STUDIES IN ANCIENT ART AND CIVILIZATION 16

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Terracotta statuette (Princes Czartoryski Foundation deposited with the National Museum in Krakow, inv. no. MNK XI-1061, see p. 213). Photo by Marek Studnicki

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QIRYAT ATA. NEW PERSPECTIVES ON A LATE PREHISTORIC SITE IN THE SOUTHERN LEVANT

Abstract: *The late prehistoric site of Qiryat Ata in the Zebulon Valley, Israel, is known from a major publication of several seasons of salvage excavations (Golani 2003) as primarily an Early Bronze Age site. This paper presents a reevaluation of data published in that report. It suggests a significantly expanded and altered archaeological profile of the site, especially of its chrono-cultural associations in the Early Bronze Age and a substantially different interpretation of the social organization of the communities represented there. In addition it considers the ancient climate and geomorphology of the site and offers new insights into late prehistoric lifestyles there.*

Keywords: *Qiryat Ata; Southern Levant; Late Neolithic; Early Chalcolithic; Early Bronze Age Social Organization/Urbanism*

Introduction

A detailed final report (Golani 2003) presenting results of excavation of late prehistoric remains in a neighborhood of modern Qiryat Ata, has characterized the site as having only a sequence of Early Bronze Age occupations, with some minor evidence of earlier settlement purportedly derived from somewhere 'in the nearby region' (Golani 2003, 71-72). While that work does indeed present evidence of a village dated to an advanced phase of Early Bronze (=EB) I (the principal excavator's EB IB), likely succeeded by a fortified EB II community, it fails to consider copious evidence

of remains of earlier, *in situ* occupations, although they are clearly discernible in the published excavation data and in reports of specialists contained within that monograph, and in other available literature. Through reevaluation of published data this paper offers an expanded archaeological profile of the site and reappraisals of its social organization during the Early Bronze Age. It further considers aspects of its ancient climate and geomorphology. The intention is to present a more clearly focused and enhanced understanding of the site's place in the late prehistory of the southern Levant.

Part I: An expanded occupational sequence

In all his excavations Golani recognized three strata, all dated to the EB Age despite a quite substantial body of evidence that indicates occupation of Areas A and adjacent Area L (Fig. 1; Fantalkin 2000; excavated by a colleague and published prior to the appearance of Golani's monograph) in earlier, pre-EB I periods. Careful examination of published data suggests a sequence in Area A that is significantly different from the one presented by Golani. The reasons for such a discrepancy lie primarily in Golani's excavation methodology and its influence on how finds from his excavation were recorded and ultimately interpreted.

The Qiryat Ata excavation methodology and its influence on interpretation: a critique

The benefits of Golani's (2003, 9-10, 23-24) overall, thorough excavation strategy, dictated by the salvage nature of the project, while eminently laudable, were offset by his fieldwork methodology. Although one of the most important aspects of the project was to probe for bedrock in as many places as possible, the manner in which it was done seriously limited the excavator's ability to distinguish between sequential deposits, especially when they were non-contiguous and only poorly preserved, such as those encountered by A. Fantalkin (2000) in adjacent Site L, just up the slope and *c*. 25m distant.

For example, in Area A, 10 of 18 5m x 5m squares, including balks, or over more than half the excavated area (Figs 2-3), exposed deposits **below** floors and foundation levels of structures were ascribed to Stratum III. Unaccountably, all those earlier deposits were also assigned to Stratum III (*sic*!), although they could have been laid down any time prior to the construction of the floors of that level. In Area F (Golani 2003, 67), Locus 3075, a surface and presumably the debris upon it, were assigned

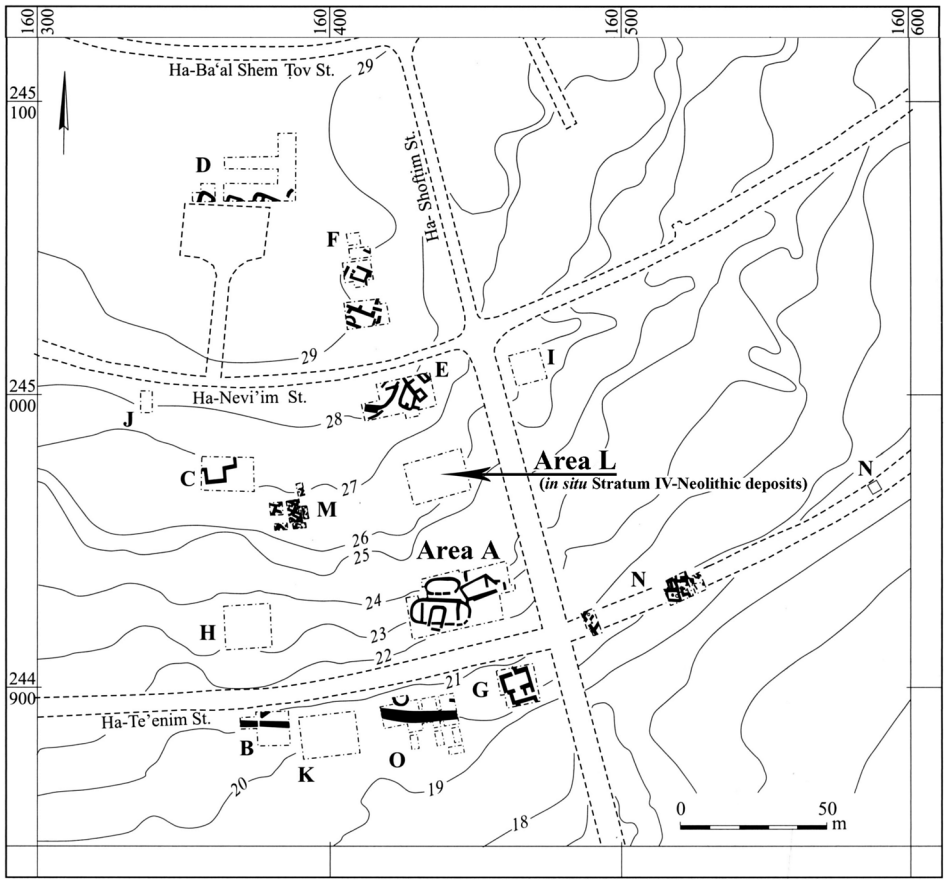

Fig. 1. A plan of the excavation areas of the late prehistoric site of modern Qiryat Ata. Note the proximity of Area A to Area L where Neolithic deposits were found *in situ*. Reproduced from Golani 2003, Plan 1.1

to Phase 4, while inexplicably Locus 3080, defined as 'Fill on bedrock beneath surface' (i.e. beneath Locus 3075), was assigned to precisely the same phase, although that deposit had to have been laid down earlier than Locus 3075. Similarly, Locus 3079, a floor and debris within a circular structure, was assigned to the same Phase 4 as the contents of that floor and fill **below** it (Fig. 4; Golani 2003, Table 2.11). Thus, there is clear evidence of pre-Stratum III deposits being assigned to Stratum III.

Such conflation of what were clearly sequential deposits produced an over-simplified stratigraphic profile of the site, while obscuring the significance of considerable pre-EB I quantities of material culture the excavation yielded (see below). Golani (2003, 71-72), not unaware

Fig. 2. A view of Building 1 in Area A (Golani's Stratum III) illustrating deep soundings to bedrock below the floor, which yielded debris of pre-Early Bronze I occupations. Photo by the author (Israel Antiquities Authority Archive)

Fig. 3. A view of Building 2 in Area A showing soundings below the Early Bronze I floor. The proximal, curvilinear end of the house was carved out of bedrock in which a small cavity was discovered. Walls of the Early Bronze II, Stratum I complex are visible in the left background. Photo by the author (Israel Antiquities Authority Archive)

Locus No.	Sq	Description	Area/ Phase
4/10	D3	Below L1. Destruction debris and floor in eastern half of Building 1	3A
7	C3	Topsoil removal	-
11/16/ 41/42	D2/B2/ C2	Below L2, L24, L27. Floor and destruction debris in central hall of Building 2	3A
12	D2	Below L3. Floor and destruction debris in eastern apse of Building 2	3A
13	D1	Below L9 and L5. Debris around southern, eroded extension of W505	3?
17	C3	Below L7. Debris above bedrock north of and adjacent to Building 2	3
19	E2	Below L6. Probe below Phase 1 remains and north of W517	2-3
21	C4	Topsoil removal	-
20/37b	E2	Below L19. Debris and surface	3A
23	D4	Below L1, L15. Surface and debris outside and northeast of Building	3A
26	C3	Below L17. Debris on bedrock	3
28/29	C1	Below L24 and L25. Probe below Building 4, down to bedrock	3?
30	D2	Below L11. Probe down to bedrock	3
31	D3/D4	Below L4. Floor make-up within northeastern portion of Building 1	3A
38b	E3/F3	Below L32. Debris below topsoil north of W516	
44	D3/E3	Below L32, 38a. Surface and debris east of Building 1, continuation of L23	3A
45	F2/G2	Below L30. Debris on W517	3A?
46	E2	Below L8. Probe south and below W504	3B?
47	A2/B2	Below L27. Floor and destruction debris in western apse of Building 2	3A

Fig. 4. Selected Loci from Locus Register of Area A.
Reproduced from Golani 2003, Table 2.11

of the presence of that material, noted: 'Small quantities of ceramic and lithic artifacts dated to the Chalcolithic and Neolithic periods (see below, Chapters 5[1] and 7) were occasionally found just above the bedrock or were mixed with

[1] This refers to Bankirer 2003 and Khalaily 2003 respectively.

later material'. However, he diminished their importance by assigning them to 'non-stratified' deposits, thus effectively relegating them to background 'noise' derived from a 'nearby region'. That not only ignored pre-EB I *in situ* finds in Fantalkin's Area L, part of the very same site (Fig. 1), but also the very significant quantities of pre-EB I artifacts from his own excavation (see below). Latterly he may have recognized that error (Faust and Golani 2008, 217).

A plethora of pre-EB I artifacts

Flint

Golani's interpretation is at odds with Bankirer's (2003) report on the flint assemblage, which ascribes significant percentages of the total tools recovered in Golani's excavations to pre-EB I periods (Fig. 5). Of the 33% of tools recovered in Stratum III, fully 15.1% represent Neolithic and Chalcolithic types, but only 17.4% are ascribed to EB I. Tabular scrapers, representing 2.3% of the assemblage, could be assigned to any of those horizons. In Stratum II, and Stratum I, the percentages of pre-EB I tools are 6.8 and 5.5, respectively. When considered globally, the pre-EB I types from Areas A and L represent a very significant proportion of the entire flint assemblage recovered from one sector of the site.

Thus, there is no question that much of that material must have derived from *in situ* deposits in that precinct and not from some distant, vaguely

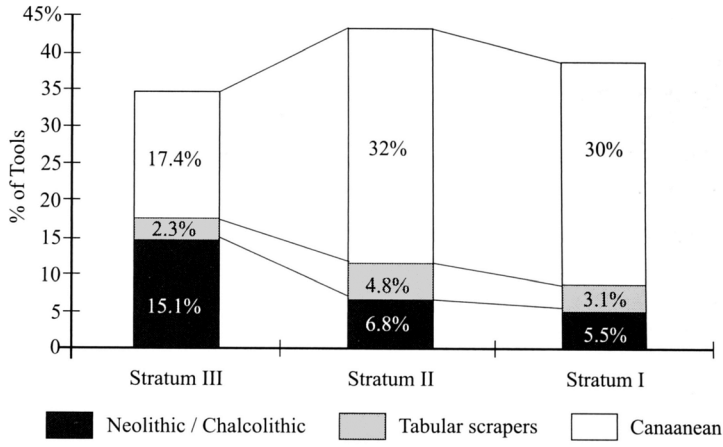

Fig. 5. Comparison of intrusive and characteristic flint tools according to stratum. Redrawn by the author from Bankirer 2003, Fig. 5.11

acknowledged 'nearby region'. Indeed, the published evidence indicates pre-EB I materials were recovered lying above bedrock precisely where they were deposited prior to the EB I occupation. Later disturbances, especially EB I construction in the lowest levels accounts for the admixture of pre-EB I materials as residual in the matrix in which the EB occupations were unearthed.

Groundstone artifacts

That observation is confirmed by Rowan's (2003) report on the groundstone assemblage of the site, which indicates a significant number of objects recovered by Golani date to pre-EB I chrono-cultural periods (Fig. 6). As Rowan (2003, 195) noted, they are '…the result of mixing from an earlier, local Chalcolithic deposit'. It is self evident from the number, size and weights of those vessel fragments that they were not chance finds but rather residual elements from what were once *in situ* contexts in Area A. Neither might they be considered evidence of continuity in traditions from pre-EB I contexts as Golani and colleague (Golani 2004; Golani and Nagar 2011) have suggested elsewhere, when similar objects were recovered from what they believed to be early EB I deposits. There, they identified all objects generally associated with the Chalcolithic period as actually EB I without taking into account the problematic stratigraphy of the site and the internal inconsistencies with their interpretation of the EB I settlement of the Ashqelon Littoral (Braun, in preparation).

Pottery

In addition, there is a modicum of ceramic evidence that further indicates the presence of a pre-EB I settlement in Area A. Fantalkin (2000, 31), writing of nearby Area L noted: 'It seems that the Wadi Rabah remains are not sporadic, and may represent a permanent Late Pottery Neolithic occupation at the site. This assumption may be supported by the nature of the finds (see below) and the fact that the traces of Wadi Rabah activity were exposed in other areas within the site [Golani and Brown[2] 1991, 99; Golani 1996, 31]'. However, Golani was unable to discern the true significance of the pre-EB I pottery he recovered, primarily because his methodology was geared to mask it and probably because some pre-EB I pottery types bear rather uncanny resemblance to EB I types (Braun 2008a; Braun, forthcoming a).

[2] The citation is incorrect; the reference should be to Golani and **Braun** (the present writer) 1991.

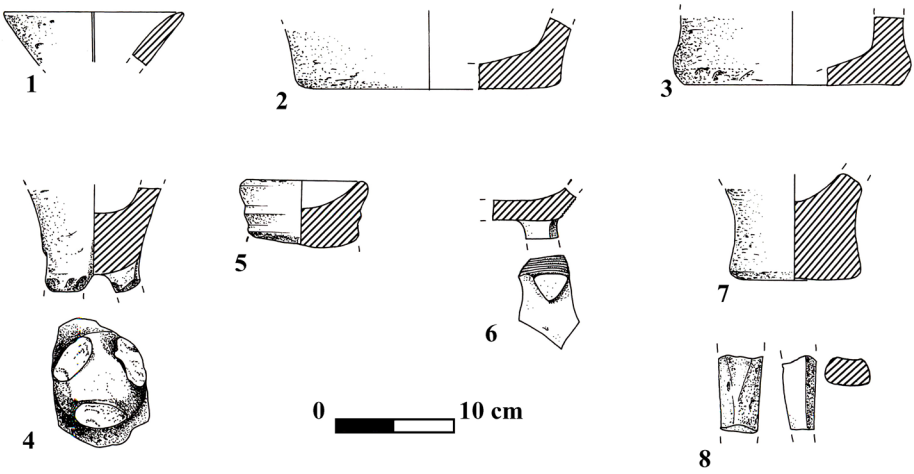

Fig. 6. Examples of pre-Early Bronze I groundstone objects from Qiryat Ata.
Reproduced from Rowan 2003, Fig. 6.6: 4-6, 8-10

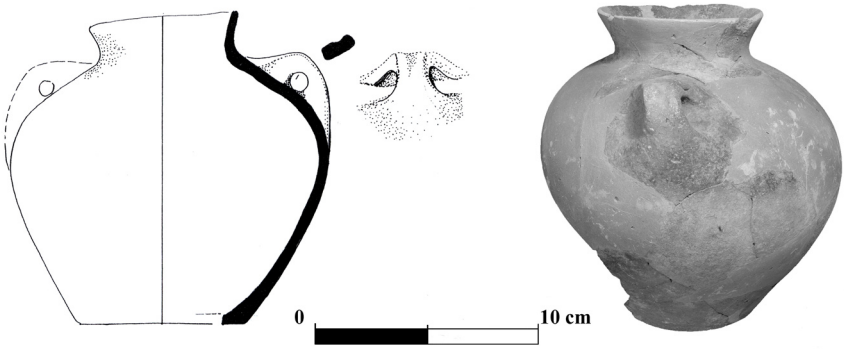

Fig. 7. A small, Late Neolithic or Early Chalcolithic jar. Note the circular piercing of the handle and the wide splaying where it is attached to the body of the vessel, details foreign to Early Bronze I jars of roughly similar mien.
Drawing by C. Hersch (Israel Antiquities Authority);
photo by C. Amit (Israel Antiquities Authority)

Two published vessels, nearly complete small jars, obviously derived from *in situ* deposits, as well as a number of more fragmentary objects, also originated in pre-EB I horizons. A new, detailed rendering of one of those jars illustrates its pre-EB I features (Fig. 7), despite proposed parallels in the publication (Golani 2003, Fig. 4.8, 6) that might seem, *a priori*, to confirm its EB I date. Differences in details, however, are significant as they indicate the jar's pre-EB I origin. It has one eccentrically oriented flat, strap-like handle (a second was not preserved) with rounded edges, a central, shallow, longitudinal runnel, and, it is widely splayed where the handle is attached to the vessel. Those features and the circular enclosure the handle forms, differ substantially from *bona fide* EB I handles (e.g. Braun 1985, Fig. 20, 1-2 and 4 and parallels cited in Table No. 3, Type 15; Golani 2003, Fig. 4.8, 5-6). They tend to be oval or round in section, no wider at points of attachment, and form irregular shaped enclosures determined by vessels' bodies and shapes of their handles.[3] Numerous generic, morphological parallels to this pre-EB I vessel, from Late Neolithic or Early Chalcolithic contexts (e.g. Garfinkel 1999, Figs 26, 1-9; 102, 1-2, Photos 23-25) reinforce this interpretation. Unfortunately, field records[4] suggest this pot was not found *in situ*. However, its excellent state of preservation suggests it was disturbed from fills originally associated with pre-EB I deposits encountered below the EB I occupation (see below), which were not widely dispersed.

A second pre-EB I vessel, nearly completely preserved (Fig. 8), was restored with fragments from six different baskets excavated in Loci 4 and 7. Significantly, Locus 4 also yielded portions of another pre-EB I jar (see above). Although relevant elevations from Locus 4 suggest some of the fragments were retrieved in fills above a floor, no elevations were recorded for two baskets in that locus and so there is no way of knowing their positions relative to structures, surfaces or to bedrock (visible in a photograph of its excavation; Fig. 3). An archived field plan (Golani and Braun n.d.) indicates large exposures of bedrock in Locus 4, while Locus 7 was noted as 'topsoil' (Fig. 4).

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[3] Circular handle enclosures are characteristics most often encountered in Chalcolithic vessels (e.g. Garfinkel 1999, Figs 111; 120, 1-3; 121, 1; 136, 3-4; 139, 3-4; 147, 4 and 148, 3-5) and only very rarely on EB I types, and then solely on truly diminutive EB I handles.

[4] A search in the field journals (Golani and Braun n.d.) for the find spot of this large vessel fragment indicates it was reconstructed from smaller pieces found in two baskets within Loci 4 and 21. More precisely, the Locus 4 context is a deposit of soil *c*. 17cm thick, defined as fill at least 20cm above the floor level of Building 1 (Figs 4, 10, 11). That from Locus 21 is registered as having been found in fill above the north wall of this same house in a locus defined as 'topsoil' (Fig. 4).

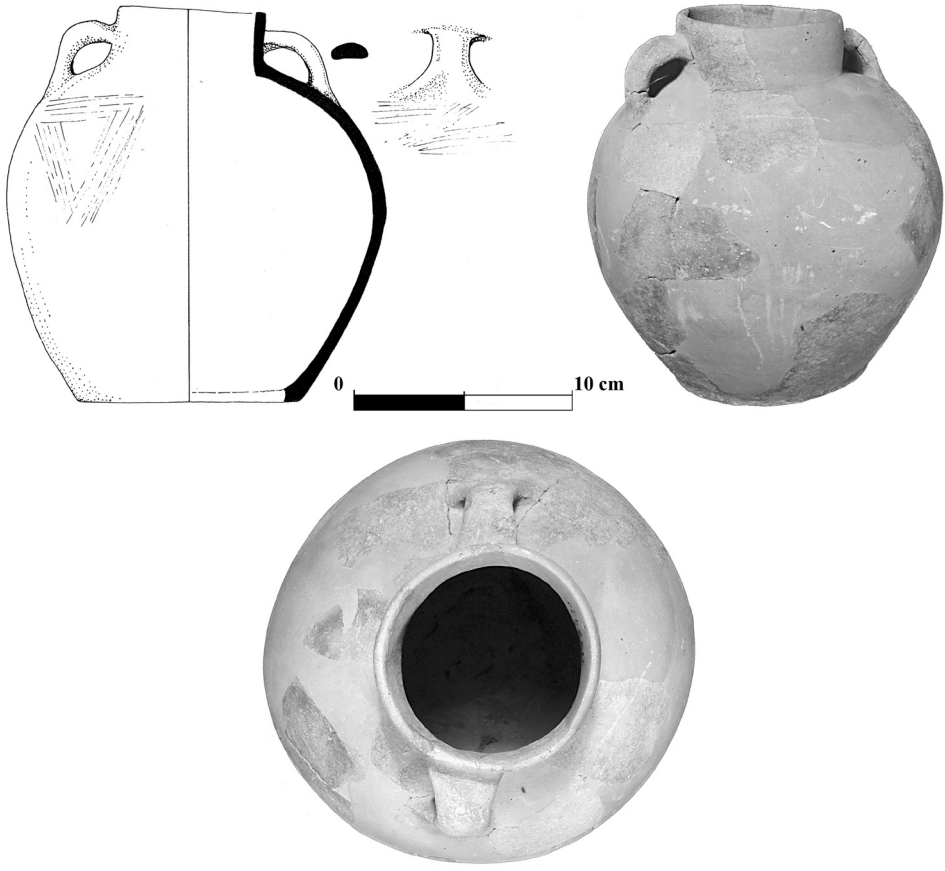


Fig. 8. A Late Neolithic or Early Chalcolithic jar from Area A. Note its eccentrically located flat handles, widely splayed at their junctures with the body of the vessel and its straight 'stove-pipe' neck, details foreign to Early Bronze I jars of roughly similar mien.
Drawing by C. Hersch (Israel Antiquities Authority);
photo by C. Amit (Israel Antiquities Authority)

Various characteristics suggest that this vessel also derives from a pre-EB I occupation of the site. Its coarse fabric marked by impressions of vegetal material on its outer surface, short, vertical neck, spherical body and widely splayed flat handle are not at all typical of EB I pottery, as indicated by numerous generic parallels from Neolithic and Early Chalcolithic deposits (e.g. Gopher 1996, Figs 3.5, 6; 3.8, 2-4; Garfinkel 1999, Figs 24, 1, 2, 4; 26, 9; 27, 1-13; 28, 1; 29, 1-4; 55, 1, 8, 9, 12; Photo 30). The state of preservation of this pot makes it virtually certain it had originally been *in situ* in Area A, and was not just a fragment derived from nearby.

Additionally, published ceramic vessel fragments (Fig. 9) are also likely to derive from the pre-EB I settlement at the site. One diminutive, red painted, shallow, sharply carinated example with splayed rim (Fig. 9: 1) that seems likely to be pre-EB I in date, is notable for its plain, non-burnished fabric that sets it quite apart from similar and larger, late EB I-EB II types (cf. Golani 2003, Fig. 4.24, 25, 26). Morphological parallels are dated to the pre-EB I, Wadi Rabah horizon (Garfinkel 1999, Figs 69, 1, 3, 6, especially 72, 6-7).

Straight-sided bowls, sometimes called 'v-shaped'[5] (Fig. 9: 2, 3, 7), which tend to be deep, are uncommon in advanced (i.e. late) EB I contexts. They are, however, well represented in Neolithic and Chalcolithic ceramic assemblages (e.g. Garfinkel 1999, Fig. 96; Yannai *et al*. 2006, Figs 4.12. 4.19, 4.28, 4.63, 1-9). One bowl with narrow, nearly flat base (Fig. 9: 3), attributed to Locus 31 (Fig. 4), and assigned to Phase 3A, has no parallels in EB I assemblages, but resembles pre-EB I bowl forms (e.g. Braun 1997,

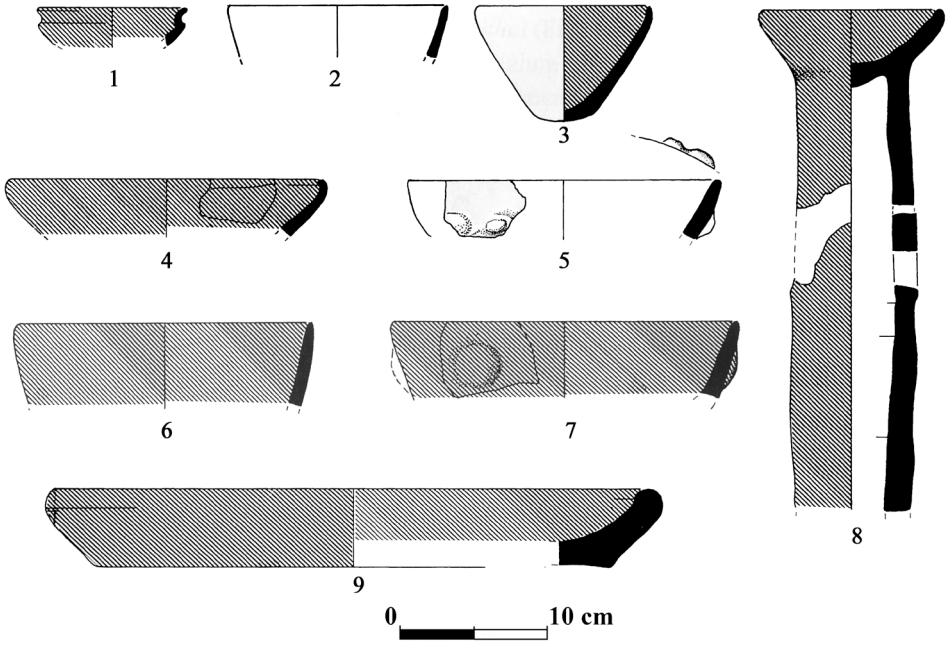


Fig. 9. Select examples of published fragments of ceramic vessels likely derived from pre-Early Bronze I occupations.
Redrawn from Golani 2003, Figs 4.1: 5-11, 4.14: 1, 4.2: 26

[5] I eschew this designation as these bowls invariably have flat bases, which belie a 'v-shape' association.

Figs 15.2, 11). Its find spot, obviously below a surface in the composition of a floor (i.e. in the floor's 'makeup') assigned to Stratum III, suggests it may have been retrieved from either an *in situ* deposit that survived later building activities or, alternately, it was a residual item incorporated into a later floor. Two examples of ceramic vessels (Fig. 9: 5, 7) have irregular, protruding knobs of types unknown in EB I assemblages, but they are reminiscent of similar appendages often associated with earlier types (e.g. Braun 1997, Fig. 15.1, 9,10; Fantalkin 2000, Fig. 7, 2-3; Khalaily 2003, Fig. 7.9, 1; Braun 2004a, Fig. 3.10, 6).

A thick, platter-like bowl (Fig. 9: 9), significantly designated as 'poorly fired' and ascribed by Golani (2003, Fig. 4.1, 6) to EB II, is more suggestive of some Late Neolithic/Early Chalcolithic types (e.g. Garfinkel 1999, Fig. 51, Fig. 76, 4, 5). Fantalkin (2000, 39, Fig. 9) found four similar examples in 'mixed' fills outside an EB I building, which could allow for them also to date to pre-EB I periods. A pre-EB I origin for this object seems more likely as EB II or EB III vessels of similar morphology are almost invariably fashioned of hard, well-fired fabrics.

Several fenestrated, pedestaled vessel fragments from Golani's (2003, Fig. 4.14: 1-5) excavation may derive from pre-EB I deposits, as such vessels are quite rare in late EB I assemblages. The generic type is common in the Late Neolithic/Early Chalcolithic horizon (Garfinkel 1999, Figs 77, 4-7; 78; 101; 134) and has many variations in morphology. A single, well-preserved example from Qiryat Ata (Fig. 9: 8) is notable for its shallow bowl and extraordinarily high, narrow pedestal, paralleled in a vessel from a Chalcolithic context in a cave at Peqi'in (Gal *et al*. 1999, Fig. 12), although an EB I date, based on similar objects from Beth Shan (Mazar 2012, Pl. 25) may also be indicated for this object.

Likely remains of pre-EB I structures

Several architectural features in Area A are associated with Golani's Phase 3B of Stratum III (Figs 10-11), of which the earliest could well belong to a pre-EB I occupation. Wall segment 517 is inordinately wide and significantly wider than Wall 516, the extant north wall of a Phase 3A house (Building 3). Its relative elevations suggest it originated in an earlier stratum. This interpretation seems especially likely as there are no known parallels for a house of this sausage-shaped plan (Braun 1989) with a peripheral wall constructed of segments of such widely disparate widths. Wall 517 is notably poorly aligned with Wall 504, which, because of its vaguely curvilinear mien (only its south façade was curved) was attributed to the EB I period,

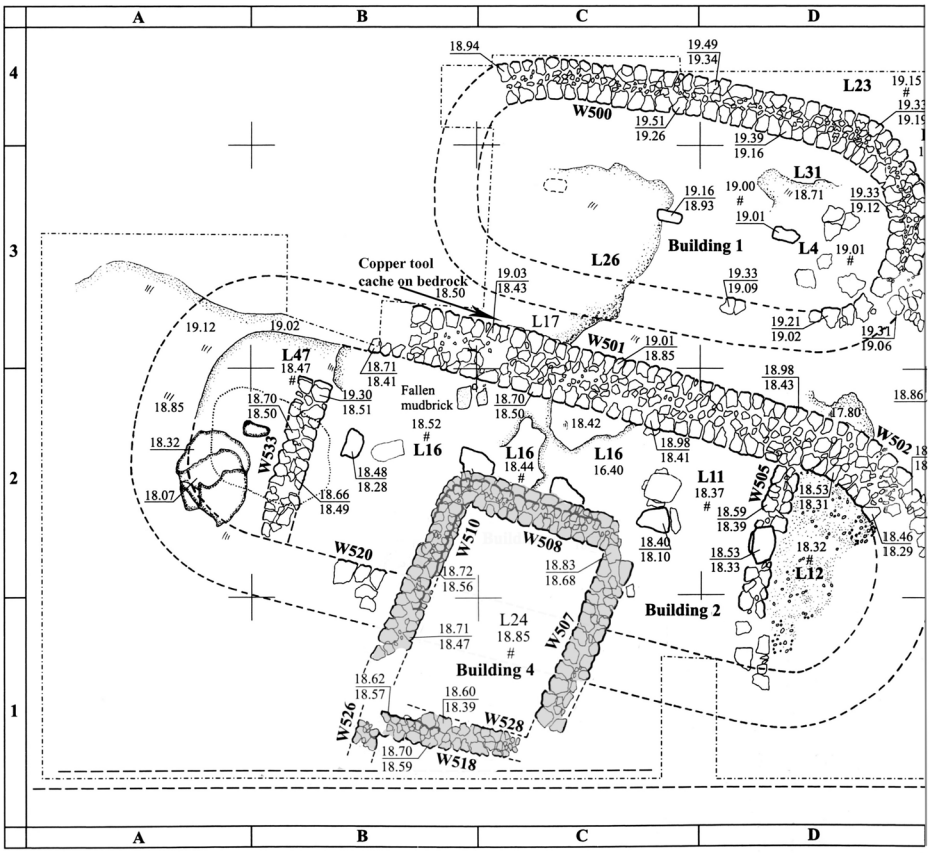
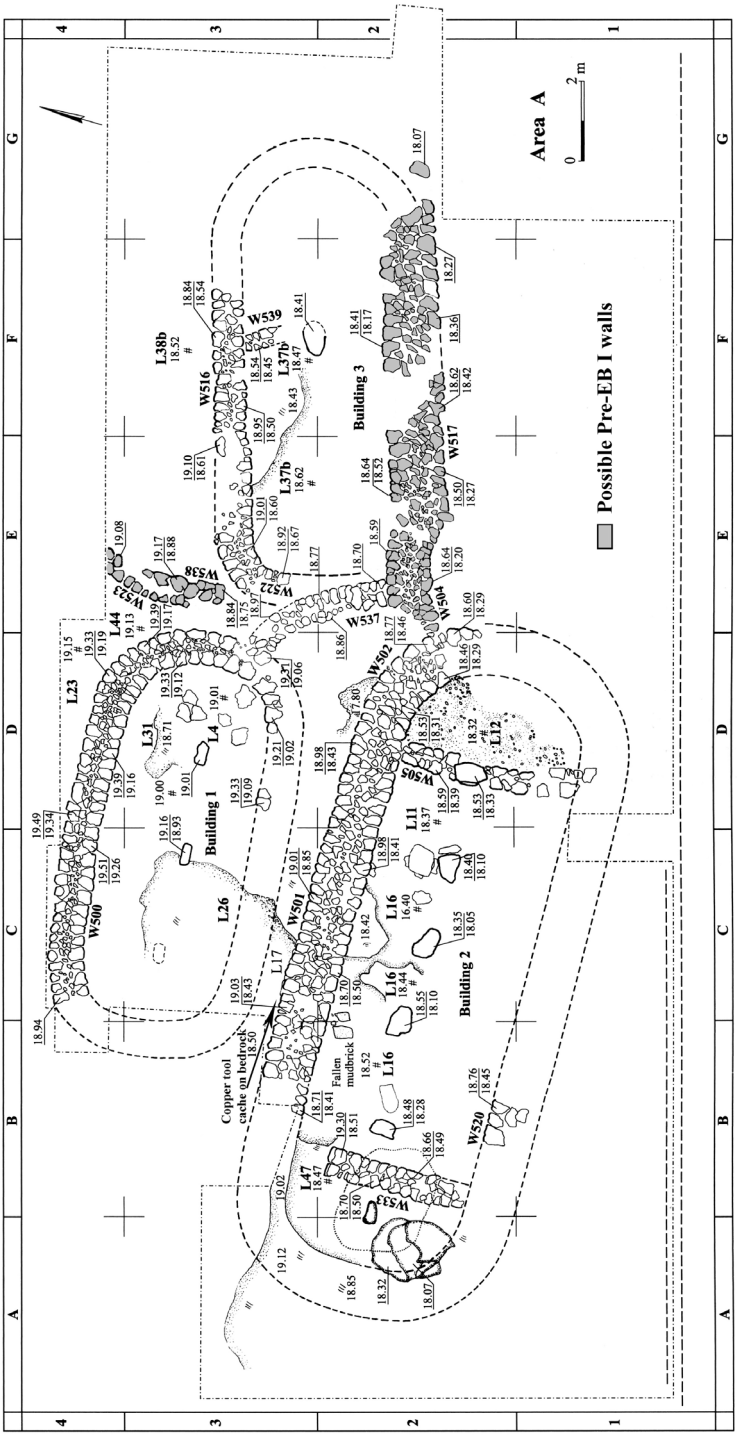


Fig. 10. Plan of Building 4 with rounded corners, superimposed above Building 2, purportedly Strata II and III, respectively. Based on Golani 2003, Plan 2

but it too might be a remnant of an earlier building, as may other structures of the earliest phases of Stratum III. Curvilinear wall segments are not unknown at pre-EB I sites (e.g. Kafafi 2001, Figs 11-13; Shalem 2006, Fig. 1; Getzov 2007, Fig. 1).

The stratigraphic profile of Qiryat Ata considered anew

Golani (2003, 81) indicates what he claims to be an 'unambiguous stratigraphy' for the site, with a Stratum I representing an EB II occupation following an EB I occupation designated, in different precincts of the site as Strata II and III. The claim for two successive EB I strata is, however, based on interpretation rather than on layered deposits as nowhere was definitive evidence of a Stratum II building found superimposed on remains



QIRYAT ATA, AREA A, PHASE 3

Fig. 11. Plan of Stratum III and earlier structures in Area A.
Based on Golani 2003, Plans 2.1-2.3

of Stratum III. A single, possible exception, is Building 4 in Area A, where all Stratum III remains were found. The stratigraphic ascription to Stratum II is unconvincing as it is based merely on its superimposition over an EB I (Golani's EB IB) building assigned to Stratum III, and the building's rounded corners, which he interprets as evidence of a late EB I date. The chrono--cultural ascription of this building is of dubious *bona fides*, as neither floors nor artifacts of any date were associated with Building 4, while no remains of Stratum I were found above this building, the remains of which lay just below the modern surface.

Building 4 seems more likely to have been associated with a small Stratum I complex of walls in very close proximity to it and found at analogous elevations (Fig. 12). Notably two walls of Building 4 are parallel to W512 of that definitively EB II complex (dated by associated pottery), while the orientation of Building 4 is quite different from those of the Stratum III buildings below. Significantly, Building 4 has no parallels in plan in any of the structures assigned by Golani to Stratum III, all of which are roughly broadroom[6] in plan and have stone pillar bases.

The division between Strata III and II is based on Golani's paradigm (2003, 77, 245) that EB I buildings of sausage-shape or elliptical[7] plans, *ipso facto*, date earlier than those with sub-rectangular plans (i.e. a rectangle with rounded corners). While perhaps broadly representative of the progression of EB I architecture (Braun 1989), that paradigm is far from absolute as the evidence from 'En Shadud (Braun 1985, 68-73), Me'ona (Braun 1996), Sheikh Diab 2 (Bar *et al*. 2012, Fig. 4) and Area C at Qiryat Ata (Golani 2003, Fig. 2.5) indicates. Both rectangular and curvilinear elements are found in different sequences and juxtapositions at those sites, all of which date to developed EB I, and later EB I phases and to the EB II period, respectively. Thus, it is not impossible that the several houses of Qiryat Ata of Golani's Strata II and III, nowhere superimposed, might all be roughly or even absolutely contemporary. That would explain the similar ceramic assemblages that Golani noted for his two EB I strata. Alternately, these

[6] This signifies a basic rectangle with an entrance in one of the long walls. Included in this category are structures with apsidal ends (i.e. sausage-shaped), which approximate a basic rectangular plan.

[7] The buildings at Qiryat Ata are actually not 'elliptical' but rather sausage-shaped. In a true elliptical plan wall segments are not parallel, while sausage-shaped structures have significant lengths of parallel walls. Truly elliptical buildings appear to be only associated with structures of limited length of a very early phase of EB I and are generally no longer than *c*. 8.0m.

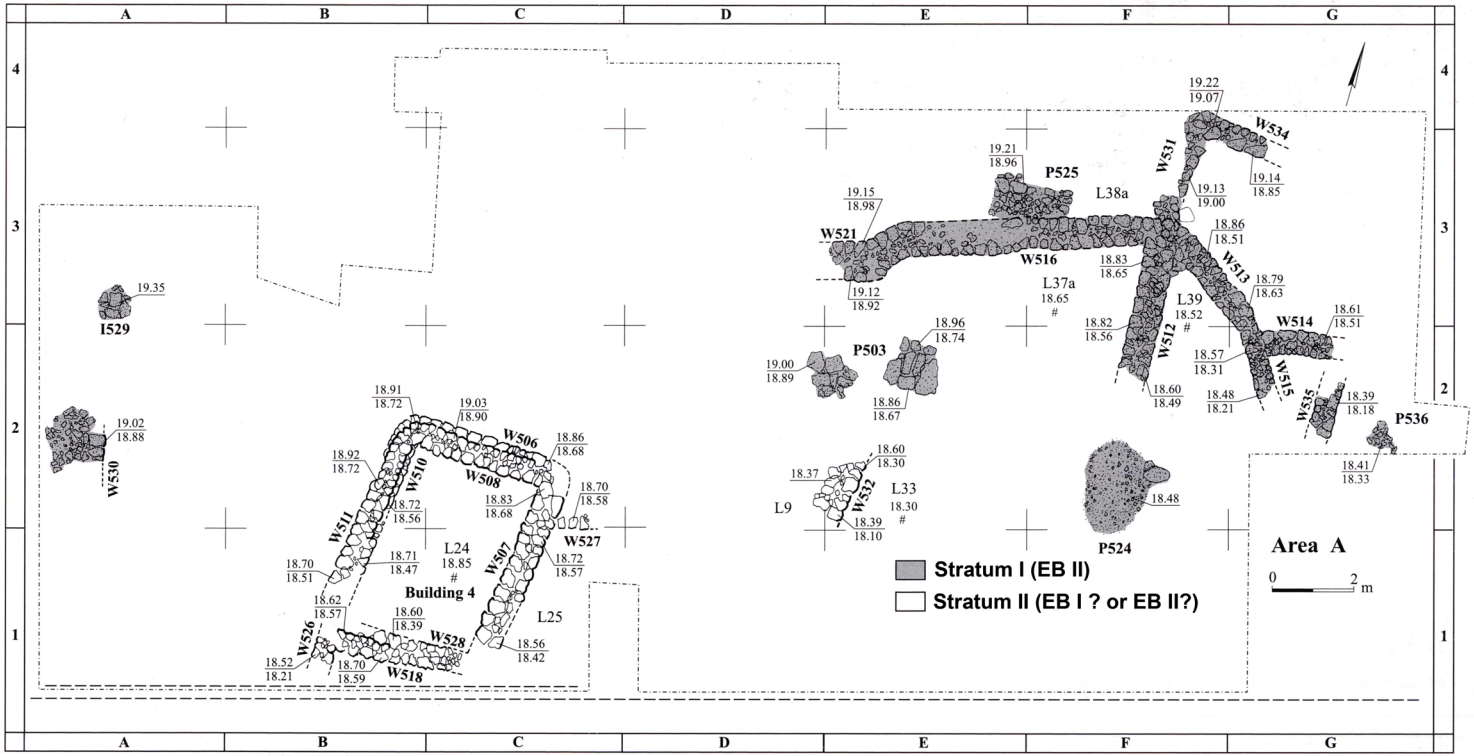


Fig. 12. Structures in Area A. Shaded walls are of Stratum II and date to Early Bronze II. Note the close proximity and similar elevations of Building 4. Redrawn from Golani 2003, Plan 2.2

two exponents of developed EB I may represent some fine chronological distinctions reflected in sausage-shaped and sub-rectangular[8] buildings.

