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## A Horse-Bridle Piece with Carpatho-Danubian Connections from Late Helladic I Mitrou and the Emergence of a Warlike Elite in Greece During the Shaft Grave Period

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#### Abstract

In this article, a horse-bridle toggle from a final Late Helladic I context in elite Building H at Mitrou is identified on the basis of its form and decoration as an object with close ties to the Carpatho-Danubian zone. In a stage of reworking the toggle was provided with serrated edges, which suggests an association with the introduction of the light horse-drawn chariot. This find helps reconstruct a long-distance trade route from the Carpatho-Danubian zone via the Euboean Gulf to southern Greece. Influences went both ways, with northern elite cultures playing a decisive role in the construction of a new ideology of power by Greece's emerging elite.\*

#### INTRODUCTION

The site of Mitrou is a Bronze Age and Early Iron Age settlement located in East Lokris on the coast of the North Euboean Gulf, in central Greece (figs. 1, 2). Nowadays, Mitrou is a tidal islet of 3.6 ha off the coast of Tragana, but sea level must have been at least 3 m lower in antiquity, and the site must have been part of the mainland at that time, situated on a low promontory overlooking the sea. From 2004 to 2008, Mitrou was subjected to a program of systematic archaeological excavations as well as geophysical surveys and a surface survey.

Mitrou was chosen as an excavation site because of its deep stratigraphic sequence and uninterrupted occupation from at least the Early Helladic (EH) IIB phase until the late Protogeometric phase (ca. 2400–900 B.C.E.) and because of its location on major terrestrial and maritime routes leading from northern to southern Greece. The land route led from Thessaly via western Magnesia to Phthiotis and the Malian Gulf and then through the Thermopylae pass and East Lokris to Boeotia. The sea route led through the Euboean Gulf, which offered many sheltered harbors to ships and must have been much preferred to a voyage through the open Aegean Sea. The discovery of a small Middle Helladic boat as well as many overseas imports at Mitrou testifies to the settlement's maritime activities.<sup>1</sup>

The Late Helladic (LH) I phase was a period of many dramatic changes at Mitrou that mark the rise of a sociopolitical elite. This elite made striking efforts to become highly visible in its community, presumably as part of a new ideology of power that promoted the legitimacy of its rule. In 2007, two fragments of a horse-bridle piece made of deer antler (LE793-081-011) were discovered in a final LH I destruction level of Building H at Mitrou. The formal characteristics and decoration of the bridle link it to antler and bone

<sup>\*</sup>The Mitrou Archaeological Project is codirected by Aleydis Van de Moortel of the University of Tennessee and Eleni Zahou of the 14th Ephorate of Prehistoric and Classical Antiquities. It is carried out under the auspices of the American School of Classical Studies at Athens. Major sponsors are the University of Tennessee, the Institute of Aegean Prehistory, the National Endowment for the Humanities (NEH) (Collaborative Research Grant Nos. RZ-50652–06 and RZ-51162), the Loeb Classical Library Foundation, and the Greek Archaeological Service. Any views, findings, conclusions, or recommendations expressed in this publication do not necessarily reflect those of the NEH. The authors wish to thank Giuliana Bianco (Toronto), Maria Kostoula (University of Heidel-

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<sup>&</sup>lt;sup>1</sup>For a discussion of the Middle Helladic boat, see Van de Moortel 2012. Pottery imports are discussed in Vitale 2008; Lis 2012; Van de Moortel and Zahou 2012; Vitale 2012; Hale (forthcoming); Van de Moortel et al. (forthcoming).

rench

northeast

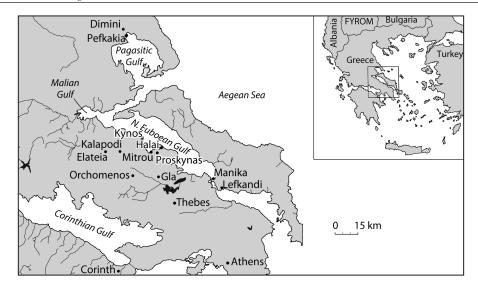


Fig. 1. Map showing the location of Mitrou and other sites in the North Euboean Gulf (drawing by B. Lis and T. Ross).

objects from both the Carpathian Basin and the area of the lower Danube.2

This article discusses these sociopolitical changes and explores the role that the imported horse-bridle piece may have played in the construction of this new ideology at Mitrou. The importance of this find is discussed also on a broader regional level as evidence for the existence of a long-distance trade route from the Carpatho-Danubian zone via the north Aegean and the Euboean Gulf to southern Greece. It is argued that this trade was of crucial importance in the construction of a new world order and ideology of power by the emerging elite of Greece's Shaft Grave period.

#### CONTEXT AND DEPOSITION DATE OF THE HORSE-BRIDLE PIECE

Building H is located in the northwest excavation sector at Mitrou (see figs. 2-4). It has been interpreted as an elite architectural complex of LH I-IIIA1/A2 (early) date.3 Between 2005 and 2008, eight excavation trenches were dug in this complex, elucidating its stratigraphy and uncovering evidence for a wide range of activities but leaving us with an incomplete understanding of its architectural plan. Both fragments of bridle piece LE793-081-011 were found in trench LE793 in the northern part of Building H's complex, just east of and below the level of later Room 2 (see

<sup>&</sup>lt;sup>2</sup>The area of the Carpathian Basin and the lower Danube is referred to herein as the "Carpatho-Danubian zone." It comprises all of Hungary, most of Romania, and parts of Austria, Bulgaria, Croatia, Serbia, Slovakia, Slovenia, and the Ukraine.

Fig. 2. Balloon image of the islet of Mitrou with excavation sectors at the end of the 2008 excavation season (K. Xenikakis and S. Gesafidis).

<sup>&</sup>lt;sup>3</sup> Tsokas et al. 2012, 419-20; Van de Moortel et al. (forthcoming). At least part of Building H was rebuilt and used in LH IIIA1 (Vitale 2013).

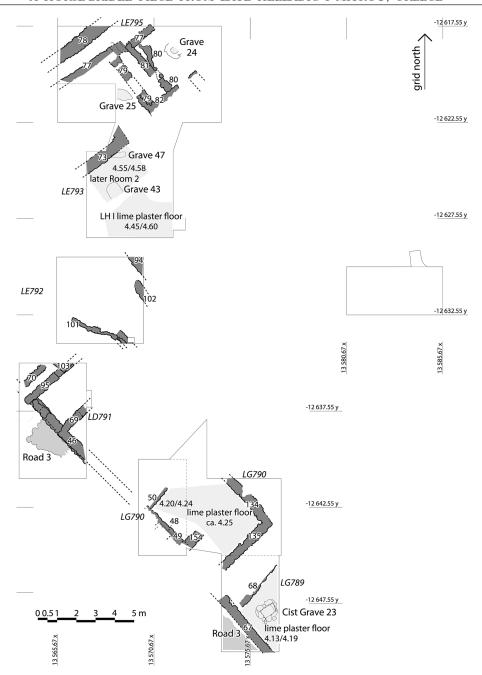


Fig. 3. Plan of Building H in the northwest excavation sector during the LH I phase (dark gray shading shows walls constructed in LH I, with wall numbers indicated; light gray shading indicates a lime plaster floor or pit) (drawing by G. Bianco and A. Van de Moortel).

figs. 3–5).<sup>4</sup> The final LH I destruction level to which they belonged had an elevation of approximately 4.55/4.58 to 4.73/4.83 masl, and the fragments of the bridle piece were found near the bottom of this level, at 4.61 masl. This destruction level has also been excavated below Room 2, and it extends farther east in

an unexcavated area, allowing for the possibility that more fragments of this bridle piece as well as related artifacts may be uncovered in future excavations.

The final LH I destruction level included much disintegrated mudbrick, parts of which had been burned bright red; it also contained many plaster fragments

<sup>&</sup>lt;sup>4</sup> For a plan of the northwest excavation sector in all periods, see Tsokas et al. 2012, 402, fig. 14.

