Settlement area (irrigated alluvial soil)

Jezireh, with Hammadetea salicornicae desert formations and Artemisietea herba-alba mesopotamica steppe formations

seen as the remains of ritual consumption or of handicraft productions carried out in the framework of religious institutions. The building complex at Haft Tepe, in which a large quantity of elephant bones was found, may have had combined religious and palatial functions. The evidence from Qatna, where a ritual deposition of intact elephant bones is attested, stands apart from all other documented sites.

Syrian Elephant Habitats and Hunting Grounds

On the basis of the geographical distribution of elephant bones, two core regions stand out with regard to elephant hunting for the Middle and Late Bronze Ages: the Orontes Valley and the Middle Euphrates Valley, together with the latter river's tributaries, the Balikh and the Khabur rivers. These regions offered good living conditions for elephants, with a lot of water for drinking and bathing, and an adequate vegetal food supply.⁶⁷ The reconstruction of the ancient environment in the Lower Khabur Valley proves the existence of particularly suitable ecological conditions for elephants during the Bronze Age. The settlement system and the associated agricultural areas around sites

on the Lower Khabur River up until the early Iron Age were not so extensive as to threaten these natural habitats.⁶⁸ The valleys' broad and dense riverine gallery forests, along both sides of the river, included trees, bushes, and reeds (fig. 9).69 In addition, the adjoining steppes on both sides of the valley still contained a lot of grasslands, interspersed with trees,⁷⁰ offering an easily accessible additional food supply. Elephants, as Robert Miller points out, prefer to "live on the boundary between forest and grassland" and "they need an optimum mix of grasses, bark, and tender branches in their diet."⁷¹ These were ideally provided by the Euphrates, Balikh, and Khabur river valleys and the adjacent former savannas.

The Balikh and Khabur valleys also emerge as regions with textual attestations of elephants. Six Assyrian kings left accounts of elephant hunts, presumably in these regions.⁷² The most detailed comes from the time of Tiglath-Pileser I (r. ca. 1114–1076 B.C.).⁷³ He claims to have hunted and "killed ten strong bull elephants in the Land Harran" the Upper Balikh region—"and in the region of the River Khabur," bringing four elephants home alive to Ashur.⁷⁴ He also brought hides and tusks back to Ashur as booty. Chronologically, this episode dates to the final stage of the Middle Assyrian period. The account of Tiglath-Pileser I, thus, corresponds chronologically with the archaeological evidence of elephants in Middle Assyrian contexts in the Balikh and Khabur valleys, such as at Tell Sabi Abyad and Dur-Katlimmu.⁷⁵

The Orontes River system was the setting for well-known accounts by Egyptian rulers of hunting expeditions in Syria. It is often claimed that Thutmose I (r. ca. 1504-1492 B.C.) was the first ruler to hunt elephants in Syria, based on an inscription in the Punt Hall of the Temple of Hatshepsut at Deir el-Bahri mentioning the city of "Niva" as well as "elephants."76 Thutmose III (r. ca. 1479-1425 B.C.) gave a very detailed account of the famous elephant hunt during his Syrian wars,⁷⁷ which relies on four different texts: the annals of Karnak, which refer to "Niya," but not to elephant hunts;⁷⁸ a stele from Gebel Barkal, which tells of a herd of 120 elephants hunted at the "lake" or "sea" of Niya by the king;⁷⁹ another stele from the Temple of Montu at Armant, also reporting 120 elephants killed by Thutmose in the "steppe of Niya" or the "land of Niya";80 and the most detailed version of this episode, in an inscription of Amun-em-hab in his tomb at Thebes.⁸¹ He reports that his king hunted a herd of 120 elephants at Niya for their tusks. The largest of the animals threatened the king, whereon Amun-em-hab fought back the animal by cutting his trunk. Amunem-hab explains that he was standing in the water between two stones during this episode, suggesting that the hunt actually took place on the banks of the lake of Niva.

While the location of Niya is debated, it is generally accepted that it was located in the Ghab Plain—covered in ancient times by extensive swamps and lakes—at the site of Qala'at al-Mudiq, which corresponds to the Hellenistic and Roman city of Apameia.⁸² Limited excavations at the southern flank of the site prove that it was inhabited from the Ubaid to the Middle Bronze Age, and in the late Iron Age,⁸³ but no intervening levels of the Late Bronze Age have yet been identified.⁸⁴ Alternatively, the Late Bronze Age site of Niya may also be buried in one of the larger settlement mounds close by, such as Tell Sqalbiye, 5 kilometers south of Qala'at al-Mudiq, with a prominent Middle to Late Bronze Age occupation.⁸⁵

It is highly plausible that those hunting elephants in the Ghab Valley, close to the lake of Niya, included not only the king of Egypt but also the rulers and inhabitants of Syrian kingdoms, particularly Qatna, which was only 50 kilometers from Sheizar, at the southeast edge of the Ghab depression, and 77 kilometers from Qala'at al-Mudiq. As the routes from Qatna to the Ghab lead through flat terrain and are not hampered by



Fig. 10. The Orontes system of basins and lakes

Fig. 11. Remains of small ponds and swamps in the Ghab depression, between Al-Hattan and Mardash



any natural barriers, the transport of killed animals, or parts of them, back to Qatna would have been easy to accomplish.