Perhaps slight chronological differences are also reflected in the types of pithoi associated with the different house types. That might explain why several of these large vessels of virtually identical style were found on the floor of Area A Building 1 (Fig. 13: 2; Locus 4; Golani 2003, Figs 4.10, 1-3; 4.11, 1), while another pithos of similar style, but with different applied decoration (Fig. 13: 1), was found on a Stratum II floor in Building 2 of Area E. However, these slight differences in style could merely indicate they derived from different workshops.

Unfortunately, the known archaeological record of Qiryat Ata cannot reveal whether the differences between the structures Golani has ascribed to Strata II and III are indeed chronological and real because there is no good evidence for superimposition of deposits. For the present the minutiae of phasing associated with ceramic development in the northern region during late EB I remain rather obscure. Hopefully, future excavation will throw some light on the subject and allow us to better understand the ceramic sequence of the region.

If the differences between Golani's Strata II and III are indeed chronological, then the overall estimate of the extent of the EB I settlement

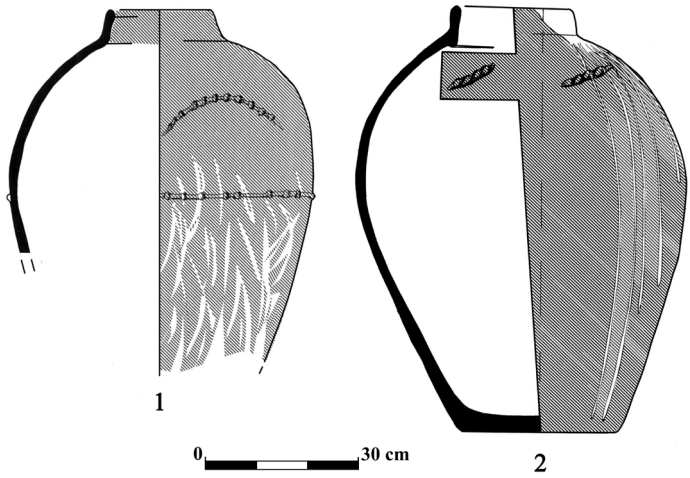


Fig. 13. Two similar styles Early Bronze I pithoi found *in situ*.
1 – from Building 2 (Locus 1028) in Area E
(Golani's Stratum II; reproduced from Golani 2003, Fig. 4.10, 3);
2 – from Building 1 (Locus 4) in Area A
(Golani's Stratum III; reproduced from Golani 2003, Fig. 4.10, 1)

[8] This term signifies rectangles with rounded corners.

at any one phase in late EB I must be considerably decreased to indicate a shifting of the built up area over time, rather than simple growth in size. Such a scenario would alter Faust's and Golani's (2008) interpretations on the supposed development of the site of Qiryat Ata during the EB Age, which suggested an increase in population leading to urbanism. The validity of that social trajectory may also be questioned for additional reasons (see below).

Was there continuity in occupation during EB I at Qiryat Ata? Part I

Golani (2003, 243) argues that: 'The stratigraphic evidence indicates that occupation of the site appears to have been uninterrupted from the time of the initial founding of the settlement close to the Zebulun Valley floor during the course of EB IB (Stratum III), through the expansion of the settlement at the very end of this period (Stratum II) and its climax and subsequent abandonment during the early portion of EB II (Stratum I)'. Later this hypothesis was reiterated and developed to suggest a paradigm of development purportedly as a 'test case' for a process of urbanization in the southern Levant (Faust and Golani 2008).

Although the claim for continuity in occupation has been reiterated several times, nowhere does Golani offer proof of it beyond noting that '...in all cases, stratigraphic phases subsequent to a destruction were founded directly upon the debris of the previous phase or incorporated walls of previous strata into new construction' (Golani 2003, 243). While such an interpretation is possible, it must be noted that direct superimposition of archaeological deposits does not automatically, nor even necessarily prove or imply temporal continuity. That is especially true at Qiryat Ata where EB I levels obviously cut down into earlier occupation debris to rest directly on Neolithic/Early Chalcolithic remains (see above).[9] The scenario of continuity becomes even more doubtful when Building 4 is removed from the stratigraphic paradigm that places it in Stratum II (see above). Its removal emphasizes the differences in orientation of buildings and plans of structures between the late EB I period (Strata II-III) and EB II (Stratum I) occupations.

Indeed, if Qiryat Ata Strata III and II in their several phases should happen to represent a limited period of occupation in a developed phase of EB I, then they are **not** likely to be amongst the very latest exponents of it, as suggested by the presence of a certain late type of Gray Burnished Ware (Wright

[9] Another case in point is Yiftah'el, at which the early EB I stratum remains rested directly upon Neolithic walls and surfaces, which were several millennia older (Braun 1997).

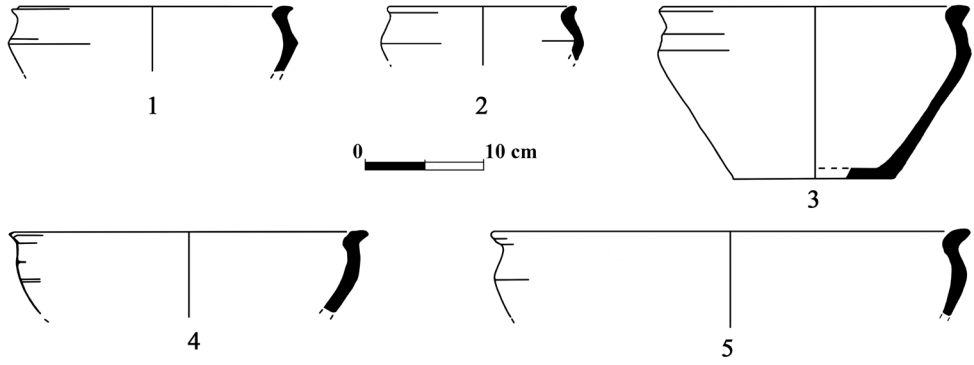


Fig. 14. Select examples of Early Bronze I late type Gray Burnished Ware bowls from Qiryat Ata. Reproduced from Golani 2003, Fig. 4.2

1958; Braun 2012, 6-11) in the ceramic assemblage of that period (Fig. 14). At question is for how long that highly specialized production lasted during EB I. Golani and a colleague, Y. Nagar (2011) argue for an exceedingly lengthy span of between 800 and 700 years for the duration of EB I, which they claim to be represented into four sub-periods, early and late EB IA and early and late EB IB. If the early types of Gray Burnished Ware are dated to their EB IA, as is generally understood, then the later type of this ware found at Qiryat Ata in the Strata III-II assemblage could hardly have been dated to the end of EB IB, as it would have to have been produced continuously, even if it first appeared in late EB IA, for more than six centuries. That is an impossibly long period for such specialized ceramic production, even when factoring in evidence of morphological development (Braun 2012, 6-11) in bowl types. If, as appears to be quite likely, EB I actually began *c*. 3500 BC (Braun 2001; Braun and Gophna 2004), one would not expect the production of such bowls to have minimally lasted about the same span of time that separates us from the reign of Queen Elizabeth I of England. Thus, the EB I occupation of Qiryat Ata III-II should be dated to some developed, but relatively early phase and not its latest, as suggested for En Shadud (Braun 1985, 100). That seems a quite reasonable hypothesis when one considers the several post-Gray Burnished Ware occupation phases representing late EB I at Megiddo (Finkelstein *et al*. 2000; Finkelstein *et al*. 2006), Beth Yerah (Eisenberg and Greenberg 2006; Greenberg and Eisenberg 2006), Beth Shan (Mazar 2012) and Tell Abu el-Kharaz (Fischer 2008).

Excursus: On the periodization of EB I

Chronological anomalies and confusion in period ascriptions of archaeological entities such as those noted above are the unfortunate result of scholars' (Golani amongst them) insistence on employing the terms EB IA and EB IB for periodization. Such terms are gross over simplifications of a very complicated reality that must be deciphered from an archaeological record that has, to date, failed to yield reliable, precise data on ceramic and occupational sequences within a mosaic of distinctly different regional variations. That may explain why Golani has dated Qiryat Ata to EB IB, while I have suggested that a similar ceramic assemblage from 'En Shadud should be understood as an advanced, but not very late exponent of northern EB I (Braun 1985, 100). That confusion in part exists because nowhere have the terms EB IA and EB IB (really heuristic devices for purposes of discussion) been properly defined;[10] probably for good reason as they represent relative chronological segments along a continuum of human activity that minimally lasted for five centuries.

Deficiencies in scholarly understanding of the archaeological record as well as subjectivity, which must define borders of specific periods, are major pitfalls that would have to be overcome for any serious attempt at EB I periodization to be made. For the present, as I understand the archaeological record of the southern Levant in EB I, several additional phases within a sequence would be useful for discussion of the progression of the period. A detailed study awaiting publication (Braun, forthcoming a) discusses the ceramic aspect in terms of site-based assemblages of pottery that offer keys to development during EB I with special attention paid to regional issues. Were I to have my druthers I would abandon the term for what is generally recognized as EB I and opt for two separate chrono-cultural periods to represent it, the earlier to be termed Pre-complex; the later Proto-urban-like (i.e. first urban-like; Braun 2011; Braun 2012).

Was there continuity in occupation during EB I at Qiryat Ata? Part II

If indeed the assemblages of Strata III and II at Qiryat Ata represent a relatively short span of time, as the 'homogeneity' of the ceramic assemblage suggested by Golani would tend to indicate, then neither the pottery assemblage/s of Strata III and II, nor the buildings of those occupations show any true indication of a transition to the ceramic and architectural traditions

[10] L. E. Stager (1992), who did not recognize this two-part system, made a valiant attempt at periodization of EB I, but its utility is limited precisely because of the complexity of the subject.

of Stratum I. They appear to be typical of advanced, but far from the latest phases of EB I, especially when they are contrasted with the architecture of the latest EB I and earliest EB II phases at Bet Yerah (e.g. Greenberg and Eisenberg 2006, 118, Plan 5.3; Eisenberg and Greenberg 2006, Plans 8.5 and 8.6) where the transition between these periods has been exceptionally well-documented. The relevant structures there are notable for rectilinear architecture and mostly sharply angled corners, but the most important argument for continuity is found in orientation of buildings and house plans. The very late EB I structure at Beth Shan in Stratum XIII is notably rectilinear, with virtually no evidence of any curvilinear trappings (Braun 2004a, Figs 2.36, 2.38), while the same may be said of the earliest EB II level of the fortified town at Tel Qashish (Zuckerman 2003, Plan 6).

It is also difficult to understand why the presence of Metallic Ware (Greenberg and Porat 1996, 11; Greenberg 2002, 188) in Stratum I is understood by Golani (2003, 246) to indicate 'an early date in EB II' for the latest occupation, especially in light of recent work by Paz *et al*. (2009, 181). Those scholars have identified what appears to be a late EB I to EB II transitional phase during which some early types of Metallic Ware appeared at Jordan Valley sites. While it is possible that such pottery was not distributed to the Qiryat Ata region, it is difficult to explain why this relatively small site was receiving quantities of the best quality, full-blown styles of Metallic Ware, while coevally the major center of Beth Yerah, and nearby smaller settlements such as Tell Yaqush and Tell Abu el-Kharaz, received only very early types. A more convincing explanation is that the Stratum I occupation at Qiryat Ata dates not date to the earliest phase of EB II, but rather to sometime after onset of that period. Thus, Golani's claim for continuity with no hiatus between the EB I occupation (Strata III/II) and that of EB II (Stratum I), remains unproven and unlikely.

Architectural traditions and 'Urbanism' in the context of Qiryat Ata

Golani (2003, 245-246), based on his paradigm of architectural development from curvilinear to rectilinear (see above), has claimed that Qiryat Ata underwent an 'urbanization process'. However, as noted above, that purported sequence, which appears not to exhibit continuity and which is more interpretive than definitive, is difficult to discern in the revealed archaeological record of the site. Golani (1999, 131; 2003, 243-247) bases his interpretation on five types of evidence he suggests demonstrate that process: 1) shared orientation of buildings; 2) the appearance of 'regular streets' or 'alleyways'; 3) a 'free-standing enclosure wall' at the periphery

of a site; 4) the presence of rounded corners on otherwise rectilinear buildings; and 5) substantial growth of population. However, those five tenets may be present in ancient settlements that are neither urban in nature nor necessarily related to the complexity of an urban society. In reviewing the evidence from Qiryat Ata, Golani's definition of what constitutes urbanism appears to be rooted in a rather sparse chain of evidence.

That evidence should, if the site is to be considered an example of a trajectory towards urbanism, show consistent and clear proof of that process. Urbanism (on whatever scale[11]) implies complex, hierarchical social structures that allow large agglomerations of humans living in close proximity and sharing resources to successfully function as units (Greenberg 2002, 3; Braun 2011, 267). While there is significant evidence for the second part of this paradigm in the Strata III-II occupation, something evident in virtually any sizable community, confirmation for continuity in occupation and complex social organization at Qiryat Ata rests in the evidence of a single structure, a 21m segment of a stone foundation between 3.0 and 3.5m wide unearthed in Area O (Golani 2003, 245).

Quite reasonably, that stone structure has been interpreted and theoretically extrapolated to reconstruct a circumvallating fortification (presumably of mudbrick atop the stone foundation) enclosing an area of more than 4ha. If that wall truly attained those dimensions, then its existence does indeed imply a complex social organization with the ability to construct such a formidable defensive system. That in turn implies the existence of an urban-like entity in EB II. Hopefully addition exploration will be able to validate or invalidate Golani's interpretation of the evidence of that construction.

More questionable are Golani's additional criteria, all of which may as easily be associated with non-urban lifestyles practiced in hamlets and villages in the ancient Near East, some of which were quite large and evidenced sophisticated architectural traditions. The passage from curvilinear to rectilinear, while far from proven at Qiryat Ata (see above), is anyway coincidental to the development of urban-like societies in the southern Levant, and need not be considered a function of such a process.[12]

[11] Questions as to what might constitute urban-like as opposed to truly urban societies, are moot points that depend upon relative sizes of communities, which are beyond the scope of this paper.

[12] Deep deposits at Byblos concealed scores of buildings of rectilinear, sub-rectilinear and curvilinear plans, all pre-dating Qiryat Ata III-II in a series of occupations associated with non-urbanized settlements (Dunand 1973, 213-332). Those structures include rectilinear buildings with rounded corners, which can be traced back to the *Installation Éneolithique*

Existence of thoroughfares between houses is neither peculiar to urban societies, nor is there any good way to measure their degrees of 'regularity', which are presumably the results of what Golani terms 'pre-planning'. One may judge that perhaps, from numerous examples of pre-EB I sites that are exhibit well-ordered architectural organization and relative sophistication in building plans.[13] When early Neolithic sites such as Bouqras and Cayonü (see note 13) are compared to two examples of urbanized EB Age communities in the southern Levant, the small, fortified town of Arad in Strata III and II (e.g. Amiran and Ilan 1996) and the walled town of Jericho/Tell es-Sultan (Nigro 2010, Fig. 4.45), the last seem wanting in both organization and in architectural acumen. Both these south Levantine communities are notable for their fortifications and somewhat crooked, winding thoroughfares or alleys. These last features are fully matched at Horvat 'Illin Tahtit (Braun 2008b, 1790) and Palmahim Quarry (Braun 2000, Fig. 1; Braun 2008c), two late EB I communities that clearly were not urbanized.

In summary, it is argued that large aggregations of populations do not, *ipso facto*, create urban environments, as may be particularly understood from the *enéolithique récent* communities of Byblos (Dunand 1973). Certainly, for some degree of urban-like organization to be met there would have to be a minimal population that, which had at some point either reached a critical mass[14] or through some other inducement, coalesced into a complex, hierarchical structure, with lesser classes fulfilling necessary functions for an urban lifestyle controlled by elites. Unfortunately, the evidence from

Ancien and into the ensuing *Installation Éneolithique Récent* (e.g. Dunand 1973, Figs 113, 114, 117, 140-141, 145, 146).

[13] Some extreme examples of order, including well constructed buildings aligned in a manner that presages Hipodamus of Miletus' town planning by many millennia, are found at Tell Sabi Abyad (Akkermans and Schwartz 2003, 67, 113-117), Bouqras (Akkermans and Schwartz 2003, 120-123) and aceramic Çayönü (Schirmer 1990, 364), none of which is considered to be urban in character. As Schirmer has noted for Çayönü, those early sites lack true indication of 'urbanisation', while Banning (2004), in a discussion of the Neolithic house of the ancient Near East, explains why: 'Such consistency of plan within some sites required no architects, as adherence to standard plans is quite typical of "primitive" architecture, which the inhabitants build themselves, and "vernacular" architecture, whose inhabitants, along with specialists and neighbors, participate in building design and construction (Rapoport 1969, 4-5)'. Similarly, Byrd (1994) notes not a little degree of planning and organization is to be found in early villages, which are not classifiable as urban.

[14] Such a condition would be dependent upon circumstances, most of which would likely not be easily, if at all, visible in the archaeological record.

Qiryat Ata for such a social paradigm is too limited to do more than hint at such a development in EB II.

Part II: Observations on the site and its environs

Golani's (2003, 1-7) discussion of the environs of the site and its natural assets offers data that suggest the ancient inhabitants had important natural resources on which they were likely to have drawn. They could also possibly explain how the site that supported a small village in EB I may have been capable of providing sufficient resources for a walled town covering *c*. 4.5ha in EB II.

Arboreal resources

Rightfully noting that consideration of environmental conditions is important for understanding a site, Golani's report summarizes them, noting major deforestation of the region since ancient times. However, much of that deforestation occurred only in the modern era (Oliphant 1976, 41) as may be discerned on hills in the area of Qiryat Ata not built up (of which only a few are still extant), which are still sporadically dotted with old-growth oak trees, while tracts of these ancient forests are still found in the environs of the site. Those few sylvan remnants suggest ancient communities lay within a wooded hinterland that provided important resources for its inhabitants (Liphschitz 2007, 17, 25, 38). If allowed to mature without overgrazing by goats (Kislev 1998, 117[15]), oaks obtain sufficient status to provide pillars and beams such as the buildings of Stratum III illustrated in the report (Golani 2003, Fig. 3.3), as well as fuel and roofing materials (Braun 1997, 6, 24).

This ancient forest primarily included two varieties of oak (Braun 1997, 3), *Quercus ithaburensis* (i.e. Tabor Oak) and *Quercus calliprinos* (i.e. Kermes or Common Oak), species which produce acorns in abundance that are likely to have been part of the economy of the ancient settlement. Historically there is evidence for protein-rich acorns used as provender, particularly for swine, which thrive on them (Kislev 1998). Acorns of *Quercus ithaburensis*, the less bitter of the two varieties, were even occasionally consumed by humans, while those of *Quercus calliprinos* were generally reserved for pigs.

The faunal record of the site (Horwitz 2003) suggests a likelihood that this food source was significant for swine-herding and possibly also

[15] Intensive goat grazing can actually substantially reduce the stature of a tree to that of a shrub of no great size.

advantageous for attracting the wild variety of this species, thus providing resources for hunting and/or trapping. Liphschitz's (2007, 27) suggestion that *Quercus calliprinos* was the more abundant variety of oak may bolster this argument as pig is notably present in all the faunal assemblages of the EB Age levels of the site. It was particularly plentiful in Stratum III of Area A, suggesting it was a significant source of protein in the diet of the site's inhabitants in Neolithic, Chalcolithic and/or EB I times. Although data are somewhat limited for the later Strata II and I occupations, they suggest the importance of this element in the diet may have waned as the EB Age occupation progressed and the site became more densely settled and possibly urbanized. If that interpretation is correct, then one may speculate that a burgeoning population was responsible for degradation of the forested landscape in the immediate environs of Qiryat Ata and, indirectly, for diminished reliance on swine-herding due to decreasing resources.

Water resources

Swamps in the region (Golani 2003, 3-4) are also likely to have had an impact on the economy of the site and its viability for population growth. Their existence from at least the 16th and well into the 20th century AD is historically documented at Qiryat Ata. While Golani assumes there were no swamps there during the EB Age, there is no apparent evidence to negate their existence, especially as they would match his suggestion that the site may have experienced a 'moister climate' than that presently known. Recent research by Bar-Mathews *et al*. (2003, Charts: Long-term average of mean annual rainfall at the Soreq Cave and Calculated Rainfall [mm]) is additional support for that view. Such a climate associated with increased rainfall would have actually favored formation of swamps and accordingly, there appears to be some likelihood of marshes existing near the site within the time span of the early occupations at Qiryat Ata, a view in agreement with Horwitz's (2003, 229, 234-326) and Rosen's (2006, 468-469) reports. Such water-logged areas would explain the relative abundance of both wild and domestic species of pig in the faunal record of the site.

The existence of swamps in the EB Age may explain how such a large settlement as suggested for Stratum I was able to maintain itself when the nearest water source, the Qishon stream, lay at the considerable distance of 4km. Certainly water was in good supply during rainy seasons, especially if those seasons were longer than those the region presently experiences, but it would have been considerably scarcer during hotter months. Standing

natural reservoirs of water associated with marshland in close proximity to the site would have ameliorated those dry conditions and been particularly amenable to swine and cattle herding, for which there is also evidence in the faunal record of the site (Horwitz 2003, 234-235). Possibly episodic drier periods and gradual desiccation of the climate (Bar-Mathews *et al*. 2003, Charts: Long-term average of mean annual rainfall at the Soreq Cave and Calculated Rainfall [mm]) account for a lesser presence of swine in the later periods at the site. Those data could explain why the location was also apparently abandoned after an initial occupation in Late Neolithic and Early Chalcolithic times, and only re-occupied in EB I. They may also explain a likely hiatus prior to the EB II settlement (see above), as well as the eventual abandonment before EB III.

Summary

The late prehistoric site of Qiryat Ata was occupied from as early as Late Neolithic times, when it appears to have been a sedentary settlement with people engaged in farming, as may be determined from finds of numerous sickles (Bankirer 2003). Typological differences in flint implements, groundstone objects and pottery, suggest there were several episodes of settlement throughout this long period, as pre-EB I objects appear to be associated with both the Late Neolithic and Chalcolithic horizons. The durability of the items, especially of the groundstone objects, and the possibility of some walls being assigned to one or more of those episodes, indicates those were sedentary folk who likely sustained themselves by farming and possibly by animal husbandry and trapping.

After an apparent hiatus in the Late Chalcolithic and early phases of EB I, the site was resettled in an advanced but not very late phase of EB I. That period is highly visible in the distinctive 'sausage-shaped' houses of Stratum III and analogous, perhaps contemporary sub-rectangular structures of Stratum II. The best preserved and large ceramic objects of the EB I period offer a good chronological peg, as they were found, *in situ*, on floors of houses. As such they represent fixed moments in time. Other, fragmentary objects, particularly pottery, may suggest some occupational sequence of undetermined length, evidenced in localized phasing.

The *in situ* contents of the EB I buildings indicate they were dwellings with significant capacities for storage, probably of foodstuffs in relatively large quantities. The several examples excavated obviate any need for

analogous public storage facilities and are indications that the prevailing social paradigm in that period was likely egalitarian at the village level of development. The sudden destruction by fire (possibly augmented by stored flammable commodities) of two buildings in Area A could suggest some element of deliberate violence possibly associated with an unstable political climate, but it could also be attributed to accidental causes. Sometime prior to the end of EB I the site seems to have been abandoned.

To either Stratum III or Stratum II one may assign what is arguably the most delicate and beautifully executed EB I type cylinder seal impression found to date (Braun 2004b, Figs 2, 2a-b, 3, 2a-b) in the southern Levant. The Qiryat Ata sealing places the site within the scope of what may have been a local association that also included 'En Shadud and Megiddo (Braun, forthcoming b, Chapter 4). The type of association may only be speculated upon for the present, but it suggests that Qiryat Ata, judging by its size, relative to Megiddo, filled some inferior position in whatever relationship existed between these sites. The association between sealing and ceramic vessels suggests some form of economic activity related to foodstuffs.

Stratum I at Qiryat Ata dates to EB II and is the largest of its late prehistoric occupations. Significantly, Megiddo, which was probably the dominant site in late EB I, was virtually abandoned at that time, while Qiryat Ata appears to have been fortified. That may suggest it was a thriving community, although available evidence is rather limited for that period. Its 4.5ha extent, if that extrapolation is correct, suggests a sizable population. The presence of quantities of imported metallic ware, including some pithoi, indicate both the need for storage of foodstuffs and the existence of surpluses which could be exchanged for this imported fine ware. A relatively rare find, a potter's wheel, likely indicates some people at the site were engaged in that craft specialization and were producing vessels of medium to small size that were probably of lesser quality than metallic ware.

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TRACES OF EARLY EGYPTIAN BURIAL RITUALS IN PROTO- AND EARLY DYNASTIC GRAVES FROM TELL EL-FARKHA

Abstract: *The widely unplundered cemetery at Tell el-Farkha has preserved some elements of burials, such as the presence of ochre, pure sand and liquid mud. This can be best explained as ritually motivated. Funerary feasts, food offerings and deposits of granary models and so-called 'granary' jars seem also to have represented some beliefs connected to the afterlife. More difficult to interpret are the examples of subsidiary and incomplete burials also registered at the site. Finally, it is worth mentioning niche decorated façades that evolved into cult niches and later into the false doors well-known from the Pharaonic period, which were tightly connected to sepulchral beliefs. The presented material offers a rare and unique insight into the process of establishing burial rituals during the early stages of Egyptian civilization.*

Keywords: *Tell el-Farkha necropolis; Protodynastic and Early Dynastic graves; burial rituals*

Twelve seasons of excavation work at the Tell el-Farkha necropolis have resulted in the discovery of 119 graves (for more details see Chłodnicki *et al.* 2012). All of them are located in the Eastern Kom. The northern, eastern and western boundaries of the burial site have been known for a few years, whilst test trenches opened in 2008 and 2011 suggest that the southern boundary of the site may be located as deep as *c.* 3m below the present-day houses of Ghazala village.

Graves registered at the site belong, in fact, to three distinct burial grounds used by separate groups of people with no direct relation. They did, however, have the same cultural roots and thus had similar preferences. The groups of graves are dated as follows: Group 1 (called Protodynastic) – from Naqada IIIB to the middle of the 1st Dynasty, Group 2 (called Early Dynastic) – from the late 1st Dynasty to the turn of the 1st and 2nd Dynasties, Group 3 – most probably Old Kingdom times. From the point of view of architectural solutions, structural differentiation, the offering sets and – of course – the remains of ritual activity, the most interesting are the two older groups, while the youngest is composed of very simple and very modest burials that offer little possibility of interpretation. The graves of the second group often intersected older mudbrick structures but it seems that these damages were of an unintentional character and the foundation of the two older graves' groups was in fact divided by a hiatus. This break in burial activity at the site is dated to around the middle of the 1st Dynasty and thus it coincided with crucial political changes which had a decisive influence on the emerging Egyptian state.

The first and second groups of graves at Tell el-Farkha are composed of diversified constructions which belonged to the wealthy and increasingly stratified communities that inhabited the nearby settlement. Since the tombs were often well preserved and only *c.* 5% of them were affected by robbers' activity, they also kept some less frequently registered traces of ritually motivated activity. Obviously, the great pyramids of the Old Kingdom form the most renowned example of the importance of burial related beliefs so typical of the Pharaonic civilization, but the early stages of these practices may be observed in the graves of regular Egyptians that lived and died in the Proto- and Early Dynastic periods, for example in Tell el-Farkha.

There are three elements registered in some graves from Tell el-Farkha which are best explained as related to ritual activity, since practical explanations seem to almost completely fail. These elements are ochre, pure sand and liquid mud – all of them were deposited inside burial chambers very close to the deceased and all were found in Protodynastic tombs. Ochre, mostly red, but sometimes also yellow, was usually registered in rather small amounts just next to the buried body near the spine, pelvis or feet (as it was in graves nos 9 or 114) or was scattered all over the burial chamber, as was the case with grave no. 99. This same structure provided more interesting observations, since after depositing the deceased in his 'proper' position, the body was covered with a thin layer of pure sand. The sand was then covered with another layer of red ochre, followed by fairly numerous offerings and

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Pl. 1. 1 – Grave no. 100 with niche decorated façades and an unfinished robbery shaft. Photo by R. Słaboński
2 – Remains of a grand funerary feast in grave no. 86. Photo by M. Czarnowicz

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Pl. 2. 1 – Basalt bowl from grave no. 99 affected by a dissolving meal.
Photo by R. Słaboński
2 – Deposit of granary models from grave no. 50 *in situ*. Photo by R. Słaboński
3 – 'Granary' jar from grave no. 91. Photo by R. Słaboński

a mat. Finally, liquid mud was poured over the top. We are therefore dealing here with a whole sequence of actions which were probably recognized as typical for a wealthy middle class funeral in the Protodynastic period, but hardly ever are so clearly registered.

The example of grave no. 99 introduced us to the presence of pure sand in burial chambers. In most cases, sand was registered in rather small amounts and was spread in the northern part of the grave. It is known from Protodynastic graves nos 24, 98, 100 or 114, where it was deposited below mats that covered the deceased and his/her offerings. In every case the material used was very fine-grained, clean and sunny yellow.

Another interesting element is the presence of mud on the bottom of burial chambers. The greasy, very humid and most probably liquid mud was poured into the richer graves over the deceased bodies and all of their offerings. This practice dates only to the first group of Tell el-Farkha and it was registered in graves nos 24, 98, 99, 100 and 114. The presence of mud is rather difficult to explain. It surely was an extremely effective obstacle to possible robbers – an example comes from grave no. 100, where an abandoned robbery shaft was discovered (Pl. 1: 1). This should not be seen as surprising, considering digging into the mud is very difficult and time-consuming even now. On the other hand, this fantastic 'safety device' was responsible for the higher humidity level within the protected burial chambers and thus for the highly advanced decomposition of all objects deposited inside (see Pawlikowski and Dębowska-Ludwin 2011). This is why the protective function of mud seems more a side effect than the main purpose. Mud was also attested in some pottery and stone jars that were offered to the deceased which, with the exception of the mud, were usually empty. One of these examples comes from grave no. 91, where a bone spoon which stuck into the mud was discovered in a travertine cylinder vessel. Taking into account the much later attested meaning of mud as a fertility symbol, all this points to the fact that the mud's main importance was its cult significance and that it was connected to conceptions of the afterlife and rebirth.

The remains of funerary feasts are rather easily recognizable as animal bones thrown into the grave during the process of closing the structure. Grave no. 86 contains a perfect example of a grand feast (Pl. 1: 2). In a type of shaft that was created by the walls of a massive mud-brick superstructure, the upper layers of its filling were full of pottery pieces and hundreds of bonesof numerous animals – cattle, goat/sheep, fish, birds, aurochs, dogs, cats, a hippopotamus, a donkey, but mostly pigs (zooarchaeological analyses

by R. Abłamowicz), which were one of the basic constituents of the diet of the inhabitants of the settlement in Tell el-Farkha. Another interesting example comes from grave no. 94, which contained a kind of very deep shaft with the remains of many cattle bones.

Apart from the feasts, food was also considered a kind of grave offering. Two tombs (nos 94 and 99) preserved some interesting examples. Each of them was equipped with one basalt bowl with an inner surface clearly 'consumed' (Pl. 2: 1) by the caustic chemical properties of a dissolving, but unfortunately undefined, kind of meal which resembled porridge.

A representation of food offerings can also probably be found in granary models. In Tell el-Farkha, there was a single set of five such objects registered in grave no. 50 (Kołodziejczyk 2009). These were pottery items of rather small height, not larger than 11cm, with characteristic holes made in their upper surface and in vertical walls close to the bottom. They were deposited in a planted layer of earth in between the super- and substructure of the construction (Pl. 2: 2). Grave no. 50 is dated to the late 1st Dynasty and similar practices have been noted at other sites, e.g. Abydos – from the tomb of Den (two objects presently at the Petrie Museum, inv. nos UC36721a and b) and graves nos 123 and 124 from the cemetery adjacent to the royal enclosures (Petrie 1925, pl. XI, three objects presently at the Petrie Museum labeled UC16207), Helwan (Saad 1969, pl. XXIII) and Tarkhan (Petrie 1914, 4, pl. XV). Some larger scale analogies were also registered, such as the one in mastaba no. 3038 (Emery 1949, 85) from Saqqara North dated to the reign of Andjib, where a whole room with nine similarly shaped granaries or large granary models were found. It is also worth mentioning a so-called 'model granary' from tomb 2105 in Saqqara (Quibell 1923, 2), which was equipped with an atypical tunnel that led to the burial located beneath, as well as a pit interpreted as an imitation of four silos (Jeffreys 1999, 368) registered in Helwan.

Older Protodynastic graves from Tell el-Farkha like nos 91, 98 or 99 contained pottery jars with wide mouths, broad shoulders and flat bottoms. Their form could easily bring to mind the already mentioned granary models and thus the pots are best described by the term 'granary' jars (Pl. 2: 3). They have some counterparts in Minshat Abu Omar (pottery type 1.A.7.1 – Kroeper and Wildung 1985, 48 and a stone vessel from grave 192 (862) – Kroeper and Wildung 2000, 146), in Turah (pottery types LIV, LV and LVI – Junker 1912, 38, taf. XXXVIIb) and in Hierakonpolis (Adams 2000, fig. 17). The presence of such 'granary' jars in offering sets of the Protodynastic graves from Tell el-Farkha seems to extend

the abovementioned practice of granary models offered as grave goods back to the end of the Dynasty 0. The significance of cereals as an element of rebirth and afterlife beliefs springs to mind and in later periods it is certified as an important part of burial practices.

One of the most disputed areas in early Egyptian funeral practices is the case of subsidiary burials. Until recently, it was believed the practice was generally restricted to the period of the 1st Dynasty, but two structures from Tell el-Farkha have provided material for further discussion. The most often quoted subsidiary burials were, of course, registered in Upper Egypt in the context of royal burials from Abydos. It was there that they were registered in the highest numbers, reaching as many as 318 in the tomb of Djer (Petrie 1901, 8-9; Dreyer 1990, 71-72). Unlike the oldest inhumations subsidiary to the tomb of Aha (Dreyer 1990, 62-65), the remaining ones were arranged in rows around the main structure outside its southern corner. From the reign of Semerkhet (Petrie 1900, 13; Vandier 1952, 628), the number of subsidiary burials diminished and their rows were adjusted to the main tomb body. They represent examples of typical, single-chambered, brick structures equipped with interesting sets of objects. In Northern Egypt, subsidiary burials follow the same general pattern of form, equipment and location. However, they have only been registered at six sites: Abu Roash M (Montet 1938; Klasens 1960), Giza South (Daressy 1905; Petrie 1907), Abusir North (Radwan 1991; Radwan 1995; Radwan 2000; Radwan 2003), Saqqara North (Emery 1938; Emery 1939; Emery 1949; Emery 1954; Emery 1958), Tarkhan (Petrie *et al*. 1913; Petrie 1914) and – of course – Tell el-Farkha. Here they were invariably located close to the largest structures in the mastaba type, which belonged to the highest state officials, and thus their number was less (between one and sixty-two). The vast majority of subsidiary burials consisted of human graves. However, a few animal inhumations can be found among them, e.g. donkeys from Abusir North (Boessneck *et al.* 1992, 1-3) or from Tarkhan (Petrie 1914, 6).

The first example of subsidiary burials from Tell el-Farkha is a very early one which is dated to Naqada IIIB – grave no. 100 (for more details on the impressive structure see Dębowska-Ludwin *et al*. 2010). It is a group of four small and very simple graves devoid of any objects that was placed in between layers of bricks in the southern wall of the mastaba. The deceased were mainly children aged from five to six (*Infans* II). They had been placed in a tightly contracted side position, wrapped in mats and oriented along the main North-South axis of the structure. The very early date of the structure and location of the sub-graves is puzzling enough,

but the fact that the burials contained the bodies of children (which was an uncommon practice in Egyptian history) is even more surprising.

Another example is the burial enclosure of grave no. 55. It is dated to the period of the late 1st Dynasty or the early 2nd Dynasty. If the latter date is accurate, the tomb would be a very late example of subsidiary burials (graves nos 62 and 64 – small and lined with bricks, also in this case constructed for infants). Especially worthy of note is the fact that the sub-burials registered in Tell el-Farkha, in general, accompanied massive structures that were constructed for important members of society, but their position was probably not as prominent as it was for the highest state officials buried mainly in Saqqara North, which is the site where the majority of subsidiary burials from Lower Egypt are registered. In other words, the practice was probably more widespread and popular for longer than we have ever assumed.

A rather small number of burials from Tell el-Farkha can be best described as incomplete inhumations. In grave no. 4, parts of the deceased's body like phalanges and vertebrae were found scattered around the main part of the corpse. Therefore, some unknown ritual practices could be taken into consideration here. More questions on ritual motivated practices occur when considering the case of graves nos 14 and 19. Both burials contained only a solitary skull. In the former, the skull was found inside a pottery jar that might have been only an element of a larger set of offerings that perished with the actual tomb destruction (a single row of bricks was registered by the pot). Nevertheless, it does not explain why the human head was deposited into a jar. What is more, doubts are even stronger when considering grave no. 19, where nothing but a skull was discovered. We are obviously dealing with a special practice here, but its frequency as well as the very weak state of the bones' preservation gives little material for either further analysis or satisfactory explanations.

Another element, which in later Egyptian history evolved into the false door (an important part of funeral practices) was that of niches. In Tell el-Farkha, they were usually two-stepped and were found in the eastern walls of some mastabas numbering from one to five. However, grave no. 100 had three niches in the southern wall and another four in the northern one, not mentioning those (most probably five) in the eastern façade (Pl. 1: 1), while graves nos 63 and 94 also had accented corners in their northern walls that gave the impression of a sort of shallow niche.

Grave no. 55 is also important to this topic. The eastern superstructure façade was decorated with two shallow niches located close to the wall's

northern and southern ends (for more details on the quoted enclosure see Dębowska-Ludwin 2011, 264-266). The small space between the construction's main body and its enclosure wall was found full of broken pottery, mostly bread moulds, which can be interpreted as the remains of offerings made long after the structure was built.

Finally, structure no. 94 seems to be the actual usable floor space of the ancient Protodynastic cemetery. It was sloppy (repeating the original shape of the tell in the period) and covered with a mineralized white substance that probably came from pressed organic material mixed with numerous fragments of pottery bread moulds and small fragments of bones, both animal and human. Moreover, the white layer was leaning against the lower part of superstructures that belonged to graves nos 63 and 114. Therefore, this observation may be interpreted as, on the one hand, more evidence that proves such structures had been meant to be admired by the living on the ground surface, or, on the other hand, as long lasting activity focused on the cemetery area that must have been connected to remembering the deceased, most probably in a cult sense.