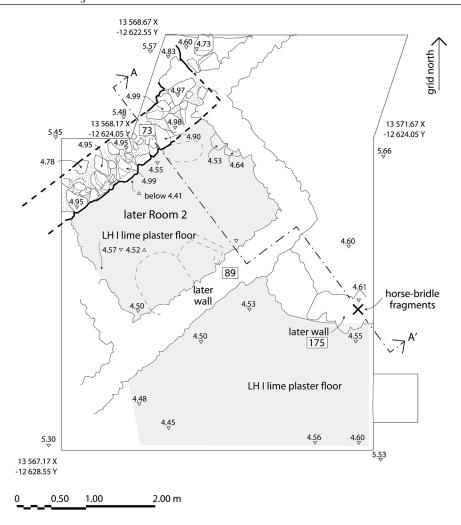


Fig. 4. Detail from plan of Building H, showing state plan of the find context of bridle piece LE793-081-011 (light gray shading indicates a lime plaster floor or pit) (drawing by G. Bianco and A. Van de Moortel).

and building stones as well as pottery fragments, lithics, a spindlewhorl (LE793-074-011), animal bones, and shells. An approximately 20 cm thick dump covered the final LH I destruction level to the east and northeast of Room 2. This dump contained LH I and LH IIA pottery fragments as well as other artifacts, and it had been topped by a rough cobble platform abutting Room 2 at 4.95/5.04 masl.

Ceramic dating shows that the LH I destruction debris had been deposited in the fourth and final

ceramic subphase of LH I identified at Mitrou.<sup>5</sup> The ceramic features of this subphase already herald those of the LH IIA phase, as known from Mitrou and elsewhere on the Greek mainland, but they are decidedly earlier; moreover, final LH I levels are stratified below LH IIA levels at Mitrou.<sup>6</sup> No comparative study with the pottery from the volcanic eruption of Thera has yet been carried out, but it is likely that the final LH I destruction of Building H postdated the Late Cycladic I volcanic eruption of Thera.<sup>7</sup> Thus, its absolute date

<sup>&</sup>lt;sup>5</sup>S. Vitale, pers. comm. 2013. The LH I pottery phase at Mitrou has been divided into four subphases by Salvatore Vitale (University of Calabria) and Christopher Hale (University of Melbourne), assisted by Kyle Jazwa (Florida State University), Kristen Mann (University of Sydney), Alessandro Talone (University of Pisa), Kimberley van den Berg (Vrije Universiteit Amsterdam), and Jack Young (Florida State University).

<sup>&</sup>lt;sup>6</sup>Vitale and Hale 2012, 2013.

<sup>&</sup>lt;sup>7</sup>Lolos (1987, 533–40) has demonstrated that the Theran eruption predated the end of the LH I phase in the southwest Peloponnese. His third and last LH I subphase—LH I (late)—postdates the Theran eruption and resembles Mitrou's final LH I subphase in that it already has features heralding LH IIA, but it is distinctly earlier. No detailed comparative study of the final LH I subphases of Mitrou and the southwest Peloponnese has yet been done.

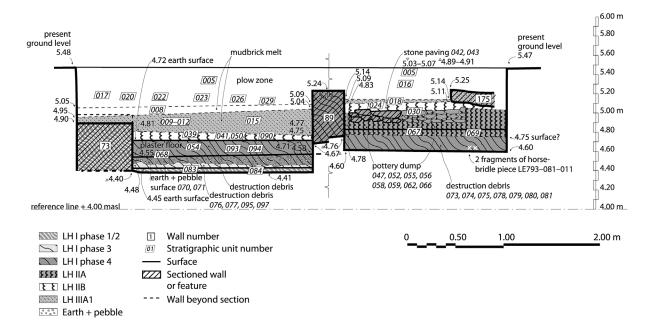


Fig. 5. Northwest–southeast section A-A' of trench LE793, showing the find context of bridle piece LE793-081-011 (drawing by G. Bianco and A. Van de Moortel). Patterns in key indicate wall construction and reconstruction dates only.

may be the late 17th century B.C.E. or the late 16th century B.C.E., depending on whether one accepts the high or low chronology of the Theran eruption.<sup>8</sup>

#### DESCRIPTION OF THE HORSE-BRIDLE PIECE

The bridle piece has been cut from a curving deer antler and is oval in cross-section (figs. 6, 7). 9 It consists of two joining fragments and is incompletely preserved over a length of 7.26 cm. One extremity is intact and has pronounced moldings, unlike the remainder of the object. The concave upper side of the bridle piece has two vertical holes, which originally must have been located in the center of the object. The first—almost completely preserved—opening is subrounded with a diameter of approximately 1.15 cm. The second opening appears to have been similar in size and shape, but only the rounded upper edge is extant. Between the first hole and the preserved extremity, a smaller, oval hole, about half its size, has been drilled transversely through the bridle piece from the right to the left, as is shown by its slightly larger dimensions on the right  $(diam. 0.55 \times 0.64 cm)$  than on the left side  $(diam. 0.5 \times 0.64 cm)$ 0.6 cm) of the object. At a later stage, a large rectan-

The body of the bridle piece has a surface decoration of two juxtaposed incised and partially compass-drawn patterns that must have been intended as meandering steep wave bands (the so-called pulley motif). The ornament has been completed on only one side, whereas on the other side only the circular elements of the pattern have been cut. The wave-band decoration artfully avoids the two subrounded vertical holes and must have been incised afterward. In contrast, the oval transverse perforation and the serrated edges of the recut lower side disturb the wave band and therefore must have been executed after the surface decoration. It is even possible that the transverse perforation and the rectangular opening in the lower side are part of the same stage of modification. The

gular opening was cut in the convex lower side of the bridle piece, stopping 2.6 cm short of the preserved extremity of the object and removing the lower ends of the two subrounded vertical holes. It is likely that at this stage the piece was hollowed out by the removal of most of its soft interior (spongiosa). Large matching zigzagging serrations were cut all along the long edges of the rectangular opening.

<sup>&</sup>lt;sup>8</sup>For a summary with extensive bibliography on the muchdebated absolute date of the Theran eruption, see Manning 2010

<sup>&</sup>lt;sup>9</sup> The horse-bridle piece was first identified by Evangelia Kiriatzi (Fitch Laboratory, British School at Athens), and its

identification was confirmed by Stelios Andreou (Aristotle University of Thessaloniki). Cemal Pulak (Texas A&M University) identified the material as deer antler.

<sup>&</sup>lt;sup>10</sup> For the terminology of such decoration on bone/antler objects, see David 2007, 412.

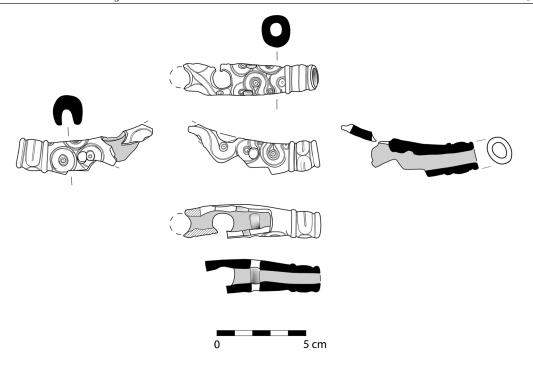


Fig. 6. Views and sections of horse-bridle piece LE793-081-011 (drawing by T. Ross).

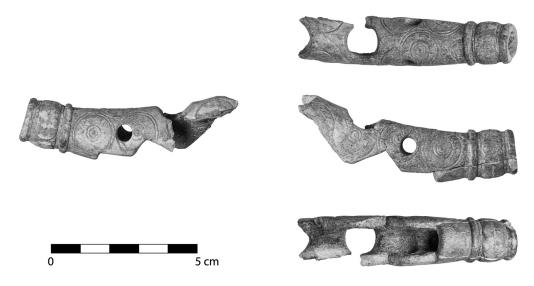


Fig. 7. Views of horse-bridle piece LE793-081-011 (S. Turner).

preserved molded extremity of the bridle piece carries a relief strip incised along its centerline, which has rounded extremities that touch each other. This motif may be interpreted as a simplified form of the flattened wave meander (cf. fig. 8a), called "flattened pseudo-

meander" by David (see figs. 8b-f, 9a). 11 The pattern is delineated above and below by a thin molded band.

The shape of the object and the combination of two large subrounded vertical holes with a smaller transversal hole support its interpretation as the antler-tine

<sup>&</sup>lt;sup>11</sup>David 2001a, 56–7. Cf. David's (2001a) fig. 2.1 with his fig. 2.2.