The Ghab Basin, a plain approximately 70 kilometers long (fig. 10), with an average width of 11 kilometers, offered particularly favorable natural conditions for elephants. The occupation of the Ghab Basin during the Bronze Age does not seem to have been fundamentally different from the modern situation in the early twentieth century A.D. As Jean-Claude Courtois observed in an archaeological survey of the Ghab and Roudj regions, the Bronze and Iron Age settlements were mainly aligned along the eastern fringe of the Ghab Basin.⁸⁶ The larger part of the area, once covered by extensive swamps and lakes, fed during springtime by the Orontes and its tributaries, was sparsely populated in all historical periods. Shallow but vast lakes were generated in the month of November, which then receded from April until June, while the central area remained swampy year-round because the ground retained the humidity

like a sponge (figs. 11, 12).⁸⁷ This seasonal diversity of the environment probably explains why the area was called both the "lake of Niya" and the "steppe of Niya," depending on the season. The vegetation of the Ghab was originally dominated by reeds—the meaning of the Arabic word *ghab*—surrounded by grass pastures.⁸⁸

Thus, the Ghab Basin offered water yearround, easily accessible in shallow ponds, in addition to an abundance of plant nutrition in the form of reeds and grass; the single missing component for elephants was the presence of trees.⁸⁹ However, during the second millennium B.C. there might still have been pine and evergreen oak, especially at the foot of the eastern slopes of the Al-Ansariyeh Mountains along the western edge of the Ghab.⁹⁰

THE ORONTES VALLEY: NATURAL HABITAT OR ELEPHANT RESERVE? While a number of scholars prefer to interpret Niya as a reserve or zoological park,⁹¹ there are many arguments that militate against the idea of an artificially created

"elephant reserve" in the region, whether in the Orontes Valley or along the Euphrates River. Most importantly, elephants are not well suited either to life in reserves or parks or to captive breeding, for various reasons. In view of their high demand for food,⁹² they would have quickly depleted the natural vegetation within a confined reserve, so that a constant external supply of additional food would have been necessary. Elephants are highly mobile: in their search for food and water they circulate over long distances, up to 50 kilometers per day and in total up to 130 kilometers across their home range.93 This makes it very difficult, if not impossible, to keep the animals in a restricted compound and to control their movements. They are, furthermore, strong enough to break through any fences. Elephants have a very long maturation period with a long reproduction cycle, but very low reproduction rates, which makes breeding them extremely difficult. When living under human control they are normally very reluctant to reproduce.94 If the elephants had been imported from India or another foreign region, transport to Syria over thousands of kilometers would have been extremely difficult to organize during the Bronze Age, a period of political fragmentation throughout the Near East.⁹⁵ This would have effectively hampered the regular supply of new animals needed to maintain an elephant reserve over a period of time. Finally, the political situation in the Orontes Valley, with changing overlordships between the Middle and the Late Bronze Ages, would



Fig. 12. Lake in the Ghab Basin during wintertime. Early 20th century A.D.

not have been conducive to sustaining such a reserve. It is more likely that the Orontes Valley-especially the Ghab depression. with the lake of Niya, but also the Lower Orontes Valley, with the Amuq Plain and the lake in its center-and the valleys of the Euphrates, Balikh, and Khabur rivers constituted ideal natural habitats, where elephants lived wild and could be hunted, until their final extinction during the ninth century B.C. (fig. 10). Their natural occurrence in these regions explains why these animals were not monopolized by a single power, but, instead, various cities and kingdoms, such as Qatna, Ugarit, Alalakh, and Kumidi, and the urban centers of the Middle Euphrates River participated in elephant hunts. It furthermore explains why palatial as well as private households utilized hunted elephant products.



Fig. 13. Hippopotamus ivory scepter. Qatna, Royal Hypogeum. Late Bronze Age I–II. MSH02G-i0770. National Museum, Damascus

THE SOCIOPOLITICAL AND IDEOLOGICAL IMPORTANCE OF ELEPHANT HUNTING The procurement of ivory, a material esteemed in royal and elite contexts of the Bronze and Iron Ages, can be seen as the major reason for hunting elephants.⁹⁶ A large number of ivories discovered in the Royal Palace at Qatna, mostly in the Royal Hypogeum,⁹⁷ date to the LB I–IIA period.⁹⁸ Approximately 175 pieces are fabricated



Fig. 14. Elephant ivory comb. Qatna, Royal Hypogeum. Late Bronze Age I–II. MSH02G-i0787. National Museum, Damascus