The facts presented above are nothing but a selection of numerous examples which illustrate some kinds of human activity best explained as ritually motivated. What needs to be stressed are the differences between Tell el-Farkha's graves of Groups 1 and 2. The Protodynastic cemetery was composed of numerous well equipped and carefully constructed tombs which belonged to a wealthy society dominated by an affluent middle class. Its representatives paid much attention to the small details of almost each grave, as can be seen by the presence of ochre, mud and sand within burial chambers. However, the inhabitants changed and the Early Dynastic cemetery was used by a more structurally advanced and highly stratified community typical of the young Egyptian state. At this time, burial traditions at the cemetery were already fixed and more strictly adhered to. The previous diversity and quality of burial rituals seems to have been replaced by quantity. The process is clear when considering the typical composition of pottery offerings, which, in this period consisted of multiple identical bear jars, which were rather badly fired. Given this situation, it should not be astonishing that a similar simplification also impoverished the burial rituals recorded in Early Dynastic graves at Tell el-Farkha. It was probably caused by the new political circumstances of the settlement after unification and the emergence of the state, but also by the simple evolution of Egyptian society and its beliefs. The author hopes that the juxtaposition

of what has been quoted above and is rather infrequently registered at other sites, will help reconstruct some aspects of early Egyptian funeral practices, rituals and, to some extent, beliefs.

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NAQADA III – OLD KINGDOM POTTERY IN THE NILE DELTA: A VIEW FROM TELL EL-AKHDAR

Abstract: *Recent research in the northeastern Nile Delta proves that sites situated there played an important role both in developing contact between Egypt and Canaan, as well as in the processes which led to the formation of the Egyptian state. The new data concerning the early history of the Nile Delta has been obtained over the course of the last five years from the Polish Archaeological Survey in Ash-Sharqiyah Governorate. Rim fragments belonging to forms dated to the Naqada III period occur at five sites. Tell el-Akhdar is one of them. It is situated c. 2.5km to the southeast of the modern town of Abu Umran in Ash-Sharqiyah Governorate and halfway between the archaeological sites at Tell el-Murra to the west and Tell el-Iswid to the east. The distance to both is only c. 3km. The pottery material from Tell el-Akhadar comprises fragments of bread moulds, flat plates and different types of bowls, as well as fragmentsof jars. Most of these forms show an affinity with pottery foundat other Early Dynastic sites. The similarities are especially visible when we compare it with the Early Dynastic pottery from Tell el-Farkha, Tell el-Murra and Tell Abu el-Halyat. Although the material found at Tell el-Akhdar during previous research was dated to a later period, our investigation has confirmed that it was also present from at least the Naqada III period.*

Keywords: *Northeastern Nile Delta; Tell el-Akhdar; Naqada III period; Protodynastic and Early Dynastic Egyptian pottery*

When considering the recent results of research in the northeastern Nile Delta, it has become obvious that settlements situated there had greater significance during the period of state formation in Egypt than previously supposed. The data obtained from archaeological work in that part of the Delta proves that a great number of sites existed there during the whole of the Naqada III period (van den Brink 1987; Hendrickx and van den Brink 2002, 348-349, 370-371, Tab. 23: 1-2; Tristant 2005; Jucha 2010; Jucha 2011a). Although the number of Predynastic/Early Dynastic sites in the Nile Delta seems to be significant, the list of those presently being excavated is limited to only a few. Further data concerning the early history of the Nile Delta has been obtained from 2008 onwards by the Polish Archaeological Survey in Ash-Sharqiyah Governorate (Jucha 2009a). The material dated to the Naqada III period was collected from the surface at five sites, among them Tell el-Akhdar. This site is situated *c.* 2.5km to the southeast of the modern town of Abu Umran in Ash-Sharqiyah Governorate and halfway between the archaeological site at Tell el-Murra to the west and Tell el-Iswid to the east (Fig. 1). The distance to both is only *c.* 3km. On the basis of the previous survey conducted in the 1980s, Tell al-Akhdar was included in a group of sites dated to the Old Kingdom. The pottery found then contained fragments of bowls and jars which were included in a group of forms coming from several sites of the aforementioned period. Apart from this, ceramic material was also found from the 1st Intermediate Period and New Kingdom (van den Brink 1987, 24, Tab. 2; van den Brink 1988a, Fig. 4).

Tell el-Akhdar was also investigated by the Polish archaeological team during the 2008 and 2010 survey seasons (Pls 1-2). As with most of the sites visited then (besides Tell el-Murra), it had been very badly disturbed by modern installations (the construction in the centre of the Tell, embankments made of material from the site and paths). Material found on the surface (Fig. 2) mostly comprised of potsherds. However, there was also a small fragment of a rectangular stone palette of Naqada III with grooves on the edges. Moreover, during the 2010 season, due to the dredging up of a small water canal (which was situated on the outskirts of a field and bordered the site to the west) just prior to our visit (Pl. 2), it was possible to collect pottery from the subsurface which was older than that discovered there before (Figs 3-4).

The ceramic assemblage included, among other objects, fragments of different types of bread moulds (Figs 2: 10-12, 4: 6-8). These were made of the coarse category Nile clay fabric which contains mostly medium

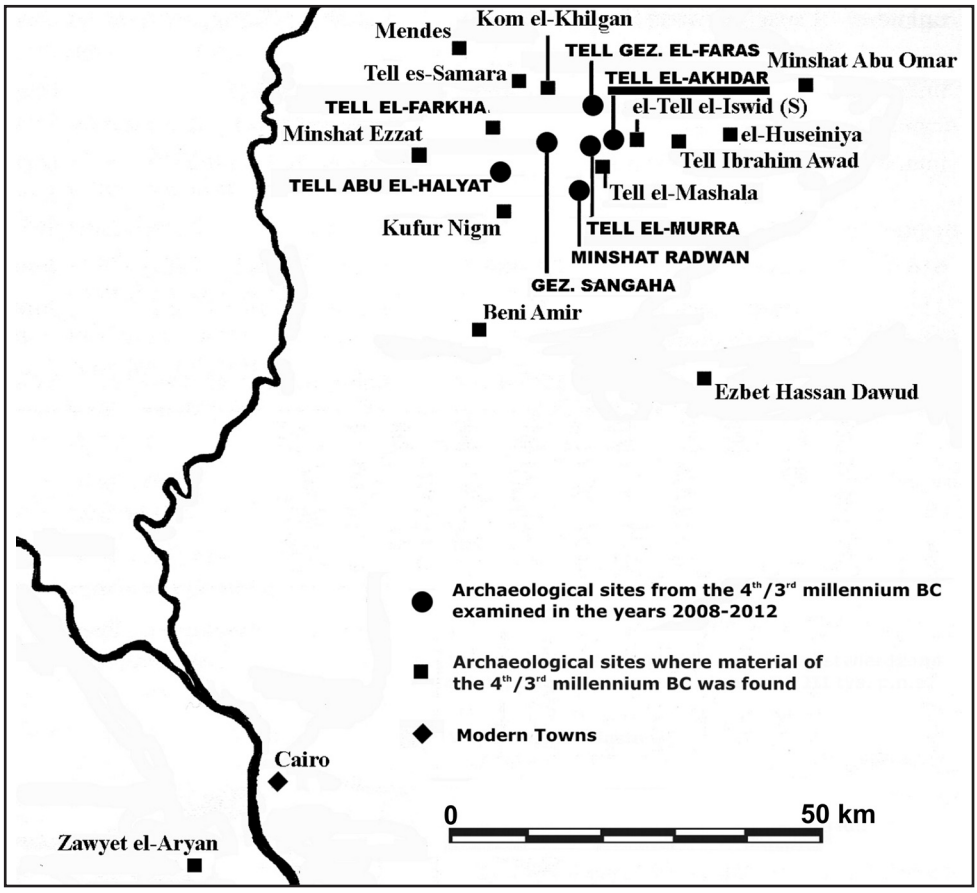

Fig. 1. Northeastern Nile Delta (based on: S. Hendrickx and E. C. M. van den Brink 2002, 366, Fig. 23: 2 and supplemented by M. A. Jucha)

to coarse straw. Moreover, medium to coarse sand grains also occurred as temper. Quite frequently, the inner and the upper part of the outer surface were slightly smoothed, whereas the remaining part was rough and irregularly formed. Shallow and wide or slightly deeper bread moulds also occurred, mostly with an angular transition dividing the body into two zones (Jacquet-Gordon 1981, Fig. 1: 3-4), but only several rim fragments may have belonged to examples without such a transition. Among the forms were examples with a flattened (Fig. 4: 6), concave (Figs 2: 12, 4: 7-8; cf. Jucha 2011b, Figs 1: 29-30, 2: 26, 3: 33, 4: 26) and rounded rim top as well as examples with a rounded and diagonal outer part of the rim (Fig. 2: 11; cf. Jucha 2011b, Fig. 3: 30-31). Forms with an angular transition dividing the body into two zones and a thickened internal part of the rim (Fig. 2: 10)

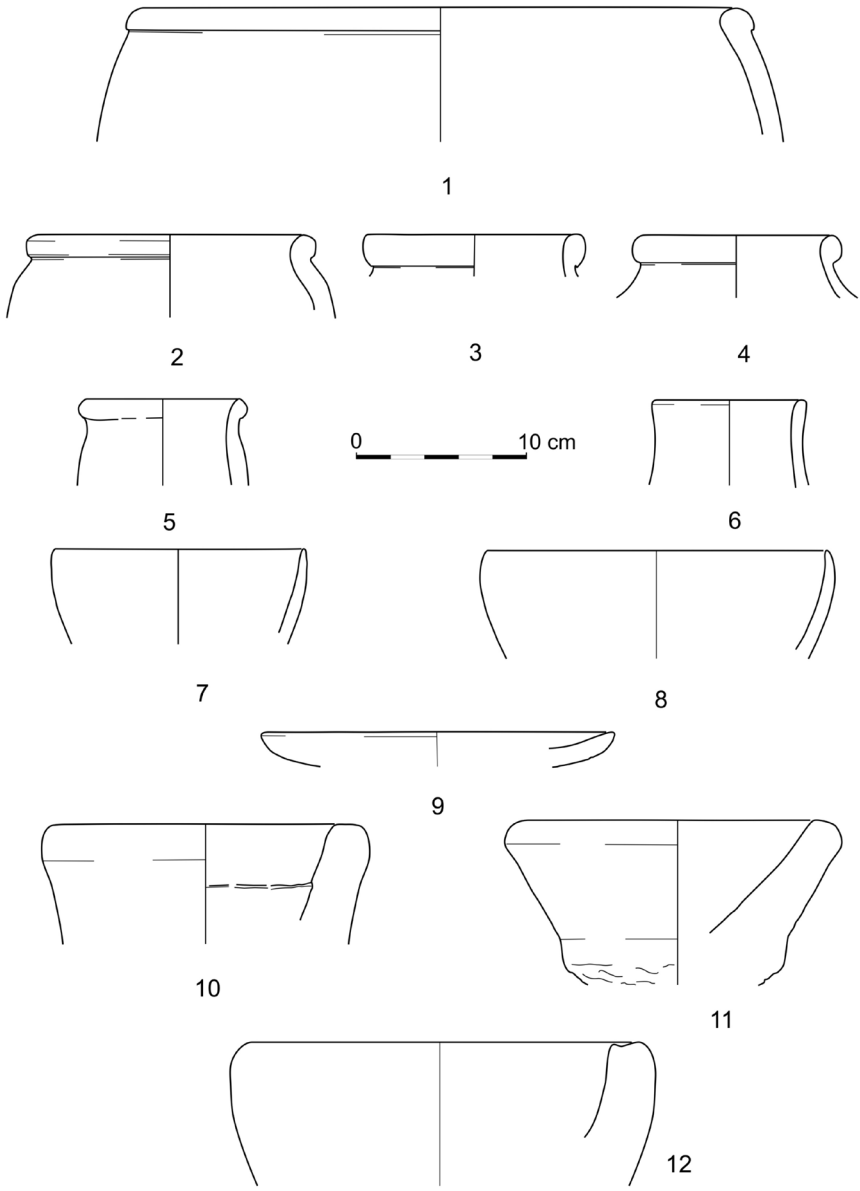

Fig. 2. Tell el-Akhdar. Pottery from the surface of the Tell. Archives of the expedition

were also present. The latter should be considered a chronological marker which could allow one to assign the material to a specific period. Such forms seem to have been especially typical from the second half of the 1st Dynasty until the beginning of the Old Kingdom (Emery 1954, 160, Fig. 222:

EE1; Emery 1958, Pl. 32: R1; Köhler 1998, 27, Taf. 45: 2-4; Raue 1999, 174-175, Abb. 34: 3; Wodzińska 2000, 154-155, Abb. 10: 1). They occur in a similarly dated context at the neighboring site of Tell el-Farkha, where they were found in the latter part of phase 6 and phase 7 (Jucha 2011b, Figs 2: 30, 3: 37, 4: 27). The forms were also found at other sites visited during the aforementioned Polish survey, among them Tell el-Murra (Jucha 2010, Fig. 2: 6).

The finds also included red-polished bowls with convex sides and a simple rim (Figs 2: 7-8; 3: 6-7; cf. van den Brink 1989, 77, Fig. 14: 1-7; Köhler 1998, 22-23, Taf. 27: 1-2, 7-9, 28: 1, 3, 5). These were made of the fine category Nile clay fabric containing inclusions of fine sand or the medium category Nile clay tempered with fine to medium sand and straw. Such bowls at Tell el-Farkha were attested in phase 4 (Naqada IIIA1-B), but became especially typical from Protodynastic/Early Dynastic phase 5 (Naqada IIIB-C1) (Jucha 2005, 49-50, Pls 60-61, 63: 3-5, 64, 65: 1-2). These also occurred in the subsequent phases, 6 and 7, dating to the Early Dynastic and the beginning of the Old Kingdom respectively (Jucha 2011b, Figs 1: 15-17, 2: 15-16, 3: 22-23, 4: 20).

There were also red-polished bowls with an angular inner edge of the rim, made of the medium category Nile clay tempered with fine to medium sand and straw (Fig. 3: 1; cf. Köhler 1998: 23, Taf. 28: 9-16). Such bowls at Tell el-Farkha were found mostly in the settlement layers which were dated to the end of the 1st and 2nd Dynasty (Jucha 2011b, Fig. 3: 21). The form was also present among the pottery assemblage of Tell el-Farkha graves belonging to the group dated to the previously mentioned period.

Flat plates (Figs 2: 9, 3: 3-5) were also present, made of the fine category Nile clay fabric tempered with fine sand and straw or the medium category Nile clay fabric tempered with fine to medium sand and straw. Among them, there were examples with only a red-coated and polished interior, but an uncoated and smoothed outer surface (Fig. 3: 3-5). These seem to have become especially typical from the second half of the 1st Dynasty (Jucha and Mączyńska 2011, 37, Tab. 2: 30). At Tell el-Farkha, these occurred both in the group of graves dated to Naqada IIIC/D (Jucha 2009b, 50-52) as well as in the settlement phases 6 (Early Dynastic) and 7 (very beginning of the Old Kingdom) (Jucha 2011b, Figs 2: 17, 3: 24, 4: 21). The same form was also attested in similarly dated strata at Tell el-Murra (Jucha 2010, 384-385, Fig. 3: 8) and Tell Abu el-Halyat (Jucha 2011a, Fig. 3: 4-5). These were also included into the pottery assemblage of graves belonging

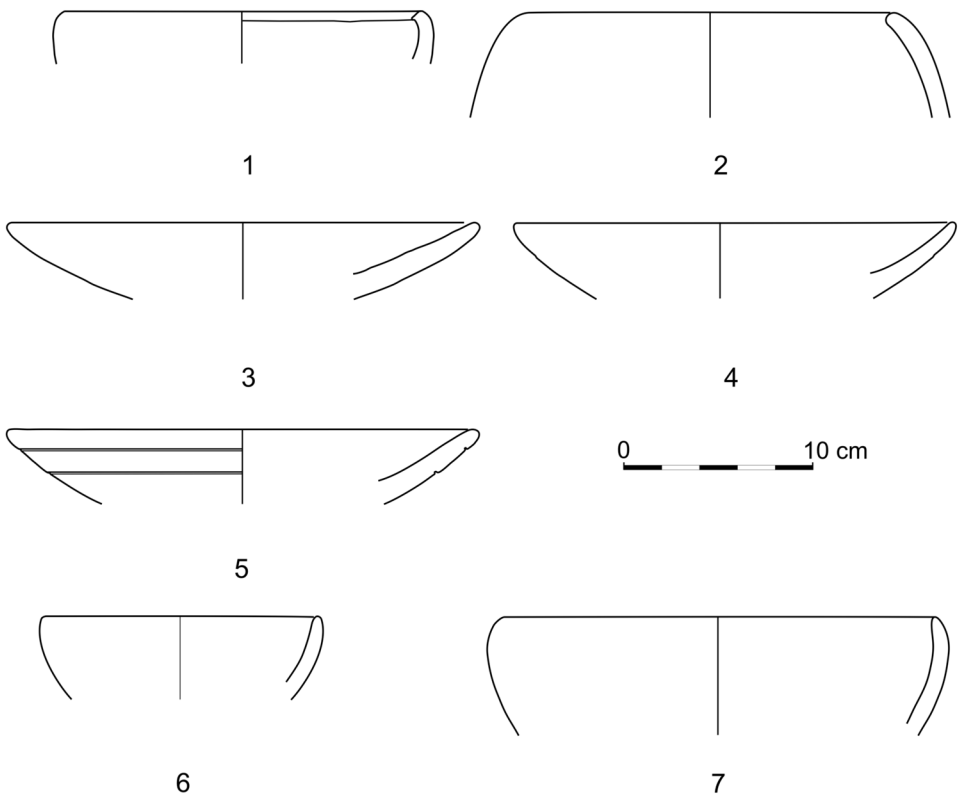

Fig. 3. Tell el-Akhdar. Pottery from the western part
of the Tell near the dredged-up water canal. Archives of the expedition

to group IV at Minshat Abu Omar (Kroeper 1988, 16, Fig. 177). Among the abovementioned flat plates, additional examples occurred made of similar fabric to that described above, with two grooves on the outer surface (Fig. 3: 5). Besides the flat plates with the abovementioned surface treatment, there were also fragments made of similar fabric. Their surfaces were, however, only more or less smoothed (Fig. 2: 9; cf. Jucha 2011a, Fig. 3: 6).

Other types included fragments of red coated and polished hole--mouth bowls with a thickened external part of the rim. These were made of the medium category Nile clay tempered with fine to medium sand and straw (Fig. 2: 1). It is quite possible that at least some of them may be parts of spouted-bowls which started to occur from the Early Dynastic period.

A fragment of such a spouted brewing vat with a lip-rim (Fig. 4: 5) was also discovered. It was made of the medium category Nile clay tempered with fine to medium sand and straw and its surface was smoothed. Such vessels

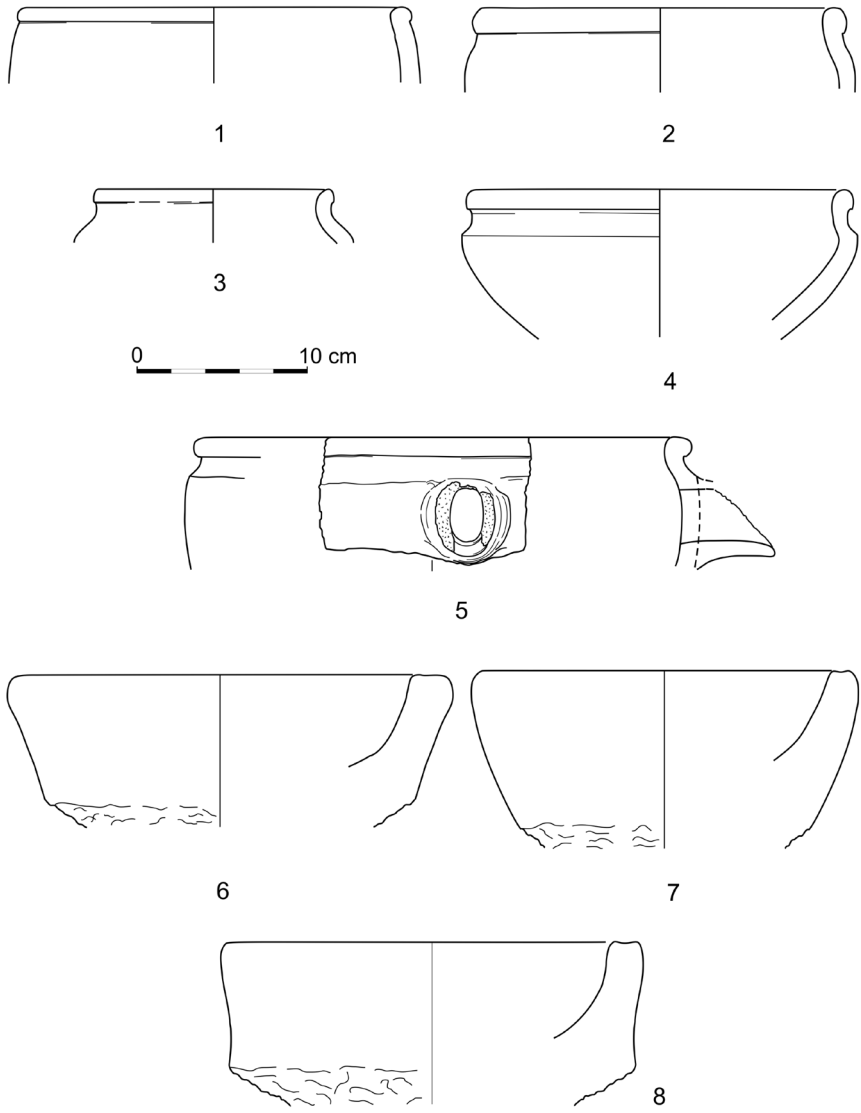

Fig. 4. Tell el-Akhdar. Pottery from the western part
of the Tell near the dredged-up water canal. Archives of the expedition

are associated with beer production and are not attested prior to Naqada IIID (Petrie 1892, Pl. 31: 21; Garstang 1903, Pl. 30.19; Petrie 1953, Pl. 30: 99W; Emery 1958, Pl. 32: P1; Kromer 1978, 59, Taf. 19: 1; Köhler 1998, 22, Taf. 24: 2-6; Hendrickx *et al.* 2002, 292-293). Similar examples were also found

at Tell el-Farkha, where they occur in the strata dated to the end of the 1st Dynasty/2nd Dynasty, as well as the beginning of the Old Kingdom (Jucha 2011b, Figs 3: 13, 4: 14).

Yet another group of pottery contained rough ware jars, made of the medium category Nile clay tempered with fine to medium sand and straw. These were forms with slightly convex (Fig. 2: 2) or almost straight (Fig. 2: 5) walls and a lip-rim; there were also examples with a slightly thickened external part of the rim (Fig. 4: 3) as well as hole-mouth restricted jars with a simple rim (Fig. 3: 2).

Moreover, a fragment of a high neck jar with slightly concave walls and a simple rim was also identified (Fig. 2: 6). It could have belonged to a shouldered jar with a high neck, a simple rim and a flat, irregularly formed base. Such jars are known from the Protodynastic/Early Dynastic period (Petrie 1953, Pl. 17: 73c-f; Hendrickx 1993, 91). At Minshat Abu Omar, similar jars occurred in the graves of group III[1] (Kroeper 1988, Fig. 99). At Buto, the above described jars were found in the Protodynastic IIIe-f strata (Köhler 1998, 46, Taf. 11: 2; Ihde 2000, 152-153, Abb. 8: 16, 18-19). Similarly, at Tell el-Farkha, fragments of such jars occurred in phases 4 and 5 (Jucha 2005, 45, Pl. 35: 2-4) and graves belonging to the group dated to Naqada IIIB.

The pottery assemblage also contained a fragment of a rough ware beer jar with a simple rim (cf. Jucha 2011a, Fig. 4: 3-5). It was made of the medium category Nile clay tempered with fine to medium straw and fine to medium sand, as well as a small amount of coarser sand grains. The rim and neck were smoothed (turning marks are also visible), while the surface at the shoulders was irregular (wavy form). It shows an affinity to examples known from Tell el-Farkha, where they occur in graves belonging to a group of graves dated to the second half of the 1st Dynasty and the first half of the 2nd Dynasty (Jucha 2009b, Fig. 1: 2-3). Fragments of such jars were also found in the settlement strata at that site dated from the middle/second half of the 1st Dynasty until the very beginning of the Old Kingdom (Jucha 2011b, Figs 2: 1, 3: 1, 4: 2). These also occurred in similarly dated pottery assemblages found at Tell Gezira el-Faras, Tell el-Murra and Tell Abu el-Halyat (Jucha 2009a, Figs 39: 1, 40: 5; Jucha 2011a, Fig. 4: 3-4).

[1] Mostly group 3b (according to Kroeper 1988). In later publications (Kroeper and Wildung 2000) the graves of that group were included into group III which, however, was not subdivided into subgroups 3a, 3b and 3c.

1

2

Pl. 1. 1 – Tell el-Akhdar – southern part of the Tell. Archives of the expedition
2 – Tell el-Akhdar – northern part of the Tell. Archives of the expedition

Pl. 2. Tell el-Akhdar – western part of the Tell. Archives of the expedition

Besides the forms described above, fragments of vats with a rounded lip-rim were also found. Similar examples from Tell el-Farkha were generally encountered in the strata of phase 5 and also occurred in the subsequent phase 6 (Jucha 2005, 52, Pls. 75; Jucha 2011b, Figs 1: 23, 2: 20, 3: 27; cf. Köhler 1998: 27, pl. 40.1). Forms with convergent sides and a rim with a flat top and diagonal outer contour were also among the finds. Most of these fragments of vats belonged to the medium category Nile clay tempered with fine to medium sand and straw.

The same ware/fabric group also contained a fragment of a rough ware bowl with convex sides and a thickened external part of the rim (Fig. 4: 1). Forms with more or less smoothed surfaces also occurred; these included, among others: a fragment of a bowl with a lip-rim (Fig. 4: 2) and a fragment of a jar with convergent and concave sides of the neck and a lip-rim (Fig. 2: 4). Among the finds there was also a fragment of a bowl with a lip-rim and a slightly narrowing area of concave contour below the rim (Fig. 4: 4). This bowl shows an affinity to forms known from Tell el-Farkha, where they occur especially in the strata dated to the second half / end of the 1st Dynasty (Jucha 2011b, Fig. 2: 11; cf. Köhler 1998, 22, Taf. 22: 2-4).

The ceramic assemblage also includes fine-ware jars made of fine category Nile clay fabric containing a small amount of sand with a very well-smoothed uncoated surface (Fig. 2: 3).

The pottery assemblage described above contains forms which, in most cases, show an affinity to forms dated to the Early Dynastic period, but some of them may also be linked to the Old Kingdom. It is especially comparable to the data from Tell el-Farkha, but also to pottery forms found at other sites examined recently during the Polish Archeological Survey, including: Tell el-Murra, Tell Abu el-Halyat and Tell Gezira el-Faras.

The results of the research prove that Tell el-Akhdar, similarly to some other sites, already existed during the Naqada III period. Moreover, it seems that still older layers should be expected at some of these sites. Taking this into account, we can say that the region was more densely populated then previously supposed. It was previously believed that an egalitarian linear pattern of settlement with several main centres located along the trading route leading to Canaan and at an average distance of 6.5km was present in the area in question during this period (van den Brink 1993). However, contrary to this supposition, it is quite possible that the settlements were located closer together, as several of the sites at which material of the Old Kingdom had been collected previously have provided new data which

allows us to date the sites to at least the Early Dynastic or even Predynastic periods. This pertains to Tell el-Akhdar among others. The results of our present work could entirely change our view of the settlement pattern in the northeastern part of the Nile Delta.

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NAQADA IIIB POTTERY IN THE NILE DELTA: A VIEW FROM TELL EL-FARKHA

Abstract: *Excavations conducted at the Tell el-Farkha cemetery between the 2001 and 2008 archaeological seasons revealed graves with pottery vessels which were assigned to three chronological groups. Only the first and the second contained pottery vessels which could be dated to the end of the Dynasty 0 and the beginning of the first half of the 1st Dynasty (Naqada IIIB/IIIC1-IIIC2) or the second half of the 1st Dynasty and the first half of the 2nd Dynasty (Naqada IIIC2/IIID) respectively. Following this, several additional graves containing other, remarkably different types of vessels were explored. Based on pottery analysis, this new group of graves was dated to Naqada IIIB, probably at its beginning and prior to the reign of Iry-Hor. The assemblages from these new graves contained cylindrical jars, mostly with cord-impressed patterns beneath their rims. Other pottery types included ovoid and shouldered jars of fine ware including two examples from a single grave, each with a serekh of a different ruler. Rough ware vessels included jars with high, almost cylindrical necks, 'granary' jars and bowls with a concave outer contour of divergent sides. Bowls with convex sides and a simple rounded rim with a more or less smoothed surface as well as half-polished bowls with convex sides were also present.*

Keywords: *Northeastern Nile Delta; Tell el-Farkha; Naqada III period; Protodynastic and Early Dynastic Egyptian pottery*

Excavations between 2001 and 2008 in the Tell el-Farkha cemetery revealed three main chronological groups of graves. Two of them had pottery assemblages; the first group dated to the end of the Dynasty 0 and

the beginning-first half of the 1st Dynasty (Naqada IIIB/IIIC1-IIIC2), while the second group dated to the second half of the 1st Dynasty and the first half of the 2nd Dynasty (Naqada IIIC2/IIID). Since 2008, more graves, which have been included in these chronological groups, have been found. In addition, several older graves (nos 86, 91, 94, 98, 99, 100, 104, 114) have also been explored. The pottery assemblages of the latter graves show strong differences compared to the assemblage of the graves included previously in the first group, among them two graves (graves nos 2 and 69) where the name of Iry-Hor was attested. Based on pottery analysis, this new group of graves was dated to Naqada IIIB – probably at its beginning and prior to the reign of Iry-Hor, making them the earliest graves yet encountered in the cemetery. As a result, the subdivision of graves into defined groups has been determined since then according to the chronological phases of the Naqada period: Naqada IIIB, Naqada IIIB/C1-C2 and Naqada IIIC2/D (Jucha 2012a, 77).

The assemblages from these newly discovered graves contained, among other types, cylindrical jars with decoration resembling cord impressions situated beneath their rims (Fig. 1: 1-4). These constituted the dominant and almost the only group among the cylindrical jars. Undecorated specimens were also found, although very rarely and mostly as individual examples (e.g. Fig. 1: 5). Among the cylindrical jars, there were also larger objects decorated with a horizontal line and diagonal strokes incised on that line, (Fig. 1: 7; height: 45.5cm) as well as with a decorative band composed of a line with irregular lower and upper edges (Fig. 1: 6; height: 42.3cm). Cylindrical jars from Tell el-Farkha graves were generally made of fine Nile clay or Nile clay mixed with marl clay with fine sand inclusions and a high amount of white particles (crushed limestone). Small fragments of grog (crushed potsherds) or unmixed clay, as well as particles of very fine organic inclusions, also occurred. There was also a fabric of similar characteristics, which contained fewer inclusions of white particles (crushed limestone). Yet another, coarser category of Nile clay fabric contained coarse rounded sand grains and fine to medium organic inclusions in addition to fine to medium sand grains. Limestone particles were uncommon in this type of fabric from the time. The surfaces of cylindrical jars (red or yellow to cream in color, coated or uncoated) were very well smoothed.

Jars with cord impressions (Fig. 1: 1-4) are especially characteristic of the Naqada IIIB period (Hendrickx 1999, 31, Fig. 9). They also occur at other Nile Delta sites in similarly dated contexts, among them Minshat Abu Omar, where they were found, together with cylindrical jars with other

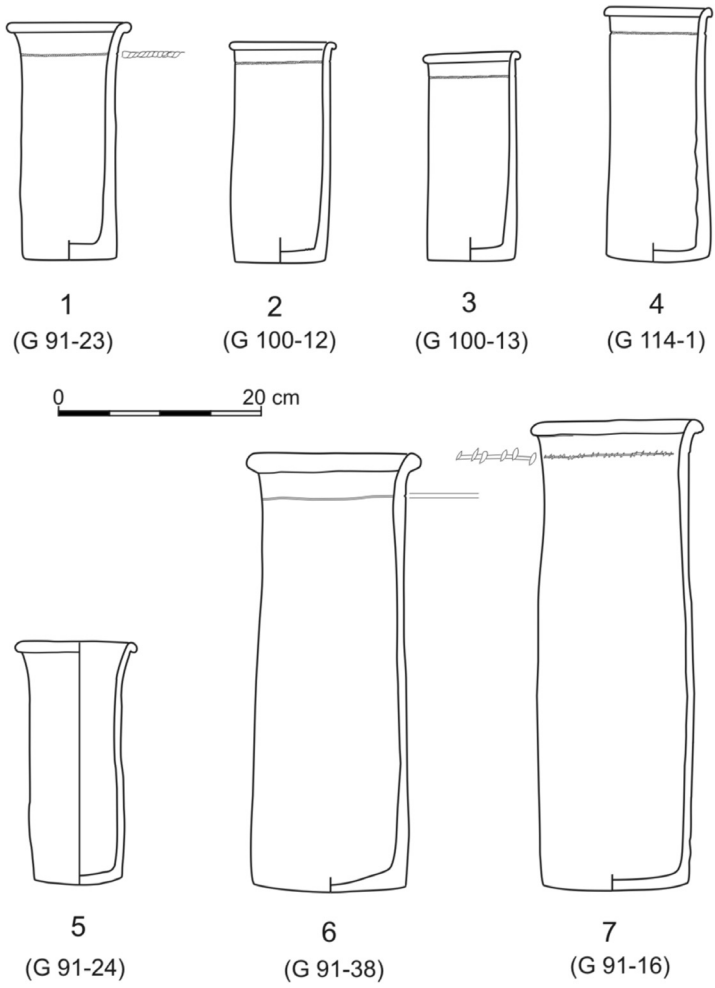

Fig. 1. Tell el-Farkha. Cylindrical jars from the graves of Naqada IIIB. Archives of the expedition

types of decoration, in earlier graves (group 3b – according to Kroeper 1988, 14-16, Figs 86-88) included in group III (Kroeper and Wildung 2000, 105: 109/9, 162: 415/6).[1] By contrast, in the later graves of Group III (3c), there are mostly cylindrical jars without decoration. However, several graves of Group III contain both decorated and undecorated examples (Kroeper and Wildung 2000, 27: 881/1-2, 40: 866/20-21). Considering the dominance

[1] Group III – according to Kroeper, Wildung 2000 dated to Dynasty 0 (Naqada IIIa-c1 according to Kaiser *stufen* chronology) but contrary to the earlier publication (Kroeper 1988) not subdivided into subgroups 3a, 3b and 3c.

of decorated cylindrical jars, it seems that the above-mentioned graves from Tell el-Farkha are contemporary with earlier graves of Minshat Abu Omar Group III (3b) (Kroeper 1988, 14-15, Figs 85-115). Such vessels also occur in the Nile Delta in Stratum IIIe-f at Buto (Köhler 1998, 49) and Tell el-Farkha in phases 4 and 5 (Jucha 2005, 59-60, Pl. 99-100). Jars with cord--impressed patterns are also attested in the times of Narmer and Aha,[2] although these are rather uncommon in that time span (Kaiser 1964, 94; Köhler 1996, 55, Abb. 17). The chronological association of cylindrical jars with cord decoration seems also to be confirmed by observations from the Tell el-Farkha cemetery, where these jars occur very rarely in graves dated to the end of the Dynasty 0 and the beginning of the 1st Dynasty (Jucha 2008, 71, Fig. 8: 1-2). It also seems that they occur more frequently during the period prior to Iry-Hor. In the time of that ruler, horizontal or wavy line decoration seemed to be more popular at Upper Egyptian sites (at least in Abydos), while other decorative patterns (among them the cord impression), as well as undecorated examples, were found only sporadically (Köhler 1996, Abb. 17-18). By contrast, it was observed that in the case of two Tell el-Farkha graves with jars marked with the name Iry-Hor, undecorated examples are more common. In these last graves, as well as in others of the same chronological group (Naqada IIIB/C1-C2), mostly undecorated examples occur among the cylindrical jars,[3] while jars decorated with a straight line beneath the rim (Jucha 2008, 71-74, Figs 8-9) were found less frequently. Only in a few graves were single examples found with a cord-like decoration. Taken together, these observations justify the dating of the newly discovered group of Tell el-Farkha graves containing mostly cylindrical jars with cord-like decoration to a time span prior to the reign of Iry-Hor (Naqada IIIB).

Other types of pottery found included fine ware jars made of Nile clay or of Nile clay mixed with marl clay with fine sand inclusions. A small amount of white particles (crushed limestone) and, quite sporadically, small particles of straw, may also have occurred in some vessels. The surfaces of these jars were very well smoothed – frequently, horizontally above the points of their maximum diameters and diagonally below them. Among the forms there occur ovoid jars (Fig. 2: 1) as well as shouldered, ovoid jars (Fig. 2: 3) with flat bases. These show an affinity to examples coming from

[2] During that period such decorated jars could occur together with cylindrical jars with other types of decoration, cylindrical jars without decoration and wine jars with three bands of rope-like decoration.

[3] These jars occur together with wine jars with three rope-bands.

the graves of Group III from Minshat Abu Omar (Kroeper and Wildung 1985, 52, 94-95, Abb. 147; Kroeper and Wildung 2000, 39: 866/14, 116: 126/4).

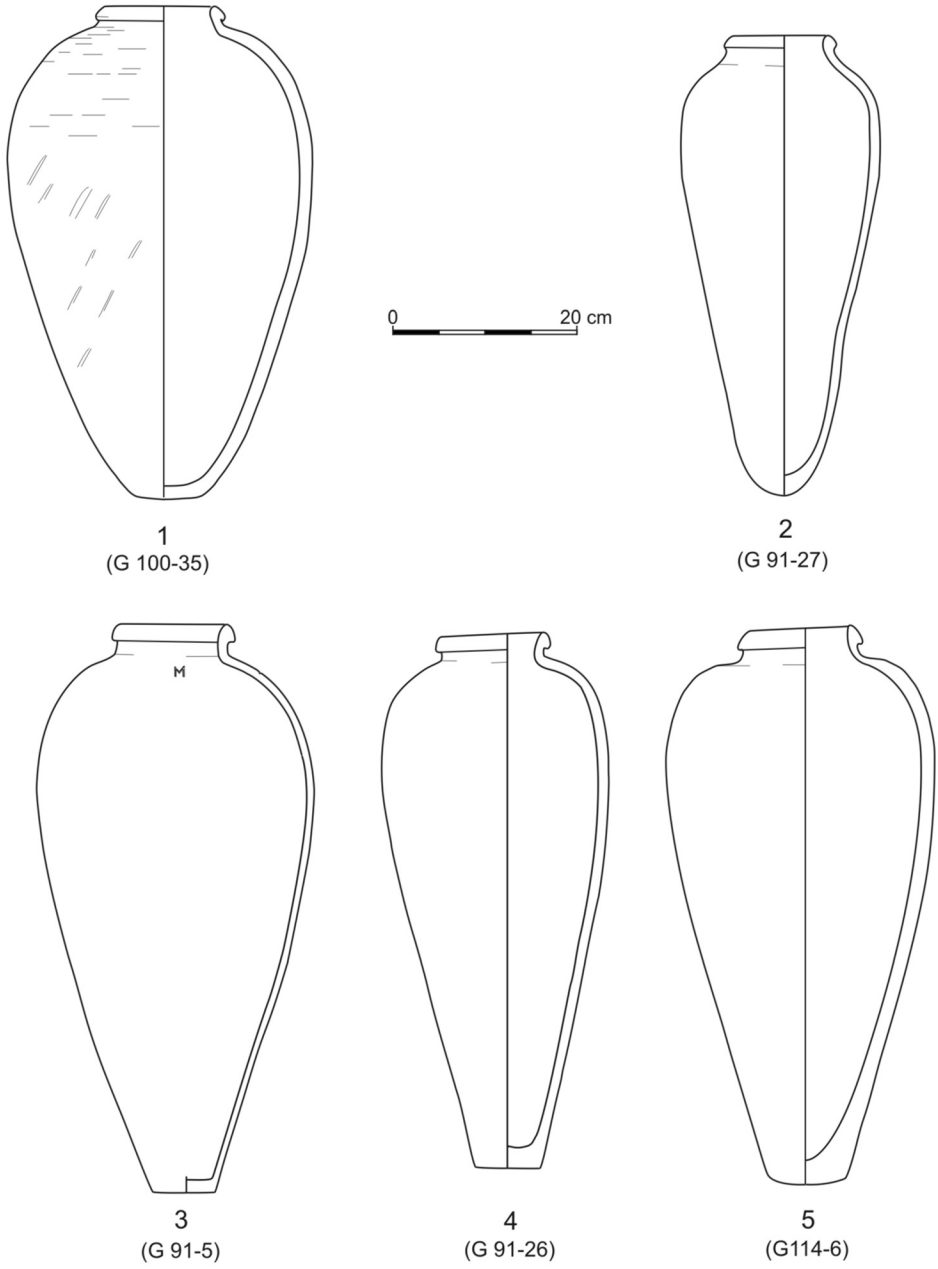

Fig. 2. Tell el-Farkha. Jars from the graves of Naqada IIIB.
Archives of the expedition

Rims probably belonging to such jars were also found in the settlement at Tell el-Farkha, where they occur in phases 4 and 5 (Jucha 2005, 43, Pls 27-29). There were also narrow-shouldered, ovoid jars with rounded (Fig. 2: 2; cf. Hendrickx 1994, 210, Pls. XII-XIII; Kroeper 1988, 14-16, Figs 89-90, 145) or flat bases (Fig. 2: 4; cf. Petrie 1953, Pl. XX: 75k), as well as examples with highly situated shoulders and flat bases (Fig. 2: 5). Potmarks were also attested on some of these vessels.