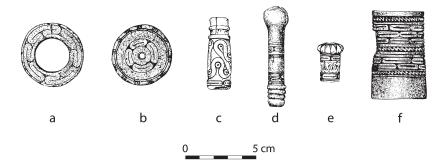


Fig. 8. Objects found in the Carpatho-Danubian zone, eastern Europe, and the Near East and decorated with flattened wave meander (a) or flattened pseudo-meander (b-f): a, antler/bone disk from Il'jičevka, Ukraine; b, antler/bone disk from Vatin, Serbia; c, handle from Alalakh, Turkey; d, handle from Vatin, Serbia; e, handle from Tószeg-Laposhalom, Hungary; f, cylinder from Boğazköy, Turkey (after David 2001a, figs. 2.1, 2.2, 7.2, 7.7, 7.8, 7.11; courtesy W. David).

toggle piece of a horse bridle with holes for various straps. 12 Originally a curved Stangenknebel (rod toggle), it was significantly reworked at a later stage. Most probably it retained its function as a cheek piece after its modification, because the serration of the edges is a well-known form of sharpening applied to bone toggles to exert pressure on the edges of the horse's mouth. Such sharpening is extremely rare among Stangenknebel from the Carpathian Basin and is found only in the Vatin type (cf. fig. 9b, c). 13 Even so, the serrated edges of Vatin-type Stangenknebel occur only on one end and never extend as far as the perforated holes. In this respect, the zigzag edges of the Mitrou bridle piece are related to elongated, roughly rectangular toggle pieces from the Carpatho-Danubian zone and Eurasia that are called plate toggles (*Plattenknebel*). These Plattenknebel (cf. fig. 9d) were made of split antler or bone and provided with sharp serrated edges over most of their length.14 Unlike those toggles with their curved cross-section, however, the piece from Mitrou preserves an oval cross-section, which indicates that it originally had been used as a Stangenknebel.

# THE EMERGENCE OF A SOCIOPOLITICAL ELITE IN THE PREPALATIAL PERIOD AT MITROU (LH I—IIIA2 [EARLY])

The antler-tine horse-bridle piece is one of several discoveries in LH I and later Prepalatial levels at Mitrou that signal a major social change—specifically, the rise of a warlike elite that assertively displayed its

elevated status in life and death, transforming the settlement in the process.

Only very small parts of the preceding Middle Helladic settlement at Mitrou have been excavated, but the exposed remains indicate that it had a rural character, with narrow dirt roads and open areas strewn with trash. Houses had rectilinear walls and earthen floors. <sup>15</sup> Karkanas' micromorphological study of one excavated deep sequence of these floors (in trench LX784) has shown that they were informal surfaces that were continuously repaired and patched. Household debris was routinely incorporated into the floors during this process. <sup>16</sup> Burials were intramural, made in cist, pit, or pithos graves dug in between buildings or in the ruins of abandoned structures. As at other Middle Helladic sites, cist graves were routinely covered by new buildings.

In the LH I phase, there are several dramatic changes in the settlement at Mitrou and in its burial practices, which one by one must have increased the visibility of the elite. They appear to have been part of a conscious strategy of the elite to create a new ideology of power. A similar phenomenon has been observed at other sites on the Greek mainland at this time. For instance, at Pefkakia-Magula the transition from the Middle to the Late Helladic is accompanied by profound changes in settlement organization that have been interpreted as the result of the agency of elites who deliberately broke with previous settlement traditions.<sup>17</sup> In the settlement of Mitrou, we see the

<sup>&</sup>lt;sup>12</sup> Like Dietz (2011, 58), we use the neutral term "toggle" (*Knebel*), because the term "bit toggle" (*Trensenknebel*) implies only one form of bridle arrangement (Dietz 2011, 56–61). For the basic differentiation between *Stangenknebel* (rod toggles) and *Scheibenknebel* (disk toggles), see Hüttel 1981; Boroffka 1998.

<sup>&</sup>lt;sup>13</sup>Mozsolics 1953, 80–3; Hüttel 1981, 94–9.

 $<sup>^{14}\</sup>mbox{H\"uttel}$  1981, 32–3, pl. 1.11; Penner 1998, 78–83, pl. 20.8.

<sup>&</sup>lt;sup>15</sup>Van de Moortel and Zahou 2012, 1133.

<sup>&</sup>lt;sup>16</sup>Karkanas and Van de Moortel 2014.

<sup>&</sup>lt;sup>17</sup>Maran 1995; 2011, 286–88.

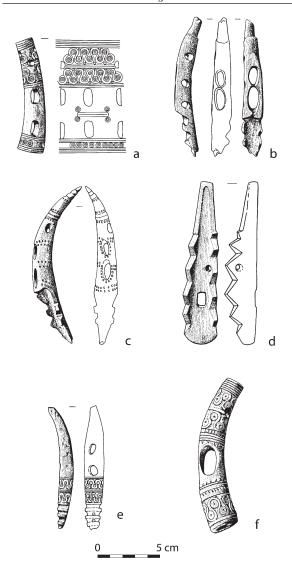


Fig. 9. Antler/bone rod toggles from the Carpatho-Danubian zone (*a–c, e, f*) and plate toggle from Eurasia (*d*): *a*, Százalombatta, Hungary; *b*, Gerjen, Hungary; *c*, Tiszafüred-Ásotthalom, Hungary; *d*, Čelkar, Kazakhstan; *e*, Sărata-Monteoru, Romania; *f*, Nitrianský Hrádok, Slovakia (after Hüttel 1981, pls. 1.11, 5.39, 9.92–4, 10.102; courtesy A. Jockenhövel).

construction of two elite complexes, labeled Buildings D and H. They were situated about 40 m apart. Both have been only partially excavated. Building H appears

to be an architectural complex with an interior earthen courtyard extending over at least 600 m² and possibly as much as 750 m² (see figs. 3, 4).¹8 Building D, located in the northeast excavation sector, has been excavated over approximately 230 m²; its maximum extent cannot be surmised because it continues beyond the limits of our excavation area, and its boundaries cannot be identified on the geophysical map.¹9 Even at their minimal extent, Buildings D and H are much larger than any ordinary domestic structure of the Middle Helladic or early Late Helladic period currently known from the Greek mainland and larger than most domestic structures of the Mycenaean palatial period.²0

Further testifying to the elite status of Building D is the size of its exterior walls, which in LH I had stone socles with a width of about 0.75 m.21 In addition to earthen floors, Building D had several well-constructed white lime plaster floors. Micromorphological analysis revealed a remarkable change in flooring practices at this time: in contrast to the Early Helladic and Middle Helladic floors at Mitrou, which were continuously patched, the earthen and lime plaster floors of Building D were constructed in a single episode and not patched. We do not yet understand the full implications of this change, but they suggest that Building D was a different, more formal kind of building than the earlier structures excavated at Mitrou and that its inhabitants adopted a different practice of maintaining floors than did the people who dwelled in those earlier buildings.<sup>22</sup> Pottery and other remains from Building D are still under study, so we do not yet know what activities took place inside this elite complex.

Building H had less impressive walls than Building D, but it, too, had well-constructed lime plaster floors in addition to earthen floors (see figs. 3, 4). <sup>23</sup> Building H produced a remarkable array of finds that attest to elite connections; in addition to the horse-bridle piece (LE793-081-011), there were unusually high concentrations of top-quality LH I, LH IIA, and LH IIB tableware and south Aegean pottery imports indicative of elite drinking and dining. Building H's earthen courtyard (in trench LE793) was used for the slaughter of animals and the processing of meat, as well as for the manufacture of purple dye from *Murex* snails. In addition to small heaps of crushed *Murex* shells in this courtyard in LH I and LH II levels, a pilot study of

 $<sup>^{18}{\</sup>rm Tsokas}$ et al. 2012, 419–20, figs. 14, 15; Van de Moortel and Zahou 2012, 1135–36.

<sup>&</sup>lt;sup>19</sup>Tsokas et al. 2012, 419–22, figs. 4–7.

<sup>&</sup>lt;sup>20</sup> Cf. Darcque 2005, 139–43, 320–26, figs. 33, 100, 103–4,

<sup>&</sup>lt;sup>21</sup> Darcque's (2005, 137–38, 320–40) comprehensive study of 141 Late Helladic buildings has demonstrated that build-

ing size, wall thickness, and architectural complexity in the Prepalatial and Palatial phases of the Late Helladic period are strongly correlated with social status and hierarchy.