Fig. 15. Elephant ivory pyxis lid. Qatna, Corridor AQ. Late Bronze Age I–II. MSH02G-i0015. National Museum, Damascus

from hippopotamus ivory, including a scepter (fig. 13) and inlays in the form of *djed* pillars.⁹⁹ Elephant ivory, on the other hand, is attested for only three objects from the Qatna Royal Tomb: a comb (fig. 14), a plaque, and a knob.¹⁰⁰ Another, a decorated lid of a pyxis (fig. 15), comes from the debris of the upper story, which fell into the corridor of the tomb.¹⁰¹ Thus, even in a royal context such as Qatna, precious elephant ivory was rare.¹⁰²

It is noteworthy that the most superbly crafted ivory object found at Qatna to date, the Hathor mask plaque (fig. 16), is made of elephant ivory, indicating that the material was only used for prestige items.¹⁰³ It was discovered, along with 340 fragments, mostly of elephant ivory, in the Syrian-Italian excavations of a large official building called the Lower City Palace and dated to the Late Bronze Age.¹⁰⁴ It probably once decorated a piece of furniture.¹⁰⁵ As the plaque and fragments were concentrated in two rooms (R and Y), they probably indicate a workshop for the secondary activities-joining and fitting—involved in the production of ivory marquetry.106

The finds from Qatna support our belief that elephants were mainly hunted to procure ivory. The latter was an important natural and cultural resource over which political control was sought. While Qatna no longer had direct control over the Orontes Basin during the Late Bronze Age,¹⁰⁷ its kings nevertheless appear to have had access to elephants, probably negotiated through the attested close political relations between Qatna and Niya.¹⁰⁸ Annie Caubet has raised the question of whether the "elephants of the land of Niya" belonged to the king of Qatna.¹⁰⁹ While this might have held true for the Middle Bronze Age, it can be rejected for the Late Bronze Age, the time of the elephant bone deposition in the Royal Palace of Qatna.

It is astonishing to notice that elephants also served as exchange items in international relations. The most ostentatious example is presented by the paintings in the



Fig. 16. Elephant ivory Hathor mask plaque. Qatna, Lower City Palace. Late Bronze Age I–II. MSH02-3266.707. National Museum, Damascus



Fig. 17. Facsimile of wall painting showing Syrian tribute of elephant, bear, tusks, and copper ingot. Egypt, Thebes, Tomb of Rekhmire. Dynasty 18, reign of Thutmose III. The Metropolitan Museum of Art, New York, Rogers Fund, 1931–31.6.43

Tomb of Rekhmire in Egyptian Thebes, dating to the time of Thutmose III,110 ca. 1450 B.C., and depicting tribute brought from foreign lands. The tribute carried from Retnu-the Syrian territories-includes metal vases; copper ingots; jars with wine; a chariot and a pair of horses; weapons such as bows, quivers, and daggers; ivory ointment holders; tusks; a bear; and an elephant (fig. 17).¹¹¹ This arrangement conveys a clear message: elephants and their products (tusks as raw material and ivory artifacts) were among the most valuable items associated with Syria, at least in the eyes of the Egyptians, beheld on the same level as metalwork, military equipment, and exotica such as bears.

The distinctive rendering of the elephant in this tribute scene, especially its small size, has been the source of much discussion. Did it symbolize a tamed animal, or one that was kept in a reserve near a city or close to a palace of a Syrian ruler? Most probably, it represents a trapped animal from one of the natural habitats of elephants in Syria, and like the bear—is a symbol of Syria's natural wealth. Elephants, together with other exotic animals, remained objects of gift exchange in the Iron Age, as is demonstrated by the presence of an elephant in the tribute scenes on the Black Obelisk of Shalmaneser III (r. ca. 858–824 B.C.).¹¹²

The hunting of elephants was surely a matter of prestige in the Bronze Age, as attested by the attention given this pursuit by the official Egyptian inscriptions of Thutmose III (and, to a lesser extent, Thutmose I). The fact that this hunt takes place in Syria, in the territories of defeated enemies or, at least, dependent neighbors, ostentatiously signals the supremacy of the Egyptian ruler over these territories. This might also be the reason why the number of killed elephants, stated to be 120, is probably greatly exaggerated. Marc Gabolde, taking the presented numbers as credible, has argued that the hunt of Thutmose III at the "sea of Niya" was intended to ruin the economy of Egypt's

rival Mitanni by destroying one of its most profitable resources.¹¹³ However, the status of victorious fighter and successful hunter bestowed by this hunt might have far outweighed its economic importance.

The same intention is still evident between the twelfth and ninth centuries B.C. in the inscriptions of the Neo-Assyrian rulers Tiglath-Pileser I,114 Ashur-bel-kala,115 Ashur-dan II,¹¹⁶ Adad-nirari II,¹¹⁷ Ashurnasirpal II,118 and Shalmaneser III119 mentioning elephant hunts in the conquered Syrian territories. The Assyrian kings wanted to symbolize their political and military predominance by presenting themselves as fearless, superior hunters. Their elephant hunts were aspects of Assyrian royal ideology, not a strategy to weaken the economy of the conquered regions, which would have only diminished the value of newly acquired territories. Although Ashurnasirpal II (r. ca. 883-859 B.C.) claimed to have killed thirty elephants and Ashur-dan II (r. ca. 934-912 B.C.) said he felled fifty-six, the actual numbers may have been exaggerated for propagandistic purposes-as in the records of the Egyptian pharaoh centuries earlier.