Yet another jar type, incised with a *serekh* (Fig. 3: 1), has an ovoid shape, an outturned rim and a flattened base. Three discontinuous bands of decoration, each composed of three half-bows with upper edges pushed upwards, occur on the shoulder; a single finger impression is found below each central half-bow. This jar corresponds to van den Brink's (1996, 144, 150-153, Figs 2: 7-8, Tabs 4-5) Type II, occurring in graves dated to the Naqada IIIB period (Horizon A according to Kaiser 1982, Abb. 16) together with cylindrical jars with decoration (W71-85; Petrie 1921, Pl. XXX). It should be pointed out that other jars of that type bearing *serekhs* were also found in Lower Egypt and northern Sinai (van den Brink 1996, 144). The *serekh* incised on the jar from Tell el-Farkha, notably, is not surmountedby a falcon (c.f. Fig. 3: 1). A traditional palace-façade representationis visible in its lower compartment. The sign in the name compartment consists of a straight (diagonal) line with three diagonal strokes crossing it from above. Moreover, two additional strokes are situated on the right side of the sign. The first one is placed below and the second above the straight line. The latter crosses one of the three diagonal strokes. There is also a small impression on the left side, below the main line. Furthermore, an additional sign roughly rounded with a flattened lower part and an impression in the centre was incised to the left of the *serekh*. The additional sign, which may resemble the later sign, Ra or day (Raffaele 2003, 116, n. 71), is similar to that which occurs on the jar from Ezbet el-Tell (van den Brink 2001, 37-38, Fig. 15), although in that case the sign is situated on the right side of the *serekh*. The sign in the name compartment may be yet another very schematic representation of the *Nʿr* sign (Hendrickx and van den Brink, personal communication; cf. Levy and van den Brink 2002, 26-27, Fig. 1: 1). If so, one could read it as Narmer and it could be placed in the same group with several other *serekhs* that contain a single *Nʿr* sign and are regarded as belonging to the first ruler of the 1st Dynasty. However, it seems that this *serekh* is of a completely different ruler whose reign predates that of Narmer and even of Iry-Hor (Jucha 2012b, 632-634). If this is indeed a schematic *Nʿr* sign, it could confirm the earlier suggestions concerning

the existence of a ruler whose name should be read as Nar (van den Brink 2001, 57-58). On the other hand, the sign on the described jar may resemble a harpoon and thus be a sign used for writing the name of yet another ruler (different from Nar), leaving an alternative reading of King 'Harpoon'.

Yet another jar with a *serekh* comes from the same grave as the abovementioned jar. This tall jar (Fig. 3: 2) has an elongated shape and an outturned rim and was decorated with a row of impressed overlapping half-bows on its shoulder. Such jars, van den Brink's (1996, 144-147, Figs 2: 9-13; 3: 16-17) Type III, are generally dated to Naqada IIIB-C1 and occur together with cylindrical jars with or without decoration. Several jars of that type were previously included in Horizon B, which begins with the reign of Iry-Hor, but the finds from Tell el-Farkha seem to indicate that they occur also in Horizon A together with Type II jars (Jucha 2012b, 635--637). Notably, the *serekh* incised on the jar from Tell el-Farkha has different characteristics compared to the abovedescribed one. It is surmounted by a falcon facing left. The narrow compartment, where the name was usually written, was left empty and its top has a concave contour. Two *ḥḏ*-like signs were incised instead of the palace-façade in the lower compartment. An additional *ḥḏ*-like sign was placed to the right of the *serekh*. Only a few variants of *serekhs* are known which contain *ḥḏ*-like signs. All complete examples (3) derive from Lower Egypt and occur also on Type III jars. Among them, one comes from the Eastern Delta. It is also surmounted by a falcon facing left, but, contrary to our example, three *ḥḏ*-like signs were placed inside the name compartment and the traditional palace-façade representation occurs in the lower compartment. Moreover, the additional *ḥḏ*-like sign was placed to the right of the *serekh* (Fischer 1958; Fischer 1963, 44-47, Fig. 1). Two additional examples, albeit without falcons, were found at Turah. In both cases, three *ḥḏ*-like signs were written in the lower compartment instead of the palace-façade representation, resembling the *serekh* from Tell el-Farkha, although the number of signs is different. However, in both examples from Turah, the name compartment was left empty and three circles were placed below these *serekhs* (Junker 1912, 31, 46-47, Abb. 57: 3-4).

Although both *serekhs* from Tell el-Farkha were found in a single grave (no. 91), they seem to belong to two different rulers; truly an unusual situation. If these are really the names of two different rulers, we could suppose they refer to two closely related persons who ruled successively. On the other hand, early *serekhs* might not be royal names, but only symbolise royal power and royal property expressed through royal insignia

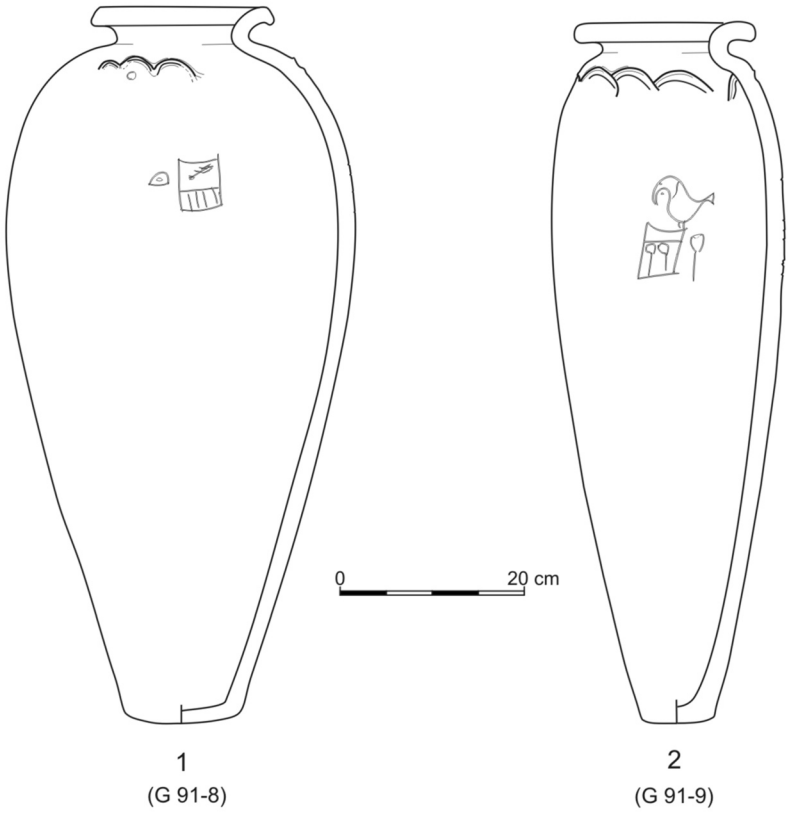

Fig. 3. Tell el-Farkha. Jars with *serekhs* from grave no. 91 of Naqada IIIB. Archives of the expedition

(Hendrickx 2001, 94-95), exemplified among others by maces (*ḥḏ*-like signs). If we follow this latter suggestion, the occurrence of two *serekhs* in one grave at Tell el-Farkha could be considered as its confirmation (Hendrickx, personal communication), as we might conclude that there is a personalised *serekh* on one jar (Fig. 3: 1) and a symbol of royalty on the other (Fig. 3: 2).

Still another group of vessels was comprised of shouldered jars with high, almost cylindrical necks of slightly concave sides, simply rounded or slightly thickened rims (Fig. 4: 1-2) and bodies tapering to a narrow, crudely formed and flattened base. Their necks and shoulders were slightly smoothed horizontally. The parts of these vessels approximately below the maximal diameters were irregularly formed. They are categorized as rough ware and were made of Nile clay tempered with fine to medium

straw and sand, as well as small amounts of coarser sand grains. Such jars are especially characteristic of the already described newly discovered group of graves and are not attested in Tell el-Farkha graves dating to the end of the Dynasty 0 and the beginning of the 1st Dynasty. It was also observed that at the settlement of Tell el-Farkha, fragments of such jars occur in phases 4 and 5 dating to the Protodynastic period and the beginning of the 1st Dynasty. They were not found in the strata of the subsequent Early Dynastic phase 6 (Jucha 2005, 45, Pl. 35: 2-4; Rozwadowski 2010, 125-126, Fig. 44: 30; cf. Petrie 1953, Pl. XVII: 73c-f). In similarly dated contexts they also occur at other Nile Delta sites including: Minshat Abu Omar – graves of Group III (mostly 3b, cf. Kroeper 1988, Fig. 99) and Buto – the Protodynastic Stratum IIIe-f (Köhler 1998, 46, Taf. 11: 2; Ihde 2000, 152-153, Abb. 8: 16, 18-19).

'Granary' jars with closed mouths, simple rims and incised grooves are also characteristic of the described group of Tell el-Farkha graves (Fig. 4: 3-4; cf. Petrie 1921, Pl. XLVII: L34a-b; Petrie 1953, Pl. XVII: 70o, 72d-g). These belong to medium rough ware with slightly smoothed surfaces, which are red to reddish-brown, although in several cases creamy coating was visible on their surfaces. Such jars were made of Nile clay tempered with fine to medium straw and sand. Coarse rounded sand grains may also have been added as a temper. Similar jars are also present at Tell el-Farkha in a settlement strata dated to the Protodynastic-beginning of the 1st Dynasty, phases 4 and 5. They include examples found in ovens (Chłodnicki and Kirkowski 2005, 52-55, Fig. 4: 2; Mączyńska 2005, 60, Fig. 11: 12; Rozwadowski 2010, 125-126, Fig. 44: 25; Sobas 2010, 103-104, Fig. 29: 16). These jars are also characteristic of the similarly dated phases distinguished at other settlements and cemeteries, among them Minshat Abu Omar, Buto, Abydos and Hierakonpolis (Kroeper 1988, Fig. 101; Adams 2000, 143, Fig. 17: 284; Ihde 2000, Abb. 7: 1, 3).

Bowls with a concave outer contour of divergent sides, a direct rim and a flat base (Fig. 4: 5-6) also occur in the above-described Naqada IIIB graves. These belong to medium rough ware with slightly smoothed surfaces and were made of medium category Nile clay fabric, tempered mostly with fine to medium straw and fine to medium sand particles, as well as a small amount of coarser sand grains. Such bowls are generally dated to the Protodynastic period and occur less frequently in the Early Dynastic (Petrie 1953, Pl. I: 3A-C; Emery 1961, 213, Fig. 122: 26; Klasens 1961, Fig. 3: J1). The form is also known from Minshat Abu Omar: Group III (mostly 3b, cf. Kroeper 1988, Fig.106), Buto: the Protodynastic/Early Dynastic strata (Köhler

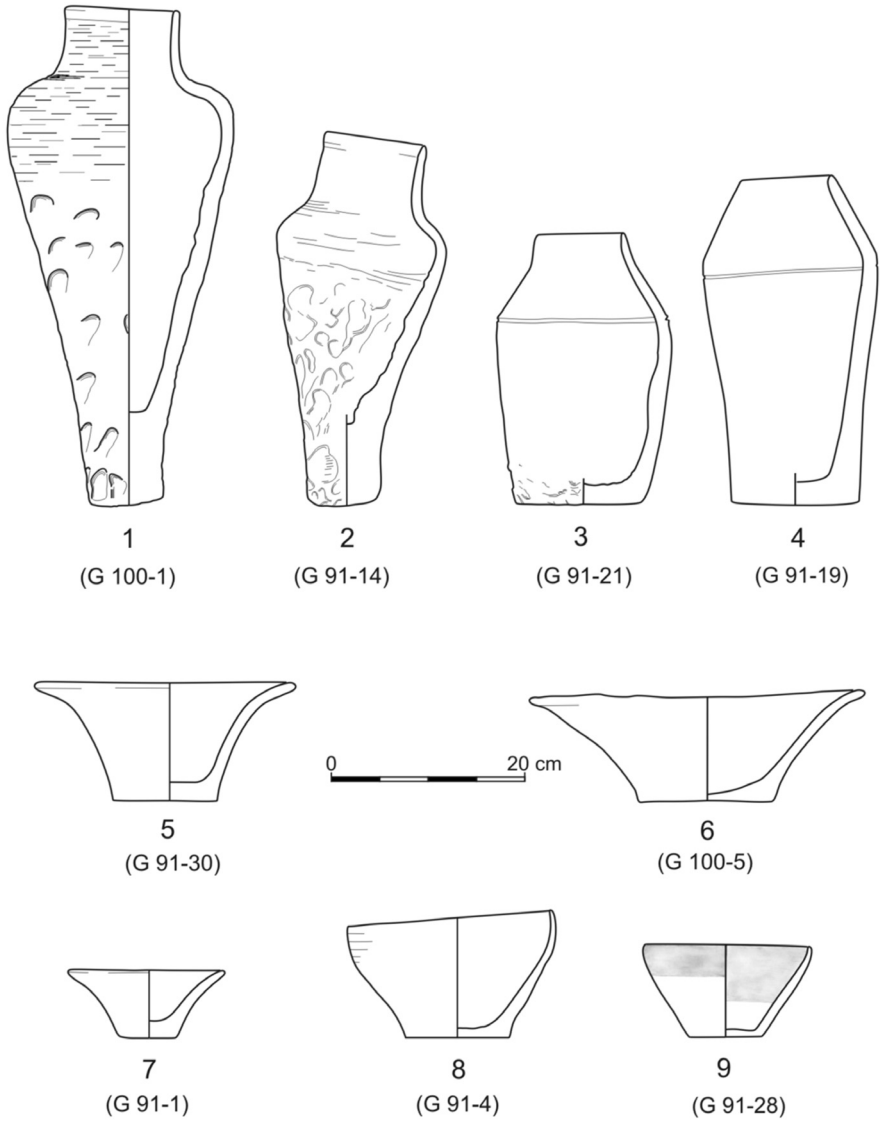

Fig. 4. Tell el-Farkha. Jars and bowls from the graves of Naqada IIIB. Archives of the expedition

1992, 14-15, Fig. 4: 1; Köhler 1998, 25, 46, Taf. 33: 3) and Tell el-Farkha: phases 4 and 5 (Jucha 2005, 48, Pl. 48: 5-8, Pl. 49: 1). As is the case with the abovementioned types of vessels from the group of Tell el-Farkha graves, the type of bowl described here is also rather uncommon in the graves explored previously at that site and dated to the end of the Dynasty 0 and the beginning-first half of the 1st Dynasty (Naqada IIIB/C1-C2).

Small rough ware bowls (Fig. 4: 7) and bowls with convex sides and a simple rim with a more or less smoothed surface (Fig. 4: 8) were also found at the site. Half-polished bowls with convex sides (Fig. 4: 9), made of fine to medium category Nile clay fabric tempered with fine to medium sand and very small amounts of fine organic material, may also belong to the assemblages from this group of the earliest graves yet found at Tell el-Farkha.

Most of the pottery forms discussed here differ from those found in the Tell el-Farkha graves of the Naqada IIIB/C1-C2 period, which were explored up to the 2008 excavation season. However, among them are vessels which could be defined as chronological markers of Naqada IIIB, allowing us to date the newly discovered group of graves to that phase, but prior to Iry-Hor. Taking into account the differences in relation to Tell el-Farkha graves with the name of this ruler, such dating seems to be justified.

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TABULAR SCRAPERS FROM EASTERN KOM AT TELL EL-FARKHA

Abstract: *A tabular scraper is a type of tool, frequently found in the Southern Levant, which was made from the Chalcolithic to the Early Bronze III period, but in Egypt they are quite rare. In Tell el-Farkha (in the Eastern Nile Delta), three specimens of this type of tool have been discovered which have supplemented the archaeological site map of new places with flints imported from the Levant. They will be presented in this article.*

Keywords: *Tabular scraper; Tell el-Farkha; Levant; cortical flake; Early Bronze Age; import*

In early literature, tabular scrapers were often referred to as fan-scrapers (Rosen 1983, 79). These tools varied greatly in terms of the technology used, the source of the raw material and their place of origin. Tabular scrapers had already been known from the late Neolithic to the Early Bronze III period (Rosen 1997, 75), but their usage mainly spread during the Chalcolithic and Early Bronze Age. Despite such a long period of existence, they constitute only a small percentage of the flint assemblages in Egypt. These kinds of tools came from the Southern Levant (Negev Highlands and Jafr Basin), where they were created and then imported to the north and west. We can find imports of tabular scrapers on sites in the Nile Delta, southeastern Turkey, and northeastern Syria (Rosen 1997, 75; Fujii 2011, 1). Studies into the positioning of the flint outcrops from which the tools were produced are still being thoroughly investigated. The most abundant materials came from the area of Negev, the Jafr Basin and Sinai, so it seems that this was the area of the tool's birth and the center of its direct production.

Tabular scrapers have a number of technological and typological characteristics that allow us to create a separate category for them distinct from other tools.

During the process of production a specific type of raw flint material (good quality) was used, but the block had to be of a large size. The average size of a tabular scraper was 20 x 15 x 1cm (Rosen 1983, 79). They were produced from cortical flake blanks and leaving the cortical surface as it was completely intentional. At the same time, getting these types of flake blanks required the use of appropriate manufacturing techniques and also the knowledge of a flintknapper. Tabular scraper tools were produced with very good quality blanks and had very specific characteristic features.

The technological process required to produce cortical flakes was carried out in a very specific way. It seems that a block-on-block technique was used for getting blanks (conclusions based on the example: Har Qeren 15 site in Israel). However, it could also have been due to the lack of a hammer on the site. An indirect impact technique also seems to have been used (Rosen 1997, 71). Such technological procedures could be related to specific sites. Quintero *et al.* (2002, 27) has quite a different conclusion about the process of production of the tabular scraper. Researchers who based their material on the Jafr Basin in Jordan observed that flint blocks were in abundance and that flintknappers had a very improvident way of working. By analyzing the cores, the authors concluded that the striking platform of flakes was carefully prepared and that blanks were then obtained by a direct impact. On the sites, many hammers of different sizes were found made of different raw materials (such as flint, basalt, and limestone; Quintero *et al.* 2002, 31). A characteristic feature of all cortical flakes is the occurrence of a very clear bulb of percussion. Sometimes there are traces of bulbar thinning. Most cortical flakes show a very carefully created facetted striking platform. The retouching and the shaping of the edges of the working side of the tools was performed by hard hammer direct percussion (Rosen 1983, 79).

Based on their shapes, S. Rosen (1983, 1997) created a typology of these tools. Initially he proposed four, then later six, types. The author categorised the specimens thus: round, oval, elongated, fanscrapers, knives, and irregular (including undefined specimens; Rosen 1997, 71).[1] Many authors use this typology, sometimes adding new types (based on the shapes of the tool not considered by S. Rosen).

[1] The author uses this typology of tabular scrapers in the description of the materials from the Tell el-Farkha site.

We probably have three specimens of the tabular scraper in the Eastern Kom at Tell el-Farkha.[2] All were focused in the southern part of the Eastern Kom, where some of them were discovered in the secondary stratigraphic context. All specimens were made from the same raw flint material. It is a brown, fine-grained, matt flint, with a rough, white, lime cortex (in one case, the outer layer of the cortex has an orange-red color). It was observed that there were no more tools made with this kind of flint material in the Eastern Kom at Tell el-Farkha.

The first artifact is an oval-type tabular scraper (according to S. Rosen's typology). It has a size of 137 x 73 x 12mm. On the exterior face of the tool, the cortex (the outer layer of the cortex had an orange-red color) was intentionally left. It is made from a cortical flake with a facetted striking platform (very carefully created) and has a very clearly visible bulb. On the exterior side, the edge has an irregular, semi-stepped retouch. On the interior side, it has a surrounding resulting from a very regular semi-stepped retouch. A fragment of the left edge in the top part of the tool has been broken off (Fig. 1).

The second tool has a round form (according to S. Rosen's typology) and a size of 95 x 92 x 17mm. It is made of cortical flake and is rather thick in cross-section with a carefully made facetted striking platform (fragmentarily crushed). On the exterior side, retouching occurred only in the distal end; on the interior side it is surrounded by an irregular retouch. It has visible signs

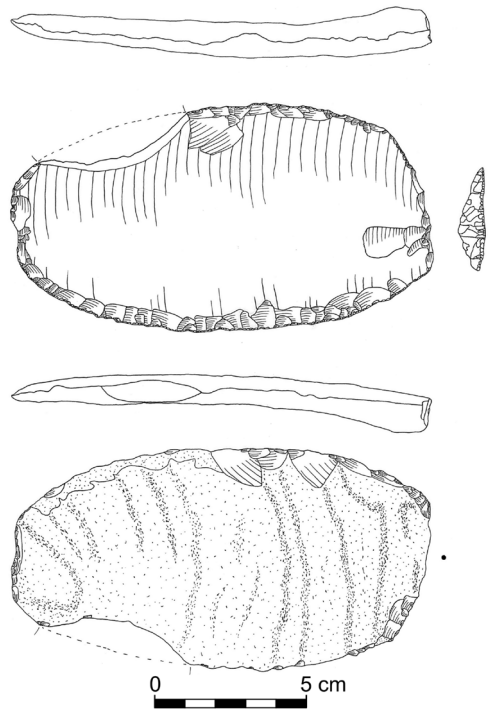

Fig. 1. Oval tabular scraper from Tell el-Farkha. Drawing by the author

[2] Tell el-Farkha is located in the modern village of Ghazala, about 120km from Cairo (in the eastern part of the Nile Delta).

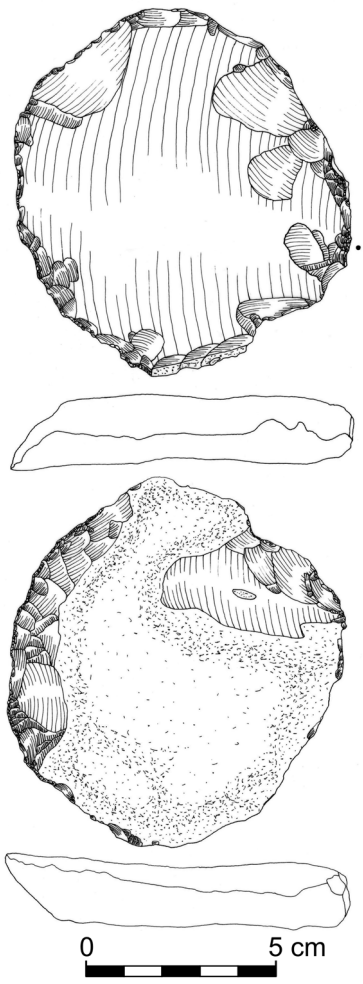

Fig. 2. Round tabular scraper from Tell el-Farkha. Drawing by the author

of crushed edges, especially on the proximal part of the tool (Fig. 2).

The last artifact appears to have had a secondary retouch or to have been repaired. It has a size of 135 x 68 x 18mm and this tool is irregular in shape. It is made of a large cortical flake (although the cortex on the exterior face is only partially preserved) with a carefully made facetted striking platform. On the edge of the exterior side, it has a regular steep retouch surrounding the central to the top part of the tool. On the interior side, it has an irregular, semi-stepped retouch from the central part to the base of the tool, probably made for the thinning of the proximal end of the tool. The retouching done from the interior side was probably done in a secondary phase and led to changes in the shape of the original tool. On the edges of both sides, there are numerous traces indicating it was crushed (Fig. 3).

All the tabular scrapers from Tell el-Farkha were concentrated in the southern part of the Eastern Kom, in a place where a cemetery existed from Naqada IIIB to the 4th Dynasty and a mastaba from the first half of Naqada IIIB1 (according to Hendrickx 1999). In this part of the site, there are concentrations of flint tools of different kinds (as well as other artifacts) which indicate that their owners, or indeed the whole settlement, was of a high administrative, political, or religious rank. There are numerous imports of bifacial knives from Upper Egypt, which have been shown to originate from a workshop with a high level of specialized production. A tabular scraper could have performed a similar function and could be the reason for their positioning here.

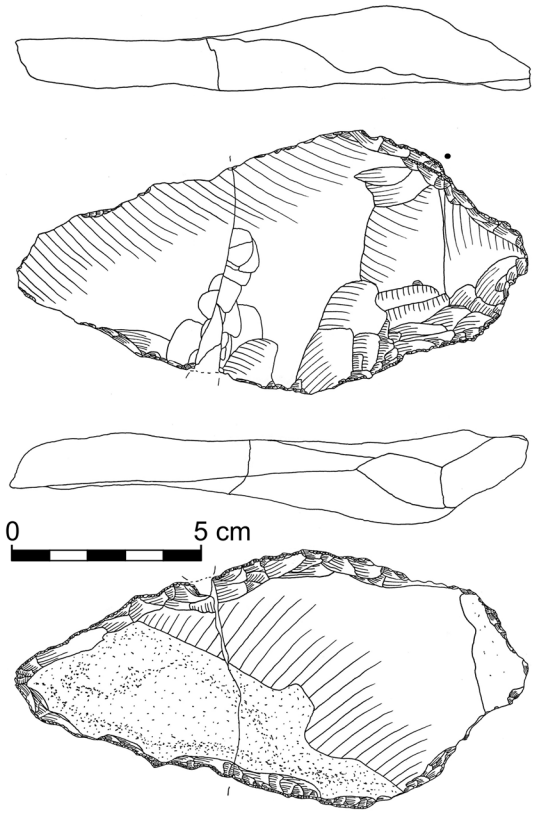

Fig. 3. Irregular tabular scraper from Tell el-Farkha. Drawing by the author

There are problems with the exact dating of the tabular scrapers from Tell el-Farkha. On the basis of Levantine ceramic imports found in the area of Tell el-Farkha and the Nile Delta, it appears that contact between these regions (i.e. the Levant and the Nile Delta) – varying in strength and intensity – began to occur in the period between Naqada IIC and Naqada IIIC1 (Mączyńska 2006, 946; Czarnowicz 2012). During the Early Dynastic period, this contact was broken. Some tabular scrapers were found in the secondary part of the deposit, which is probably due to the specific nature of this part of the site; there were numerous stratigraphic disturbances caused by the existence of cemeteries and settlements in the same place on the site during different chronological periods. Two artifacts were discovered in the layers from the Early Dynastic period and one from the first half of Naqada IIIB (according to the chronology of S. Hendrickx [1996; Hendrickx 1999]). It is not possible to specify

the particular period in which they appeared. The tabular scraper is a tool which experienced no technological or typological changes over the whole period of its existence, which also makes it difficult to date the artifacts from Tell el-Farkha.

There are many hypotheses concerning the function of tabular scrapers. Although the name indicates a tool used to scrape, the wear analysis performed by H. McConaughy (based on materials from the Early Bronze Age site, Bâb edh Dhrâ) showed that they were butcher's knives (after: Rosen 1997, 74). Other researchers have suggested that they could have been used for woodwork (experiments have shown that this is possible, but would have to be confirmed by a wear analysis). They could also have been used for wool shearing. There is also a view that they could have had a ritual or votive function, using as evidence the contexts of their various locations, namely temples with a votive/ceremonial character (Rosen 1997, 74; Fujii 2011, 1). In literature they are frequently referred to as butcher's knives which were used for very specific rituals. At Tell el-Farkha, tabular scrapers were discovered, but there were also other types of bifacial knives made specifically for similar ritual practices. It could be assumed that these served a similar function.

The direct source of the tabular scrapers from the Tell el-Farkha site is unknown. The largest concentration of this type of tool and of cortical flake blanks occurs in the Southern Levant (in some sites of southern Sinai they constitute nearly 90% of all tools; Rosen 1983, 84). The transport of such large blocks of raw material or cores from the outcrops must certainly have been unprofitable and equally very difficult. Therefore, the preparation and initial exploitation had to be done in an outcrop area or in the immediate vicinity of it (Schmidt 1984, 262). S. Rosen proved that a series of outcrops had to be present in the Western Negev Highlands. In all of Israel, there is a large number of ready tabular scraper tools and of cortical flake blanks prepared to produce this kind of tool. Cores are known on individual sites, including Har Qeren 15, Givat Barnea, Har Safun, and at a site 3km from Quseima (Rosen 1983, 80). Some outcrops of flint with traces indicating it may have been a production center of the tabular scraper are known in eastern and southern Jordan (Quintero *et al*. 2002, 17). Quintero *et al.* (2002) conducted surface investigations of the northern and eastern parts of the Jafr Basin, where they discovered a large number of sites related to mining, the initial exploitation of cores and the production of blanks and tabular scraper tools. Among all the sites discovered, those conducting surveys distinguished a few types, including an outcrop site of a different size. One

of the sites (J-12) occupies over 12ha and is covered with cores in the form of large blocks of flint with negatives of cortical flakes (with impact from different sides of the core). The size of the J-12 site and the abundance of artifacts does not allow for a systematic study, but the authors estimate that there might have been more than 750,000 cortical flake blanks on the site (Quintero *et al*. 2002, 26). However, this site and its size are unique. Researchers usually found smaller sites in this area, located in the outcrop area where the blanks and tools were produced. In Israel, Jordan and Sinai, there are a large number of sites where the tabular scraper accounts for a significant percentage of flint tool assemblages. Surveys and excavations conducted in the southern part of Central Sinai by Israeli expeditions led by I. Beit-Arieh show a frequent occurrence of the tabular scraper in flint assemblages. In most cases, this type of tool accounts for 20-30% (or more) of all tools and they often appear within buildings in large concentrations or in special caches, which indicates their high value or great significance (Beit-Arieh *et al.* 2003). Often tools were placed together with cortical flake blanks without retouch. They were brought from specialized workshops or outcrops where an initial preparation was undertaken. In the same way, ready tools and blanks reached further north to Syria and Turkey, and west to Egypt.

On the Nile Delta, tabular scrapers were found on individual sites connected to Lower Egyptian complex settlements. In Tell el-Fara'in/Buto all the examples discovered were only partly preserved (they were broken or destroyed) and were found in different parts of the site (Schmidt 1993, 272). Despite this, the different parts of the tabular scrapers fit together, so it was possible to reconstruct the whole tool in many cases (von der Way and Schmidt 1988, 298). The largest number of this type of tool was found in layers dating from Naqada IIb to IId1. All artifacts are of the one type, namely that of oval tabular scrapers. A unique situation occurred on the Maadi site, where there are traces of its use (Rizkana and Seeher 1985, 243). At the site, finished tools and blanks were brought (often in the form of cortical flakes without retouching on the edges or in the initial phase of retouching; Rizkana and Seeher 1988, 30). On the site, they appear in the following form: fanscraper (type according to Rosen 1997), oval, round, and oblong ('oblong scrapers' according to Rizkana and Seeher [1988, 30]).

I. Rizkana and J. Seeher have also discovered flint assemblages in Maadi, including a local imitation of such tools, a 'tabular-like scraper'. They were made of local raw materials and the finished tools had smaller

sizes (which was due to the size of the available nodules of flint). Yet the idea of preserving the cortex on the exterior face and retouching the surrounding was maintained. Such imitations were also discovered in Fayum (near Qasr Qarum) and in Upper Egypt (Kom el-Ahmar and Naqada South Town). However, it should be noted that they were not imports from the Levant area (Rizkana and Seeher 1988, 31). They can be associated with earlier Neolithic traditions.

Unfortunately, tabular scrapers and cortical flake blanks were not found in other sites of the Nile Delta. Tabular scrapers from the Eastern Kom at Tell el-Farkha provide evidence for a new point of flint assemblage, showing that contact took place between the Nile Delta and the Levant.

The assemblage of tabular scrapers from Tell el-Farkha is not large and there is also the additional difficulty in interpretation due to a lack of knowledge about the original stratigraphic position of these tools. They were probably found in a secondary context, as the Levantine pottery excavated in sites on the Nile Delta (*inter alia* Tell el-Farkha) indicates. Their exact chronology is unknown, but it seems that they belong to a period of intense contact between the Levant and the Nile Delta (Mączyńska 2006, 946), as is confirmed by other types of objects coming from other Lower Egyptian sites. The direct source of flint raw material and the place of manufacture of the tools from Tell el-Farkha are unknown as well. An increasing number of archaeological surveys have discovered new mines and workshops located in Jordan. A large number of the Sinai and southern Israel sites, where much of the flint assemblages are tabular scrapers, also do not exclude this region as their place of origin. A detailed comparison of the material, in terms of raw materials, could help to answer some of these more detailed questions.

The artifacts from Tell el-Farkha exhibit the basic features of the technological and typological characteristics of products of this type. Their function is unknown, yet the place of their discovery may indirectly indicate their function. The tabular scraper was from the southern part of the Eastern Kom at Tell el-Farkha, which received a high volume of imports from the area of Upper Egypt, namely bifacial knives and products of high-quality coming from a workshop with a high level of specialized production. Many of these tools were strictly used for ritual practices. Despite the lack of information about the original context of the occurrence of tabular scrapers at Tell el-Farkha and the lack of a wear analysis, it is safe to assume that they could have had a similar function to

those from other sites of the Southern Levant. The value and importance of these items must also have been considerable for both the owner and the entire settlement.

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THOUGHTS ON CHANGES IN GREEK WARFARE DURING THE ARCHAIC PERIOD WITH REFERENCE TO THE REPRESENTATION OF THE PHALANX IN CONTEMPORARY ART

Abstract: *The purpose of this paper is to clarify theories concerning the introduction of hoplite warfare, in particular its depiction in Archaic art. Three major points of view about formation of the phalanx are presented and reexamined along with a careful analysis of iconographic evidence to produce more coherent picture of Greek warfare. This examination suggests that the Archaic phalanx developed through social and cultural changes in the Archaic period, rather than purely military developments. It is also pointed out that although the Archaic phalanx differs from its Classical counterpart, the tactical core was the same. Evaluation of depictions of the phalanx in art shows that artists had emphasized the ethos of community warfare over its realistic representation. Nevertheless the community ethos is an integral aspect of hoplite warfare itself, creating social ties and building cohesion within the polis.*

Keywords: *Ancient Greek warfare; hoplite warfare; phalanx; Archaic art*

Introduction

Every scholar writing about the Archaic period in ancient Greece must, at least to some extent, refer to the way in which warfare was at this period. This issue is practically impossible to overlook, since it is not only a problem of military studies, but something far more complex. Research on warfare

is the foundation on which our understanding of Archaic culture is based. Even the work of those who reject war as the dominant factor in Greek culture is based on theories about the art of war (Adcock 1957, 3-14; Connor 1988, 6-8; Signor 2009, 587).Until scholars were able to choose between two concepts of development of the phalanx, although quite different at a first glance, but which essentially boil down to moving the date of the first appearance of this formation from the end of the 8th and beginning of the 7th century BC (Lorimer 1947, 128) up to middle of the 7th (Snodgrass 1965, 115-116), the depiction of the phalanx fluctuated more or less within a single model.

The emergence of a third theory, however, denying the existence of this formation in the Archaic period (van Wees 2000a, 125, 155-156; Krentz 2002, 23) has changed the picture significantly, bringing a breath of fresh air into an old scientific debate. Unfortunately, from this moment on the gap between these theories has become an important factor which cannot be overlooked when discussing issues ranging from social history to the history of art, from archaeology to literature. The decision to incorporate one of these models in a piece of research is not an easy one, given the somewhat chaotic state of the debate and the wide variety of dissonant ideas.

I must admit that the works of scholars, who opt for the late appearance of the phalanx (5th century BC), have been a great inspiration and an encouragement to address this subject. The analysis of sources that they have brought to bear on the subject has enabled me to refresh my point of view even upon subjects that appeared to have been resolved years ago. It was in arguing with their thesis that I was led to some hypotheses, and eventually the conclusions presented in this article. I devote most attention here to the iconographic sources since these have been most completely analyzed and they, I believe, still have much to offer.

Hypotheses about the development of phalanx

First of all one should start with a brief introduction to all the major theories that are still debated by scholars. The oldest concept was based strictly on archaeological finds, and placed the formation of the phalanx with the introduction of new equipment, particularly the shield (*aspis*, *hoplon*) with a new double-grip handle, which took place at the end of the 8th century BC (Helbig 1909, 67; Lorimer 1947, 76-77, 107-111; Cartledge 1977, 20-23). The main assumption was the idea that a new shield was too heavy

and unwieldy for use in fighting duels. The grip in the form of *porpax* and *antilabe* exposes the right side of the body, and to overcome this weakness warriors had to close ranks so that the hoplite was able to shelter partially behind his neighbour's shield, as was described by Thucydides (5.71). The development of the phalanx would have broad social implications, accentuating egalitarianism and dedication to the community over the interests of the individual. It seems that the poems of Tyrtaios (10.6-7) fit perfectly into this type of ideology.

Some 20 years ago this theory was 'resuscitated' by Hanson (1991a, 64; 1999a, 48-50; see also Connolly 1998, 37), who reversed the approach to the problem. Hanson believed that the changes in types of arms and armour are not the cause for the change of tactics, but their effect. The Greeks first began to fight in tight ranks, and then adapted their equipment to the requirements of such a struggle. Therefore, the phalanx had already existed before the point from which we can observe its proper equipment in the archaeological record. The American scholar paid close attention to those weapon features that seemed to be rather marginal for others, but according to him were strictly the result of adjustments adapting to phalanx warfare. The curving of the outer rim of the shield and the invention of the *sauroter* or spear-butt are examples of the adjustment of weapons to the requirements of the battlefield where tight, close-ranked formation prevails (Hanson 1991a, 65-69).[1]

The second theory removes the focal point from archaeological deposits to iconography, assuming that solid proof of the development of phalanx rested in its depiction in Archaic art (Nilsson 1929, 240; Lazenby 1985, 70; Wheeler 1991, 129-131; Sage 2003, 27; Lach 2008, 35). If we want to trace the changes in tactics in the Archaic period, we must imagine slow progression of the phalanx (or tight formation, more generally speaking) during the whole course of the 7th century BC: a multigenerational shift from the predominance of missile weaponry to dominance of the spear. The separate pieces of hoplite *panoply* appear at the end of the Geometric period, but it would be premature to assume that these imply the adoption

[1] Hanson reminds us that scholars are fairly unanimous in the reduction in the amount of armour worn during the 5th century BC that would result in greater mobility, but they do not consider similar argument for the development of the phalanx: the need to adjust weaponry, in this case to the conditions of fighting in tight formations. This statement needs an explanation. First, the assumption that the phalanx emerged before the *aspis* is not supported by any evidence in the sources; secondly, the supposed decrease in the weight of the panoply in the 5th century BC is also questionable, at least according to recent studies.

of hoplite tactics since types of arms do not change drastically compared to the 8th century BC. Separate pieces of equipment almost never appear altogether in one deposit; even the famous tomb in Argos, containing an elaborate cuirass, but only an old-fashioned conical helmet and no other components such as greaves or a shield (Courbin 1957, 360-364). The first, full, canonical set of hoplite equipment is depicted on a Corinthian *alabastron* (Berlin, Staatliche Museen, inv. 3148, second half of 7th century BC; see Snodgrass 1964, pl. 33; Snodgrass 1965, 110-112; Anderson 1991, 17; Szubelak 2007, 39). Furthermore, the round shield with double-grip does not imply phalanx tactics, since we have later examples of the use of similar shields in different formations (Snodgrass 1965, 111).[2] The *aspis* caused the same inconveniences as the Mycenaean eight-shield, but no one implies the existence of the phalanx in the Mycenaean period. Some even say that scholars pay the shield too much attention (Lazenby and Whitehead 1996, 33). Finally, Greek marines, the *epibatai*, were armed like hoplites, but they certainly did not use the phalanx during boarding.