<sup>&</sup>lt;sup>22</sup> Karkanas and Van de Moortel 2014.

<sup>&</sup>lt;sup>23</sup> Building H's earthen floors have not been sampled for micromorphological analysis.

the spatial and chronological distribution patterns of crushed Murex shells throughout the excavated areas at Mitrou indicates that purple-dye manufacture was concentrated in Building H and carried out at a scale that may have exceeded household needs.<sup>24</sup> Valuable purple thread or textiles could have been used as trade items by Mitrou's elite and exchanged for desirable foreign commodities.<sup>25</sup> Other activities in Building H relate to the processing and storage of wheat and possibly barley and pulses.<sup>26</sup> Buildings D and H are the only large architectural complexes detected by geophysical surveys at Mitrou. It remains to be seen how they are related to each other, whether they had complementary functions and could have been controlled by the same elite group or whether they had parallel functions and may have been the seats of separate, and perhaps rivaling, elite households.

Likewise, in the LH I phase, and perhaps contemporary with the construction of elite Buildings D and H, the settlement layout of Mitrou underwent a dramatic change. Geophysical surveys detected several long orthogonal streets throughout the settlement, running mostly north-northeast to south-southwest and westnorthwest to east-southeast.<sup>27</sup> Excavation into three of these streets has established that they were first constructed in the LH I phase; Roads 1 and 2 border Building D on the west and north, respectively, and Road 3 abuts Building H on the south. A fourth street (Road 4) is of LH IIB date. Geophysical mapping as well as excavation revealed that streets were lined on both sides with rectilinear buildings. Thus, we can say that Mitrou acquired an urban character in the LH I phase. The three LH I streets looked much more impressive than the Middle Helladic roads: they had been carefully paved with pebbles, in contrast with the rough pebble-and-dirt Middle Helladic roads. They also were much broader: Roads 1 and 2 in the northeast excavation sector were each 3 m wide, as compared with the 0.9 m to approximately 1.20 m width of the Middle Helladic roads excavated over their full breadth. The LH I streets were very long as well: to judge from the geophysical survey, Road 1 ran in a straight line for at least 80 m, and Road 2 for at least 60 m. Below Road 1 are the ruins of a Middle Helladic (MH) II

This network of broad orthogonal roads is thus far unique in the archaeological record of Bronze Age Greece. The only settlement on the Greek mainland that has produced a comparable example is LH IIIA-B Dimini, where a slightly winding 4.5 m wide road has been traced over a distance of 95 m.<sup>28</sup> Presumably, the adoption of chariot riding by Mitrou's elite provided a practical reason for creating these roads. The use of horse-drawn light chariots is suggested by the serrated edges of the horse-bridle piece from Building H. Such bridle pieces, which were made to exert pressure on the sides of the horse's mouth, are associated with the development of light chariots (discussed later in this article). With a width of 3 m, these roads would easily have accommodated a chariot drawn by two horses, as displayed in images in the Aegean world from the LB I phase onward.<sup>29</sup>

The new broad LH I streets must have made a deep impression on Mitrou's inhabitants, creating new patterns of circulation and long vistas in the settlement and serving as venues for elite display. With their precise layout and careful maintenance as well as their association with elite chariot riding, these roads must have served an important symbolic function. Moreover, together with the two elite complexes, they must have created something of a new world for Mitrou's inhabitants that reminded them on a daily basis of the elite's power. For this reason, Van de Moortel calls it a "landscape of power." 30 Because of its pervasive character, it is reasonable to conclude that this transformation of the settlement landscape formed part of the Mitrou elite's conscious strategy to create a new ideology of power.

Several dramatic changes took place in burial practices as well, which clearly were intended to emphasize the elite's special status and thus would likewise have

<sup>(</sup>final)/MH III building, which indicate that the new street pattern disregarded the former Middle Helladic settlement layout. This in turn suggests the presence of a strong central authority able to override earlier property boundaries. That the LH I streets were kept clean, in contrast to the trash-strewn Middle Helladic roads and exterior surfaces, is also a sign of tighter central control.

 $<sup>^{24}</sup>$  Vykukal 2011. Purple-dye manufacture in Building H was first identified in Veropoulidou 2011.

<sup>&</sup>lt;sup>25</sup>The possibility that thread, rather than entire textiles, was dyed purple has been suggested by A. Dembo Cirulis (pers. comm. 2011), who studies thread and textile manufacture at Mitrou. In view of the high value and great social prestige of the color purple in the Bronze Age Near East, Burke (1999) has hypothesized that purple cloth may have been used by Aegean people to acquire copper and tin from the Near East.

<sup>&</sup>lt;sup>26</sup>A. Karathanou, pers. comm. 2012.

 $<sup>^{27}</sup>$ Tsokas et al. 2012, 422–23, figs. 11–13.

<sup>&</sup>lt;sup>28</sup>Adrimi-Sismani 2007, 161–62, fig. 15.2.

<sup>&</sup>lt;sup>29</sup> Crouwel 2005. Axle lengths of Greek Bronze Age chariots may be deduced from the widths of later Mycenaean roads and bridges, which reportedly varied between ca. 3.50 m and 4.80 m. On the whole, they would have been slightly shorter than axles of Bronze Age chariots found in Egypt, which range between 1.98 m and 2.36 m in length (Crouwel 1981, 78–9).

<sup>&</sup>lt;sup>30</sup>Van de Moortel (forthcoming).

served to support the new ideology. In an advanced stage of the LH I phase, intramural cist grave burials at Mitrou came to an end, and at least two permanent grave plots, if not a large permanent cemetery, were created over part of the former Middle Helladic settlement north of Building D and Road 2, and east of Road 1.31 In view of its large size—an estimated 2,500 m<sup>2</sup>—this new cemetery could have served the entire community of Mitrou. This radical change in centuries-old burial practices ostensibly represents an effort to separate the worlds of the living and the dead. A similar change in burial practices during this time has been observed elsewhere on the Greek mainland, and at several sites it coincides with a reorganization of the settlement. Maran has linked these trends to the rise of a new elite.<sup>32</sup>

Dating to roughly the same period, two elite graves found at Mitrou obviously reflect the elite's desire to stand out from the rest of the population in death. The tombs are readily identifiable as elite by their prominent location and larger size in comparison with the other LH I graves at Mitrou. In the northeast corner of the site, a plot of seven cist graves was uncovered partially in and just below the modern plow zone.<sup>33</sup> Packed closely together, they may once have been covered by a tumulus. One of the cist graves (Grave 50) of this plot can be closely dated to LH I phases 1-2 by a bichrome amphoriskos (LR797-011-017) discovered inside. Four other graves (Graves 52, 55, 65, 66) were looted, but the terminus post or ad quem provided by finds underneath is MH II (final)/MH III to LH I phases 1–2. It is reasonable to assume that all seven cist graves are broadly contemporary and date to LH I phases 1–2 because of their close proximity, similar orientation, and similar stratigraphic position. One cist grave (Cist Grave 51) of this plot is unusually large, measuring 1.80 x 1.50 x 0.90 m. It has been thoroughly plundered, but its size and location near the highest point of the site, clearly visible from the sea, strongly indicate that it was an elite tomb. Moreover, the geophysical survey suggests that Road 1 led directly from Building D to this cist grave plot, making it conceivable that the two are symbolically linked.<sup>34</sup> In view of its similarity to the other cist tombs, Cist Grave 51 may well represent a first attempt by Mitrou's elite to express its special status in death.