We may infer that elephants had a similar ideological importance for the Syrian kingdoms of the second millennium B.C., especially Qatna. This could have been bolstered by the close proximity of Qatna to the elephant habitats in the Middle Orontes region. The ideology of the king as elephant hunter could theoretically have already been developed during the Middle Bronze Age, when Oatna had direct political and military control over the Middle Orontes region, making the king of Qatna the master of the elephants of the Orontes region. This general framework might well explain the large, undamaged elephant bones found in a Late Bronze Age context in the Royal Palace of Qatna. They could have been brought back by the king as trophies of a successful elephant hunt to demonstrate his vigor, strength, and bravery and to symbolize royal supremacy and power. An ostentatious display of the

extraordinarily large elephant bones in the Royal Palace would have conveyed this message to a larger audience, a means of storytelling and of memorializing a remarkable hunting event. Of course, this would assume that the elephant bones were presented in a public area within the palace. The fact that they were found in the northwest wing could mean that they had lost their symbolic meaning at some point in time.

It is argued here that the kings of Qatna held a royal monopoly on the hunting of elephants in the vicinity of their realm, especially in the Ghab Basin. This privilege was established during the Middle Bronze Age and was still partially maintained in the Late Bronze Age. At the time, however, other kingdoms also participated in elephant hunting in the same region or, as in the case of Alalakh, further north, in the Amuq Plain.

The find context of the elephant bones at Qatna presents a special situation, as the deposition indicates that they were neither dumped as refuse from consumption or production, nor displayed as hunting trophies. Instead, they were deposited in a remote part of the palace, in two rooms without doors and filled with earth. The bones were lowered very carefully into these rooms, and no other finds were associated with them, suggesting a ritual burial, perhaps after the death of the ruler, when these trophies would have lost part of their ideological value and would no longer have been needed to be publicly displayed. They were placed near a large chamber tomb, Tomb VII, the secondary burial of many individuals from a palatial context.¹²⁰ Perhaps the place of "burial" of the elephant bones was chosen for its proximity to this tomb, located below Room DA in the northwest wing. The two rooms where the elephant bones were deposited were immediately north (Room DD) and west (Room DF) of Room DA. Furthermore, the basement floor of Room DF, which was below the deposit of the elephant bones, had direct access to the antechamber of Tomb VII.

The conspicuous spatial relation between the elephant bones and the burials in Tomb VII suggests a relationship between the elephant remains and Qatna's funerary cult. Was the ruler—who had once hunted the elephant—buried in Tomb VII, and were his elephant trophies buried close to him? Whatever the explanation may be, the deposition of the elephant bones at Qatna may be understood as a ritual action. We may observe a possible relationship to the funerary cult, but the ritual function of the deposition remains very speculative.

CONCLUSIONS

What, in the end, is the relevance of the new discovery of elephant bones at Qatna in the framework of these discussions? Four major points can be emphasized.

a) The bones from Qatna are the bestpreserved elephant remains discovered so far in Syria. They make a strong argument in favor of the existence of elephants in ancient western Syria, especially in the Middle Orontes region. Due to their size they could not have been imported from faraway places and most probably derive from elephants of the Ghab Basin, west of Qatna.

b) The elephant bones from Qatna had not been discarded, but were carefully deposited in a side wing of the Royal Palace. This proves that they were particularly esteemed, and that there was a direct royal association with this elephant, which must have been hunted by the royal elite, if not by the king himself.

c) There was definitely a certain prestige associated with hunting elephants. Not only would the tusks of the killed elephant have been removed from the cadaver, but in this case a number of bones, including vertebrae, were brought back to the palace in Qatna. This implies that elephant bones might have been publicly displayed in the Royal Palace as a symbol of prestige, in order to glorify the bravery and strength of the king. This function of the elephant was probably embedded in the royal ideology of Qatna, and added value to the elephant's unquestionable economic importance. d) Based on zoological and historical evidence there is no reason to assume an elephant reserve in the area of the "lake of Niya," to be identified with the extended lakes and swamps that still existed in the central Ghab Basin until recently. The elephants were probably naturally at home in this area of the Middle Orontes, as they also were in the Amuq Basin, the Middle Euphrates Valley, and the Balikh and Khabur valleys.

In summary, Qatna offers one of the rare finds of intact elephant bones in the ancient Near East; it throws light on the broad range of meanings of elephant hunting in the Bronze Age, from the economic to the political, ideological, and even ritual functions of the hunt and its associated trophies. The royal elephant hunters of Bronze Age Syria pursued this activity not only in order to monopolize one of the most valuable raw materials of their time, ivory, but also to acquire prestige and symbolize their bravery and power. The extinction of the Syrian elephant during the Iron Age is the result of this unfortunate combination of commercial and ideological interests.