Representations on Corinthian vase paintings from middle of the 7th century BC, as well as written sources from the period probably depict a transitional phase in which the ranks of the phalanx were formed, but on the battlefield we still observe javelins in the hands of hoplites and lightly armed infantrymen are not yet fighting in separate formations (Snodgrass 1964, 179-183; Salmon 1977, 88-92). There is still an on-going debate as to whether the Archaic artists had difficulties in representing several ranks of warriors, which may suggest that the iconographical sources are not sufficiently convincing (Salmon 1977, 87; *contra* Hannestad 2001, 110--111). In this view the phalanx would also be a political formation which may be associated with rise of tyranny (the reign of Cypselus is chronologically linked with representations in Corinthian art). Fighting using this tactic is also less difficult for the farmers (individual skills in combat were of secondary importance), who formed the backbone of the armies.

The third, and newest concept is, in brief, the assumption that Greek tactics evolved very slowly from that described by Homer up to the phalanx (according to this view the phalanx would make its first appearance in Herodotus). This process of gradual change was to last throughout the whole of the Archaic period down to the Persian Wars (van Wees 2000a, 125, 155-156; Krentz 2002, 23, 35-37). A critical approach to the sources,

[2] Snodgrass refers to R. W. Oakeshott, *The Archaeology of Weapons* (London, 1960) and from this: late medieval shields, he also refers to Cichorius and reliefs from the period of Trajan.

the basis for inferences with regard to this theory (and which is also adopted by a number of scholars who disagree), boils down to denying representations of the phalanx in Archaic iconography, and rejecting the argument for the primacy of adjusting equipment to the tactics, and undermining the role of equipment in this period, which leads to the lack of standardization of the *panoply* (van Wees 2000a, 134-135; van Wees 2004, 50-51). The traditional interpretation of improvement in hoplite equipment, the development of the helmet, cuirass, shield, etc., their mass production and, from the 6th century BC onwards, a decrease in weight and discomfort, and eventually dropping separate items, down to the 5th century BC, where only helmet, shield and spear remain, is utterly rejected (*Ath. Pol*. 42.4; Jarva 1995, 115-117; van Wees 2004, 47-49).[3] The whole spectrum of the Greek *panoply* was linked with social status and the personal wealth of an individual hoplite. To equip oneself with a full set of equipment was impressive, prestigious and expensive (Morgan 2001, 22-24). The core items from the very beginning were a spear, a shield and most likely a helmet (the cuirass was not always a feature even in 6th century BC art, which is believed to represent aristocrats, the richest class). This assumption leads to the rejection of the myth of the so-called 'middle-class army' and the view that hoplites formed an egalitarian group (van Wees 2004, 55-57). Plato (*Resp*. 556ce) wrote that in the phalanx people from completely different social classes met. Van Wees (2001, 47-54), moreover, in analyzing class divisions introduced by Solon (18.1-2) revised the categories concerning the 'hoplite class', the *zeugitai*, who comprised those with an income above 200 *medimnoi* (see also Pl. *Resp*. 1274a; *Ath. Pol*. 7-8). Interesting as it is, the *hippeis*, whose households produced upwards of from 300 *medimnoi* would have been only slightly wealthier than *zeugitai*, given the cost of raising horses, at *c.* 60 *medimnoi* per annum a pair. The sole difference would be in highly prestigious factor of horse-breeding. The Athenian middle-class probably consisted of no more than 3000-6000 men on the eve of the Peloponesian War (Thuc. 2.13; van Wees 2001, 52-53).[4] Households with an income larger than 200 *medimnoi* were relatively large, and there was simply not enough land available for farming in Attica to accommodate a larger number (even on the assumption that part of the income came from

[3] Aristotle citizens are provided with equipment for war, but only shields and spears are mentioned. Van Wees's argument is quite direct: a warrior only needs a spear and shield to become a hoplite.

[4] Van Wees presents a table with calculations of the presumable number of citizens in each class at Athens for different social models in 431 BC. The supposed number of hoplites was given by Thucydides.

a trade or craft). Given this data, we must assume that the majority of hoplites came from the *thetes*, a class of wide social stratification and that the Solon reform was political rather than military.

In Archaic period loose formations predominated, similar to those in which Homeric heroes had fought. Starting with Homer, through other poets, to vase painting, we are dealing with images of combat that in no way resemble the phalanx known from 5th century BC accounts (see Thuc. 4.90--101, 5.66-74). Even in Herodotus (6.113, 7.211, 9.29, 9.62) the movement of the ranks is much more flexible and looser compared with those in Xenophon and Thucydides (see van Wees 2000a, 155-156). There is no representation of a phalanx in Attic vase painting; instead there is a real mosaic of duels, of archers mixed with hoplites, of horsemen fighting alongside hoplites and even of pirate raids, implying that war was still fought in Homeric fashion caring even at the end of the 6th century BC.

Analysis of sources

Each of these theories is based on the same material: Archaic literature beginning with Homer (Lorimer 1950, 208-209; *contra* Snodgrass 1964, 176-179; Ducrey 1985, 42; *contra* Dalby 1998, 195; Raaflaub 1998, 187--188),[5] and continuing with Archaic poets down to Herodotus. Then we have Corinthian vase painting from the 7th century BC, Athenian vase painting, and finally archaeological deposits of arms and armour. Let us try to examine these sources with a proper critical approach.

We mentioned the hypothesis that the fact that separate pieces of panoply do not occur together until the 7th century BC would suggest the parallel emergence of phalanx, since this was a formation with uniform equipment. The *panoply* is inherent to the Archaic hoplite, so far as we believe, and there are not many scholars who would envisage the Archaic warrior as resembling the warrior from the tomb of Lissas of Tegea dating to the late 5th century BC, that is without any armour, and only with shield and conical helmet (Sabin *et. al.* 2008, fig. 5.4).

There are however indications that the reality could be different. We need to remember that most surviving equipment comes from dedications in sanctuaries, a circumstance that gives precedence to dedications of certain objects rather than the average hoplite *panoply* (Snodgrass 1999, 48-49). Moreover, artists usually portrayed aristocrats with their elaborate and valuable arms not common hoplites. We might assume that the core

[5] Dalby and Raaflaub do not place Homer before the 7th century BC.

of the *panoply* consisted of a spear and shield since these were necessary to fight in the ranks; the rest was a matter of individual wealth, which would explain the short-lived emergence of thigh and arm guards in the 6th century BC (Jarva 1995, 116-117; van Wees 2004, 48-51). If the equipment was not critical to fighting in the phalanx, what really was this formation? And if access to it was not restricted to the middle-class then what was its impact on Greek communities?

Archaic poetry is often quoted as proof of the existence of the phalanx, Tyrtaios in particular (Lorimer 1947, 121-127; Lazenby 1985, 77-78) but even Homer. Otherwise we can only find small passages that are difficult to interpret. The analysis of both Homer and Tyrtaios is a separate dispute and do not fit within the framework of this paper, but it must be noted that criticism of the so-called 'phalanx depictions' in those texts is severe and even includes scholars who associate the beginning of the phalanx with the 7th century BC (Snodgrass 1965, 115-116; Anderson 1991, 15-16). The Homeric way of war was discussed differently, and was viewed as unlike the phalanx. It should be noted that Tyrtaios's *gymnetes* fought side by side with hoplites, precisely as it should have been in the phalanx (van Wees 2000a 151; *contra* Wheeler 1991, 130).

Finally, there is the matter of battle protocol. There is a belief that in Archaic Greece war was in the nature of a competition, an *agon*, with well-established, respected rules, where what counted was victory rather than the destruction of the enemy (Ducrey 1985, 282-283; Connor 1988, 10-14, 19-22; Signor 2009, 595-600). The study of surviving protocol suggests otherwise. There were only limited rules and restrictions in combat, and deception and ambushes were employed quite often (Krentz 2000, 177-178; Krentz 2002, 28-30; Dayton 2006, 30-36, 51).

By far the greatest scope for discussion lies with the iconography, in particular, in representations of the phalanx in vase painting, the key to all theories. There are only few still preserved, most connected with the same circle, but we might assume that such scarcity came about as the result of artistic preference, the desire to portray the individual warrior, with his rituals, social status and relationships with relatives (Lissarague 1989, 44-45).

A study of representations of the phalanx in the Archaic Greek art

1. Without doubt the most important is the Chigi vase (Fig. 1), found in an Etruscan tomb, and dated to *c*. 650-640 BC; it is possibly the oldest

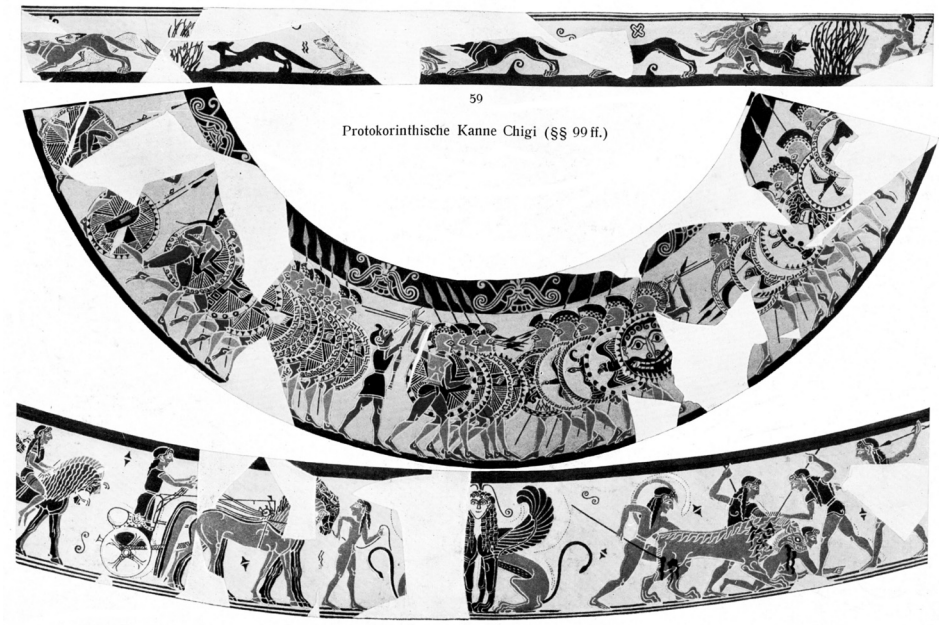

Fig. 1. Friezes from the Chigi vase. Reproduced from Pfuhl 1923, Abb. 59

known *olpe* (Hurwitt 2002, 1-3). One of the most famous monuments of vase painting, and in the traditional scholarly view, the most complete representation of the phalanx (Nilsson 1929, 240; Lorimer 1947, 80-83; Salmon 1977, 87; Snodgrass 1999, 58; Hannestad 2001, 111).[6] At first glance this seems accurate, when the eye follows the ranks of warriors marching into battle to the accompaniment of an aulos-player flautist (Fig. 2). But should we stop at this first impression? The first ambiguity comes from the fact that hoplites are carrying two spears instead of one. Miss Lorimer (1947, 83) tried to prove that these second spears belong to an additional rank (or servants), that the painter did not include for technical reasons. Snodgrass (1965, 138) pointed out, however, that one of the warriors holds a second spear together with the *antilabe* of his shield. In the background of the scene moreover we can see two hoplites dressing for battle, and not only are the second spears visible, but also the looped strings used for increasing the range of a javelin are attached to each of the spears (see also Hannestad 2001, 111).

The number of warriors in the ranks are not equal, four in the first and nine in the second on one side, and five and seven on the other. Hoplites

[6] For Snodgrass and Salmon it is still a not fully developed phalanx. It represents the transitional phase were hoplites are still using missile weaponry – javelins.

Fig. 2. Phalanx from the Chigi vase. Detail. Reproduced from Pfuhl 1923, Abb. 59

from one of the second ranks hold their spears upright and seem to be quite far away from the melée. According to Anderson (1991, 19) their counterparts in the other second rank are switching their grip to battle readiness, and thus the spearheads are shown horizontally. This suggests uneven and substantial distances between the ranks (Wheeler 1991, 130). In addition, van Wees (2000a, 136) believes that the space between the ranks engaged in combat is too narrow for throwing javelins effectively. It is possible that the two sides are meant to be standing at some distance from one another, and are brought so close just for the sake of the composition. Van Wees (2000a, 139)[7] also points out that this particular scene is similar to Idomeneus and Meriones re-entering the battle with Trojans at *Iliad* 13. The Chigi Painter could have shown an episode from the epic consisting of couple of scenes in which the two hostile bands are engaged in atypical Homeric fight.

In striking opposition are the ideas presented by Hurwitt (2002, 15-19), who suggests that the Chigi Painter was not necessarily interested in depicting a hoplite fight in every little detail. It was an ideological message that counted, in which all the scenes on the *olpe* form a coherent whole. The unequal number of participants may have resulted from a desire to show a large mass of troops in which the individual warrior is not all that important. Indeed, in one of the ranks there is one more head than there are shields. Hurwitt (2002, 15) claims that the individual features of the warriors are indicated by their shield blazons, as on the Macmillan *aryballos*, where one of the hoplites holds the outer side of the shield with its blazon instead of the inner side. Curiously, the other scenes present on the *olpe* are often

[7] He describes this scene in details, see *Il.* 13.330-344, 370-371, 386-387, 403-411.

omitted (Fig. 1). Apart from the warriors, numerous scenes shows riders (most probably squires) participating in a cavalcade, followed up by a group of young men hunting, and finally by the Judgement of Paris. It is possible that these scenes reflect to what it means to be a man/Greek, it could be the agonistic spirit showed in subsequent stages of initiation into adulthood (if we read the vase horizontally: young men hunting, then squires, finally warriors). The Judgement of Paris would stand as an allegory of different choices made during lifetime. Likewise if we read the *olpe* vertically we might find representations of what changes a man to be a hero (which is why Hurwitt (2002, 14, 18) suggests that here the second spears could be an element of epic). This interpretation of the vase is tempting mainly because it merges the different scenes into one coherent narration. Narrative aspects are so typical for the Greek way of thinking, that without giving it proper attention the proposed interpretation could be utterly wrong (Bérard and Durand 1989, 23). If these scenes reflect everyday life and at the same time include symbolical aspects, then the Chigi Painter presented a battle in such a way that everyone could easily identify it. It is not strange that he only took into account general features that were necessary to recognize the scene properly.

2. *Aryballos* in the British Museum, or the Macmillan *aryballos* (Fig. 3), a piece of art also attributed to the Chigi Painter (Hurwitt 2002, 7). The main problem here is the miniature size of the scene, which shows two groups of warriors engaging in combat, one of them running, some being caught and killed, some still resisting. Here hoplites also have two spears each, and this type of scene is frequently depicted in *Iliad* (16.306-356; van Wees 2000a, 142). On the one hand we have to deal with the absence of features proper to the phalanx in this scene, but on the other the idea of portraying a dense mass of warriors on such a small vase is conspicuous; clearly the mass is all that is important for the painter, a remark worth noting.

3. The Berlin *aryballos*, attributed to the Chigi Painter (Fig. 4). Yet again van Wees (2000a, 140) is sceptical about this representation. He again finds a parallel with the *Iliad* (13.308-09, 311-29) and believes that the scene shows different parts of a single battle (centre and flanks) simultaneously rather than sequentially, with very different dynamics of combat, and therefore not a phalanx. This interpretation does not however interfere with the existence of the phalanx. In the account of the battle of Marathon we can find different battle outcomes on flanks than on the centre (Hdt. 6.111-116). Ancient authors testify that the soldier does not know what is happening on the whole battlefield, and extended ranks are long and therefore prone

Fig. 3. Friezes on the Macmillan Aryballos. Reproduced from Smith 1890, pl. II, 5-7

to disarray (Thuc. 4.96, 5.10). Moreover the hoplites on the Berlin *aryballos* stand sideways with their left foot forward, and the shield before them covering the whole body, a position that is reconstructed as an actual hoplite battle stance by van Wees (2004, 168-170) himself (and by Krentz 1985, 51-55). It allows the optimal use of the spear and gives the warrior more cover. We might therefore presume that this representation is probably the most accurate illustration of the phalanx, justifying its existence. To further support this claim we should point out that light-armed troops or archers are shown on none of these vases. It is possible that the reason for this was the epic provenance of themes in those scenes, or perhaps the painter did not want to interfere with the clear composition of the scene, or conceivably archers and light-armed troops did not fight in the same ranks

Fig. 4. Phalanx from the Berlin *aryballos*. Reproduced from Pfuhl 1923, Abb. 58

as hoplites, which is one of the most important indicators of the phalanx tactic. Whether the ranks are so rigid and tight as we observe in the Classical phalanx is secondary to the fact that we can clearly see a mass of warriors, only spearmen, who act in unison.

4. A Corinthian *alabastron* from Samothrace with the image of an Amazonomachy (Fig. 5). This object, dated to *c*. 625-620 BC is now lost and only a drawing of the scene remains (von Bothmer 1957, 3-4, Early Amazons no. 4). On the scene we can observe the difference in fighting methods. Amazons stand in loose formation, Areximacha in a Phrygian hat holds a bow and the heroes stand in tight formation (with overlapping shields) very similar to the phalanx. For van Wees (2000a, 143-144) it is a proof that painters were depicting epic scenes in detail (he points out that the heroes close ranks just like the Greeks in the *Iliad*). Yet this action resembles the phalanx too closely as not to raise any doubts. Evidently the difference between Greeks and 'others' and their way of war is highlighted. Does this only reflect the spirit of brotherhood, as van Wees claims? I have come round to the view that the tight ranks in which Archaic warriors may have fought are strictly connected in this spirit and even treated synonymously by the artists, symbolizing (or compensating in the image) one another.

5. The decoration of the Siphnian Treasury at Delphi (Hannestad 2001, 113-114), where the scene resembles the previous one. Clearly part of a formation resembling a phalanx is depicted in the Gigantomachy frieze. Here it is used as a part of a fascination with introducing depth and perspective. This decoration comes from the period dominated by individual perspective

Fig. 5. Amazonomachy. Corinthian alabastron from Samothrace.
Reproduced from Friedrich 1908, 112 Abb. 32

in vase painting (mainly Athenian) and by contrast it shows a continuity of motif of 'warriors in tight rank' through the whole Archaic period.

Interpretation of the material, an attempt at reconstruction

To sum up, of five representations only one could be abandoned as a possible phalanx depiction, namely the Macmillan *aryballos*. It should be pointed out that this representation was not clear from the very beginning. Nevertheless the shape of the formation emerging from the iconographical material is somehow different from the traditional model of the phalanx. We should therefore put together features of the Classical phalanx with criticism of Archaic sources and try to recreate the shape of Archaic phalanx from fundamentals.

There is not much doubt that the phalanx is a tight formation composed of several ranks and used by spearmen. It was traditionally believed that only the first rank (or first and second) engaged in combat, carrying out a manoeuvre known as *othismos*: both armies running on each other, pushing with their shields and even their own mass at enemy rank, so that it would break (Cartledge 1977, 15-16; Holladay 1982, 94-97, 152; Lazenby 1991, 97-99; Connolly 1998, 47-48; Anglim *et al*. 2002, 21). Hoplites from the other ranks were acting only as a mass, increasing the power of 'the push' and serving as a reserve. During the fight warriors stood at three foot intervals in frontal stance, so that they were protected by shields of their neighbours (Thuc. 5.71). These two critical aspects of combat have raised many doubts over time.

The *othismos* manoeuvre has not been criticized until Fraser (1942, 15-16),[8] but his critic was a thorough one. He described the total impossibility of this manoeuvre, which would have even been hard to imagine. Also Krentz (1985, 50) citing Cawkell (1978, 150-153) writes that during *othismos* teeth would serve as a better weapon than the sword, not to mention the spear. How a hoplite could strike with his spear from above if he was pushing the enemy with his shield at the same time? The sole fact that spear was the main and most important weapon meant that the fight had to be conducted at a distance suitable for stabbing with it. Passages in Thucydides (4.97, 6.70), describe pushing wings, or whole armies, which is more likely non--literal 'push' typical for a battle and not a physical push, hence this term would refer to outcome of the melée not its course (Fraser 1942, 16; Krentz

[8] Interestingly enough, Fraser was criticizing British scholarship that had given rise to an interpretation of *othismos* based on the set piece scrum in rugby.

1985, 52-54; Wheeler 2008, 209-211).[9] So what was the purpose of placing so many ranks in the formation and what advantages came from this action? Preventing a breach in the phalanx when the first rank was overcome, and the ability to switch hoplites between ranks when they suffer wounds, get killed or were too tired to fight are the most reasonable explanations (Fraser 1942, 16; Krentz 1985, 59-60).

When it comes to positions in this formation van Wees puts the hoplites in a sideways stance, with the left side of the body facing enemy, and the right arm holding a spear behind and above the head. He believes that this pose is visible on numerous 'realistic' representations of hoplite fighting (van Wees 2000a, 127-129; van Wees 2004, 168-170; see also Connolly 1998, 42, who presents a transitional model). This position has the advantage of having full body cover behind the shield, and if the warrior is standing sideways astride he can use his spear to maximum effect. This reconstruction however contradicts a famous passage in Thucydides (5.71), which van Wees tries to overlook pointing out that practically every shield covers mostly the holder's right side. This problem could easily be removed, since a study of this passage clearly indicates that it describes marching to battle in formation and not the fight itself (Hunt 2008, 113). It would be very difficult even to imagine such action during a clash of phalanxes. If these movements were minimal the result would be visible after covering quite a distance. Analysis of the next sentences clarifies this. The gap in the Lacedaemonian army could accommodate 2/7 of their army; two *lochoi* fit into it (Thuc. 5.71-73). Using this account and various other sources Krentz (1985, 51-53) has assumed that there were six foot intervals between hoplites in the rank. This is a distance which still prevents the hoplite being flanked, but at the same time gives a decent amount of space to fight (one can brandish a spear, avoid blows, push the enemy away, etc.).

Close combat was the proper way of fighting in the phalanx, and so the presence of javelins in the iconography was treated as an archaism, or as a transitional state (Anderson 1991, 20; Snodgrass 1999, 57-68). I find this argument difficult to accept. Hans van Wees (above) moves the ranks on the Chigi vase apart, in order to create space for javelin throwing, and in my view this is also misguided. Logically, if I were armed with a javelin against a heavily armed, fully protected enemy I would not attack him directly.

[9] Wheeler believes that *othismos*is mostly a metaphorical expression, without ruling out the possibility that ranks pressed on each other, as he imagined the battle of Delium. He also gives two examples against a purely metaphorical meaning from Aristophanes and Herodotus.

I would rather just throw a javelin aiming at his shield thereby depriving him of his main cover. Since the Greek javelin was not a *pilum*, I would not risk attack from afar, because enemy would probably remove the missile before we closed quarters. I would go as close as possible and attack hand to hand as soon as I had cast my javelin. This tactic could have been in use for a relatively long time during the period and not only in so called 'transitional phase'.

In bringing all the arguments together one question arises: what was the actual difference between the phalanx and Homeric warfare, and how did these dissimilarities develop? How could such a formation have emerged within the Archaic cultural base? It seems that transposition of elements of the ethos from the individual warrior, or Homeric hero, to the community is the key to solving this problem (Lendon 2000, 3, 13-15). Hanson (1999b, 205-208) has spotted this in his short but crucial article about the participation of Boeotian Thespiae in Classical conflicts, highlighting the coalition nature of Greek armies. In the world of Homer a single warrior could swiftly move along the ranks of his army searching for a suitable opponent, but when whole communities of nameless people were enemies and not individuals, then regardless of the hierarchy prevailing within them, they were treated as one body. Warriors were locked within the ranks of their own group and could not move freely. Greeks were rational only to the point where it was at odds with their understanding of the world, their ethos (Ducrey 1985, 255). The agonistic spirit compelled them to establish a hierarchy of everything, including which group would take which place in the ranks. Expanding the battle line enabled more participants to share the glory (Wheeler 1991, 131). Most battles were fought by coalitions of *poleis* (e.g. the Boeotian army) and even when a single *polis* fought, every one of its tribes had a strictly specified place in the phalanx, e.g. the Athenians at Marathon (Hdt. 6.111; Hanson 1999b, 205-208; Signor 2009, 589-590). We know from various accounts that the fact of who took what position was as important as the battle itself. The Battle of Plataea and Athenian-Tegean rivalry serves as an excellent example (Hdt. 9.26-28). Since the position of every group of participants was strictly specified the ranks were 'frozen', and no longer that fluid and flexible.

If we want to understand the difference between the Homeric way of war and the phalanx we must imagine the latter as breaking the military monopoly of the aristocracy. Demographical changes between the 8th and 7th centuries, rapid population growth (Morris 2009, 71-73, 75) brought about the democratization of warfare. Desire to increase the *time* (honour, glory,

valour of a man) was without a doubt one of the most important factors for emancipation of masses, who started to appear on battlefields (not always well equipped, but wanting to act like heroes of epic).The phalanx tactic was best suited for a large number of poorly trained warriors, for sheer numbers were enough to secure an advantage over aristocrats, who willingly or not, had to participate in this system, resulting in sort of social agreement on how community would wage war. Traces of this unified community-*polis* can be seen in contemporary epigraphic material (Gehrke 2009, 396-398), where the *demos* acts as a superior legislator and authority in a political system. The phalanx regulated inner tensions within a community and prevented *stasis*, and through its hierarchical structure, sense of order and was exactly what held a *polis* together (Berent 2000, 273-275; Bowden 2003, 48-49; Dayton 2006, 45).

This way of thinking is easily traceable in the arts. Unity, the functioning of the individual within a community is the main subjects of the work of Chigi Painter. Interestingly enough, whenever an artist wanted to highlight the differences between foreigners and Greeks (e.g. on the Samothrace *alabastron*) he juxtaposed the latter in one tight rank, close to each other, making the phalanx synonymous with being a Greek. Hoplites did not belong to any social class within the *polis*, rather, they composed the *polis* themselves (Berent 2000, 276-277). It does not mean that the aristocracy quickly abandoned their dominant position. Recent theories would have it that Archaic tyrannies were the ultimate manifestation of the power of oligarchy (Anderson 2005, 175; Stein-Hölkeskamp 2009, 112-114). We might assume that tyranny was an attempt to reduce the political aspirations of hoplites. Solon's reforms had a similar purpose, whereby power was to remain within a relatively small group (van Wees 2001, 61-62). The aristocratic response could not overcome the changes in tactics, and war itself became a mass conflict. With Pisistratus for example we can see how the tyrant wanted to weaken phalanx influences and dominate its warfare. The enlistment of mercenaries, of cavalry, and of light armed Thracians and Scythians, were all in order to achieve military superiority over the phalanxes who were lacking in light armed troops, a type of warrior neglected and despised, and therefore unattractive to citizen-soldiers (Snodgrass 1999, 83-84; Hunt 2008, 120; Signor 2009, 594). This theory allows better understanding of Cleisthenes' reforms, for his new *phylai* were introduced to rebuild the unity of the people of Attica, a unity achieved by means of participation in the phalanx.

The foundation of phalanx tactic is that through mass participation in battle and wining *time* the whole community constitutes. It is a system where every citizen can gain honour when community gains honour. Plus, the inner hierarchy of *polis* is reflected in rank and file battle line, where every warrior has his place and certain honour/valour attached to it. Once introduced phalanx spreads throughout the Greek communities varying locally (its widespread is limited by the amount of power held by local aristocracies, this along with natural conditions could be the case for not adopting this type of warfare in Thessaly and similar regions) but the social core remains intact. Changes in tactics, like the Spartan command chain and superior organization were only a consequence of the development of the new formation, and the same was true of the introduction of new elements of equipment; their elaborate decoration and skilful manufacture were all forms by which the aristocracy manifested prestige. Battle protocol and the customs of the Classical age are mere consequences of the continuous development of this kind of warfare. There is nothing lurking behind the phalanx except the idea of socio-military organization, uniting the individual with whole community which leads to a growing of a sense of identity, helps the acquisition of resources as well as protecting them, and finally prevents inner discords and conflicts. When we reconstruct how Greek communities built unique structures across the Mediterranean, we, in a certain way, reconstruct the phalanx.

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ON THE DATING OF THE BRONZE ISSUES OF TISSAPHERNES

Abstract: *The author considers the problem of the dating of bronze coins issued in the name of the famous Persian grandee, Tissaphernes, satrap of Lydia and Caria and karanos between the years 413-407 and 400-395 BC. Three issues of such coins are known, which are different in iconography, form, legend and metrology. They are traditionally dated to c. 400-395 BC. However, in the author's opinion, in the light of recent discoveries and assessment concerning the launching of bronze coin production in western Asia Minor, it is possible that the dating ought to be moved to the first period of Tissaphernes in the office of karanos, i.e. to c. 413-407 BC.*

Keywords: *Tissaphernes; Astyra; Adramytteion; satrap; karanos; coin; chalkos; dichalkos; stater*

Western Asia Minor is the cradle of coin minting, but bronze was introduced to its coin production relatively late in comparison to other areas. The problem of the dissemination of the bronze coin in the Greek world was researched by M. J. Price (1968; 1979), who, working on the scarce material available in his time, dated the beginnings of bronze coinage in Asia Minor to the beginning of the 4th century BC. Discoveries made during the last three decades have allowed this view to be revised.

One of the most important testimonies concerning the beginnings of bronze coinage in western Asia Minor are coins minted in the name of Tissaphernes (*c*. 413-395 BC). This Achaemenid grandee, satrap and *karanos* was one of the main protagonists in the events taking place on the Graeco-Persian frontier in Asia Minor at the turn of the 5th and 4th centuries. His personality, policies, spectacular downfall and most of all

his influence on Achaemenid politics involving the struggle for hegemony between Athens and Sparta, were the reasons for which he was relatively frequently mentioned by Greek historians (cf. Hyland 2004).

Tissaphernes was politically active in the western provinces of the Achaemenid state *c*. 413-395 BC (Schaefer 1940, 1579f; Schmitt 1992). He was the son of Hydarnes, which probably makes him the descendant of one of the most important Persian families (Schmitt 1992). *C*. 413 BC he defeated the rebellious Pissuthnes and took from him the position of satrap of Sardes, also becoming commander (*karanos*) of the Persian forces on the Aegean coast (Ctesias 52). The post of *karanos*, was primarily of military nature but also meant a higher rank than an ordinary satrap (cf. Petit 1983; Bodzek 2011, 27-28). This made Tissaphernes the supreme Achaemenid official in the West. In the following years, Tissaphernes defeated Pissuthnes' son, Amorges, captured his capital, Iasos, and got involved in skirmishes of the conflict between Athens and Sparta that took place on the coast of Asia Minor (Thuc. 8.5-109; Xen. *Hell.* 1.2.1ff). In 407 BC, however, Darius II Nothos (423-404 BC), apparently not entirely satisfied with the results of Tissaphernes' activity, replaced him with his younger son Cyrus in the capacity of *karanos* and satrap of Sardes. Tissaphernes was removed to the minor position of the satrapy of Caria (Xen. *Hell.* 1.4.1ff; Xen. *Anab.* 1.1.2, 1.9.7; cf. Ruzicka 1985). When Artaxerxes II (404-359 BC) seized the throne, Tissaphernes took the king's side, warning him against the intrigues of Cyrus (Xen. *Anab.* 1.2.4f). He commanded the royal cavalry in the battle of Cunaxa in 401 BC, in which Cyrus the younger was killed. In recognition of his services, he married the king's daughter in 400 BC and regained his former position of *karanos* as well as satrap of Sardes (Diod. Sic. 14.26.4). His attempts at subjugating the Greek *poleis* and forcing them to pay tribute led to the war with Sparta, whose outcome was not to the satrap's advantage. After his defeat in the battle against Agesilaos at Sardes in 395 BC, Tissaphernes was captured on Artaxerxes orders and executed in Colossae (Xen. *Hell.* 3.4.25f; Diod. Sic. 14.80.3ff; cf. Westlake 1981).

Modern scholars, fascinated with Tissaphernes, have attempted to attribute several anonymous satrapal issues to him. These were, among others: electrum *hekte* minted in Phocaea (Bodenstedt 1981, No. Ph. 86, Pl. 8, 10; Cahn 1989, Pl. I, 8; Winzer 2005, Pl. 2. 6.6); coins of the type 'Tiarate Head/Great King-Archer' (Babelon 1910, Pl. LXXXVIII, 11-12; Franke and Hirmer 1966, Pl. 184; Cahn 1989, Pl. I, 7); the unique tetradrachm of the type 'Tiarate Head/lyre' (Babelon 1910, Pl. LXXXVIII, 25; Franke and Hirmer 1966, Pl. 184; Cahn 1989, Pl. I, 6), as well as the famous 'owl'

from the Karaman Hoard (Robinson 1948, Pl. 5, 8; Franke and Hirmer 1966, Pl. 184; Cahn 1989, Pl. I, 5) and analogous in obverse and reverse iconography bronzes (actually silver plated) minted in Dor (*SNG* v. *Aulock* 1967, No. 7636; Qedar 2000-2002). However, all these attributions were not based on strong evidence (Bodzek 2010, 108-109; cf. Harrison 2002, 303ff, 313f.). The only issue that can be attributed to Tissaphernes with any degree of certainty, on the grounds of the legend, remains the unique silver stater minted in Xanthus (Mørkholm and Neumann 1978, No. M221; Hurter 1979, 100, No. 6, Pl. 8, 6; Alram 1986, 105, No. 317; *SNG Copenhagen Suppl*. 2002, 460; Bodzek 2011, 102ff) and the aforementioned bronze coins.

Three issues of Tissaphernes bronzes are known (Bodzek 2011, 159ff, 299-300, Nos TAe1-TAe3); two of them were published in the mid-1980s by H. A. Cahn (1985; 1986), and the third one a decade later by J. Stauber (1996, 256, C-F; cf. Winzer 2005, 29, No. 6, 1). These three issues differ in iconography, legends and metrology; they were also probably not minted in the same mint.

The first type of Tissaphernes coins (Fig. 1) has the head of Athena in Attic helmet on the obverse and the head of Zeus in laurel wreath on the reverse (Winzer 2005, 29, No. 6.1, Pl. 2; Bodzek 2011, 300, No. TAe3, Pl. II. 3-3b); the latter has also been interpreted as a Dionysos in wine wreath (Stauber 1996, 256). A. Winzer (2005, 29) interpreted the head on the reverse as the satrap's portrait, but this identification is wrong. This is not indicated by the lack of individualised facial features, since one ought not to expect such traits in the case of a coin portrait dated *c*. 400 BC (cf. Zahle 1990, 53; Bodzek 1994, 128), but by the lack of elements characteristic of the satrap/grandee portrait type as for example a sharpness of features and an aquiline nose. In return we have a general idealization of the effigy recalling gods images. Morever, the wreath is an attribute which points at the divine status of the person represented. The lack of tiara/kyrbasia headgear is not a decisive argument in that case as is shown by the grandee's portrait on the coin from Astyra discussed below (Fig. 2). A comparizon of aforementioned Tissaphernes' effigy on Astyra coins clearly shows the difference between portrait and god's image. The legend is place by the god's head, either in its full form – ΤΙΣΣΑΦΕΡΝΟΥ – or shortened to ΤΙΣΣΑΦΕΡΝ (Stauber 1996, 256, C-F). Coins of the issue weigh between *c*. 1.5 and *c*. 2.0g and their diameter is *c*. 11-12mm.

In the case of the second type (Fig. 2), the obverse features the head of a bearded, mature man, devoid of any headdress or attribute (Cahn 1985, 587, Nos 1-2, Fig. 1-3; Cahn 1989, 99, Pl. 1, 4; Stauber 1996, 254-255,

Fig. 1

Fig. 2

Fig. 3

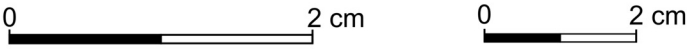

Fig. 1. Tissaphernes (413-395 BC), Adramytteion (?), 413-407 or 400-395 BC, AE, *chalkos*.
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Fig. 2. Tissaphernes (413-395 BC), Astyra, 413-407 or 400-395 BC, AE, *chalkos*.
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Fig. 3. Tissaphernes (413-395 BC), Adramytteion (?), 413-407 or 400-395 BC, AE, *chalkos*.
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On all figures side images scaled 2:1, central images scaled 1:1

Nos 1-5; Bodzek 2011, 299, No. TAe1, Pl. II, 1-1b). The man is interpreted as Tissaphernes himself. Such an interpretation can be made because of the features of his likeness and the presence of the legend ΤΙΣΣΑ placed just below the head (beneath the neck). On the reverses of the issue, the statue of Artemis Astyrene and an *ethnicon* in the form of ΑΣΤΥΡΗ are placed, which allows us to connect the issue with the city of Astyra in Mysia (Cahn 1985; Stauber 1996, 255). Coins of this type have similar weight and diameter to the first type.

The third type of Tissaphernes coins (Fig. 3) has the head of Athena in Attic helmet on the obverse (Cahn 1985, 588, No. 3, Fig. 4; Cahn 1989, 99, Pl. 1, 3; Stauber 1996, 255-256, A-B; Bodzek 2011, 300, No. TAe2, Pl. II, 2-2b). It is very similar to the goddess head on the first type. Reverses of this type feature a rider in Iranian attire and are accompanied by the legend ΤΙΣΣΑ. It is probably a miniature portrait of Tissaphernes. The weight of the 'Athena/rider' issue is *c*. 1.0g (the average weight of the 24 studied specimens is 1.04g), and the diameter 10-11mm.

Only the second type can be attributed to a specific mint (thanks to the legend) and, as has already been mentioned, this mint was Astyra in Mysia. Due to the absence of identifying legends, the attribution of the remaining two types is problematic. H. A. Cahn (1989, 99) suggested Adramytteion as the minting place of the 'Athena/rider' issue (Fig. 3); he based his hypothesis on the similarity between the head of Athena on the obverse of the coins in question and representations of the same goddess on coins minted in the city. One should note that other possibilities have also been taken into account: Assos, Pergamon, Elaea, Phocaea (cf. Stauber 1996, 256-257), as well as Astyra (Winzer 2005, 29), but the attribution proposed by Cahn seems the most plausible. At the same time, the aforementioned head of Athena from the 'Athena/rider' issue shows great similarity to an analogous representation on coins of the 'Athena/Zeus (Dionysos)' type (Fig. 1), especially as far as the details of the helmet (dome, visor, neck guard and crest) and Athena's face are concerned. In the present author's opinion, the similarity is strong enough to allow for the hypothesis that both issues were minted in the same mint, i.e. Adramytteion (Bodzek 2010, 111ff; cf. Stauber 1996, 256f). A. Winzer's (2005, 29) suggestion to link this type with the Sardes mint is hardly convincing. It appears, therefore, that the minting activity of Tissaphernes, as far as bronzes were concerned, was concentrated in northwestern Asia Minor, in the region of Mysia, Aeolia and possibly also northern Ionia.

H. A. Cahn (1985, 593; 1986, 13) dated the minting activity of Tissaphernes to his second period in the office of *karanos*, i.e. *c*. 400-395 BC. Allegedly, as a reward for his loyalty to Artaxerxes during the revolt of his brother, the grandee was granted a special position, which allowed him to mint coins in his own name. Moreover, Cahn argued that the satrap's portrait on one of the issues in question represents a man past his prime, which would mean that the satrap was portrayed in the last period of his activity. Cahn also quoted Diodorus Siculus (14.35.7) on Tissaphernes capturing Aeolia and the siege of Kyme *c*. 400 BC, which confirms his activity and influence in northern Asia Minor in the period. The dating proposed by H. A. Cahn was widely accepted, for instance by W. Weiser (1989, 282f), J. Stauber (1996, 253), P. Debord (1999, 127) and A. Winzer (2005, 29f). Debord (1999, 127) did not, however, discard the possibility of an earlier date, falling in the first term of Tissaphernes in the office of *karanos*.

Nonetheless, H. A. Cahn's arguments for the *c*. 400-395 BC dating of Tissaphernes' bronze coins, as summarized above, are not entirely convincing. First and foremost, the argument concerning the satrap's age, estimated according to coins minted in Astyra, is subjective and therefore hardly acceptable – all the more so considering Cahn based his conclusion, among other things, on the similarity to the alleged portraits of Tissaphernes on the aforementioned coins, whose attribution remains doubtful. Moreover, in the period in question, coin engravers used portrait types rather than individualised likenesses. In the present author's opinion, other questions are of more consequence in dating the bronze coinage of Tissaphernes.