A second elite tomb (Grave 73) uncovered at Mitrou is of a different type, one that is much more monumental and impressive: an L-shaped built chamber tomb,

constructed late in the LH I phase over the northwest part of Building D.35 Its tomb chamber was rectangular and measured originally 5.0 x 2.0 x 1.2 mmaking it about five times larger than Cist Grave 51. It had been dug through the first floor of Building D into Middle Helladic levels underneath. The sides of the chamber had been lined with mudbrick walls against which were set finely finished sandstone orthostates 1.2 m high, 1.0 m wide, and 15.0 cm thick.<sup>36</sup> The provenance of these sandstone slabs has not yet been traced, but their spatial distribution at Mitrou indicates their special elite connotations, as they have been found only in association with this tomb. The tomb chamber was linked by a narrow passage with a dromos, 3 m long and 2 m wide, which ran at a right angle to the west-northwest, ending at Road 1 with a porch that had two or three columns or other upright supports. Both the tomb chamber and dromos were surrounded by a large rectangular enclosure, 13.50 x 8.25 m. The enclosure wall was approximately 0.70 m thick and constructed with roughly squared limestone blocks that are the largest stones thus far encountered at the site. These stones were obviously meant to impress. East of the tomb within the enclosure was a low rectangular stone platform of approximately 1.5 x 1.0 m that may have played a role in funerary ritual. Thus, Grave 73 was not only much larger than Cist Grave 51, but it also required special materials and much more labor input. It belonged to a class of built chamber tombs in mainland Greece that appeared in the late Middle Helladic and early Late Helladic periods. Papadimitriou has convincingly argued that these were elite tombs. They always appear before the full Mycenaeanization of a site, and this as well as their wide variety in form and size has led him to conclude that they were indigenous creations by emerging local elites who experimented with expressing their new social status in burial.37

Very little has been excavated of the remainder of Building D's complex outside the enclosure of Grave 73, but it is clear that new walls were constructed and new lime plaster and earthen surfaces laid at about this time. Pottery and finds associated with these surfaces are still under study, but it is conceivable that Building D continued to function as a habitation complex. This interpretation is supported by the fact that the tomb enclosure had been purposely separated from the rest of Building D. The exterior cross walls had been cut through so that they would not touch the enclosure,

 $<sup>^{\</sup>rm 31}$  Tsokas et al. 2012, 425; Van de Moortel and Zahou 2012, 1134–35.

<sup>32</sup> Maran 1995.

<sup>&</sup>lt;sup>33</sup>Tsokas et al. 2012, 423, figs. 29, 30.

<sup>&</sup>lt;sup>34</sup>Van de Moortel (forthcoming).

<sup>&</sup>lt;sup>35</sup>Van de Moortel (forthcoming).

<sup>&</sup>lt;sup>36</sup>Van de Moortel and Zahou 2012, 1146, fig. 9.

<sup>&</sup>lt;sup>37</sup>Papadimitriou 2001.

and some or all of the exterior facades of the funerary enclosure had been covered by a thick coating of white lime plaster. Both the lime plaster coating and the cutting of the exterior cross walls may have been intended to separate the built chamber tomb from the world of the living.

If it can be shown that Grave 73 had been placed within a complex of the living elite, this would be unique in Prepalatial mainland Greece, and it would have made a very strong statement about the elite's special status. The contrast with the change in burial practices seen in the rest of the settlement could not have been more striking: whereas the other inhabitants now were required to bury their dead in a designated cemetery, presumably abandoning their traditional intramural family plots, the occupants of Building D would have built themselves a large tomb inside their own habitation complex, thus demonstrating that the new regulations did not apply to them. Moreover, to reach the communal cemetery, most of Mitrou's inhabitants would have passed by this funerary enclosure, and this would have reminded them all the more of the elite's special status and power.

Even if all of Building D had become a funerary complex at this time, the bright white plastered enclosure of the built chamber tomb would have stood out as a marker of the elite's special status. That the dromos of Tomb 73 was directly accessed from Road 1 and not from the interior of Building D, moreover, is a clear indication that the elite wanted the tomb and its deceased to be in the public eye and mind both during and after burial. Visible from the road and left open during its lifetime, the dromos is likely to have been experienced by passersby as a transitional space between the world of the living and the world of the dead. It is conceivable that funerary rituals were carried out in the dromos to honor the dead; however, there is no evidence for such activities in this phase of the tomb.

Another way in which emerging elites often assert their privileged status and legitimize their power is by displaying their access to exotic goods. Extremely few imported objects made of precious materials have been found in the habitation complexes, but a few such exotica can be associated with Built Chamber Tomb 73, despite that it has been thoroughly looted. A small gold nail (LN783-534-013) as well as many fragments of a large polychrome vase (LN783-432-013) were found inside the tomb chamber in association with its LH I architectural phase; two more gold nails (LM783-014-012 and LM783-014-013) were found on a

later surface of Road 1 and may have been looted from the tomb. In addition, some human bone fragments as well as a nonlocal Vapheio cup fragment (LN783-479-012), a small silver or tin nail (LN783-541-022), and a tiny amber bead (LN783-479-013) were found in LH I contexts to the east of the tomb chamber as well as in the dromos and can be associated with the tomb. Presumably these small finds had been dropped there during a first episode of looting or emptying of the tomb. These finds show that Mitrou's elite had access to amber, gold, and silver or tin. Together with the fragments of an amber bead (LN783-508-011) from a disturbed floor of the first architectural phase of Building D, dating to LH I phase 2 or 3, these are the oldest pieces of amber found at Mitrou. The date of their deposition roughly coincides with the first arrival of amber beads in Greece in the LH I phase.<sup>39</sup> The small silver or tin nail from the tomb is likewise the oldest silver or tin object recovered from Mitrou, and the gold nail or nails are the second-oldest gold objects, after a single tiny gold fragment from a MH II Final/MH III context below Road 1. Since these tiny precious objects were left behind after Grave 73 was emptied or looted, it is plausible to assume that originally the tomb held more and larger objects made of these precious materials. Finally, four pieces of a boar's tusk helmet (LN783-541-011, LN783-541-012, LN783-541-013, LN783-515-012) and two arrowheads (LN783-541-019, LN783-541-015) were found in the dromos and in a disturbed area south of the tomb chamber, indicating that at least one elite warrior had been buried in the tomb. 40 These finds also show that Mitrou's emerging elite was warlike, even though it had not yet adopted the full package of Mycenaean burial practices.

In its next and last architectural phase, Tomb 73 and its enclosure became even more monumental, and grave goods became Mycenaean in character. In the LH IIB ceramic phase, the tomb chamber was extended to 7 x 2 m, which made it one of the largest L-shaped built chamber tombs of Prepalatial mainland Greece. The dromos was monumentalized by the addition of a sandstone orthostate lining. The enclosure walls were widened to 1.0–1.2 m, becoming some of the widest walls in Prepalatial mainland Greece. Once widened they lacked an interior face, so it is conceivable that the enclosure was filled with earth and turned into a tumulus. East of the enclosure, new walls were constructed, and new earthen surfaces were laid in Building D.

<sup>&</sup>lt;sup>38</sup> Papadimitriou 2011, (forthcoming).

<sup>&</sup>lt;sup>39</sup>Maran 2004, 2013.

<sup>&</sup>lt;sup>40</sup>Van de Moortel et al. (forthcoming), fig. 15.

Grave 73 had also been robbed, but recovered finds show that in this use phase, Mitrou's elite had been buried with grave goods typical of the Mycenaean elite: three fine painted clay alabastra (LN783-467-011, LN783-432-011, LN783-432-012) and a piriform jar (LN783-432-014), six pieces of one or more boar's tusk helmets (LN783-471-011, LN783-473-011, LN783-473-013, LN783-494-011, LN783-494-012, LN783-503-012), a bronze arrowhead (LN783-495-011), a bronze ring (LO784-859-017), a rock-crystal disk (LO784-855-013),41 and jewelry of gold and amber. In spite of later looting, the number of precious exotica that can be associated with this use phase of the tomb is much larger than before: as many as 11 gold objects, including a smallish finger ring (LO784-837-011), two thin chain bracelets (LO784-837-012, LN783-537-011),42 beads, and pieces of gold foil, as well as two to four amber beads (LN783-450-014, LN793-503-011, and possibly LN783-471-012 and LM783-048-011). The finds suggest that at least one more warrior and probably a woman to judge from the size of the finger ring-had been buried in this phase of the tomb. It is clear that gold and amber remained markers of status and exotic connections, which were now joined by all the trappings of the Mycenaean elite burial. Thus, it seems that Mitrou's leadership adopted the elite culture of the Mycenaean heartland as a conscious strategy to increase its prestige, by linking itself to the emerging elite culture of southern Greece.<sup>43</sup> Similar behavior by local elites has been observed elsewhere in southern and central mainland Greece, resulting in the spread of Mycenaean elite culture over large parts of the Greek mainland.44 The last burial in Grave 73 was made in the LH IIIA1 ceramic phase, not long before the major destruction that put an end to Mitrou's Prepalatial elite structures in the LH IIIA2 (early) subphase.<sup>45</sup> The dromos of the tomb remained open for another 200 years or so, however, until the LH IIIC (early) subphase, and Road 1 in front of it was relaid many times until then. Only with the construction of Building B on top of Building D in the LH IIIC (middle) phase was the dromos filled in, and a new gravel and dirt road was laid on top of Road 1. The remarkably long afterlife of Grave 73 is a clear indication of the enduring prestige that Mitrou's Prepalatial elite had gained.46