- Under joint responsibility of Michel Al-Maqdissi (Directorate-General of Antiquities and Museums of the Syrian Arab Republic, Damascus) and Peter Pfälzner (Institute of Ancient Near Eastern Studies [IANES] at the University of Tübingen, Germany). See the annual and biannual reports in *Mitteilungen der Deutschen Orient-Gesellschaft*, nos. 132 (2000)–143 (2011). For a summary report, see Pfälzner 2007.
- See Dohmann-Pfälzner and Pfälzner 2008, pp. 20–45; Dohmann-Pfälzner and Pfälzner 2011, pp. 10–28.
- 3. Pfälzner 2007, pp. 36-42.
- For short preliminary reports, see Pfälzner 2008b; Pfälzner 2009a; more details were published in Dohmann-Pfälzner and Pfälzner 2008, pp. 35–42.
- 5. For a first, preliminary publication, see Pfälzner and Vila 2009; see also an unpublished manuscript by Emmanuelle Vila, "Tell Mishrife: La faune des fouilles du Secteur G—le palais. Rapport de mission d'étude (été 2008)." Details on the elephant bone finds contributed by Vila-Meyer were also published in Dohmann-Pfälzner and Pfälzner 2008, pp. 38–39, 41.

- 6. Du Mesnil du Buisson 1928, pp. 81-82, pl. II.
- 7. Ibid., p. 81, n. 1.
- 8. Pfälzner and Vila 2009, p. 27.
- 9. Ibid., p. 28.
- 10. For the definition of the "Syrian" elephant and its affiliation to the Asiatic elephant, see Hofmann 1974; Hooijer 1978; Bökönyi 1986, p. 187; C. Becker 1994, p. 175; von den Driesch 1996, pp. 34–35.
- 11. Pfälzner and Vila 2009, p. 27.
- 12. It should be added that this conclusion is not completely compelling, because detaching meat from such large bones does not necessarily leave cutting traces (Cornelia Becker, personal communication).
- 13. Pfälzner and Dohmann-Pfälzner 2011.
- For previous compilations of elephant bone finds, see C. Becker 1994, pp. 173–78, table 1, fig. 5;
 Fischer 2007a, pp. 75–78, table 5a, 5b; C. Becker 2008, p. 107, fig. 06:65.
- 15. Caubet and Poplin 2010, pp. 1-2.
- 16. Schaeffer 1962, p. 233; Collon 1977, p. 222, n. 15; Caubet and Poplin 2010. Schaeffer's account leaves open whether the bones are from elephants or hippopotamuses.
- 17. See, for example, Caubet and Poplin 2010, p. 2, where it is reckoned to the Middle Bronze Age. Fischer (2007a, p. 76, table 5a) dates it to 2200–1900 B.C., leaving open whether it is Early or Middle Bronze Age in date. See also Boessneck and Peters 1988, pp. 51–53.
- 18. Boessneck and Peters 1988, p. 53.
- 19. Cf. Caubet and Poplin 1987, and Caubet and Poplin 1992, p. 100, for an assessment of the chronological beginnings of ivory production in the ancient Near East, demonstrating that, apart from small quantities of hippopotamus ivory artifacts, there are no elephant ivory products before the second millennium B.C.
- 20. Woolley 1955, p. 288, n. 3; Fischer 2007a, p. 75.
- 21. For the inlays, see Woolley 1955, p. 61, n. 1, p. 98; for the text (AIT 366:16), see Wiseman 1953, pp. 100–101. It cannot be deduced from the Akkadian word *šinnu* used in the text whether the transaction refers to an elephant tusk or to an ivory artifact.
- 22. Woolley 1955, p. 102, pl. XVIa, b.
- 23. Caubet and Poplin 1987, p. 297.
- 24. Gündem and Uerpmann 2003, p. 120.
- 25. Ferhan Sakal, personal communication.
- 26. Fleming 1992; Adamthwaite 2001, pp. XX-XXI.
- 27. Echt 1984, p. 112, fig. 14a, pl. 15; Bökönyi 1986, pp. 187–88; Bökönyi 1990, p. 71, pl. 12.
- 28. Level 14 is assigned to Building Period 6 and dated to the end of the MB IIB period (Echt 1984, pp. 55-57, fig. 3).
- 29. Bökönyi 1986.
- 30. Ibid., p. 188; Bökönyi 1990, p. 72.
- 31. In contrast, Bökönyi (1986, p. 188) thinks that this elephant might have been imported from Egypt,

probably in the form of a royal gift. He based this assumption on the close relations of Kumidi with Egypt. However, these close relations are historically not attested before the Late Bronze Age, i.e., before the New Kingdom.