When attempting to date the coins of Tissaphernes, one needs to take the mint into account. As has already been mentioned, the main area of the satrap's minting activity, as far as bronze coinage, is concerned was northwestern Asia Minor. Two issues bearing his name were probably minted in Adramytteion, one for certain in Astyra. The decisive question is, therefore, in what period this area was under the satrap's influence. It seems that only the positions of *karanos* and satrap of Lydia gave Tissaphernes access to mints located in Aeolia and Mysia. As previously noted, the grandee held these offices twice, between the years 413-407 and 400-395 BC. It is rather unlikely that Tissaphernes could have minted his coins in northwestern Asia Minor as the satrap of Caria in 407-401 BC, not only because of the distance, but also due to his lack of territorial authority.

H. A. Cahn (1985, 593) rightly pointed out the subjugation of Aeolia to Tissaphernes *c*. 400 BC, and therefore the possible activity of the satrap in the area of Adramytteion bay at the time. However, Tissaphernes' active

interest in northwestern Asia Minor, and the region of the bay of Adramytteion in particular, is also attested in written sources for the period before 407 BC. When Thucydides gives his account of the events of the year 411 BC, he mentions the extermination of Delian refugees settled in Adramytteion by one of Tissaphernes' officers, called Arsakes (Thuc. 8.108). Noteworthy, however, is the fact that the dating of this incident is not unconditionally accepted in scholarship (Debord 1999, 120-121; Rubinstein 2004, 1038). Nonetheless, the historical evidence, known also to H. A. Cahn (1985, 593), suggests that the city was subdued by the satrap and that the area of Adramytteion bay was the area of his activity in the first period of his office as *karanos*. Tissaphernes could, therefore, also have minted coins in the area in the years 411-407 BC (Debord 1999, 127; Bodzek 2010, 114ff). One should remember in this context that Adramytteion has been suggested as the mint in which two of the issues discussed in the present paper were minted.

Another important question that needs to be asked is whether Tissaphernes could have produced bronze coins before 400 BC, or, more precisely, before 407 BC. This question is directly related to the general problem of the dissemination of bronze coinage in the Greek world, and in Asia Minor in particular. When Martin J. Price (1968, 101) studied the beginnings of bronze coinage in Asia Minor, he had at his disposal very scarce material. He only knew a small number of bronze specimens minted in Asia Minor and dated before the 380s BC. In fact, one can only include bronze issues minted most likely at the end of the 5th century BC between the years 412-407 on Samos (Barron 1966, 99, Pl. XVII), and coins attributed to the brothers Gongylos of Myrina and Gorgion of Gambrion, minted *c*. 399 BC (Babelon 1893, LXVIIIf; Six 1894, 315ff; Nos 4-8). In the latter case, however, the dating has been placed under doubt (Price 1968, 10). Moreover, considering the present state of our knowledge, some of the examples given by Price should be the subject of revision. The first bronze coins of Chios, dated by the British scholar to the end of the 5th century, seem to have actually been minted after *c*. 400 BC (Hardwick 1993, 219f). The proposed Hekatomnos (392-377 BC) example must also be rejected, since there are no bronze issues that can be linked to this satrap (Konuk 2000, 175; Ashton 2006, 10). Basically, according to the knowledge available to Price, the earliest bronze coins with certain dating were the ones minted in the name of the Lycian dynast Perikle, whose activity fell in the period *c*. 380-362 BC (Borchhardt 1976, 99ff; Bryce 1980; Keen 1998, 148ff).

The situation changed with the publication of unknown bronze coins of Tissaphernes, dated to before 395 BC, and precisely to 400-395 BC. This strengthened the hypothesis placing the introduction of bronze coinage in Asia Minor at the beginning of the 4th century BC (cf. Cahn 1986, 13); the coins of Tissaphernes were, as such, regarded as the earliest bronze coins minted in the area (Weiser 1989, 282-283). However, one should stress that the *aes* of Tissaphernes was, for a long time, an isolated case, until new finds, in particular the Phygela Hoard (Ashton and Kinns 2004, 71-72; Ashton 2006, 2, n. 5; Konuk 2011, 151ff) and new material appearing on the antiquarian market or kept in museums and private collections, allowed for a change of view concerning the beginnings of bronze coinage in Asia Minor. In the light of the aforementioned data, it is possible to accept that, around 400 BC, production of bronze coinage began to spread to Ionia, Aolis, Mysia and Troas (Konuk 2011). Among the issues worth mentioning is the one minted in Kisthene, attributed by some scholars to yet another Achaemenid grandee, Pharnabazus (Maffre 2004, 23, n. 121; Winzer 2005, 32, No. 9.2, Pl. 3; Bodzek 2011, 167f).[1] In the last years of the 5th century, bronze coins were also minted in other centres in Caria: Halicarnassus, Iasos and Mylasa (Ashton 2006). The fact that bronze coins were probably minted in the Rhodian Kameiros at the beginning of the last decade of the 5th century (precisely before 408/407 BC and the synoecism, which resulted in new, federal minting in Rhodos; Ashton 2006, 1) appears of particular importance. Similarly, the aforementioned bronze coins of Samos are dated to the years 412-408 BC; the 390s saw the minting of yet another satrapal issue, the so called 'Great King-Archer/map of Ionia' type. The hoard recently uncovered in Miletus shows that at least the silver tetradrachms belonging to this issue were minted before 390/385 BC (Weisser 2009, 151ff). All this evidence shows that the bronzes of Tissaphernes are not an isolated case, as was believed several decades ago, but that they have a solid context of bronze coinage production in Asia Minor at the end of the 5th and the beginning of the 4th centuries BC. Is it therefore justified to date them to the period after 400 BC?

Interesting conclusions can be drawn in this context from the analysis of the Phygela Hoard, which contains the earliest Ionian bronze coins, dated to the very beginning of the 4th century BC. It is composed of coins minted in Assos, Chios, Ephesus, Iasos, Kolophon, Magnesia on the Maeander, Miletus, Myus, Pergamon, Pygela, Priene and Samos. An important observation was made by Koray Konuk (2011), who, in his

[1] Cf. auction Bankhaus Aufhäuser 12, 1996, No. 80.

brilliant preliminary study, connected the hoard in question with the events of the war between Sparta and Persia at the beginning of the 4th century BC. He pointed out that the coins from the mints located in the southern part of Ionia and in Caria (Ephesus, Phygela, Myus, Samos, Miletus, Iasos, Halicarnassus and Mylasa), as well as in several mints in the north, were minted in the 'light' weight standard *c*. 0.55-0.65g (diameter 7-9mm), while some of the mints in the north, such as Chios and Kolophon, minted coins in the heavy standard, with a weight of over 1.0g and an appropriately larger diameter (10-12mm). Other mints, such as Pitane, Assos and Pergamon, minted coins in the light standard. It appears that at the end of the 5th and the beginning of the 4th centuries BC, both standards were used according to the preferences of mints, and not necessarily according to the issue chronology. Konuk's observation is of consequence to the dating of the *aes* of Tissaphernes, because, as has already been mentioned, the satrap's coins differ in weight. The average weight of the type 'Head of Tissaphernes/ Artemida Astyrene' is 1.65g from 36 specimen studies. For the type 'Athena/ Zeus (Dionysos)', only a few specimens are known; one of them weighs 3.10g, the remaining ones between 1.61 and 1.86g, therefore the average of 2.07g is misleading. When the uncharacteristically heavy specimen is not taken into account, the average for this issue is 1.71g, which shows that both issues were minted in the same weight standard. The average weight of the 24 specimens of the 'Athena/rider' type is 1.04g, which makes these coins lighter by only one third from the coins belonging to the remaining two issues.

Two interpretations are possible here. According to the first one, the heavy and light coins may form two denominations – probably *chalkos* and *hemichalkos* respectively. This interpretation seems to be corroborated by the concept of the types 'Athena/Zeus (Dionysos)' (Fig. 1) and 'Athena/ rider'(Fig. 3) being minted in one mint. They would represent two denominations of the same issue, distinguished by the differing legends –ΤΙΣΣΑΦΕΡΝΟΥ (or ΤΙΣΣΑΦΕΡΝ) for the larger denomination and ΤΙΣΣΑ for the smaller. The other possibility is the use of two different weight standards: the heavier one, represented by the Astyra issue and the 'Athena/ Zeus (Dionysos)' coins, and the lighter one, which was used for the 'Athena/ rider' type. The use of two weight standards, the light and heavy ones, while minting the bronzes *c*. 400 BC is mentioned by K. Konuk (2011, 157f). In such a case, the coins 'Athena/Zeus (Dionysos)' and 'Athena/rider', originating from the same mint (Adramytteion?) would not make up two

denominations within the same issue, but would belong to two issues minted according to different weight standards. As a result, they probably could not have been minted at the same time.

In the process of establishing the chronological sequence of the issues of Tissaphernes minted in Adramytteion (?), the use of legends on the coins can also be helpful. As has been mentioned before, the satrap's name was written on the coins in question in two forms: ΤΙΣΣΑ and ΤΙΣΣΑΦΕΡΝΟΥ (ΤΙΣΣΑΦΕΡΝ). Assuming that the shortened form is earlier, the type 'Athena/rider', i.e. the one minted to a lighter standard, must be considered as earlier, while the heavier 'Athena/Zeus (Dionysos)' issue with the longer legend ought to be considered as later. It is not, of course, possible to assess the exact time between the two issues in question. One may, however, assume that the identical form of the satrap's name (ΤΙΣΣΑ) on the coins from Astyra, minted in the heavy standard, would most likely be roughly contemporary to the 'Athena/rider' issue of Adramytteion (light standard). Nonetheless, both issues in question could also be contemporary to the bronze coins of Caria, minted in the lighter standard and dated to the end of the 5th century. The latter hypothesis may be corroborated by the aforementioned argument, thus bronze coins belonging to the type 'Great King-Archer/map of Ionia' were probably minted at the beginning of the 4th century BC. Despite the relatively large difference in weight of the preserved specimens, one may distinguish two denominations with an average weight of 1.85g (*dichalkos*?) and 0.86g (*chalkos*?) respectively. Apart from the weight, another difference between the two is the legend BA present on the obverse of the larger denomination. It appears that both denominations were minted more or less contemporarily, which makes it a case of variety of denominations within one bronze issue.

As has been mentioned before, among the earliest bronze issues in Asia Minor are the coins minted on Samos and in the Rhodian Kameiros. Their production is dated most likely to before 408/407 BC (Kameiros), therefore to the time when Tissaphernes held the office of *karanos* for the first time. The satrap, who controlled both Lydia and Caria, could therefore have seen the bronze coins before his demotion in 407 BC, which made access to the Mysian mints difficult or even impossible for him. R. H. J. Ashton (2006, 1) pointed out extensive contact with Rhodos and Sicily as the possible direction from which the inhabitants of Kameiros adopted the notion of bronze coinage. Tissaphernes could have come into contact with bronze coins in a more direct way. H. A. Cahn (1986, 14) cited Thucydides' testimony (Thuc. 8.26) about the involvement of Syracusan ships

in skirmishes off the Asia Minor coast as an opportunity for the dissemination of the idea of bronze coinage in the area. Such an example could have given inspiration to the shrewd Persian grandee.

In the light of data presented over the course of the present paper, the minting of at least some of the bronze issues of Tissaphernes in the period of 413-407 BC seems quite possible, or at least not improbable. As has been pointed out, such a hypothesis is countered neither by the accessibility of mints, the dissemination of bronze coinage in Asia Minor, nor by the weight standards used. Tissaphernes' policy towards the parties fighting the Decelean war is of interest. Unfulfilled promises made to the Peloponnesians, as well as protracted payments to the Peloponnesian fleet, testify to an attempt at minimalising financial support – in other words, at attaining his goal at minimal cost. Bronze money was a perfect means for this aim, as it was a form of token war money at the given time and in the given place (cf. Konuk 2011, 158ff). Worthy of note in both the case of the Astyra issue and the 'Athena/rider' type is the fact that several stamps of the obverse and the reverse can be identified. These issues were therefore relatively prolific and as such related to particular expenses. Certainly, one cannot rule out the possibility that the coins in question were minted in the years 400-395 BC, but their possible dating to the years 413-407 BC should also be taken into account. If Tissaphernes was regarded as the forerunner of bronze coinage in Asia Minor in the early years of the 4th century, why should the dating of his coinage not be moved to the earlier period of his activity?

The proposed dating of the bronze issues of Tissaphernes to the years *c*. 413-407 BC also indicates an earlier beginning to the introduction of bronze coinage in Asia Minor. One may consider to what extent other issuers, in particular the Greek *poleis* and local despots, drew inspiration from the example of the Persian grandee. Nothing proved a better instrument for introducing a fiduciary coin than the authority of a *karanos*. And nobody set a better example.

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THE INTERPRETATION OF LOOMWEIGHTS IN VARIOUS ARCHAEOLOGICAL CONTEXTS

Abstract: *At most settlement sites in the Mediterranean, as well as at many necropoleis, artefacts interpreted as loomweights have been uncovered within contexts dating from the Bronze Age to the Roman period. These smallish objects, mostly made of clay, were essential for the production of textiles. Regrettably, loomweights have not attracted the scholarly attention due to them for a long time. However, in recent years they have become a focus of interest, especially in publications of excavated material. This has allowed the current author to distinguish five principal types of context in which artefacts of this class have been encountered in the process of archaeological exploration. Their classification and interpretation will be discussed in the present paper.*

Keywords: *Loom; loomweights; archaeological context; weaving*

Introduction

In most of the settlement sites in the Mediterranean, as well as in numerous necropoleis, archaeologists have discovered artefacts interpreted as loomweights within contexts dated from the Bronze Age to the Roman era. These were usually clay objects to which the thread was attached while weaving, and they formed part of the vertical loom that was commonly used in the Mediterranean area in antiquity (Crowfoot 1954, 425). Loomweights usually appear in three shapes: pyramidal, oval (discoid) and conical (Fig. 1). It is worthy of note that some of these artefacts were decorated, stamped or inscribed. For a long time, loomweights did not hold any interest

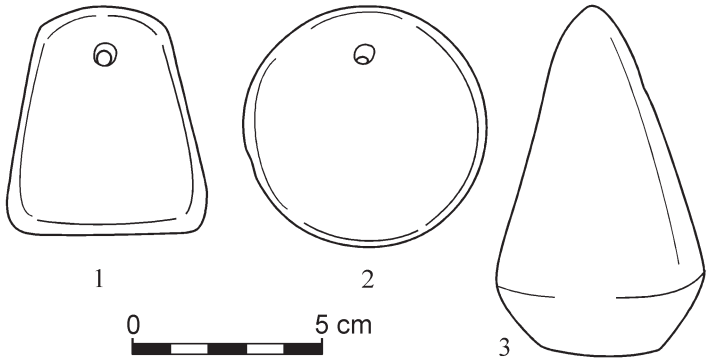

Fig. 1. The most popular shapes of loomweights:
1 – pyramidal; 2 – oval (discoid); 3 – conical. Drawing by U. Bąk

to scholars researching excavated material; only recently have such objects began to draw the attention due to them.[1]

Loomweights found in archaeological sites appear mostly in five major contexts, which will be presented and interpreted below.

Remains of household or workshop production of fabrics on ancient settlement sites

In order to assess beyond doubt that we are dealing with an archaeological context that can be interpreted as containing the remains of loom usage in the home or workshop production of fabrics, two conditions ought to be met. Firstly, the number of loomweights uncovered should be sufficient to fit one loom and, secondly, they should be found arranged in a way that corresponds to their arrangement on the loom.

One of the crucial questions asked by scholars who research ancient looms is how many weights were needed to enable weaving. The first attempt at assessing this was made by G. R. Davidson (*et al.* 1975, 67-69) in his publication on loomweights from the Athenian Pnyx. The author

[1] The primary bibliography for any scholar interested in loomweights is that of the research into the so-called small objects from Corinth and Pnyx: Davidson 1952; Davidson *et al*. 1975. In recent years, research on loomweights has intensified, the proof of which is the growing number of publications; of particular interest are the following studies: Shamir 1994; Shamir 1996; Cahill 2002; Butiagin 2008.

took into consideration first and foremost iconographic material. On a red figure *skyphos* from Chiusi, Davidson counted 46 visible weights, which should account for a total of 67 weights for the whole loom to be complete. On a black figure lekythos from New York, 22 weights could be seen. The analysis of the Pnyx material enabled Davidson *et al.* (1975, 69; Shamir 1994, 276) to assess that one large loom should have used around 66 weights. It is, however, highly improbable that each loom demanded such a large number of weights. The analysis of the material from Olynthus, elaborated by N. Cahill, provides the most detailed information on this subject. The largest number of homogenous archaeological contexts which can almost certainly be interpreted as the remains of standing looms were discovered there. On this basis, N. Cahill (2002) established that rooms in which at least 20 weights were found could be interpreted as the remains of looms (we need to remember that they must have been found properly arranged – see below). The scholar also distinguished three groups of rooms according to the number of weights found. In the first and most numerous group, consisting of 25 rooms in total, ten to 25 weights were found. In the second group, which numbered only seven rooms, 25 to 43 weights were found. The last and least numerous group of rooms contained more than 43 weights. Cahill (2002, 173) also gave the example of the finds from the Phrygian Gordion, where 21 aligned weights were found. Similar assessments were made by O. Shamir (1996, 144-145) on the basis of finds from Israeli territory. This scholar gave several examples of aligned weights which corroborated the hypothesis that the loom needed at least 20 weights to enable a reasonably arranged and unhindered weaving process. The sites he researched were Tel Amal, Tell es Sa'idiyeh (the loom here was fitted with 62 weights found *in situ*), Tell Deir Alla and Troy amongst others. The conclusions drawn from the excavated material have been confirmed by archaeological experiments.

When interpreting contexts, as has been mentioned before, the arrangement of weights when uncovered is of equal importance to their number. It is usually assumed that the weights formed part of a loom when they are aligned. This is an ideal situation, rarely encountered on archaeological sites, since it occurs only if the weights fell evenly on the floor on which the loom stood after it was destroyed. Much more frequently the weights are found scattered around the room in a limited space. In such cases, they are usually interpreted as belonging to a loom, unless they were found in a context that allows for a different interpretation (cf. Cahill 2002, 172), which will be discussed later. This approach enabled the researchers

in Olynthus to interpret several rooms – a total of 43 rooms in 35 houses – as those in which weaving took place with a probability bordering certainty. This corroborates the hypothesis that most fabrics were home produced to satisfy private needs (Cahill 2002, 173-175). There were, however, a number of houses where weaving was practised on a larger scale, possibly also for sale. For instance, in house A v 5 at least four looms existed; in house A viii 7/9 enough weights were found to easily fit 12 (!) looms. The latter case is that of a large house in whose western part fabric production, possibly carried out by slaves, was concentrated (Cahill 2002, 124, 250--251). Apart from houses where looms were definitely used, we also know of others in which there is no evidence of weaving activity. Weights were found there, but in such small numbers and so scattered that they could not have belonged to a loom. Cahill (2002, 179) observes that these were usually larger houses and thus belonged to wealthy inhabitants, who could afford the purchase of fabric and hence did not need to produce it themselves.

There is one more group of weights that requires our attention in the context of fabric production. These are large groups of loomweights found in the form of 'hoards' within houses. Such contexts can usually be interpreted as places where unused weights were stored. They are often found tightly packed, which suggests that they had probably been placed in one bag. In such cases, we can be certain that the weights did not originate directly from a loom, but their practical purpose is not in doubt, unlike in the case of similar deposits uncovered in places that had not been living quarters, see below (Cahill 2002, 174, 251).

The finds of weights *in situ* that allow for the precise determination of the place where the loom was located in the house make it possible to establish several rules that ancient people observed when placing the looms. The looms had to be placed in a bright room with an even floor; these were necessary conditions, since bad light or an uneven surface would hinder efficient weaving. Therefore, looms were most frequently placed in rooms adjoining the *pastas*, the yard or at the house's front (Cahill 2002, 175; Allison 2004, 175).

Sometimes the loom would be placed outside the house, provided the weather was good enough for weaving to be possible there and that, in case of rain, the loom could be moved into the house. It should be noted that vertical looms with weights could be moved from place to place between weavings. As a result, some contexts unequivocally indicate the presence of a loom, despite the lack of weaving conditions. Looms were never placed in rooms such as the *androne*s, bathrooms or close to the chimneys.

One must also consider whether the Greeks designated certain rooms to be used as weaving space, or if this was arranged according to comfort and usefulness. A word for 'weaving room' exists in ancient Greek but it most likely designated the space where weaving took place and not a specific room within the house arrangement (Cahill 2002, 175).

Votive gifts for deities connected with weaving

Occasionally large deposits of loomweights are found that cannot be interpreted as the remains of household fabric production. Such contexts can be interpreted as votive gifts for temples, but this continues to be problematic in the study of the subject (Tzouvara-Souli 1996, 498). The late Classical find from Troy constitutes a good example. In the proximity of the sanctuary of Athena *Ilias*, a deposit of 15 loomweights and four spindles were uncovered. Apart from two, most of these weights were atypical in shape and were described as lentoid. Moreover, six out of the 15 weights were stamped; one of them probably featured the image of Athena *Ilias*, while the figure on two weights can be interpreted as a weaving woman (Wallrodt 2002, 179--181). The cult of Athena in Troy was connected with weaving, which was one of the aspects of this goddess's worship (Hughes and Forrest 1984, 25). Some of the weights in question appear to have been too light to serve for weaving, and they may have been replicas of actual loomweights. All these traits seem to indicate unequivocally that this particular deposit was a votive offering for the tutelary deity of weaving. The location of the deposit outside the sanctuary remains puzzling, but it was probably moved from the temple in order to make room for further gifts. A similar situation was observed in the sanctuary of Artemis *Brauronia* on the Athenian Acropolis, where a deposit of loomweights together with a list of fabrics offered to the goddess was found by the temple, which unequivocally confirms the interpretation of such finds (Wallrodt 2002, 183-185).

Loomweights as votive gifts also appear in the context of the cult of the 'Houses of Weaving', the tradition of which is pre-Greek.[2] A temple devoted to the weaving cult, which was identified on the acropolis of Timpone della Motta (Calabria, Italy), is described as a 'Weaving House', and it was built before Greek colonization. After it had burnt, two temples dedicated to Athena were erected in the same place and she was worshipped here, as in Troy, as the goddess of weavers (Maaskant Kleibrink and Jacobsen 2004, 43). Among the numerous finds from the temples, there were also

[2] Calabria was inhabited by Oinotrians before Greek colonization at 8th century BC.

loomweights, some of them beautifully decorated. Some of them must have formed part of a huge cult loom (their weight ranged from 800 to 1200g), which was placed in one of the rooms of the pre-Greek temple (Maaskant Kleibrink 2000, 174).

In broad Indo-European tradition, weaving was regarded as a sacred activity, which can be demonstrated by the existence of such places as the aforementioned 'Houses of Weaving', as well as by representations of the goddesses who weaved. Therefore, the fact that material remains of fabric production processes are connected with such cults is not surprising. This is corroborated by decoration found on the weights, which also relates to the deities. In Ephesus, a weight with the name of a local deity was found (Levi 1966, 583) and in Kofina Ridge, on Chios, a sanctuary of Demeter was identified due to a votive inscription on a weight (Anderson 1954, 126).

The site of *Agios Georgios* in Nicosia presents us with a particular situation; weights found there allow us to assume that loomweights were produced here and that the tutelary deity of the place was the goddess Arsinoe-Aphrodite (Pilides 2007, 134, 138).

Burial gifts

Yet another context where loomweights are found, which also indicates their cult significance, are burial gifts. We know of a large number of necropoleis where the presence of loomweights was observed. In the aforementioned Timpone della Motta, several wealthy graves were uncovered in which decorated pyramidal loomweights were found among other artefacts (Maaskant Kleibrink 2000, 165; Maaskant Kleibrink and Jacobsen 2004, 47). In the Hellenistic graves in Mycenae, a large number of weights were found, among them an exceptional specimen bearing the stamp of a man with a spear impressed ten times (Wace 1978, 315-316). Loomweights were also found in children's graves in Poggio Gramignano Lugnano in Teverina (Martin 1999, 448). Finds from Le Bas Aragon site in France also represent an interesting example, since the site yielded not only loomweights, but also the only preserved fragment of an ancient loom. In a stone-built circular tomb, a loom was placed, one of whose wooden beams was replaced with a stone column. Holes were drilled in it for horizontal beams, which were attached on the other side to a wooden vertical board which was not preserved (Moret *et al.* 2000, 141-147).

Similarly, loomweights were found that served as grave gifts in antiquity on Cypriot sites. Artefacts connected with weaving had been placed in

Cypriot graves long before classical antiquity. In Maroni, for example, loomweights were uncovered in at least three Bronze Age-Late Cypriot graves (nos 3, 7 and 14). These were single artefacts, which suggests that their meaning was symbolic (Manning and Monks 1998, 322, 335, 342). Similar examples from the same time are provided by the necropolis in Kition (Karageorghis 1959, 560, 578). The Iron Age necropolis of *Skales* in Palaepaphos (Palaipaphos) also yielded loomweights in several graves; for instance, in grave 75, a set of artefacts was found comprising a loomweight and a spindle, while, in grave 89, two weights were found (Karageorghis 1983, 208-209, 321, 326). From the Hellenistic period, one grave is known where a loomweight was discovered; it is the looted grave 14 on *Agioi Omologites* in Nicosia, where one pyramid weight was found (Pilides 2007, 138). This indicates that the tradition of placing loomweights among grave gifts survived into Classical and Hellenistic times.

Grave finds can help to assess the role of weaving in societies and to establish who took care of the production of garments in a typical household. It is traditionally held that it was women who worked the looms and that weaving was a typically female activity in which girls were trained from childhood (Cahill 2002, 169). A full set of weights that would allow the construction of a loom was a popular wedding gift (Wood Conroy 2000, 221). Greek mythology confirms such notions: Athena was the patroness of weaving and allegedly taught young girls how to use weaving tools (Hughes and Forrest 1984, 25); Arachne and Ariadne[3] were also among the mythological women associated with weaving. Homer (in his *Odyssey*) and Sappho wrote about the role of weaving in the lives of women (cf. Weinberg 1956, 26-29, 262).

Gender archaeology, one of the new trends in archaeology that stems from postmodern criticism of traditional concepts, focuses on the deconstruction of the traditional image of women in historic and prehistoric societies. J. S. Smith (2002, 290), one of the scholars who ascribes to this trend, made an attempt to analyse the place of women in the process of fabric production in late Bronze Age Cypriot societies. It is worth mentioning that probably not much changed in the perception of women's roles between the period analysed by Smith and classical antiquity (cf. also Lovén 2007, 229-236). Taking into consideration the finds from cremation burials, Smith established that it cannot be confirmed beyond doubt that the graves in which artefacts connected with weaving were found belonged solely to women. Nonetheless,

[3] At Timpone della Motta several loomweights were found, decorated with labyrinthine patterns, which can be associated with the myth of Theseus and Ariadne.

the scarce written sources from the period in question, which were preserved on Linear B tablets confirm that household production was basically the domain of women. Men in antiquity were not, however, entirely separated from fabric production. Known representations of the weaving process from Egypt indicate that male slaves were 'employed' in large fabric workshops. A similar situation could have arisen in other large centres of fabric production in antiquity. Ethnographic material could also be significant. In the Troodos Mountains, where the tradition of fabrics hand-woven on looms in the shape known from antiquity (vertical with double beam – the successor of the loom with weights) survives to the present day, the heaviest fabrics are woven by men. One must, however, remember that even now most of the work at the loom is done by women (Smith 2002, 284-287).

Loomweights as grave gifts appear, therefore, to have been objects which first of all must have had a symbolic or emotional value for members of ancient societies. They should probably be associated with the female world, but the aforementioned reservations must be taken into consideration.

Remains of the production of loomweights

An important context in which loomweights are now being found is that of archaeological objects that could be associated with the production of these artefacts. Even though they are not numerous, they give some idea about how the weights were produced and what place they occupied in the production system of clay objects.

The production process of weights was well understood in Corinth, where a furnace was uncovered in which, apart from the main product (roof tiles), loomweights were also fired. Such organized production resulted in the standardization of weights, and possibly also in the custom of marking them with marks or stamps (Davidson 1952, 146). A furnace in which weights were fired was also found on the Agora of Athens (Papadopoulos 2003, 153). Another important site probably connected with the production of weights is the aforementioned *Agios Georgios* in Nicosia. A large group of weights was found there, which had either been prepared for firing or had cult meaning. Moreover, these weights bore traces of either attempts at re-stamping the stamps or of effacing them. As in Corinth, these weights appeared to have a standardized size, which may indicate the hypothetical producer's purpose (Pilides 2007, 133, 138).

Loose finds that attest to a connection with vertical looms, but do not permit detailed description

Loomweights are definitely most frequently encountered in the context of loose finds. Most settlement sites yield such artefacts. This should be quite self-explanatory, if we take into account the fact that people needed fabrics and garments, as well as ropes etc., wherever they lived. If the weights are found only in loose contexts within such sites, not much can be said about the organization of fabric and weaving related production, nor about the role of weaving in the local culture, economy etc. The only assumption that can be made is that the local population knew the vertical loom and used it; all other hypotheses must be made on the correlation of knowledge gathered from other sites with the information that can be gleaned from the analysis of singular artefacts. Belonging to the latter is the thorough analysis of the morphology of the objects used in the process of weaving, their sizes, what can be learned about their production from clay analysis, its forming and firing, and its decoration, if any is present.

Conclusion

The presented possible interpretations of loomweights in archaeological material do not exhaust all the possibilities. The large number of single finds does not allow them to be simply explained as casual post-deposit phenomena on archaeological sites; the reasons for decorating and stamping weights also still remain unclear. Therefore, research on loomweights should be intensified and detailed elaboration and publication of such artefacts should be encouraged.

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THE RURAL AREA OF THE GREEK COLONY AKRA (KERCH DISTRICT, UKRAINE): THE SETTLEMENT ZAVETNOE 5. SEASONS 2009-2010

Abstract: *Archaeological excavation in the chora of Akra, a Greek colony situated to the south of Pantikapaion and Nymphaion in the Kerch peninsula, was launched in the 1980s by staff from the Kerch Museum. Since 2002, the Ukrainian-Russian Expedition of Donetsk University and the State Hermitage in St Petersburg have operated on the Zavetnoe 5 site, most probably the main part of this chora, which dates from the late 6th to the first decades of the 3rd century BC. During the years 2009 and 2010, academic staff and students from the Krakow Jagiellonian University in Poland joined this expedition. The preliminary results of our work will be briefly presented in this article.*

Keywords: *Akra in the Crimea; chora of the European Bosphorus; Greek colonies in the Black Sea; Classical period; Hellenistic period*

Akra is a small Ionian colony mentioned by ancient literary sources, located between Nymphaion and Kytaia, which seems to have been founded by Nymphaion during the secondary colonisation of the territory of the European Bosphorus, most probably around 530-520 BC (Marti 1929; Kulikov 2007, 1023, 1029). The Greek name of the city, *AKPA*, means ‘acme’, ‘summit’, ‘hill fortress’ or ‘lofty cape’. It is located 19km south of Nymphaion, near the modern coastal village of Zavetnoe, 30km to the south of Kerch (Fig. 1).

The first attempts to locate Akra were made in the 18th century (cf. Marti 1929). After many years of unsuccessful searching for the location

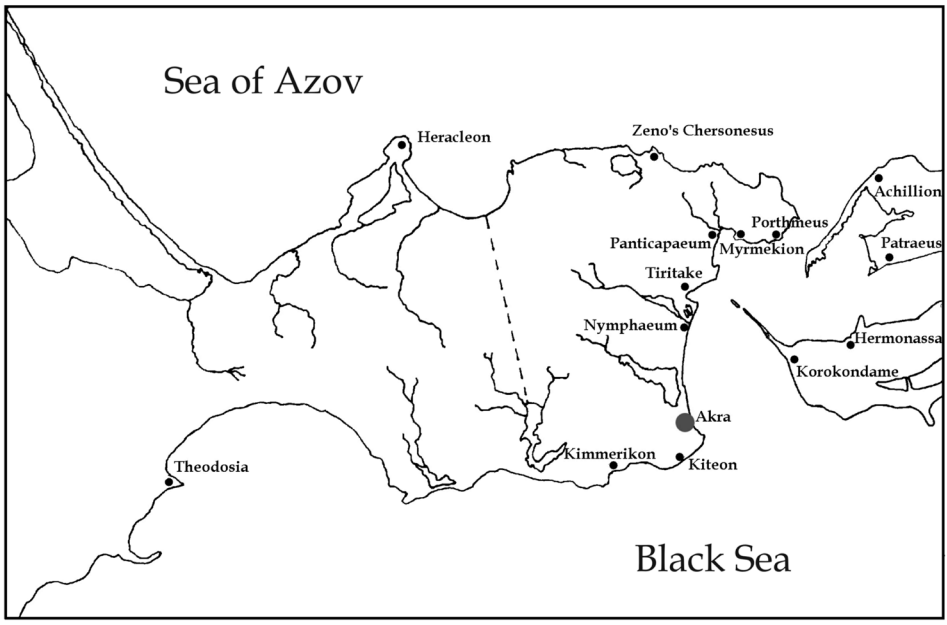


Fig. 1. Location of Akra. Reproduced from Solovyov and Shepko 2011, Fig. 1

of the city from the 1950s to the 1970s, the windy and stormy summer of 1980 brought welcome results. It revealed the remains of walls and stone pavements, storage pits and pithoi set in the earth. This was an unknown ancient Greek settlement on an unnamed cape close to the village of Naberezhnoe (or Zavetnoe).

The first archaeological research at Akra was conducted by the Kerch Historical-Archaeological Museum in 1982-1983, following the delivery to the museum of different objects found by local inhabitants on the seashore, as well as in the water. Local people also gave accounts of remains of walls submerged in the water of the Kerch Strait (Nazarov 2003, 101). In 1982, the Museum sought the collaboration of K. K. Shilik, the leader of the newly created Underwater Department of the Leningrad Bosphoran Expedition (of the Academy of Sciences of SSSR) and asked him to start underwater research. This work was conducted between 1982 and 1985.

The results were impressive: not far from the shoreline, 0.5-4.5m deep, the remains of an ancient city, rectangular in plan, came to light. The total area of the city ruins was estimated to be not less than 3-3.5ha. The fragments of fortifications with one tower and also one cistern were investigated. The harbour was probably located at a depth of about 7.5m. The underwater

excavations showed without doubt that the uncovered city was the Akra of Strabo (Shilik 1984a; Shilik 1984b; Shilik 1987; Shilik 1988; Shilik 1991; Kulikov 2007, 1025-1026). In 1981/82, researchers uncovered a necropolis located south of the Zavetnoe village, on top of the hill with burial mounds dating back to the 4th-3rd centuries BC (Kulikov 2007, Fig. 2 A). In 1982 and 1983, a group of Kerch archaeologists under V. N. Kholodkov also undertook minor archaeological surveys around the unsubmerged part of the site and its necropolis. In 1991, the northern necropolis of Akra was investigated by the Kerch Museum and Roman and Early Medieval burials were discovered.

A new period of research of Akra and its *chora* began in 1994. The Kerch Museum, in cooperation with the Navarex diving club of Odessa and with the support of the Italian research project '*Mare nostrum*', investigated the submerged part of Akra and drew a new plan of the city (S. V. Grabovetsky and A. I. Terestchenko, cf. Kulikov 2007, 1026, Fig. 3 A-B). In 1996/1997, an extensive program of investigation of the city was carried out in collaboration with Odessan archaeologists led by Larisa G. Shepko of Donetsk State University. Roman houses were uncovered and dated to the 2nd and 3rd century AD. It was proven that the late 3rd/early 4th century AD was the final period of the city's existence (Kulikov 2007, 1038-1041, Figs 7-8). Underwater investigation of the southern defences revealed many finds that supported the dating of their construction. The harbours at cape Akra were investigated repeatedly; a stone anchor stock was found 150m from the modern shoreline at a depth of 3.50m.

Between the years 1995-1998, some exploratory work was undertaken around the *chora* by V. N. Zinko and L. Yu. Ponomarev (Kerch) and L. G. Shepko (Donetsk). Ancient settlements were discovered and their positions placed on modern maps. It became clear that investigations around the *chora* were likely to reveal more valuable information than in the city or the necropolis. A further programme of investigation began in the *chora* in 1999 under the leadership of Shepko. Zavetnoe 5 was chosen as the key site. In 1999-2000, the expedition found an Archaic block in the settlement dated to the late 6th-early 5th century BC and excavated an object that resembled a sanctuary. Excavations proved that Zavetnoe 5 (located on the top of the promontory's plateau between the Black Sea and Tobichik lake) was the most important settlement in the *chora*, with chronological limits from the late 6th to the first decades of the 3rd century BC (Shepko 2002).

During the years 2002-2007, Donetsk State University and the State Hermitage Museum conducted an archaeological project on the *chora* of Akra. In these six years excavations were carried out at three different parts of the Zavetnoe 5 rural settlement (Shepko *et al*. 2003; Solovyov and Shepko 2004; Solovyov and Shepko 2006; Kulikov 2007, 1035-1037; Shepko 2010; Solovyov and Shepko 2010). In 2008, excavations were not conducted.

In 2009, the Institute of Archaeology of the Jagiellonian University in Krakow, Poland joined the project as a result of a bilateral agreement with Donetsk State University. In this way, the project involved Ukrainian--Russian-Polish cooperation. The expedition operated on the basis of a licence ('*list otkrytyi*') from Shepko. S. L. Solovyov and M. M. Akhmadeeva represented the State Hermitage (St Petersburg, Russia), while the present author and W. Machowski represented the Jagiellonian University (Krakow). Students from Donetsk and Krakow universities also took part in the excavation (Pl. 1: 1).[1]

Season 2009

In the year 2009, research was only carried out in the western part of the settlement. Two trenches were opened to the northeast of the trenches explored in 2007 and given the working names of 'southern trench' (Pl. 1: 2) and 'northern trench' (Pl. 2: 1). The aim of the exploration was to discover the living quarters of the settlement. A surface of *c*. 300m^2 was uncovered. Unfortunately, the research showed that this part of the settlement had suffered extensively during World War II operations. Some of the squares, however, did contain intact ancient layers.

[1] In season 2009, the Polish part of the expedition operated from 05.07. until 30.07. The following students from Krakow participated: Kamil Bałyk, Kaja Głomb, Mieszko Janas, Karolina Kawecka, Magdalena Kazimierczak, Łukasz Kupczyk, Wawrzyniec Miścicki, Agnieszka Musiał, Kamila Nocoń, Daria Olbrycht, Monika Ozimińska, Anna Teper, Katarzyna Wachowska, Maciej Wacławik, Anna Walas and also volunteers: Ewa Borsukiewicz and Agnieszka Chodorowicz. In season 2010, the Polish part of the expedition operated from 04.07. until 28.07., and the following students from Krakow participated: Emilia Brotz, Ewa Domaradzka, Michał Gębczyński, Paweł Gołyźniak, Bartłomiej Grzywniak, Małgorzata Kajzer, Karolina Kawecka, Renata Kluza, Marcin Kumięga, Paweł Kurtyka, Paula Pieprzyca, Emilia Staniszewska, Maciej Wacławik, Olga Wrzoszczyk, Oliwia Żmuda-Orłowska and also volunteers: Ewa Borsukiewicz, Agnieszka Chodorowicz, Beata Całus, Marek Gutek, Paweł Surówka. On the work of the students see E. Borsukiewicz, W stepie szerokim, *Menhir* 8 (2010), 88-91.

The remains of two building complexes were partly uncovered. They were given the working names of Building Complex 1 in the 'southern trench' (*Stroitelnyi Kompleks* 1), and Building Complex 2 in the 'northern trench' (*Stroitelnyi Kompleks* 2).

Building Complex 1 is oriented almost exactly on a north-east axis. In its southwestern part, the remains of what appears to be a building were discovered, whose southeastern corner is constructed by the walls marked as Walls 1 and 5. At a distance of 2.06m to the west of its corner, Wall 1 is broken by a kind of canal almost 0.30m wide. This culvert runs in an arch and is slightly bent from the northwest to the southeast. Its bottom was in some parts paved with stone slabs. The area with the culvert is delimited from the west by Wall 2 and from the east by Wall 3, both of them running parallel to the culvert. The purpose of this construction is not clear. In this part of Building Complex 1, internal divisions are visible: two rooms (?) could have been located here or simply compartments divided by the aforementioned canal.