### DISCUSSION: MITROU'S BRIDLE PIECE IN A WIDER REGIONAL CONTEXT

Having been found in a final LH I destruction level, the antler-tine toggle piece from Mitrou is the oldest closely dated object with wave-band decoration found in Greece in a settlement context, and it is only the second such find in Greece outside the Peloponnese after the discovery of a gold-plated sword in a LH II grave at Staphylos on Skopelos.<sup>47</sup> The Mitrou find is also significant in another respect: it is the first occurrence of a *Stangenknebel* (rod toggle) in early Late Helladic Greece, an area that until now had yielded only *Scheibenknebel* (disk toggles) in this period.<sup>48</sup>

The steep wave bands decorating the object closely correspond in form and manner of execution to the decoration on the often-discussed group of Carpatho-Danubian bone and antler objects (cf. fig. 9a, e, f). Although the motif of the flattened pseudomeander is also known from Near Eastern bone and antler objects (see fig. 8c, f),49 the best comparisons again derive from eastern-central and southeastern Europe (see figs. 8b, d, e; 9a).<sup>50</sup> With the exception of an example from Százhalombatta (Hungary),51 which bears the flattened pseudo-meander motif on its medial part (see fig. 9a), Carpatho-Danubian rod toggles do not seem to be decorated with this motif. Moreover, in marked contrast to Carpatho-Danubian rod toggles with similar decoration (cf. fig. 9a, e, f), the wave bands on the Mitrou toggle are not organized in zones running transversely to the longitudinal axis. Instead, they cover the entire surface of the toggle and run parallel to this axis. Accordingly, in the case of the Mitrou toggle the decoration includes the subrounded holes in the middle of the toggle, whereas in eastern-central and southeastern European rod toggles this area is always left without wave-band decoration. The particular form of molded extremity found on the Mitrou toggle is not closely comparable to anything in the corpus of Carpatho-Danubian rod toggles, even though other forms of moldings may occur (cf. fig. 9e). In addition, the combination of two large medial openings with a smaller transverse perforation shortly before the preserved end of the object occurs only occasionally: it is an extremely rare feature (see fig. 9c).52

<sup>&</sup>lt;sup>41</sup>Van de Moortel and Zahou 2012, 1146, fig. 10c.

<sup>&</sup>lt;sup>42</sup>Van de Moortel and Zahou 2012, 1146, fig. 10a, b.

<sup>&</sup>lt;sup>43</sup>Cf. Vitale 2008, 2012.

<sup>44</sup> Davis and Bennet 1999; Wright 2004, 77–80.

<sup>&</sup>lt;sup>45</sup> Van de Moortel and Zahou 2005; 2012, 1136–37; Vitale 2012.

<sup>&</sup>lt;sup>46</sup>Van de Moortel (forthcoming).

<sup>&</sup>lt;sup>47</sup>David 2007, 413 (with more references), pl. 105a.1–2.

<sup>&</sup>lt;sup>48</sup> Hüttel (1981, 99) notes "[a]us dem frühmykenischen

Griechenland gibt es bislang keinen Nachweis oder auch nur Hinweis auf Stangenknebel"; see also Hüttel 1982, 43; Penner 1998, 123; Harding 2005, 297.

<sup>&</sup>lt;sup>49</sup> David 2001a, fig. 7.2, 7.11

<sup>&</sup>lt;sup>50</sup>David 1997, 263; 2001a, 56–7, figs. 2.1, 7.7, 7.8.

<sup>&</sup>lt;sup>51</sup> Hüttel 1981, pl. 10.102. For a discussion of this piece, see also David 1997, 263, 283, no. K 72 (with further literature).

<sup>&</sup>lt;sup>52</sup>Hüttel 1981, pl. 9.94.

The Mitrou antler toggle is a hybrid whose two phases of use stand for different types of bridles. In spite of the aforementioned differences, the shape and decoration of the Mitrou object are clearly linked to rod toggles from the Carpathian Basin and the lower Danube. In contrast, we do not know of comparably close analogies in the group of decorated bone and antler objects from Bronze Age Eurasia, from the Karum period in Anatolia, or from the Near East. Significantly, in its secondary phase of use the Mitrou object was provided with serrated edges and transformed into a shape with some affinities to plate toggles. The sharpening of toggles either by serrations or studs, such as the ones found on the bottoms of the four disk toggles from Shaft Grave IV,53 are interpreted by researchers as evidence of use in the context of harnessing chariot horses.<sup>54</sup> That both the disk toggles from Grave Circle A at Mycenae and the reworked rod toggle from Mitrou were sharpened confirms those researchers' opinion that during the Shaft Grave period such sharpened toggles were employed on horses that pulled chariots. The Mitrou object serves as a reminder that, while in the early Late Helladic period decoration with wave bands was not restricted to components of a horse's harness, the sudden appearance of these novel forms of ornament is likely to have accompanied the introduction of the two-wheeled chariot.55

The new find from Mitrou underlines the scholarly opinion that in early Late Helladic Greece two traditions of designing horse bridles intersected. The first tradition, characterized by wave-band decoration and rod toggles, was based on a connection to the Carpatho-Danubian zone, while the second tradition of using disk toggles, as has already been demonstrated by Penner, points to eastern Europe and Eurasia.<sup>56</sup> In contrast to Penner, however, we do not see any need to attribute the introduction of disk toggles to direct contact between Early Mycenaean Greece and the Eurasian steppes. Geographically, the closest parallels to the disk toggles from Shaft Grave IV derive from the area of the lower Danube,<sup>57</sup> which makes a transfer of this form of horse bridle either through the area of the western Black Sea or through the eastern Balkans<sup>58</sup> much more likely than a direct connection to the extremely distant regions of the Ural Mountains or the Caspian Sea. It is uncertain whether, in its original form, the rod toggle was an import from the Carpathian Basin or the Balkans. Because of the differences in the arrangement of its decoration compared with that of all hitherto-known rod toggles from the Carpatho-Danubian zone, there even is a strong likelihood that it was made in the Aegean. Whether it came from the north or was a local Aegean product, the wish to give the object a different shape by reworking it makes it seem likely that the original toggle was not made at Mitrou but was brought there and reworked locally.

The discovery of the decorated antler rod toggle at Mitrou raises the question of whether additional evidence for contacts with regions north of Greece during the Shaft Grave period may exist in this part of central Greece. Indeed, as has recently been shown by Ruppenstein,<sup>59</sup> a bronze wheel-headed pin from Grave 46 of so-called Grave Circle A at Antron (near Glypha in Phthiotis) belongs to a type originating in easterncentral Europe and probably dates to LH I.60 The find confirms earlier assumptions<sup>61</sup> of a central European linkage for a similar bronze pin previously found in Shaft Grave Ypsilon of Grave Circle B at Mycenae.<sup>62</sup> According to Ruppenstein, this type of pin together with the amber objects of the Shaft Graves at Mycenae reached Greece through trade networks in the Adriatic and Ionian Seas.<sup>63</sup> However, for several reasons it seems unlikely that this particular route was of outstanding importance for Shaft Grave-period trade. The Adriatic region has not yielded any examples of the object groups of northern derivation appearing in Greece during LH I. Furthermore, along the Adriatic coasts of Italy and the west Balkans there are no sites with LH I Mycenaean pottery that could be compared to "emporia" such as those known in the Chalkidike Peninsula and the Tyrrhenian coast of Italy.<sup>64</sup>

Instead, the distribution of wave-band decorated objects and wheel-headed pins in the eastern regions of southern and central Greece suggests that in LH I traders used an entirely different north–south route,

<sup>&</sup>lt;sup>53</sup> Hüttel 1981, 40–8; Penner 1998, 23–8.