- 32. Reuther 1926, pp. 7, 10, fig. 4; Fischer 2007a, p. 77, table 5a. The identification of the bone as a tibia is proposed by Emmanuelle Vila-Meyer on the basis of the photograph in Reuther 1926, fig. 4 (in the present essay, fig. 6); other authors (for example, Fischer 2007a, p. 77, table 5a) have suggested a femur.
- 33. Fischer 2007a, p. 78, table 5b.
- 34. The question of whether the bone was found in Room 21 or 22 has been discussed by Fischer (2007a, p. 75, table 5a, n. 185), who concluded that it should have come from Room 21. I do not share this conclusion, as the situation is far more confusing. First, as Fischer correctly states, the plans in Woolley 1955, figs. 44, 45, bear the wrong room numbers: Rooms 21 and 22 have been transposed. Room 21 is, in fact, the larger, southern area, identified as the courtvard of the so-called Ilim-Ilimma wing (Woolley 1955, pp. 112-13, 123), and the smaller, northern one is Room 22 (Woolley 1955, p. 123). The lot of sixteen tablets, which in Woolley's text (1955, p. 123) is said to have been found together with the elephant bone in Room 22, is divided among two rooms in the publication of the texts (Wiseman 1953, p. 119). The majority of them (nine texts) are given in Wiseman's list as being from Room 22, while only three are from Room 21. This situation corresponds to the notion of the word "tablets" in the (corrected) Room 22 of the Palace plan (Woolley 1955, fig. 44). In conclusion, the elephant bone could also have come from either Room 21 or Room 22. As the association of the bones with the texts is stressed in Woolley's text, it seems more probable to me that the elephant bone was actually found in the (northern) Tablet Room 22 and not in the (southern) Courtyard 21.

The attribution of the bone find to the upper floor of the palace is not affected by the open question of the exact localization of the room where the bone was found, but unquestioned on the basis of Woolley's report that he found the bone embedded "in the brickwork fallen from above" (Woolley 1955, pp. 123, 288).

- 35. The bone is not mentioned in Woolley 1955; the area is described in Woolley 1955, pp. 179–80, fig. 63. See also Fischer 2007a, p. 75, table 5a. It is, in this case, not clear whether it is a jawbone or a femur (see Fischer 2007a, p. 75, table 5a, n. 187).
- 36. Gachet 1987; Yon 1997, pp. 146-49; Gachet-Bizollon 2007.
- 37. Caubet and Poplin 1987, p. 297, table 2.
- 38. Gündem and Uerpmann 2003, p. 122.
- 39. Bökönyi 1986, p. 187; Bökönyi 1990, p. 71.

- 40. Metzger 1991, pp. 73–75, 115–28, fig. 10, pl. 39; Metzger 1993, p. 142, no. 44. The object was found a short distance south of Wall 7, the south wall of Temple Room B.
- 41. Echt 1984, p. 60, fig. 3.
- 42. Bökönyi (1990, p. 71) thinks that the rib fragment from the T3 Temple and the femur fragment from the MB IIB building Phase 14 (see above) once belonged to a single animal living at the turn of the Middle to the Late Bronze Age, because of the close temporal proximity of the two levels (compare Echt 1984, fig. 3). However, this seems unlikely, given that the two fragments were found 30 meters apart, in totally different functional areas and at different levels (see localizations presented in the present essay).
- Finkbeiner 2001, p. 58, n. 6; Finkbeiner 2002, p. 118;
 Gündem and Uerpmann 2003, pp. 120–22, fig. 1;
 Gündem 2010, p. 136.
- 44. Gündem and Uerpmann 2003, p. 122.
- 45. Finkbeiner 2002, p. 120; Gündem and Uerpmann 2003, p. 122.
- 46. Finkbeiner and Sakal 2003, p. 24.
- 47. Boessneck and von den Driesch 1986, pp. 148, 150.
- 48. Machule et al. 1986, pp. 111-12.
- 49. Machule et al. 1987, pp. 110, 132. Another elephant bone was recently discovered in the area of *Steinbau* 4, a temple in antis located in the northern inner city. Dittmar Machule, quoting Emmanuelle Vila-Meyer, personal communication.
- McClellan 1986, pp. 435–36; identification quoted after C. Becker 1994, p. 173, table 1; Fischer 2007a, p. 76, table 5a.
- 51. Culican and McClellan 1983–84, pp. 41–42, fig. 2; McClellan 1984–85, pp. 40–43, fig. 2.
- 52. Akkermans and Rossmeisl 1990, p. 20; Akkermans 2006, p. 205, fig. 3; Fischer 2007a, fig. 5a. The context dates to the time between 1225 and 1120 B.C., as indicated by the cuneiform texts found at the site, from the time of the Middle Assyrian king Tukulti-Ninurta I and his successors; Akkermans 2006, p. 209; Akkermans and Smits 2008, p. 251. As the bone was found on a later, postdestruction floor of Stratum II in the tower, a date in the twelfth century B.C. can be assumed for its deposition.
- 53. Instead, Akkermans and Rossmeisl (1990, p. 20) interpret it as slaughter refuse.
- 54. C. Becker 1994, p. 172, fig. 2 (erroneously classified as Neo-Assyrian and coming from the Lower City); C. Becker 2005–6, p. 449; C. Becker 2008, p. 67, table 06:1–3, p. 107; Pfälzner forthcoming. A reassessment of the find contexts of the elephant bones was made in September 2011 by Jens Rohde, Cornelia Becker, Hartmut Kühne, and myself.
- 55. Pfälzner 1995, pp. 106–14, 233–38, figs. 81a–83;
 Kühne 1998; Kühne 2000; Pfälzner forthcoming.
 56. Pfälzner forthcoming.
- 57. Pfälzner 1995, p. 114, fig. 81c, pp. 236–37, fig. 137; Pfälzner forthcoming. I want to thank Jens Rohde

(Tell Šēh Hamad, project of the Free University of Berlin) and Cornelia Becker for their support in locating the exact findspot of the elephant bone.