The entrance to Building Complex 1, 2.23m wide, had a 'pylon' shape, and was delimited from the east by Wall 9 and from the west by Wall 5. Across its whole width, the entrance was paved with irregular stone slabs and was probably equipped with a double wooden door. At the northern end of both of the 'pylon' walls something remains of their embedding: a hole in the stone slab in the east and a recess in the stone in the west.

A 2m wide (street? courtyard?) pavement extended to the north and 11.31m of its length was uncovered (it 'enters' the northern profile of the trench). On its surface, numerous roofing tiles were found (ordinary tiles and *kalypteroi*, some of them stamped) (Pl. 2: 2). The paving was partly destroyed by a semicircular earthen structure, whose meaning and dating was not clear in the 2009 season. Only during exploration in 2010 did it turn out that this was a modern object connected with WWII (it was, therefore, dismantled). The Complex probably dates to the last quarter of the 4th-beginning of the 3rd century BC.

Building Complex 2 in the 'northern trench' was probably a living quarter and can be dated to the third quarter of the 4th century. Small remnants of three walls (Wall 6, 7 and 8) were uncovered here, as well as a rhomboid stone trough (broken).

Portable material uncovered in 2009 consisted in the first place of pottery shards (a total of 15,421 fragments). This material can be divided into two unequal parts. The first category contained a large amount of wheel-made pottery, produced in Bosphoran workshops and imported from Greek

centres. The second category, much less numerous, consisted of hand-made vessels, produced in the area of Akra and consistent with the traditions of the local Scythian and Kizil Koba cultures. As was the case in previous seasons, the most numerous group of wheel-made pottery were the amphorae shards (*c*. 88%). Amphorae from Chios prevail, followed by vessels from Mende, Heraclea Pontica, Thasos and its circle, Sinope, Knidos and Lesbos. A great number of roof tiles were also uncovered, being mostly of Bosphoran production (of red clay), and to a minor extent of Sinopean. The second vessel group according to number is that of tableware (*c*. 5% of pottery finds). It consisted of local pottery made of red and grey clay and black glazed high quality ceramics imported from Athens, often with stamped decoration. Wheel-made kitchen ware made up a small percentage of the pottery finds. Weaponry elements were also found, as well as everyday objects (spinning whorls, loomweights, lamps etc.) and objects related to the agricultural activities of the inhabitants of Akra's rural infrastructure.

The uncovered remains allowed us to suspect that the explored part of the settlement served not only living needs, but also played a religious role (Building Complex 1). This was corroborated by the finds in the 2010 season.

Season 2010

Work was carried out in the 'southern trench', which was extended to the north and east, and also in two new separate trenches. One of them began from a trench explored in the years 2005-2007, and formed its extension to the north and east (3 squares). The other new trench was located to the west of the 2009 'southern trench' in an area which, after geophysical exploration (S. L. Smekalov in 2009), raised hopes of finding a ceramic kiln.

Most important for the interpretation of the explored part of the settlement were the results from the extension of the 2009 'southern trench' and Building Complex 1 (Pl. 3: 1). The continuation of the aforementioned pavement to the north was uncovered. The paving extended to the east but in the west it was partly demolished. From the north the paving was delimited by a massive east-west running wall, only partially preserved but constructed carefully of huge worked stone blocks (Pl. 3: 2).

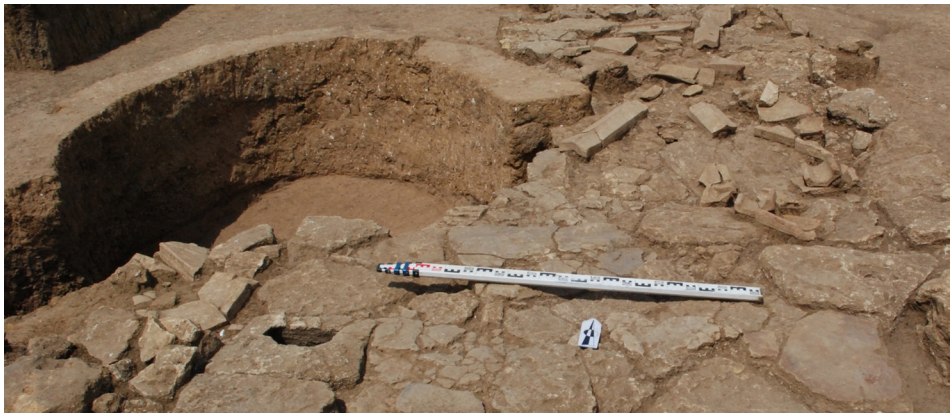
In the eastern part of the trench, remains of probably four rooms (opening towards the pavement?) were uncovered, delimited by parallel walls running on an east-west axis. In the northeasternmost room, a layer of shattered pottery and terracotta was discovered at the habitation level.

1

2

Pl. 1. 1 – Students work on ‘southern trench’, 2009. Photo by W. Machowski
2 – General view of ‘southern trench’ by the end of 2009 excavations.
Photo by W. Machowski

1



2

Pl. 2. 1 – General view of 'northern trench' by the end of 2009 excavations. Photo by W. Machowski
2 – Rooftiles *in situ*. Photo by W. Machowski

1

2

Pl. 3. 1 – The Building Complex 1, 2010. Photo by W. Machowski
2 – Northern part of Building Complex 1, 2010. Photo by W. Machowski

1

2

Pl. 4. 1 – Two terracotta Demeter or Kore protomes (to be published by L. G. Shepko). Photo by W. Machowski
2 – Exploration of pits in dugout, 'western trench' 2010. Photo by W. Machowski

This deposit most likely makes up the destruction layer. Among the shards, many used to form amphorae (numerous fragments fit together, belonging to at least eight different vessels). Moreover, apart from typical red clay pottery, black glazed ceramics and hand-made ware, unique vessels were also found in the deposit. Among other things, a number of shards of a *dinos* (or krater) made of red clay were discovered (its horizontal rim was decorated with vertical palmette attachments and white paint ornaments in the form of a grapevine garland were on the body) as well as a plain ware *lagynos* (a wine jar characteristic of the Hellenistic period). Two stamped amphora handles were also found: one from Thasos (with a representation of a crab) and one from Sinope (inscription on three lines: [ΑΣΤΥΝ] ΟΜΟΥ ΑΠΟΛΛΟΔΟΡΟΥ ΤΟΥ ΔΙΟΝΥΣΙΟΥ and a bunch of grapes). The most precious finds are several terracottas representing Demeter or Kore with their arms folded at elbow height and their palms pressed against their chests (Pl. 4: 1). Such protomes have many analogies from other sites of the northern Black Sea coast (for instance from Olbia, Luzanovka near Odessa, Chersonesos etc.) and their presence confirms the sacred function of the uncovered building. This deposit is dated to the early Hellenistic period: the end of the 4th and the first three decades of the 3rd century BC.

In the 'southwestern trench', only scarce remains were discovered in the north section (Fig. 2) and the 'western trench' contained a large dugout (or semi-dugout) with five pits in its bottom (Pl. 4: 2).

Fig. 2. 'Southwestern trench', 2010. Photo by W. Machowski

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ARSINOE *HOPLISMENE*. POSEIDIPPOS 36, ARSINOE PHILADELPHOS AND THE CYPRIOT CULT OF APHRODITE

Abstract: *Epigram 36 of Poseidippos presents the reader with the perplexing image of an 'armed Arsinoe', which finds no analogies in the texts and works of art portraying Queen Arsinoe II Philadelphos of Egypt. This paper aims at the interpretation of this particular poetic fragment in the context of the imagery of the armed Aphrodite, on the one hand, and the particularities of the cult of the goddess in Cyprus on the other hand.*

Keywords: *Ptolemaic dynasty; Arsinoe II; Aphrodite; Cyprus; Poseidippos of Pella*

The practice of association and assimilation of the Lagid queens with various goddesses, and Aphrodite in particular, began with the posthumous deification of the founder of the dynasty, Ptolemy I Soter, and his second wife, Berenike, by their son, Ptolemy Philadelphos, but it reached its apex with the death and apotheosis of their daughter, Philadelphos' sister and wife, Arsinoe. The latter became the model for further deifications of royal women as well as for their public image, so that even such strong individuals as the Cleopatras of the 2nd century or Cleopatra VII related to Arsinoe in one way or another.

Arsinoe's association with Aphrodite is mentioned in a number of literary texts of the 3rd century BC, the most famous of them being Callimachus' *Coma Berenices*, which attests the cult of Arsinoe-Aphrodite (Catull. 66.54-58). Poetic evidence for lifetime association is given in Theocritus' *Adoniazousai* (*Id.* 15.110-111), where the poet

'allows us to imagine that it might be Arsinoe herself in the guise of Aphrodite who is lying in the arms of her lover' (Havelock 1995, 127).

Poseidippos of Pella also devoted a number of poems to the queen; the recurring topic of these is the cult of Arsinoe-Aphrodite at the Zephyrion promontory (epigrams 39, 116 and 119; cf. Tondriau 1946, 16-17), which was performed in a *naiskos* dedicated by the commander of the Egyptian fleet, Callicrates, around 268 BC, i.e. either in the year of the queen's death or up to two years following it. Hans Hauben (1983, 111-114) proposes attractive arguments in favour of the actual political engagement of Arsinoe, in particular her support for Ptolemaic naval supremacy, and sees the Zephyrion temple in terms not only of Ptolemaic propaganda but also as '*le prolongement de sa vie et de ses activités réelles*'. The founding of a temple of Aphrodite on a promontory with military connections, especially naval successes, was not unknown in the Greek world; the Athenians were said to have honoured the goddess in this manner twice between the mid-5th and early 4th centuries BC (Paus. 1.23.2 and 1.1.3 resp.; cf. Pironti 2007, 245). We do not possess, however, any indication as to the character of the cult in these two instances, let alone details of cult images.

As for the Zephyrion *naiskos* and its relevance to the cult of Arsinoe, Susan Stephens (2005, 247) observes that 'the most significant aspect of this temple, if we go by the evidence of Poseidippos, is that there was only one cult statue, not two, as we find in other shrines, and that Arsinoe was entirely identified with the goddess'. On the contrary, Christine M. Havelock (1995, 128) argues that 'as far as we know [Arsinoe] was never represented as Aphrodite – especially as a nude Aphrodite – in statuary', which would suggest the view that she was worshipped at Zephyrion as *thea synnaos*, which goes against most textual testimonies. The remark about nudity could be true, since it was still not so long after the controversy concerning nude Aphrodites made by 4th century BC sculptors. However, one must also bear in mind that Arsinoe was portrayed as a nude in Egyptian style statuary and that Hellenistic poetry abounds in praises of the Praxitelean Aphrodite of Knidos (*Anth. Plan.* 16.159-170), which may indicate that the controversy had already died out. However, since we possess neither textual nor iconographic evidence for the cult image at Zephyrion, all hypotheses remain conjectural and we will not dwell on them, as this question hardly pertains to the subject matter of the present paper.

Let us concentrate, instead, on one of the most perplexing Arsinoe--related poems in the collection, i.e. epigram 36, whose text runs as follows in the translation of F. Nisetich (2005, 25):

> 'Arsinoe, yours be this tissue of linen from Naucratis
> here hung up (may the breeze play through its folds!):
> in my dream, beloved, your eager struggles over, you seemed
> to reach for it, as if to wipe the fragrant sweat
> from your limbs – I see you still, Philadelphus, the sharp
> spear in your hand, the hollow shield on your arm.
> Here, then, it is: to you from maiden Hegeso, of Macedonian
> lineage, this delicate strip of white cloth'

The surprising image of an armed Arsinoe in lines 5-6 (*ὡς ἐφάνης, Φιλάδελφε, καὶ ἐν χερὶ δούρατος αἰχμήν, | πότνα, καὶ ἐν πήχει κοῖλον ἔχουσα σάκος*˙) stands out from the rest of the poem, being an *ekphrasis* which does not possess analogies among the representations of the queen known from her portraiture on coins, gems or in sculpture and it is not reflected in any other literary testimony. Although Arsinoe is portrayed in anecdotal material as an ingenious woman and politician (Polyaenus *Strat.* 8.57) and belligerent women were not absent from the history of the Macedonian and Hellenistic kingdoms (Donnelly Carney 2000, esp. Chapter 5; Stephens 2005, 240-241; Müller 2009, 220-223; Kostuch 2012, 67-70), no representations of the queen with attributes alluding to war or battle have been preserved.[1] The passage in Poseidippos has attracted some scholarly interest, but no satisfying interpretation has been proposed thus far. Lucyna Kostuch (2012, 69) mentions the epigram in just one sentence, saying only that it presents Arsinoe 'with shield and spear, i.e. the basic elements of the hoplite armament', thus entirely disregarding both the possible meaning and the importance of this text. Sabine Müller (2009, 218-219) connects this poetic image with the famous incident of Alexander throwing his spear upon his landing at Hellespont (Diod. Sic. 17.17.2) and at the same time with the statue of Athena Promachos, which was present for a short time on the obverses of Ptolemy Soter's coins (Svoronos 1904-1908, 104, 106-110 and *passim*), possibly alluding to Alexander's gold[2]

[1] Some scholars propose identifying the personification of Macedonia on the Boscoreale fresco (Naples, Museo Archeologico Nazionale, without inv. no.) as Arsinoe Philadelphos (Stephens 2005, 239-240; Kostuch 2012, 69). Stephens also suggests that the 'tissue of linen' mentioned in the epigram is the royal diadem, but such interpretation goes against decorum, judging by the further description of the use of the piece of cloth in question.

[2] For discussion and bibliography on the Attic Athena Promachos vs. the Macedonian Alkidemos see Havelock 1980, 41-43.

or the Spartan Athena *Chalkioikos*.[3] In his commentary on the epigram, Jerzy Danielewicz (2004, 86; cf. Stephens 2005, 237, n. 28) also connects this image with Athena and the war that Ptolemy Philadelphos waged against Antigonos Gonatas in the 260s BC (cf. Hauben 1983, 112), but even if this is not too far-fetched an interpretation (the symbolism of Alexander's gold coins may form an argument for Athena's importance in the propaganda of the Successors, but the goddess is virtually absent from later Ptolemaic iconography), we have very scarce and indirect evidence that the Lagid queens were ever associated with Athena (Tondriau 1946, 18 and 32 lists two dubious instances: the aforementioned epithet *Chalkioikos* and papyrus B.G.U. 1084.22, where Arsinoe is given the epithet Nike). Only Elizabeth Donnelly Carney (2013, 91), who in her recent biographical study of Arsinoe Philadelphos devotes a short passage to the epigram (again suggesting in the first place the association of the 'mysterious militarized Arsinoë' with Athena and the war efforts of Ptolemy II, i.e. the Chremonidean war), does mention Aphrodite: 'The dream image of Arsinoë of the poem may relate to one of her cults or to a statue of her, possibly a cult statue. The poem may imagine an Athenalike Arsinoë or an Aphroditelike one (some Aphrodite cults portrayed the goddess armed)'.

Indeed, the military attributes in question are not unknown in Aphrodite's iconography, as we shall see, and several aspects of the goddess of love make a much more plausible model for the image of Arsinoe than Athena. Of particular interest in this context is the Cypriot cult of Aphrodite, both because of its characteristic traits and because of the role the island played in Ptolemaic politics.

Literary sources attest that the warlike aspect of Aphrodite, inherited from her oriental counterparts, 'faded quickly from her Greek persona, such that, in Book 5 of the *Iliad*, the goddess is ridiculed for attempting to face Hera and Athena in battle, while Roman school boys were asked why on earth the statue of Spartan Aphrodite was armed' (Budin 2004, 110; for the last remark see Quint. *Inst.* 2.4.26). Indeed, the Aphrodite *Hoplismene* sculptural

[3] An interesting context is the fact that one of the streets in Alexandria was named after Arsinoe *Chalkioikos*, but the connection with Athena is not obvious, since in Sparta the epithet related to the temple and not to any particular trait of the goddess herself, and does not seem to add directly to Arsinoe's identification with Athena, especially considering that other streets bore names of the queen with a number of other epithets, shared with various goddesses, *i.a.* Hera and Demeter, and also Aphrodite *Eleemon* – merciful or compassionate (Tondriau 1946, 17; Cerfaux and Tondriau 1956, 199). The latter actually makes the most interesting case of all, since it is an epithet given to the Spartan 'armed' Aphrodite; it may also be related to the soteriological aspect of Isis/Aphrodite, see Sfameni Gasparro 2007.

type is rarely encountered in Greece proper, while it is relatively 'popular' in Cypriot art in comparison to other centres. Angelos Delivorrias *et al.* (1984) list three objects (two marble statues and one coin) for the type of 'armed Aphrodite' (*bewaffnete Aphrodite*; cat. nos 243-245; for engraved gems with a similar image see Daszewski 1982, 197-198, with bibliography) without dating them, but placing the origin of the type at roughly the turn of the 5th and 4th centuries BC (Kaltsas 2002, 125, attributes the most outstanding specimen, the Epidauros statue: Athens, National Archaeological Museum, inv. no. 1811, to Polykleitos the Younger and therefore to the first half of the 4th century BC; see discussion on this attribution in Delivorrias *et al.* 1984, 36; cf. Daszewski 1982, 198), and six (five marble statues and one coin) for 'Aphrodite with a sword' (*Aphrodite mit dem Schwert*, cat. nos 456-461), whose original probably dates from the mid-4th century BC. The first type shows Aphrodite dressed in a *chiton*, holding a spear in her left hand and with a baldric across her breast; the second type shows the goddess naked, with the baldric across the breast, held with her right hand extended upwards and the sword in a sheath in the left hand. No sculpted or coin portraits of the Lagid queens with unquestionable military attributes are extant or attested; only the alleged Berenike on the 2nd century BC Thmuis mosaics is represented in body armour and probably also with a shield, as well as the obvious marine attributes such as the *corona rostrata* and the mast (Daszewski 1985, 146-158; Kuttner 1999, 111-13; Müller 2009, 224). As for the object held in the hand, Stephens (2004, 68) describes it as a spear, but the mast interpretation seems more plausible, given the cross-shape and the topic of the mosaic.

Some ancient authors linked the origins of the type holding a spear and the type with bow and quiver to Cyprus (Hsch. *s.v.* *Ἔγχειος* and *Anth. Plan.* 16.173 resp.[4]), and modern scholarly work proves that the Cypriot types were heavily influenced by the Levantine goddesses (Flemberg 1991, 12ff; Serwint 2002, 343; Budin 2004, 99; Budin 2011, 171). That armed Aphrodite images were known and relatively popular in the Hellenistic age is attested by the presence of six poems in the Greek Anthology (*Anth. Plan.* 16.171 and 173-177) which list all kinds of weapons associated with the goddess (quiver and bow, shield, helmet, spear). Some of these epigrams elaborate on the popular motif of Aphrodite disarming Ares, which is not pertinent to the present topic, even though her union and rivalry with

[4] For discussion on the meaning of Hesychios' *Ἔγχειος* in the context of the imagery of Aphrodite, see Daszewski 1982, 197 and Hadjioannou 1983, with response: Daszewski 1983.

the god of war (of whom she is even consort in *Anth. Plan.* 16.176) may be of consequence to Ptolemaic ideas. Budin (2004, 99) stresses the sexually ambiguous, androgynous aspect of the eastern goddesses of love and war; in this context it is noteworthy that Cypriot Amathus was the only place within the Hellenized world where Aphrodite was worshipped as a male or hermaphroditic form of Aphroditus, bearded and/or with male genitals. The evidence for this particular cult is given among others by Macrobius (*Sat*. 3.8.2) and in the passage in question the author relates a very interesting claim that 'she [Aphrodite – AF] is the moon', made by the 3rd century BC historian, Philochoros from Athens. Apart from the likely assimilation with Artemis/Selene testified by the remark quoted, noteworthy traces of such ambiguity, possibly connected with a military aspect, can be found in the image of Isis; Bergman (1980, 192) quotes the following passage from a funeral papyrus (Louvre N 3079): '*Ich spielte selbst die Rolle des Mannes, obwohl ich eine Frau bin!'*

As for Cypriot archaeological evidence of the type of armed Aphrodite, the earliest known occurrence dates from the 4th century BC and was found in Salamis. It is a terracotta statuette (British Museum, inv. no. A 423; cf. Karageorghis 2005, Fig. 327) of the goddess in a long *chiton*, with her hair falling in long strands over her shoulders, holding a helmet and a shield, much more solemn and hieratic in pose than the well known Greek types of Aphrodite dated from the 5th century BC onwards. At least four other occurrences of the armed type originate from Cyprus, three of them from Nea Paphos alone, and in most cases their general stylistic traits are closer to the Greek models of Aphrodite's representation. All of the Nea Paphos specimens were found in the Roman layers of the city (3rd-4th century AD and later), but at least the one from the Villa of Theseus, excavated by the Warsaw University team, can be regarded as a copy of an earlier Greek sculpture (Pafos District Museum, inv. no. FR 67/73; Daszewski 1982, 195ff and Pl. XLIV; cf. Flemberg 1991, 67-71, and Karageorghis 2005, Fig. 55). The statue is unique in its type, since its preserved part suggests that the goddess held the naked sword above her head (and not the baldric, like in the aforementioned type) 'in an attitude menacing to her enemies' (Daszewski 1982, 200) or 'threatening her enemies and protecting her followers' (Karageorghis 2005, 62). It is also of particular interest from the point of view of this paper, because it presents the goddess naked in a pose reminiscent of the famous Late Classical and Hellenistic nude Aphrodites, and therefore combines the erotic and military aspects so important in the Aphrodite-related image of the Lagid queens (cf. Sfameni Gasparro

2007, 67 for the same double aspect of Isis in Egyptian tradition). Another statue of a naked and armed Aphrodite, poorly preserved, was found in Soli (Nicosia, Cyprus Museum, inv. no. Soli 466; Hadjioannou 1981; Daszewski 1982, 196-197; Karageorghis 2005, Fig. 68); the remaining Nea Paphos finds were a Venus *Victrix* on a Roman mosaic, also found in the Warsaw excavations (*in situ*; Karageorghis 2005, 64, Fig. 58), and perhaps a reflection of a statuary model on a Roman bronze mirror (Michaelides 2002, 358-359).

The relatively extensive presence of the armed Aphrodite type in Late Classical and Hellenistic Cyprus suggests an oriental influence in a period when Greek style was predominant in art. Evidence for such associations and syncretisms dates to very early times; in Kition, the local goddess was associated with the Phoenician deity of both war and love, Astarte, probably as early as in the Late Bronze Age.[5] Characteristic aniconic representations of this amalgam goddess, related to Levantine, Aegean and Cypro-Archaic baetyls, persevered as prominent cult objects until Graeco-Roman times (Flourentzos 2011). This notion is supported by the fact that, apart from Sparta (Pirenne-Delforge 1994, 200-207), the main centres of cult of this particular aspect of Aphrodite in Greece were, according to Pausanias, Cythera (3.23.1: 'the goddess herself is represented by an armed image of wood'[6]), and Corinth (3.15.10: 'a little farther on is a small hill, on which is an ancient temple with a wooden image of Aphrodite armed'), both known for their large populations of Phoenicians (cf. Karageorghis 2005, 62). It is worth emphasizing that in both cases the cult statues were apparently Archaic (or archaistic) *xoana*, which would support the hypothesis about the ancient origins of this particular cult (cf. Flemberg 1991, 12ff; Pirenne-Delforge 1994, 103-105). Other centres where Aphrodite was worshipped in a military-related aspect included Mylasa and Iasos in Caria (Aphrodite *Strateia*), Smyrna (Aphrodite *Stratonikis*, which, however, may also be related to the divine cult of Stratonike, the wife of Antiochus I; see Lightfoot 2003, 391, with a parallel to Arsinoe-Aphrodite) and Argos (Aphrodite *Nikephoros*, see Paus. 2.19.6); apart from that dedications of the *strategoi* to the goddess

[5] The most exhaustive monographic study on the early cult and persona of Aphrodite is Budin 2002. It should be noted that a tendency can be observed among some scholars to prove the indigenous origin of the Cypriot goddess (e.g. Hadzisteliou Price 1978, 90; Karageorghis 2003), tracing her cult back to the 3rd millennium BC, but the argumentation for the absence of any external influence or connections is thin.

[6] All translations from Pausanias after: Pausanias, *Description of Greece.* Vol. 2: Books 3-5, transl. W. H. S. Jones and H. A. Ormerod, London, New York 1926.

are known from various places in the Greek world (Flemberg 1991, 22-23). In none of these cases, however, do we possess any iconographic evidence.[7]

The Greek Aphrodite was identified in Cyprus with the Archaic deities worshipped on the island under various names, among which the goddess called by the Mycenaean name '*wanassa*' seems of particular importance. The words *wanax/anax* and *wanassa/anassa* denote people of power, and there are testimonies of the usage of these titles for Cypriot kings and their wives and sisters respectively until the 4th century BC (Harp., *s.v. Ἀνάκτες*; Pirenne-Delforge 1994, 346-347). Since the goddess is also called '*anassa*' in inscriptions, it has been suggested that the king – in accordance to ancient rituals – was the symbolic spouse of the *thea* (Young 2005, 29). This notion is supported by textual evidence, mainly epigraphic dedicatory material (not published in major corpora, cited by Karageorghis [2005, 40-42], with detailed bibliography), informing us that the kings (the Kinyrades) were 'priests of the *anassa*', while dedications are most commonly made to the unnamed 'goddess', as the name Aphrodite does not occur in Paphian syllabic texts until the 4th century BC. In alphabetic inscriptions, it appears as late as the mid-3rd century BC (Pirenne-Delforge 1994, 346). The continuing mythical importance of the Kinyrades in the Hellenistic age and beyond, despite the fact that the Cypriot kings had been deposed, is attested by historical matter turned into legend in Plutarch's (*De Alex. fort.* 340c-d) account of Alexander the Great's endeavours: the story of the gardener who was made king, being the lost heir of the priestly-royal house of Kinyras, which originally had been told of Abdalonymos of Sidon (cf. *i.a.* Curt. 4.1), was here adopted for the Paphian kings.

The titulature that links the goddess and the royal wives and sisters reminds us very strongly of the propagandistic programme of Ptolemy Philadelphos concerning his sister and wife; the title '*anassa*' can be found in Hellenistic poetry dedicated to the Lagid queens (Callim. *Aet.* Fr. 4.1,

[7] Rachel M. Kousser (2008, 24-28) argues that the main Corinthian temple of Aphrodite on the summit of Acrocorinth may have hosted an image – and cult – of the goddess in both the erotic and military aspects, but both archaeological and textual evidence presented to support the author's rather convincing, if conjectural, argumentation, is mostly implicit; nonetheless, the presentation of the Aphrodite of Capua as another possible version of the armed Aphrodite is worth consideration.

of Berenike II[8]). Its choice by the erudite poets may have been made on aesthetic grounds, relating to Homeric epics, but the possibility that a political factor also played a role should not be discarded. The presence of the cult of Aphrodite and Adonis in Paphos and Amathus (Hermary 1988, 107; Karageorghis 2005, 48-49 and 107-108), as well as the existence of a sanctuary of the unnamed consort of the Great Goddess in Rantidi near Palaipaphos (Young 2005, 29-34) and the *hieros gamos* aspect of such cults, seems to strengthen the hypothesis about Cypriot influence on the dynastic cult and propaganda, especially if we recall the passages from Theocritus mentioning the sacred marriage of the Philadelpoi on the one hand (*Id.* 17.131-134) and the inclusion of Arsinoe in the celebration of the *Adonia* on the other (*Id.* 15.100ff). Moreover, Aphrodite and Adonis as the counterparts of Isis and Osiris would make a perfect case of *interpretatio graeca* for the holy union of the king/pharaoh and his wife – one that reflected the Egyptian couple better than the Zeus and Hera analogy present in Theocritus.

The introduction of the *Adonia* to Alexandria, and their immediate relation to the female ruler cult reminds us of one more story connected to the Cypriot goddess, which could be of particular importance in the possible exploitation of the Cypriot connection by the Ptolemies in their construction of the syncretic religion that would serve their political and dynastic goals. Kinyras, from at least the Classical age and certainly in Hellenistic times, was considered the father of Adonis, either by an incestuous union with his own daughter Myrrha, or through marriage with Pygmalion's daughter. In any case, he replaced the Phoenician or more generic Near Eastern rulers from the earlier testimonies in this role (three variants, at least one of them dating back to the 5th century BC, are quoted by Apollodoros [*Bibl.* 3.14.4]; some versions reconcile both stories by making the king of Paphos a son of the Assyrian king). Moreover, in this version of the myth, Aphrodite finds the body of her beloved in a sanctuary of Apollo, who in turn appears in mythological accounts as another deity enamoured with the beautiful youth, and who himself may have been identified with Adonis in local beliefs and cults (Young 2005, 29). The myth itself shows the two faces of Aphrodite,

[8] Other occurrences of this particular title in Callimachus are in relation to Artemis (*Dian.* 137 and 204) and Hera (*Cer.* 221). Lycophron (*Alex.* 588-589) calls Aphrodite *θεὰ Γόλγων ἀνάσσα*; Aphrodite as the lady (*δέσποινα*) of Golgoi and Idalion is also invoked by Theocritus at the very beginning of the *Adonia* 'Dirge' (*Id.* 15.100).

that of a goddess who punishes those who fail to honour her properly and yet one who shows mercy to those suffering unbearable misfortune. It is as if she were being presented in the narrative as the heir to the formidable, warlike, oriental goddesses and at the same time the kind Aphrodite *Eleemon*. She is a severe queen and protectress at the same time and therefore possesses the very qualities that were expected from Hellenistic rulers: military supremacy and *euergesia* (cf. Donnelly Carney 2013, 98-99, on these aspects in the context of the Zephyrion cult of Arsinoe).

The cult of Adonis, the god reborn every year, corresponded perfectly with the myth that underlay the Egyptian face of the imagery of the royal couple, i.e. the myth of the rebirth of Osiris (cf. Reed 2000, 325-328; Casadio 2003). As for ancient testimonies of such identification, Lucian (*Syr. D.* 7) actually compares Adonis to Osiris, pointing at the similarities between the rites of the two gods in Byblos and Egypt respectively; the Byblos connection appears in Plutarch's account (*De Is. et Os.* 357A-C) as the very place where the mourning Isis eventually found her husband's coffin and body. According to Harmon (1961, 345, n. 3), 'Byblos was known to the Egyptians from the time of the Old Kingdom, and her goddess impressed them deeply. She was identified with Hathor at least as early as the Middle Kingdom, and her story contributed to the shaping of the Isis-Osiris myth'. Nonetheless, in the Hellenistic period, the original *Adonia* in Byblos were conducted according to instructions from Egypt; it was the Alexandrian women who signalled the rebirth of Adonis (or rather: Osiris-Adonis) to the worshippers in Phoenicia (Lucian *Syr. D.* 7; cf. Soyez 1977, 67-68; Bonnefoy 1992, 135; the most important description of the Alexandrian celebration of Adonis is given in the aforementioned Theoc. *Id*. 15). A 3rd century BC papyrus (P. Ent. 13; Huss 1994, 20) that mentions the private dedication of a shrine of 'The Syrian Goddess and Aphrodite Berenike' (the latter being apparently Berenike I) by a soldier gives a telltale testimony of the popular perception of divine associations.

Let us turn back to Poseidippos and his armed Arsinoe. The following epigram, 37, summons the image of a dolphin bringing Arion's lyre to Arsinoe; an image bearing Apollinian connotations in the first place, but in its meaning apparently alluding to Aphrodite, since dolphins were associated with this goddess in art (Delivorrias *et al.* 1984, cat. nos 554-568: 'Venus *marina*', which appeared in early 4th century BC or in its first half, and cat. nos 599-604: '*Pontia-Euploia*', whose origin dates to the 4th century BC and is connected with Praxiteles), as well as in literature. In the account

of the goddess's birth given by Nonnos (*Dion.* 13.436-443), whose material, despite the late date of the work, contains numerous elements very strongly rooted in Hellenistic erudition and aetiology, 'Nereus had traced the boundaries of this Cypros ... and shaped it like a dolphin. For when the fertile drops from Uranos ... had given infant shape to the fertile form and brought forth the Paphian, to the land of horned Cypros came a dolphin ... which ... carried Aphrodite perched on his mane'.[9] The 'Aphrodite with dolphin' type is not particularly common in Cypriot art when compared with other areas of the Greek world, but it is attested in the Hellenistic period (Karageorghis 2005, 70) and the Zephyrion cult of Arsinoe-Aphrodite has been linked with Cyprus in scholarship (Pfeiffer 2008, 59). Moreover, the marine aspect of Aphrodite can also be related to her universal rule as Aphrodite *Ourania* (Flemberg 1991, 14-15; noteworthy, Daszewski 1982, 195 mentions a statuette of Aphrodite Ourania discovered in Nea Paphos together with the aforementioned *Hoplismene*), which in turn is very suitable for her association with the deified queen.

Poseidippos in his poetry seems to give particular emphasis to Arsinoe-Aphrodite as protectress of seafarers and Hellenistic poetry abounds in epithets alluding either to Cyprus or the sea in works related to the queen: in epigram 116, Poseidippos gives Arsinoe the epithet *Kypris*, long established for Aphrodite in literary tradition (see Pirenne-Delforge 1994, 310-318); in 39, he employs the sea-related epithet *Euploia*; the names *Zephyritis* and *Kypris* in association with deified Arsinoe appear in Callimachus' *Epigram* 6, a description of a nautilus shell offered to the deified queen by a girl from Smyrna; a Hellenistic *Hymn to Aphrodite* (*P. Lit. Goodsp.* 2), stresses the marine aspect of the goddess (3.2: '*κρατοῦσα σὺ πόντον'*) as well as her role as patron of marriage, possibly in the *hieros gamos* aspect (Barbantani 2005, 141-143). Arsinoe and Aphrodite are mentioned in a very poorly preserved poem, attributed to Poseidippos as *Epigram* *114, but the surviving text does not allow for in-depth interpretation, apart from a tentative identification as an *epithalamium*; see Nisetich 2005, 60). P. M. Fraser (1972, 667-668) links this fragment with the consecration of the Zephyrion temple, while Silvia Barbantani (2005, 152-159) suggests a Cypriot context of origin and the possible performance of the hymn in connection with the posthumous cult of Arsinoe and Aphrodite on the island.

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[9] Nonnos, *Dionysiaca in Three Volumes*, vol. 1, transl. W. H. D. Rouse, Cambridge MA, London 1911. The quoted passage is not the only mention of Aphrodite and the dolphin in the poem; it appears in one more locus, *Dion*. 6.307-309: 'Does she also sit on a dolphin of Aphrodite the sea goddess, my own Echo, navigating like Thetis unveiled?'

Both the cult association of Arsinoe and certain particular traits thereof point towards a Cypriot connection in her apotheosis. This hypothesis is strengthened by the fact that Cyprus played a major role in the struggle for naval supremacy in the time of the Successors and the Epigones.[10] Therefore, it seems plausible that the image presented in epigram 36 of Poseidippos may also have alluded to the same set of elements, especially considering that the armed Aphrodite can convincingly be linked with Cyprus more than any other cultural centre that shaped the Hellenistic monarchy in Egypt.

The very complex and multifaceted Cypriot cult of the Goddess/ /Aphrodite, which was from very early times influenced and enriched by both oriental and Egyptian beliefs and cult practices, was particularly attractive for the construction of the consort for the Ptolemaic version of Osiris, who in turn would incorporate aspects of a number of Hellenic deities: Zeus, Dionysos, Hades and others. The great goddess of Cyprus, who, unlike the Greek Aphrodite never lost her various Archaic aspects, and remained the lady of erotic love as well as the belligerent queen, protectress of sailors and a mysterious vegetation deity, was a perfect candidate for the counterpart of Ptolemaic Isis when she needed a Hellenized face. Moreover, the strong emphasis given to the consort of the goddess in Cyprus could provide a solid foundation to the conception of Greco-Egyptian rule performed by the royal couple; the complex family relations of the deities and kings involved could help to justify the incestuous unions within the dynasty, otherwise hardly acceptable to the Greeks (see e.g. Shaw 1992; Ager 2005; cf. Fulińska 2011, 254-257).

It appears possible, therefore, that the poetic concept presented by Poseidippos in epigram 36 does play with Cypriot connections, taking into account both the importance of the island for Ptolemaic royal propaganda and the complex character of Aphrodite *Kypria*, including her preserved warlike aspect, very much in line with the desired image of the Macedonian queen of Egypt. We do not possess direct iconographic evidence to support this hypothesis, but the fact that three altars dedicated to Arsinoe/Aphrodite were found in the sacred precinct of Aphrodite in Palaipaphos (Karageorghis 2005, 39; for a hypothesis about the Arsinoe/Aphrodite cult in Ledroi, see Pilides 2007, 134; for a summary of epigraphic evidence and small finds associated with Arsinoe in Cyprus see Anastassiades 1998, 132-140) contributes to the indirect testimony of a strong association between Arsinoe and Cyprus, which could have been used – together with the continued presence

[10] For an in-depth analysis of the strategic importance and the role the Cypriot fleet played in Hellenistic times see Hauben 1987.

of the armed Aphrodite in Cypriot art – to construct the poetic image of *Hoplismene* or *Encheios* Arsinoe in question.

One could be tempted, of course, to assume that the image presented in Poseidippos might allude to a lost piece of art that presented Arsinoe with military attributes (cf. Stephens 2005, 241), but it was not always the case that poetic descriptions had a specific artefact in mind. The present paper proposes an interpretation based on possible associations with sculptural types of the goddess Aphrodite known from archaeological and textual evidence and does not attempt to seek for actual monuments commemorating Arsinoe in similar disguise. Nonetheless, it is not entirely impossible that, for instance, the cult statue at Zephyrion could have presented Arsinoe-Aphrodite armed, as both Greek and Cypriot analogies with cult places and the placement of such likenesses of the goddess suggest.

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'WHO LIVES AND MUST NOT DIE'. THE MYTH OF ADONIS IN HELLENISTIC POETRY

Abstract: *The paper analyses the functions and use of the myth of Adonis in two Hellenistic poets: Bion and Theocritus. The chief aspects taken into account are the connection of Adonis with the feminine sphere of life and religion as well as court poetry and royal propaganda.*
Keywords: *Hellenistic poetry; Bion; Theocritus; Adonis; lament*

'To wail his death who lives and must not die
Till mutual overthrow of mortal kind!
For he being dead, with him is beauty slain,
And, beauty dead, black chaos comes again.'
(W. Shakespeare, *Venus and Adonis*, 1017-1020)

Introduction

The myth of Adonis – a beautiful youth of Cypriot origins, born of the incestuous union between king Kinyras and his daughter Myrrha/ /Smyrna – Adonis, who became a ward of Persephone and a lover of Aphrodite before dying during a boar hunt and becoming a god who returns to Earth – has acquired in the last 130 years a prominence comparable to the one he enjoyed in Hellenistic Alexandria. From James George Fraser's *Golden Bough* (1890) to more recent *Les Jardins d'Adonis* by Marcel Detienne (1977), Adonis and the story of his life, death and afterlife was an object of critical analysis and scrutiny conducted by classicists, anthropologists and historians of religion. But the importance of the myth of Adonis

for the explanation of certain aspects of Greek (and Graeco-Oriental) religion should not blind us to the significance of the same myth for the Hellenistic literature. Both poems analyzed here have a long and extensive history of being scrutinized by classicists and literary scholar as far as their genre, language and metre is concerned. The present paper aims rather at elaborating the themes of its functioning in Hellenistic literary contexts and its possible interpretations within the context of propaganda, of the masculine/feminine duality and of literary symbolism.

Adonis the god and the syncretic culture of Hellenism

It would be both superfluous and impossible within the constraints of this paper to reconstruct the whole complicated and multi-layered question of the origins and character of the cult of Adonis. The debates concerning his (supposed) character as a dying and resurrected young god, his associations and even the origins of his name have been numerous and rather diverse (for an overview see e.g. Robertson 1982). The problem is well beyond the scope of the present paper; it seems, however, that it will suffice to firstly, emphasise the long and rather complicated tradition of Greek cult and worship of Adonis and secondly, point at the fact that the cult was popular and widespread, which would make the allusions and suggestions present in the poems analysed here understandable enough for the Hellenistic Greek audience.

An interest in Adonis is characteristic for the Ptolemaic poets. He appears in the *Iambi* of Callimachus as well as more than once in Theocritus' pastorals, in addition to his *Idyll* 15, a mime; Bion of Smyrna has dedicated a long lament poem to the dead and reborn young god. Moreover, he appears in the fragments of Glycon, Lycophron, Euphorion and Sotades, not to mention the tragedy composed by Ptolemy IV Philopator and the preserved fragments of epigraphic poetry. The figure of Adonis, in all paradoxical contradictions that he embodies, must have had a special appeal for the writers of the period.