<sup>&</sup>lt;sup>54</sup>Littauer 1969, 298; Hüttel 1981, 32–3.

<sup>&</sup>lt;sup>55</sup>Penner 1998, 178–79; Harding 2005, 297–98.

<sup>&</sup>lt;sup>56</sup> Penner 1998, 178–79. For disk toggles in Mycenaean Greece, see Aravantinos 2009.

 $<sup>^{57}</sup>$  Vulpe 1977, 107–8; Hüttel 1981, 38–51; Boroffka 1998, 93–101, 109–10; see also Kaiser 2000, 240.

<sup>&</sup>lt;sup>58</sup> For the role of the eastern Balkans as a major connecting link in systems of contact during the Mycenaean period, see Leshtakov 2007.

<sup>&</sup>lt;sup>59</sup>Ruppenstein 2010, 641–48.

<sup>60</sup> Papakonstantinou 1999, 178, fig. 16.

<sup>&</sup>lt;sup>61</sup> Kubach 1977, 141. However, Kilian-Dirlmeier (1984, 43) raised doubts about a linkage of the pin from Grave Ypsilon to eastern Mediterranean wheel-headed pins.

 $<sup>^{62}</sup>$  Mylonas 1972–1973, pl. 208.β1; Kilian-Dirlmeier 1984, 43, pl. 2.80.

<sup>&</sup>lt;sup>63</sup>Ruppenstein 2010, 650.

<sup>64</sup> Cf. Jung 2010, 661-65, fig. 6.

one that linked the Argolid through the Euboean Gulf and the northern Sporades with the northern Aegean (fig. 10) and then the Balkans and the Carpathian Basin, although the farther course of the route (or routes) from the Chalkidike into the southern and central Balkans cannot yet be specified. In addition to the aforementioned exceptional groups of artifacts, further indications emphasize the significance of the Euboean Gulf as a major route for Shaft Grave-period long-distance trade. In Grave Circle B of Mycenae excavators found at least two imported vessels of a light-red to reddish-yellow highly burnished ware that is typical for the Magnesia Peninsula, the Spercheios Valley, and Phthiotis. 65 At Mitrou, the study of pottery and lithics shows a remarkable increase of maritime trade from MH II onward; this manifests itself in the appearance of significant amounts of Kean and Aiginetan pottery from MH II (early) onward and in the importation of northeast Peloponnesian pottery starting in LH I phase 3.66

In the northern Aegean, excavations at Ayios Mamas and above all at Torone have provided evidence for the existence of sites in the Chalkidike Peninsula that evidently had strong contacts with regions to the south during LH I.67 Morris has argued in favor of interpreting a site such as Torone as an "emporion"—that is, a harbor serving as a point of contact and transshipment for long-distance trade. 68 We agree with this interpretation as well as with Morris' further conclusion that the emergence of such sites must have been linked to the exploitation of northern Greek sources of metals, especially silver,69 as well as to systems of exchange with northwest Anatolia. The importance of these sites was probably also based on their position in the framework of land-based routes leading northward through the valley of the Axios/Vardar River and the southern and central Balkans toward the Carpathian Basin. 70 Direct evidence for this is provided by a vessel from Ayios Mamas level 13 that Horejs has identified as an import from the Vatin culture of the southern Carpathian Basin and the central Balkans and has dated to the Shaft Grave period.<sup>71</sup> Tellingly, the Vatin culture belongs to those cultural groups dating to the advanced stage of the central European Early Bronze

Fig. 10. Approximate course of the Shaft Grave–period maritime trade route from the Argolid through the Euboean Gulf to the Chalkidike: *1*, Mycenae; *2*, Mitrou; *3*, Antron; *4*, Pefkakia-Magula; *5*, Staphylos, Skopelos; *6*, Torone; *7*, Ayios Mamas (drawing by M. Kostoula).

Age (Reinecke Bronze Age A2) that have yielded a particularly high number of bone or antler objects with wave-band decoration.<sup>72</sup>

The sites in the Chalkidike Peninsula were situated at the intersection between several maritime and terrestrial routes running north–south and west–east. In all likelihood, it was through such routes that the aforementioned different forms of horse bridles were transferred to Greece together with raw materials—above all, gold from sources in the Carpathian Basin<sup>73</sup> and/or the east Balkans.<sup>74</sup> In these patterns of

<sup>65</sup> Dietz 1991, 214-15; Maran 1992, 354.

<sup>66</sup> Manos 2012; Vitale and Hale 2013; Hale (forthcoming).

 $<sup>^{67}\</sup>mbox{Ayios}$  Mamas: Horejs 2007a; Hänsel and Aslanis 2010. Torone: Morris 2009–2010.

<sup>&</sup>lt;sup>68</sup> Morris 2009–2010, 5–8.

<sup>&</sup>lt;sup>69</sup> Morris 2009–2010, 53. Regarding the possible significance of northern Greek silver sources for supraregional exchange during the Aegean Late Bronze Age, see also Jung 2010, 660.

<sup>&</sup>lt;sup>70</sup> Hänsel 1979, 167–69; 1989, 12–22; Horejs 2007b, 2009.

 $<sup>^{71}{\</sup>rm Horejs}\,2007a, 287–89, pl.\,16, no.\,10376.$ 

<sup>&</sup>lt;sup>72</sup> Kolarić 1972, 104–6, figs. 91–9; Garašanin 1983, 513; Tasić 1984, 69; Ložnjak Dizdar 2007, 320–21. The area of distribution of the Vatin culture comprises Serbia as well as parts of Croatia and Romania.

 $<sup>^{78}</sup>$  Hänsel 1977, 89; David 1997, 274. Cf. Popov et al. (2011, 124–25), who have called into doubt the Transylvanian origin of Early Mycenaean gold.

<sup>&</sup>lt;sup>74</sup> Popov et al. 2011.

connectivity, communities of the Vatin culture in the Balkan area must have played a crucial role as mediators between societies of the Carpathian Basin and the northern Aegean.

One of the factors that must have made the Euboean Gulf particularly attractive as a trade route was that it offered a passage protected on both sides by an indented coastline with many natural harbors. In this respect, the Euboean Gulf resembles the Gulf of Corinth, which also was an important maritime route during the Shaft Grave period.<sup>75</sup> Even though at first the appearance of a variety of object groups with northern European affiliations in the Shaft Grave period suggests a transfer through the same routes, there is strong evidence that crescent-shaped amber necklaces of the Wessex type, whose components were found in the Shaft Graves of Mycenae, had been transmitted through a quite different trade route linking southern England with southern Greece via central Europe and central Mediterranean "emporia," such as Vivara on the Tyrrhenian coast of Italy.<sup>76</sup>

To recapitulate: in Shaft Grave-period Greece there appear not only imports of southern English derivation but also objects that without any doubt have prototypes in central, southeastern, and eastern Europe. Evidently, during that period, contrary to what has been sometimes argued,<sup>77</sup> Aegean societies were linked to societies in the Carpatho-Danubian zone. Features with northern affiliation appearing in elite LH I contexts in Greece, such as the disk and rod toggles, the objects with wave-band decoration, wheelheaded pins, and crescent-shaped amber necklaces, are all unprecedented in the Aegean. In contrast, it can be established that all the objects, including toggles, appeared considerably later in Greece than in the regions to the north of it. 78 Therefore, it has to be assumed that the new forms of horse harness with the associated wave-band decoration were introduced into Greece during a rather narrow chronological horizon at the beginning of the Late Helladic period. Still, the various object groups that are affiliated with northern and eastern zones of Europe did not reach Greece via the same routes, nor should they be regarded as the results of immigration by new population groups. If Penner had taken into consideration the graves of the MH III phase of Grave Circle B at Mycenae,<sup>79</sup> as well as the MH II shaft grave at Kolonna on Aigina, she would have realized that the traits of burial customs and grave furnishings that she took as evidence for the arrival of "blond-eyed, blue-haired invaders from the north"80 do not form a horizon of innovation but rather were introduced at different times over a chronological range of at least two centuries.<sup>81</sup> While features such as the Shaft Grave and the male ideal of the "great warrior"82 seem to have emerged as indigenous inventions and were already clearly articulated on Aigina during MH II, the aforementioned objects with northern comparisons first appeared in Greece only in LHI, together with elements such as depictions of two-wheeled chariots, gold masks, and decorated stone stelae.83 This chronological dispersion clearly contradicts the notion that the tradition of rich warrior burials in Shaft Graves should in itself be regarded as a foreign trait brought from the north through the influx of a migrating warrior elite.