- 58. Identification proposed by Emmanuelle Vila-Meyer on the basis of the photograph in Starr 1937, pl. 28 C (in the present essay, fig. 8). The same identification (ulna) had been proposed by Vogler (1997, p. 172, quoted in Fischer 2007a, p. 77, n. 191); in contrast, Cornelia Becker (1994, p. 173, table 1) stated that they are fragments of a femur; Fischer (2007a, p. 77, table 5a, n. 191) mentions both possibilities.
- 59. Starr 1937, pl. 28 C; Starr 1939, pp. 189–90, Plan
 11, pp. 199, 493, pl. 28 C; C. Becker 1994, p. 173,
 table 1; Novák 1994, p. 400, fig. 35; Fischer 2007a,
 p. 77, table 5a. Novák (1994, p. 442) added the
 idea that the building might have been a "pub."
- 60. Negahban described the find as both an "elephant skeleton" (Negahban 1979, p. 25; Negahban 1991, p. 10) and "elephant bones" (Negahban 1991, p. 18, and caption of pl. 14 B). On the published photograph (Negahban 1991, pl. 14 B) it can be recognized that the bones are disarticulated and not lying in their original anatomical position. On the specific bones, see C. Becker 1994, p. 173, table 1; Fischer 2007a, p. 77, table 5a. It is not clear whether there were also tusks in this context (see Collon 1977, p. 225, n. 25; Fischer 2007a, p. 78, table 5b).
- 61. Negahban 1979, pp. 21–29; Negahban 1991, pp. 9–10, 15–18.
- 62. Negahban 1979, pp. 24–25; Negahban 1991, pp. 10, 18, pl. 14 B.
- 63. Negahban 1991, pp. 10, 18.
- 64. Potts 1999, pp. 192, 204.
- 65. Bökönyi 1986, p. 187, pl. 29:1, 3. Bökönyi (1986, p. 187) does not specify the find context of these bones, but this might be due to a printing error, as footnote 1 is missing in his article.
- 66. Ibid., p. 188.
- 67. Hofmann 1974; C. Becker 1994, p. 175; C. Becker 2005–6, p. 453.
- Ergenzinger and Kühne 1991; Morandi Bonacossi 2008.
- 69. Frey and Kürschner 1991; Kühne 1991; Kürschner 2008.
- 70. Frey and Kürschner 1991, pp. 92-96, 99-102.
- 71. Miller 1986, p. 29.
- 72. Fischer 2007a, p. 72, table 4.
- 73. For more references on elephant hunts by later Neo-Assyrian rulers, see notes 114–19 below.
- 74. Grayson 1991, p. 26 (col. vi: ll. 70-75).
- 75. The elephant bones at Dur-Katlimmu come from a context dated to the Middle Assyrian III period, which extends into the time of Tiglath-Pileser I (r. ca. 1114–1076 B.C.) (Pfälzner 1995, p. 235).
- Redford 1979, p. 276; Gabolde 2000, pp. 129–30; for a critical assessment of the textual evidence, see Busch 2006, pp. 87–88; Fischer 2007a, p. 71.

- 77. Redford 2003.
- 78. Blumenthal, Müller, and Reineke 1984, p. 207; Gabolde 2000, p. 133.
- 79. G. A. Reisner and M. B. Reisner 1933; Helck 1961,p. 8; Gabolde 2000, p. 132.
- 80. Helck 1961, p. 13; Gabolde 2000, p. 132.
- 81. Blumenthal, Müller, and Reineke 1984, p. 312; Gabolde 2000, p. 131.
- 82. For the identification of the city of Niya with Qala'at al-Mudiq, see Klengel 1969, pp. 58–59; Klengel 1970, p. 54; Courtois 1973, pp. 68–70, fig. 7; Röllig 1999, p. 314a; Gabolde 2000, p. 133; Otto 2006–8; Pfälzner 2012, pp. 777–78. Alternative proposals with regard to localizing the lake of Niya have suggested the lake of Homs (most recently, Caubet and Poplin 2010, p. 3) or the lake of Jabbul, east of Aleppo (Miller 1986, p. 31; Lamprichs 1995, pp. 360, 364).
- 83. Collon et al. 1975.
- 84. Ibid., p. 7.
- 85. Courtois 1973, p. 58, n. 1, pp. 65-68, figs. 5, 6.
- 86. The occupation of the Ghab Basin during the Bronze Age does not seem to have fundamentally differed from the premodern situation. As Courtois observed in an archaeological survey of the Ghab and Roudj regions, the Bronze and Iron Age settlements were mainly aligned along the eastern fringe of the Ghab Basin: Tell Sqalbiye (EB, MB, LB), Qala'at al-Mudiq (EB, MB, LB, IA, Classic), Tell Ibrahim (EB), Tell Aamqiye (EB, MB, LB), Tell Qleidine (EB, MB), Tell Qastoun (EB, Classic), and Tell Qarqur are the visible tell sites located east of the eastern bank of the Ghab lake; Courtois 1973, pp. 65–70, 81–88; cf. Fortin 2007, pp. 254–55, table 1.
- 87. Thoumin 1936, pp. 468–85; Weulersse 1940a, pp. 73–75; Weulersse 1940b, p. 353.
- 88. Thoumin 1936, pp. 479, 483, 485, 517.
- 89. Elephants need 70 to 90 liters of water a day (C. Becker 1994, p. 179). The major food sources of elephants are leaves, twigs, grass, fruit, tree bark, tubers, and roots (C. Becker 1994, p. 179). For the need for trees in an elephant habitat, see Miller 1986, pp. 32–33.
- 90. For potential forest vegetation in earlier periods, see Fortin 2007, p. 260; Yasuda, Kitagawa, and Nakagawa 2000. It must be pointed out that elephants are highly mobile, even climbing steep slopes in their search for food (C. Becker 1994, p. 179).
- 91. S. Smith 1949; I. J. Winter 1973; Collon 1977; Gabolde 2000; Luciani 2006b; Caubet in *Beyond Babylon*, pp. 406–7; Caubet and Poplin 2010.
- 92. Elephants consume 100–200 kilograms of plant food per day (C. Becker 1994, p. 179).
- 93. Miller 1986, p. 30; C. Becker 1994, p. 179.
- 94. Clutton-Brock 1987, p. 115; Cornelia Becker, personal communication.
- 95. Klengel 1969; Klengel 1970; Klengel 1992; Pfälzner 2012. The situation was different during

the Seleucid era, when the importation of elephants was actually practiced, but within a largely politically unified world region; C. Becker 1994, p. 173.

- 96. Caubet and Poplin 1987; Gachet 1987; Caubet and Poplin 1992; Gachet-Bizollon 2007.
- 97. Bertsch 2011.
- 98. For the dating, see Pfälzner 2011a, pp. 58–59, 65–66, table 1.
- 99. I am very grateful to François Poplin for identifying the ivory types of the objects found in the Syrian-German excavations at Qatna. For the scepter, see Pfälzner 2009b, ill. on p. 136; Pfälzner 2011b, p. 174, figs. 38, 39b; for the inlays, see Bertsch 2011, p. 249, figs. 1, 2.
- 100. For the comb, see Pfälzner 2011b, p. 176, fig. 40;
 for the plaque, see Bertsch 2011, p. 253, figs. 8a, b.
 The knob, Field inv. no. MSH02G-i1977+1985, is hitherto unpublished.
- 101. Richter and Lange 2012.
- 102. More ivory objects were discovered in 2009 and 2010 in Tomb VII below the Royal Palace of Qatna (Pfälzner and Dohmann-Pfälzner 2011, pp. 96–98, 118–22, 126–27), dating to the Middle Bronze IIB period, but it has not yet been determined whether they were made of elephant or hippopotamus ivory.

- 103. Luciani 2006a; Morandi Bonacossi in *Beyond Babylon*, p. 234, no. 144; Turri 2009, p. 191.
- 104. Morandi Bonacossi 2009, pp. 157–59, plan ill. on p. 156.
- 105. Luciani 2006b, pp. 407–11; Morandi Bonacossi in Beyond Babylon, pp. 233, 234; Morandi Bonacossi 2009, p. 159, ill. p. 157; Turri 2009, p. 191.
- 106. Luciani 2006b, pp. 406, 410–11; subsequently: Morandi Bonacossi 2009, p. 159; Turri 2009, p. 191.
- 107. Klengel 1992; Klengel 2000.
- 108. Richter and Lange 2012.
- 109. Caubet in Beyond Babylon, p. 406.
- 110. Grave TT 100; Davies (Norman de Garis) 1943/1973, pp. 17–30.
- 111. Ibid., pp. 27–29.
- 112. Börker-Klähn 1982, pp. 190ff., pl. 152.
- 113. Gabolde 2000, p. 134.
- 114. Grayson 1991, p. 26 (col. vi: ll. 70-75).
- 115. Ibid., p. 103 (col. iv: ll. 5–10).
- 116. Ibid., p. 135 (col. iv: l. 72).
- 117. Ibid., p. 154 (ll. 125-26).
- 118. Ibid., p. 226 (l. 41).
- 119. Grayson 1996, p. 41 (l. 44).
- 120. Pfälzner and Dohmann-Pfälzner 2011.