That some types of objects and decoration appearing in Shaft Grave contexts arrived through systems of contact with regions to the north of Greece should, however, not be mistaken as a passive adoption of foreign features, since these innovations were subject to processes of appropriation in which they were newly interpreted and transformed.<sup>84</sup> In this context, two main modes of appropriation of such foreign traits in early Late Helladic Greece can be differentiated: in the first mode, the physical appearance of imports was altered, whereas in the second mode the knowledge of the new objects and decorations inspired production by local workshops, which adopted and modified them.<sup>85</sup> Examples of the first mode of appropriation are the crescent-shaped amber necklaces of the Wessex

<sup>&</sup>lt;sup>75</sup>Sherratt and Sherratt 1991, 370.

<sup>&</sup>lt;sup>76</sup>Graziadio 1998, 2000; Maran 2004, 2013, (forthcoming).

<sup>77</sup> Lichardus and Vladár 1996, 49-54.

<sup>&</sup>lt;sup>78</sup>For a chronological assessment of the span of occurrence of disk and rod toggles in eastern-central Europe and the lower Danube, see Boroffka 1998, 103; David 2001a, 69; 2007, 415; Ložnjak Dizdar 2007, 319–20.

<sup>&</sup>lt;sup>79</sup> Dickinson 1999; David 2001a, 55.

<sup>&</sup>lt;sup>80</sup> Seemingly without realizing the irony of the expression, Penner (1998, 215) cited approvingly the expression "blondeyed, blue-haired invaders" that was used by Diamant (1988) as a quotation from the drama *Who's Afraid of Virgina Woolf*, by Edward Albee. Prior to Penner's study, similar views of an allegedly foreign origin of an intrusive chariot-using warrior

elite of the Shaft Grave period had been proposed in Vermeule 1964, 82–110; Diamant 1988; Drews 1988, 158–96.

<sup>81</sup> Maran (forthcoming).

<sup>82</sup> Voutsaki 1999, 115; 2004, 358–61; Maran 2011.

<sup>83</sup> Dickinson 1999, 103-6.

<sup>&</sup>lt;sup>84</sup> Concerning processes of appropriation of foreign traits in general, see Spittler 2002; Hahn 2004, 213–25; 2005, 99–107; 2008, 195–200. Hüttel (1982, 54–8) has linked changes in the shapes of horse bridles with a creative appropriation of new forms

 $<sup>^{85}</sup>$  See Stockhammer (2012, 90) for the important distinction between "relational entanglement" and "material entanglement."

type, which in early Late Helladic Greece were broken up and rearranged for a different purpose. <sup>86</sup> Provided that the rod toggle reached Mitrou as an import, its reworking would also be an example of this form of appropriation.

Most of the objects with wave-band decoration found in early Late Helladic Greece, however, provide evidence for the second form of appropriation—namely, the integration of foreign motifs and forms into local skilled crafting.87 In fact, so intensely was wave-band decoration adopted that, as was already noted by David, by far the highest numbers of wave-band decorated object groups and materials in Europe and the Near East have been found in early Late Helladic contexts in Greece.88 Through the intense engagement with this kind of decoration, which previously was unknown in the Aegean, the forms of compass-drawn wave bands that were appropriated from the north were further developed in Greece into complicated new motifs, such as variants of the wave meander. These probably were then transferred back to the north, where they were again modified.<sup>89</sup>

The primary motive for the adoption of these novel forms of decoration was their association with the prestigious technology of the two-wheeled chariot.<sup>90</sup> Recently, Feldman and Sauvage demonstrated how quickly this technology spread among eastern Mediterranean elites and what great symbolic significance was attributed to riding such chariots, especially during the early phase of their introduction.<sup>91</sup> That all identifiable components of Shaft Grave-period horse harnesses can be linked to regions to the north or northeast of Greece corroborates Penner's conclusion that the two-wheeled chariot did not first reach Greece from the Near East. That light chariots were already known on Crete by the LM IA phase does not contradict a derivation of this technology from eastern Europe or the Carpatho-Danubian zone,92 since the elites of Neopalatial Crete may have received the innovation from the Greek mainland as a gift in return for the many luxury items they gave to the aspiring elite of the Shaft Grave period. Unlike Penner, however, we do not see the need to attribute the adoption of elements of the horse's harness or the two-wheeled chariot to a migration of eastern European population groups. The crucial mistake in Penner's argumentation<sup>93</sup> is the same made by Evans when he inferred a Minoan origin of Early Mycenaean elites based on a selective analysis of grave types and assemblages.<sup>94</sup> Indeed, his "ethnic interpretation" was much better founded than Penner's since the quantity and breadth of Minoan elements in the Shaft Grave assemblages are overwhelming and start much earlier than the northern traits.<sup>95</sup>

If an "ethnic interpretation" of the Shaft Grave phenomenon and its northern contacts is unfounded, how should the previously unprecedented concentration of objects and ornaments of foreign origin or derivation in the Shaft Grave period of Greece be explained? As has been recently argued, 96 these foreign items were crucial in constructing an identity for the Early Mycenaean elites, whose decision to break with the egalitarian ethos of the Middle Helladic period initiated the profound social transformation that is so typical for the Shaft Grave period. Elites at sites such as Mitrou must have played a decisive role in subverting the old traditions and in generating those new norms and values that we perceive as typically "Mycenaean." By acquiring novel objects, materials, and technologies through long-distance trade, the emerging early Late Helladic elites placed themselves into the wider cosmos, and they may even have imagined themselves as standing at its center. By introducing the two-wheeled chariot and its associated forms of horse harnesses, social groups employed never-before seen items from foreign regions to display their elevated position and to enhance the legitimacy of their claim to political power.97

On the one hand, the implications of the appearance of the rod toggle from Mitrou have lent further support to the long-standing research hypothesis regarding the existence of far-reaching systems of contact between societies in different parts of Europe during the Shaft Grave period. On the other hand, the conclusions exemplify a well-known dilemma: when foreign cultural forms are appropriated it is often impossible to draw a line of separation between what is local and what is foreign, since novel traits are so thoroughly adopted, transformed, and recontextualized

<sup>86</sup> Maran 2013.

<sup>87</sup> David 2001a, 68.

<sup>88</sup> David 2001a, 67-9; 2007, 412.

<sup>89</sup> Hänsel 1997.

<sup>90</sup> Hüttel 1977, 82-6; Kristiansen and Larsson 2005, 181-84.

<sup>91</sup> Feldman and Sauvage 2010; see also Harding 2005.

<sup>&</sup>lt;sup>92</sup>Crouwel 2005, 40–3.

<sup>&</sup>lt;sup>93</sup> For a critique of Penner's views, see Crouwel 2001, 545; David 2001a, 2001b. David (2001a) conclusively showed that

the eastern European and Eurasian decorated bone/antler objects, on which Penner (1998) built her far-reaching historical reconstructions, form comparatively weak analogies to the pieces from the Carpatho-Danubian zone, the Near East, and Greece.

<sup>94</sup> Evans 1929, 90–3. For a critique, see Dickinson 1977, 53.

<sup>95</sup> Maran 2004, 59 (with n. 33); Harding 2005, 298.

<sup>96</sup> Voutsaki 1997, 45–8; Maran 2011.

<sup>97</sup> Boroffka 1998, 117; Harding 2005, 298-99.

that questions of origin cannot be clearly answered.<sup>98</sup> Since the people of Shaft Grave-period Greece were at the same time on the receiving and giving sides of such long-distance exchange, any attempt to reduce these contacts to a unilateral direction, either from north to south or vice versa, is doomed to failure. It is ironic that for a long time the influence of the Shaft Grave phenomenon was claimed to have served as a "civilizing" impulse provoking change in regions to the north of Greece, while we now realize that the origin of Mycenaean culture was decisively based on the appropriation of foreign cultural forms, some of which originated in those very regions of central, southeastern, and eastern Europe. These foreign traits were a crucial precondition for allowing social actors to demonstrate their position in what they perceived as the wider world and to create a new identity that initiated a radical break with previous systems of value.

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<sup>98</sup> Feldman 2006, 25–71.

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