The mourning and the praise: Adonis, women and the Queen in Theocritus' *Adoniazousai*

In Theocritus' famous *Idyll* 15 two Syracusan women, Gorgo and Praxagora, travel through the busy streets of Alexandria, about to partake in the *Adonia*, organized under the royal patronage of Queen Arsinoe II.

The poem has generally been recognized as one of the most important and most popular in the entire Theocritean corpus and, as such, has been extensively discussed in scholarship.

Of special importance here is the Adonis motif and its functions: the ways in which it unifies and binds together various strands of the seemingly diverse and non-coherent narrative.

What strikes the reader first when looking at this poem is the fact that it is set very firmly within the feminine world. Women are the protagonists of the narrative: it concentrates around the (mis)adventures of Gorgo and Praxagora on their way to the *Adonia*; but also the holiday described is *per se* a women's celebration: during the event organized by the Queen and led by a female singer (described as a daughter of an Argive woman) female believers mourn the dead god.

The notion of 'feminine world' in *Idyll* 15 seems to be more that just an element of the mime's stage setting. It is interesting to look at the events described in vv. 87-93, when the behaviour of Gorgo and Praxagora is commented upon by a (male) passer-by, who chides the women's Doric accents and mocks them as obnoxious foreigners. Yet both characters protest against his behaviour, establishing their rights in two basic spheres: to speak their native tongue (Theocritus' dialect, no less) in public and also to speak/act in the public space in general. Along the same lines of ascertaining and affirming women's place in the public space of Alexandria, one can read the presence of Adonis, a divinity whose sexual identity is uncertain, constantly fluctuating between male and female, attracting men and fascinating women at the same time (cf. Reed 1995, 317-347). In many ways, a parallel may be drawn between the image and world of the two friends and the god they came to venerate. In both the histories of the two women and the Adonis narrative there are certain repeated themes. First of them, as Joan B. Burton (1995) stresses, is the motif of mobility. Gorgo and Praxagora move all the time; from Syracuse to Alexandria, and then from the safe haven of home through the loud, dangerous streets towards the palace and the site of the celebration – just like Adonis every year moves from life to death to life again. The second of the common motifs seems to be that of alien/marginalized versus local/established. To comment on that theme one must remember the status of *Adonia* in traditional Greek *poleis*, first and foremost in Athens. It was, as it would seem, a cult as widespread as it was suspicious: it is enough to look at the comic and exaggerated description in Aristophanes' *Lysistrata* (418-423):

‘Have the luxurious rites of the women glittered
Their libertine show, their drumming tapped out crowds,
The Sabazian Mysteries summoned their mob,
Adonis been wept to death on the terraces,
As I could hear the last day in the Assembly?
For Demostratus – let bad luck befoul him –
Was roaring, “We must sail for Sicily,”
While a woman, throwing herself about in a dance
Lopsided with drink, was shrilling out “Adonis,
Woe for Adonis.” Then Demostratus shouted,
“We must levy hoplites at Zacynthus,”
And there the woman, up to the ears in wine,
Was screaming “Weep for Adonis” on the house-top,
The scoundrelly politician, that lunatic ox,
Bellowing bad advice through tipsy shrieks:
Such are the follies wantoning in them’.[1]

It was a women’s festival, then, and one viewed by men with slight suspicion and disdain. And although the splendor of *Adonia*, described by Theocritus, is rather blinding, it does not take a detailed analysis of the cult and the story to notice that Adonis was also rather ill-suited for the god patron of the new Ptolemaic empire. His cult, as noted in the above quotation from Aristophanes, had a distinctly female/feminized character and was rather universally viewed as subversive and rather private. Moreover, from the ideological point of view, it was bringing to mind a set of association of a nature rather disastrous for the Ptolemaic court. Firstly, Adonis was a child born of an ill-fated incestuous union between Kinyras and Myrrha. Incest was, as far as we can say, a delicate topic at the court of Ptolemy Philadelphos, since it would seem – from the descriptions of affairs such as the trial and subsequent death of the poet Sotades who criticized the sibling--marriage in particularly vicious verses. Additionally, in mythical tradition the relation between Adonis and Aphrodite is of an unequal kind: she is a powerful goddess and an active side in the relationship, seeking the youth’s love and winning it; he is presented as passive and yielding to her advances (interestingly enough, in the epitaph of Bion, he is called Aphrodite’s *παῖς*, a term well-established within the sphere of Greek homoerotic language to describe the younger partner (cf. Dover 1978, 172). Such an association might have been perceived – or parodied – as referring to the court and

[1] Transl. by Jack Lindsay.

the dominant role of queen Arsinoe as compared to her husband-brother. Additionally, one may add that Adonis being killed by a wild boar during the hunt might also be read in one more context: that of attempted and utlimately failed initiation of the Macedonian kind, when a young man would prove his masculinity and adulthood by killing a wild boar with a spear. Such an association, once again with a possible connection of Adonis to the king, was definitely not welcome at the court of Alexandria.

To avoid those associations, Theocritus – the court poet, after all – uses carefully staged 'tactics of evasion' (Burton 1995); it is enough to look at the hymn to Adonis sung by the Argive singer to see that some elements typical for the hymn poetics are missing, while others, especially the description of the place of the solemn events, are (over)emphasised. Not only does that allow to skip the motifs that might have made the court slightly uncomfortable, but also adds one more dimension: by praising the lush, luxurious setting and the opulent gifts offered to the god the poet stresses the actions of the queen as benefactor. Once again we find ourselves in the women's world, where the risky, marginalized, feminine cults like that of Adonis were state-sponsored by the monarchs and the female participants were claiming their rights to be present and active in the public sphere. Thus, Theocritus' Adonis serves a double purpose: on one hand, in line with the practice of Alexandrian poetry, it allows the poet to introduce to his mime a theme at the same time typical for mime, fashionably Oriental (on the associations between Adonis and Egyptian native cults and the appropriation of the latter by the Ptolemaic court see Reed 2000) and familiar as well as well established within the tradition of Greek lyric poetry (Sappho *Fr.* 140). On the other, it serves as a subtle and yet persuasive means to praise and elevate the person responsible for all the ceremony and the splendor; the woman behind the throne, the queen of Egypt, and through her (like in *Encomium*), her husband. The generic, the erudite and the panegyric elements were combined here in a very successful way. 'Theocritus is weaving a message together out of three texts – Greek religion, Egyptian royal ideology, and court propaganda – whose overlap and divergences from one another create a doubly compelling vision of Ptolemaic authority' (Reed 2000, 338).

Αἰάζω τὸν Ἄδωνιν: Bion's *Lament for Adonis*

Just like the hymn in the poem of Theocritus, Bion's *Lament for Adonis* can be placed within the (rather literary than actual) ritualistic frame:

it is a dirge for the dead boy and for the loss that his divine lover suffered; such dirges and laments were most probably sung during the *Adonia* festival, as the reconstructions of religious scholars would suggest.

But who is Adonis here and who is Aphrodite? The characterization of both seems fascinating, both in the context of the myth and of its Hellenistic actualization. The roles of the god and the mortal in this poem are on one hand firmly ascertained (which, by the way, brings on a subtle shift in the gender roles of them both), and yet, at the same time, strangely reversed.

The poem concentrates on the feelings and actions of Aphrodite, as she finds out about the death of her beloved. The opening and the refrain *Αἰάζω τὸν Ἄδωνιν* add a first-person perspective to the image, evoking the vision of a priest or celebrant in the religious ritual, not unlike in Callimachus' *Hymn to Apollo*. The most important person here, however, is the goddess.

Aphrodite in the *Lament* is at the same time, a goddess and a woman. Her divine attributes are mostly connected with her role as the lady of nature and the land: in her mourning for Adonis she is joined by the forces of the land – the rivers, the mountains, the flowers. The entire Cyprus, beloved island of Aphrodite, becomes one with its goddess: the rivers transmit her wails, the flowers turn red like his blood or her weeping eyes. She and nature/the land become one, united in their mourning. Thus in this poem the Cypriot context, conspicuously absent from the Alexandria-oriented poem of Theocritus, is stressed and emphasized, given additional weight by the titles *Kypris* and *Pafia*, used to describe Aphrodite, the lady and in some ways the personification of Cyprus.

At the same time, Aphrodite also has a number of feminine/human features here, as opposed to those of a goddess. She is at first unaware of the death of Adonis; when she realizes the tragic truth, she runs *penthale*, *neplektos*, *asandalos* (distraught, unkempt, shoeless) through the woods and the thorns that hurt her and make her bleed: she looks and acts like a mortal, unhappy woman, not the goddess of nature; additionally even though some of the editors are unsure about this version, even her clothes are human: in mourning she is wearing the black garment, *μέλαν εἶμα* (v. 25), and not only, as might expect of the goddess, the cyanean one (cf. Reed 1997, 211); such a humanizaton of the goddess' suffering is a trace not unknown to the Greek literary practice, (cf. Pseudo-Long. 9.7 on Homer and *The Homeric Hymn to Demeter*).

The experience of Aphrodite the goddess is here, I believe, to some extent assimilated with that of a mortal/human follower of Adonis, a woman contemporary to the poet, who would partake in the rites and weep for the dead.

The duality of her nature, as a woman and a goddess, is stressed by Aphrodite herself, when, in her lamentation for Adonis, she says *ἀ δὲ τάλαινα ζώω καὶ θεὸς ἐμμὶ καὶ οὐ δύναμαί σε διώκειν* ('while I the unfortunate live and am a god and cannot follow you'; vv. 52-53). This statement touches upon yet another feature of the characters: the issue of life/death, which in this poem is also interestingly set.

We see Aphrodite the immortal weeping for Adonis the man. She is presented in the context of the ritual acts of mourning, expressive and dramatic; while she is shown in action running, waving her hands, beating herself and making a number of ritualized gestures, he is passive, immobile in his death. In this poem we do not see Adonis alive: we are only shown the young man unconscious, dying and then dead. The only thing that in a way 'moves' around him is his blood, welling from the wound on his thigh, but this movement, the loss of blood, signifies death rather, then life. An interesting motif is that of the last kiss that Aphrodite wants to get from her dying lover. The concept of such a kiss that is connected with some kind of transfer of the dying man's soul seems to function here – together with the comments on Persephone taking the husband of Aphrodite – as a subtle reminder of Adonis' return. The goddess that loved him would like to keep his soul and his last breath, but instead she must give him away to the implacable queen of the Underworld. As much as these scenes suggest the theme of death, they also allude at the continuous existence of Adonis amongst the dead and the possible preservation of some of his essence, his soul, after death.

Even though it is not stated directly in the text, the notion of Adonis' return is present in the context, as it must have been set firmly within the mind of the reader.

The goddess Aphrodite gets changed in this poem into a human, weeping woman, but the dying youth Adonis also undergoes a change. All the descriptions of his dying and dead body in the poem emphasize his physical beauty, and that beauty is of a specific kind. The image of Adonis, young and white-skinned, pale and beautiful, is set in terms more suitable to the description of feminine rather than masculine looks. The backstory of the events presents Adonis in a typically male context, pointing at his decision to go hunt the boar alone – a heroic feat, having a number of parallels

both in Greek mythology and in cultural practices of various peoples, Macedonians among them; but in the story no heroism is left. Instead, we see a suffering girl-like youth, passively awaiting death while his blood and his life flow away from him. A number of times it is stressed by the poet that Adonis was wounded in the thigh; apart from rather obvious sexual association of such a wound, this motif would bring on certain mythological rather than purely literary associations. In Greek mythology a comparison point could be the description of the death of Ankaios as known from Philostratus, *Imagines* 15, where Anankaios is presented as a youth wounded by a boar, although here one can discuss who resembles whom: Ankaios Adonis or Adonis Ankaios; it is, I think, interesting to add that Ankaios himself died during something resembling an initiation rite: he went to fight the boar without his weapons, only with the *labrys*, having dressed himself in a bear skin (Ov. *Met.* 15). The same motif can be found featuring more prominently in other European mythologies, first and foremost in the narrative of King Amfortas in the Grail cycle and in that of Diarmuid Ua Duibhne (Diarmuid O'Dyna) in the Irish Fenian Cycle. I am not going to discuss the significance of the motif further (on the significance of the death by boar myth cf. e.g. McEvilley 2002, 669ff), since it belongs to the sphere of myth/religion rather than literature, I would only like to mention that in many cases it can and should be associated with the loss of the land's fertility; we can see a similar image in Bion, to some extent, when we face the inevitable grief and weeping of all the nature of Cyprus, united in mourning with its goddess. Otherwise, the image of the wounded Adonis evokes one more association: that of passive, delicate beauty, remaining even in death, presented in sharp contrast of bloody red and purely white.

Where Adonis is beautiful, even in death, Aphrodite is not, or rather – not anymore. With the loss of Adonis she has lost her divine beauty (v. 30). Once again, the goddess is presented in a rather human form, resembling more the female cultists of Adonis than the *παῖ Δίος δολόπλοκε* that we know from Greek literature. In Bion's poem the human and the divine, death and life eternal, male and female, ritual and literature are constantly interchanging and reshaping themselves, contributing to the appeal of the poem that would last through the centuries of readership.

Conclusions: His Fate and Fame

The significance of Bion's *Lament for Adonis* goes well beyond

the Greek literature. It was read and emulated by the writers in antiquity (to mention, among others, Moschos and his *Lament for Bion*) and it became, in time, a creative impulse for the beginning of a new genre, pastoral elegy. In poetry, as much as in cult, Adonis lived on, as quotation from yet another English poet, about yet another Adonis, shows; and even though Percy Bysshe Shelley's *Adonais*[2] is in fact a mask for another poet, the brilliant and prematurely dead John Keats, the words are equally true for the young hero of Theocritus and Bion: *'Till the Future dares / Forget the Past, his fate and fame shall be / An echo and a light unto eternity!'*

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[2] P. B. Shelley, *Selected Poems*, London 1956, 252.

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PROPAGANDA WAR OVER SICILY? SICILY IN THE ROMAN COINAGE DURING THE CIVIL WAR 49-45 BC

Abstract: *Sicily seemed not to play an important role during the civil war between Caesar and Pompey the Great. Despite downplaying the importance of the island in the historical narratives concerning the conflict motifs referring to Sicily were placed on some of the coins struck in the period (Crawford 1974, nos 439, 445/1 and 457). Usually they were interpreted as a part of ancestral propaganda (Crawford 1974, nos 439 and 445/1) or as a means of emphasizing the moneyer's status in order to promote himself (Crawford 1974, No. 457). This article approaches the problem of interpretation of the coinage in question from another perspective. By placing this issue in the historical context in which they were minted this paper tries to show that in fact the coins were meant for the Sicilians in the first place. Therefore the Sicilians are seen as the preferred recipients of propaganda messages transmitted via these coins in order to win them to the moneyer's cause. Since the coins referring to Sicily were minted by both sides of the conflict they may be seen as a part of a propaganda war over Sicily.*

Keywords: *Roman Republican Coinage; Roman Sicily; civil war 49-45 BC; Caesar; the Pompeians*

'Cry "Havoc!", and let slip the dogs of war'[1]

It is a cliché to say that the civil war between Caesar and Pompey began when the former crossed the Rubicon river and uttered – at least according to Plutarch (*Pomp*. 60.2.9) and Suetonius (*Iul*. 32) – famous words 'Let the die be cast'.[2] Nonetheless it is the truth. Only after the Rubicon was the war inevitable. By invading Italy on 10 January 49 BC Caesar took the momentum completely from Pompey's hands and created an advantage that eventually forced the Pompeians out of Italy. The later did not expect the invasion before spring, which would have given them the time to gather an army able to defeat Caesar's veteran legions. In the middle of January Pompey already knew that he was unable to defend Rome (Cic. *Att*. 7.11). Therefore on 17 January he proclaimed a state of *tumultus* and declared that anyone who decided to stay in the City would be treated as a traitor (Plut. *Pomp*. 61.3-4; Plut. *Caes*. 33.6; Dio Cass. 41.3.3 and 41.6.1-2; App. *B Civ*. 2.37.148). Then in the evening he left Rome and went to Capua (Cic. *Att*. 9.10). As we know thanks to Cicero (*Att*. 7.12), the possibility of leaving Italy was articulated for the first time. With the advance of Caesar's army the probability of departure grew so that in the end of February it became a necessity.[3] The idea was heavily opposed and commonly considered as a bad one. The main concern was that it could be impossible to retake Rome and the whole of Italy but Pompey pacified his opponents by saying that if 'Sulla could do it, why not I'.[4] Finally Pompey sailed from the port of Brundisium and on 17 March he landed in Dyrrachium (Cic. *Att*. 9.15; App. *B Civ.* 2.40.160; Dio Cass. 41.13-14). Despite his bravado he left, never to return. The Pompeians needed time to gather forces in the East. Caesar knew this but had insufficient ships to follow Pompey in safety. Thus, for fear of being attacked from two sides in future he decided to tackle an army deployed in Spain under the command of Pompey's legates, Afranius and Petreius (Caes. *B Civ.* 1.29-30.1; Dio Cass. 41.15.1;

[1] William Shakespeare, *Julius Caesar*, Act 3, Scene 1, line 273; Retrieved from http://internetshakespeare.uvic.ca/Library/Texts/JC/M/default/ (status as of 27 April 2012).

[2] Plutarch, *Life of Pompey.* In Plutarch, *The Parallel Lives,* vol. 5, transl. B. Perrin, Harvard 1917.

[3] Cf. Cic. *Att*. 9.10 where Cicero summarised correspondence between him and Atticus between the end of January and the beginning of March focusing on the growing likelihood that Pompey might leave Italy.

[4] Cic. *Att*. 9.10. In Cicero, *The Letters of Cicero*. Vol. 2., transl. E. S. Shuckburgh. London 1908.

App. *B Civ.* 2.40.160-162; Flor. 2.13). Caesar's campaign in Spain gave Pompey the time he required. Nonetheless, at the same time, Caesar's haste surprised the Pompeians once again. Despite unfavourable weather conditions the conqueror of Gaul decided to cross the sea and landed in Epirus in early January 48 BC (Caes. *B Civ.* 3.6.1-3; Dio Cass. 41.44.2-3). The final battle of this campaign took place at Pharsalus on 9 August 48 BC (Caes. *B Civ.* 3.88-99; Plut. *Pomp*. 68-73; Plut. *Caes*. 42-46; Dio Cass. 42.52-62; App. *B Civ*. 2.70-82; Flor. 2.13). Pompey lost the fight and fled from the field (Caes. *B Civ.* 3.102.4-5; Dio Cass. 42.2.3-4; App. *B Civ*. 283.349-350; Flor. 2.13), to meet his death on the shore of Egypt a month and a half later (Caes. *B Civ.* 1.104.3; Cic. *Div*. 2.22; Cic. *Tusc*. 3.66; Liv. *Per*. 112; Strabo 16.2.33, 17.1.11; Vell. Pat. 2.53.3; Val. Max. 5.1.10; Plut. *Pomp*. 79; Flor. 2.13.52; Dio Cass. 42.4.1-4; App. *B Civ.* 2.84-86).

Yet the war was not over. The opponents of Caesar gathered forces in Africa and Spain. However even the victories gained on the fields of Thapsus and Munda (*B Hisp*. 27-31; App. *B Civ.* 2.103-105; Dio Cass. 43.35.4-38.4) did not bring peace. Soon afterwards Sextus the younger son of Pompey, organized resistance in Spain once more. First, he engaged only in guerilla warfare but then, after Caesar's death, he took his chances and waged a full-scale war on the dictator's governors of Spanish provinces (App. *B Civ*. 4.83-84, 5.143; Flor. 2.18; Dio Cass. 45.10.2-3). Sextus took advantage of the shock created by the events of the Ides of March and brought most of Spain under his control. Afterwards negotiations with the Senate began. As a result Sextus was supposed to return to Rome and recover his father's inheritance, but this never happened. It is true that he left Spain at the end of 44 BC but he never reached Italy. He sailed to the friendly city of Massalia, where he stopped for a while to observe closely the progress of events taking place on the Apennine Peninsula. And a great deal had happened since the assassination of Caesar.

Just after the Ides the plotters were relieved of guilt in order to prevent another armed conflict. Soon afterwards, just as there was an eruption of violence against them, they were sent as governors to the provinces. Despite these steps war began when Mark Antony made an attempt to prevent Decimus Brutus from taking over Cisalpine Gaul and besieged him in Mutina. The consuls of 43 BC stopped Mark Anthony with the help of Caesar's young heir Octavian but died in the process (e.g. App. *B Civ*. 3.50-82; Dio Cass. 46.29-38). Octavian then forced his election as consul (e.g. App. *B Civ*. 3.86-94; Dio Cass. 46.39-49) and led an army against Mark Antony and Lepidus, but instead of a battle they signed the treaty known

as the Second Triumvirate (e.g. App. *B Civ*. 3.96, 4.2-3; Dio Cass. 46.50-56). The first step of the newly formed alliance was to announce a proscription list containing the names of 300 senators and 2000 *equites*. After settling the situation in Italy the triumvirs turned against Marcus Brutus and Cassius. The final defeat took place at Philippi on 23 October 43 BC (e.g. App. *B Civ*. 4.105-132; Dio Cass. 47.37-49). The only man left that had forces strong enough to stop the triumvirs was Sextus Pompey who took the control of Sicily, Sardinia and Corsica (Liv. *Per*. 123; App. *B Civ*. 4.84.354; Dio Cass. 48.17) and collaborated closely with Quintus Cornificius, governor of Africa. The first campaign against the son of Pompey was a disaster. As a result the Treaty of Misenum was signed according to which Sextus informally replaced in the triumvirate the marginalized Lepidus. The peace did not last long and warfare continued, but it took another four years before Pompey was beaten and forced out of Sicily in 35 BC (e.g. App. *B Civ*. 5.119-127; Dio Cass. 49.1-18). The only significant actors left were Octavian and Antony. The period of civil wars started by Caesar ended in Egypt, where Mark Antony and his wife Cleopatra committed suicide after the crushing defeat in the battle of Actium on 2 September, 31 BC (e.g. Dio Cass. 50.15-35, 51.1-18).

'When, parted hence, the wind, that ready waits / For Sicily, shall bear you to the straits'[5]

The war touched most of the provinces surrounding the Mediterranean. Sicily was no exception, but until Sextus Pompey seized the island it never played a role as one of the main theatres of war. Nonetheless Sicily was from the start an object of interest to all belligerents. Right after the outbreak of war the Senate decided to sent Cato the Younger as a governor of the island (Cic. *Att*. 7.15; Plut. *Cat. Min*. 53.1). Despite the urgency of the assignment Cato did not hasten, as Cicero (*Att*. 7.15) says in a letter dated 26 January. He argued that he wanted to be present in the Senate during the debate on the terms of peace sent by Caesar. Moreover, Postumius, who had been ordered to go to Sicily refused to do so without Cato (Cic. *Att*. 7.15). The task and official *imperium* were entrusted to Fannius, who went to the island immediately (Cic. *Att*. 7.15). The main objective of sending magistrates to Sicily was to prepare a fleet; both to repair old ships and

[5] Verg. *Aen*. 3.411-412, in Vergil, *Aeneid*, transl. J. Dryden. Retrieved from: http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.02.0052%3Abook%3D3%3Acard%3D374 (status as of 2 May 2012).

extract new ones from the Sicilian cities. Likewise there was to be conducted a recruitment of land forces; Roman citizens as well as allies (Caes. *B Civ*. 1.30.2-4; Flor. 2.13.33). It is possible that in the initial phase of war Pompey thought of keeping control of the island. Cicero perhaps alludes to this. First, in a letter dated 16 February (Cic. *Att*. 8.12c) he says that Pompey wanted both consuls, Caius Claudius Marcellus and Lucius Cornelius Lentulus (Broughton 1952, 256), to go to Sicily. Then, the next day (Cic. *Att*. 8.3, 8.12a) he mentions that Pompey advised that one of the consuls should join him and the other take the forces gathered by Faustus Sulla to the island and help Cato. We do not know why, but these plans changed rapidly and finally the consuls went to Brundisium and then sailed to Dyrrachium on 4 March (Caes. *B Civ*. 1.25.2; App. *B Civ*. 2.40.159). Soon afterwards Caesar came to Brundisium and pitched camp outside the city walls. At the same time he sent Asinius Pollio (Caes. *B Civ*. 1.25.2; App. *B Civ*. 2.40.162) with the cohorts he previously had taken from Domitius Ahenobarbus in Corfinium (Caes. *B Civ*. 1.23.2-5; App. *B Civ*. 2.38.149-150). The unjust testimony of Appian (*B Civ*. 2.40.162) notwithstanding, Cato was not afraid of these soldiers and did not flee but more probably stood up to them or began some kind of negotiation. According to Cicero (*Att*. 10.16), he left his *imperium* on 23 April, but only after Caesar decided to reinforce his troops in Sicily and dispatched three more legions under the command of Curio as a newly appointed *propraetor* of the island (Caes. *B Civ*. 1.30.2-4; Plut. *Cat. Min*. 53.3; App. *B Civ*. 2.41.165; Dio Cass. 41.41.1). Plutarch's (*Cat. Min*. 53.3) view is perhaps the closest to the truth: Cato could have driven Asinius Pollio out of Sicily but was unable to do so facing the superior forces of Curio. Nevertheless it is likely that in his own day these actions of Cato were seen as shameful.[6] One way or another, the island was lost to the Pompeian cause.

Why was Sicily so important that Caesar sent troops there as soon as he could spare some of his soldiers? For several reasons. First, he did not want to have his opponents operating so close to Italy. Especially, as Caesar himself informs us (Caes. *B Civ*. 1.30.4) Cato's activity was not limited to the island. Through the agency of legates Cato enrolled Roman citizens in Lucania and Bruttium. Secondly, Sicily was the perfect base for a fleet that could operate both in the Tyrrhenian Sea and in the Adriatic and to establish a naval blockade of Italy. Thirdly, and most importantly in the long run, Sicily was one of the principal granaries of the Roman

[6] Cicero (*Att*. 10.16) cries: 'Oh, if that were to be so, what a stigma on Cato!' (transl., as above, note 4).

Republic; at least in the period of the Late Republic Sicily, Africa and Sardinia paid their tithes in corn (Cic. *Leg. Man*. 12.34; cf. Liv. 43.6.13; Plut. *Caes*. 55; Garnsey 1998, 182; Erdkamp 2005, 35). These provinces were essential because Rome depended heavily on their shipments of grain (Cic. *Att*. 9.9; Rickman 1980, 37; Erdkamp 2005, 209-210). Based on the data passed by Cicero (*Verr*. 3.163) Rickman (1980, 308-309) calculated that Sicily provided Rome with three milion *modii*[7] of corn as a tribute each year. The total amount of grain in Rome that originated in Sicily is estimated at little more than 10mln *modii*, and the entire corn production of the island at 30-40mln *modii* (Rickman 1980, 307-309). The control of these amounts of grain was essential for Caesar not only because of the need to feed his army but, what is more important, to provide inhabitants of the City and therefore to win them to his cause. As the later blockade of shipment conducted by Sextus Pompey clearly showed supplying Rome with food was necessary to prevent turning the People's back on whoever controlled Rome (App. *B Civ*. 5.67-68; Dio Cass. 48.31.1-6; cf. Dio Cass. 48.6.4, 48.18.1; App. *B Civ*. 5.143.596; Hadas 1966, 75, 84, 89-91, 102-103; Morawiecki 1989, 90-91; Garnsey 1998, 202).

Finally Sicily was a necessary step on the way to Africa. Caesar (*B Civ*. 1.30.2) himself says that the main purpose of equipping Curio with three legions was not to seize control of the island – since to accomplish that he did not need such an extensive forces – but to cross over to Africa. Apparently two legions that Curio took with him across the sea were not enough to defeat Publius Attius Varus, the governor of African province and a supporter of Pompey. Curio's army was crushed by the joined forces of Varus and the Numidian king Juba, who received Curio's head as a gift (Caes. *B Civ*. 1.23.1-44.3; App. *B Civ*. 2.44.175-45.187, 2.46.187, 2.46.190).

After this failure Caesar gave up Africa for a moment, especially that he himself was occupied with a campaign in Spain. Meanwhile in Sicily his men just like Cato before built a war fleet (Caes. *B Civ*. 3.42.3). Probably in the beginning of 48 BC he appointed a new governor of the island entrusting it in the hands of Aulus Allienus (App. *B Civ*. 2.48.197). Despite the fact that main theatres of war were far from Sicily the extended operations of Pompey's fleet did not allow to feel safe there (Caes. *B Civ*. 3.101). Even the defeat at Pharsalus did not calm the situation down since the island became the main base of operation against the Pompeian forces in Africa

[7] I.e. *c*. 20 mln tons.

(Caes. *B Afr*. 2.3, 8.1-2, 20.3, 24.3, 26.3, 44.1, 53.1; Dio Cass. 42.13.1). Likewise the Pompeians thought about regaining the control of Sicily and Sardinia (Dio Cass. 42.56.3) just as they successfully did in the case of Spain (Liv. *Per*. 113.3; Dio Cass. 42.56.4, 43.29.1-2). After the defeat of Pompeian army at Thapsus Sicily became a relatively peaceful province, at least until the arrival of Sextus Pompey in the late 43 BC (Liv. *Per*. 123; App. *B Civ*. 4.84.354.; Dio Cass. 48.17). The son of Pompey the Great took full advantage of all the resources Sicily could provide. He not only controlled the seas on the south end of the Apennines Peninsula with the help of his considerable fleet [8] but he also raided the shores of Italy. He also used his fleet to cut Rome off from grain supplies from Africa, Sicily and Sardinia, and manipulated the people of Rome into forcing Octavian and Antony to begin peace talks (App. *B Civ*. 5.67-68; Dio Cass. 48.31.1-6; cf. Dio Cass. 48.6.4, 48.18.1; App. *B Civ*. 5.143.596; Hadas 1966, 75, 84, 89-91, 102-103; Morawiecki 1989, 90-91; Garnsey 1998, 202). What is more, archaeological sources seem to indicate that the period of Sextus Pompey's governance of the island was a time of prosperity (Stone 1983, 11-13) followed by destruction (Stone 1983, 13-22). It appears that the traces of devastation should not be connected with this war, since it was limited to the northeastern tip of the island and the environs of Lilybaeum; rather, it is to be associated with the retaliatory policy of Octavian to punish the supporters of his opponent after the victory had been won (Strabo 6.2.4 C270, 6 2.5-6 C272; Dio Cass. 49.12.4-5; Stone 1983, 13-16, ill. 1).

Coins

The importance of Sicily was recognized in the monetary propaganda of the factions participating in the civil war.[9] It was always of minor importance of course, and never dominated propaganda campaigns. Nevertheless, 'Sicilian themes' are present and require a careful overview with a view to adding fresh insights into the overall picture of the propaganda of the period. The few we have related to Sicily be divided into two groups.

[8] On Pompey's superiority on sea cf. App. *B Civ*. 4.85.355-357, 5.25.100-101; Dio Cass. 48.17.4, 48.18.3, 48.19.4, 48.36.2-3.

[9] More on the monetary propaganda during the civil war see e.g. all factions: Grant 1969; Morawiecki 1983; Octavian, Mark Antony, Sextus Pompey: Morawiecki 1989; Octavian: Zanker 1990; Marcus Brutus: Morawiecki 2001; Pompey the Younger and Sextus Pompey: Kopij 2009; the Pompeians in the East: Kopij 2011a; Pompey and Caesar: Battenberg 1980; Pompey the Younger: Buttrey Jr. 1960; Amela Valverde 1990-1991; Amela Valverde 2000a; Sextus Pompey: Amela Valverde 2000b; Kopij 2011b.

The first contains issues struck between the outbreak of the war and the death of Caesar. These include: one of the coins of the consuls of 49 BC (Crawford 1974, no. 445/1; Fig. 1), the coin of the *proconsul* Aulus Allienus (Crawford 1974, no. 457; Fig. 2) (Broughton 1952, 257, 275) and the coin of monetal triumvir Marcellinus (Crawford 1974, no. 439; Fig. 3) on the assumption that he held his office in 49 BC (Harlan 1995, 175-181) and not 50 BC (Crawford 1974, 88). The second group consists of the coins of Sextus Pompey (Crawford 1974, nos 511/2-4). Since Sextus Pompey's Sicilian coinage has already been the subject of several papers,[10] this article covers in detail only the first of the aforementioned groups.

The first to consider is a *denarius* bearing the names of the consuls of the year 49 BC Caius Claudius Marcellus and Lucius Cornelius Lentulus (Crawford 1974, no. 445/1; Fig. 1). On the obverse of the issue in question there is a *triskeles*. With the head of Medusa and ears of corn placed between her legs it is not just any *triskeles* but the symbol of Sicily, sometimes called poetically 'Trinacria', from ancient times. This image is the main reason for connecting the coin with the island despite the fact that it is usually read as an allusion to the glorious ancestry of the consul Marcellus (Crawford 1974, 462; Battenberg 1980, 80-82; Zarrow 2003, 128). At the same time Crawford (1974, 462) rather inconsistently sees the images on other that decorate the remaining coins bearing the names of the consuls (Crawford 1974, nos 445/2 and 445/3) as indicators of the mint where they were struck. We should perhaps therefore explore the possibility that 'the *triskeles* coins' were produced on the island (Mattingly 1960, 81), or at least were intended to be allocated to fund the Pompeians' activities there. The main problem in resolving this question lies in the difficulties involved in creating a detailed chronology of the emission. We do not know whether the coins were issued from the outbreak of war or whether production began later on. If minting started some time after the war began the best guess would be the moment of the unsuccessful evacuation of the state's treasure. These failed efforts probably undermined the financial position of the Pompeians. Since the recruitment and of preparations for war were in progress they needed money and this could have given them a reason to mint new coins. Thus 'the *triskeles* coins' would have been the first issue with the names of the consuls, followed by the remaining two struck only after relocation to the East.

[10] Cf. Evans 1987; Martini 1988; Martini 1989; Morawiecki 1989; Martini 1995; Woytek 1995; Zarrow 2003; Kopij 2011b.

Fig.1. Denarius of Lucius Cornelius Lentulus and Caius Claudius Marcellus (Crawford 1974, no. 445/1).

Nevertheless Crawford (1974, 462) thinks that all of 'the consular *denarii*' were produced after Pompey's forces left Italy, most probably in Illyrian Apollonia[11] or in Asia Minor.[12] Even if this was true it is still possible that the coins in question were meant to fund Cato's activities in Sicily. We have to remember that, as stated above, that Cato abandoned his province rather unexpectedly, and only about a month after Pompey started the evacuation of Italy. This gave time to organize the mint and to prepare funds for the Sicilian praetor. Such a scenario is probable especially taking into consideration the dominance of the Senate's fleet over Caesar's that would allow an undisturbed transfer of the coins to the island.

It is also worth looking at the reverse of the *denarius*. The moneyers depicted a figure holding a thunderbolt in his right hand and an eagle on his left arm. We are clearly dealing with Jupiter/Zeus. It is usually believed that it was not the god himself that was depicted but rather a statue. The strongest argument is for connecting this Zeus with Zeus *Eleutherios* (Furtwängler 1895,[13] 218; Hutton 1896/1897, 152; Holm 1897, 362; Pérez 1986, 94--95), a deity popular in the Greek world (cf. the Stoa of Zeus *Eleutherios* at Athens). At the same time, Zeus *Eleutherios* had strong associations with

[11] We know that some 'Pompeian' coins were definitely minted in Apollonia due to the passage in Cic. *Fam*. 13.29.

[12] Possibly in Ephesus.

[13] English translation of *Meisterwerke der Griechischen Plastik*, transl. E. S. Strong, Leipzig 1893.

Sicily, especially Syracuse (Furtwängler 1895, 218; Hutton 1896/1897, 152; Holm 1897, 362; Pérez 1986, 94-95). This identification of the image on the coin strongly supports the hypothesis that the consuls referred to Sicily because it was meant for Sicilians in the first place.[14]

The next coin with images referring to Sicily was struck by the monetal triumvir Marcellinus (Crawford 1974, no. 439; Fig. 3), commonly identified with one of Caesar's quaestors of 48 BC (Broughton 1952, 274) [Publius] Cornelius Lentulus Marcellinus (Crawford 1974, 460; Harlan 1995, 175). On the obverse of the *denarius* in question a small *triskeles* accompanying a portrait of a man was placed by the moneyer. The first problem with the coin, and even a greater one than in the previous case, is the dating. We are not entirely sure in which year exactly Marcellinus served as a *triumvir monetalis*. We can safely rule out a proposal made by Grueber (1910, 567) who dated the coin to *c.* 42 BC and connected it with the consul of 18 BC. Later hoard evidence clearly showed that the coin was issued earlier, *c.* 50 BC and the most plausible identification seems to be with quaestor of 48 (Crawford 1974, 460; Harlan 1995, 175). Two proposals have been made with regard to the exact year of Marcellinus' moneyership. Crawford (1974, 88) dated the coin to 50 BC and Harlan (1995, 175) to 49 BC. If the earlier date is real, the likelihood of any direct reference to Sicily is incredibly low. In this case the coin would be a reflection of Marcellinus' campaign to win support of the people before running for further offices: the quaestorship being the next step in a political career (Harlan 1995, 180). For this reason he boasted of the extraordinary deeds of his ancestor Marcus Marcellus, despite the fact that legally he was a member of the *gens Cornelia* and not *gens Claudia*. Nevertheless, he preferred to promote himself as a natural descendent of the *Claudii Marcelli*. The adoption that created a new branch of the *Cornelii Lentuli* (as the cognomen Marcellinus indicates) took place sometime in the last decades of the 2nd century BC (Harlan 1995, 178). Marcellinus' choice of images is a little strange. The more so because other members of his family that struck coins after the adoption never referred to their Claudian past (Crawford 1974, nos 329 and 393), and they even used motifs characteristic of the *Cornelii Lentuli* (Evans 1992, 29-30; Farney 2007, 255-256). Perhaps therefore, a plausible explanation of the iconography of Marcellinus' *denarii* would be to date them after the outbreak of war. If so, they would have been opposing the coin of the consuls of 49 BC

[14] More on the possible shift of the Pompeian coins toward local recipients in unpublished paper: Kopij, forthcoming.

discussed above. The significance of the response would be all the more greater because the moneyer was both *Cornelius Lentulus* (by right) and *Claudius Marcellus* (by inheritance). For Caesar, Marcellus as a follower and moneyer would be very helpful as a part of a propaganda campaign in his efforts to take control of Sicily. Even if the dies were not designed to have any reference to the island but were simply part of a personal branding campaign, the image might therefore have been used by Caesar. In this case it would be a nice example of a propaganda message, whose sense was changed in the process of broadcasting and decoding of which changed along with the political context (cf. Jensen and Rosengren 1990, 217-218; Dobek-Ostrowska 2004, 14-15; McQuail 2008, 80-81, 89, 130-132).

The last coin in question was struck by the Caesarian governor of Sicily, the proconsul Aulus Allienus (Fig. 2). Allienus became a promagistrate (Broughton 1952, 275) after a praetorship that he held in 49 BC (Broughton 1952, 257). Nevertheless, we do not know whether he started minting coins immediately after reaching the island or, as it is usually believed, in late 47 BC in close proximity to Caesar's campaign in Africa (Battenberg 1980, 63-65; Zarrow 2003, 128). The rarity of the coin is often invoked to support the latter claim maintaining that they were issued to fund just a part of the dictator's preparations before he went to Africa. The idea that the *denarius* referred and was perhaps intended for a Sicilian public comes not only from the fact that it was co-signed by the proconsul of the island

Fig. 2. Denarius of Publius Cornelius Lentulus Marcellinus
(Crawford 1974, no. 439).
© The Trustees of the British Museum, scale 2:1

Fig. 3. Denarius of Aulus Allienus (Crawford 1974, no. 457).
© The Trustees of the British Museum, scale 2:1

but also from the design of its reverse, in that the moneyer depicted Trinacrus, son of Poseidon/Neptune and a mythical king of Sicily (Serv. *Aen*. 1.196). The figure holds a *triskeles* – which is the basis for the interpretation – and places one of his feet on the prow of a ship. Moreover the rarity already mentioned could support the hypothesis that the coin of Allienus was meant for the inhabitants of his province in the first place. Perhaps by allowing his governor to mint *denarii* Caesar not only wanted to fund his preparations and later the African campaign but also through the pictures on the coin tried to win the Sicilians to his cause. Allienus most probably ceased to issue his coins at the moment that Caesar's African campaign came to an end in mid 46 BC (Battenberg 1980, 65). Zarrow (2003, 134-135) regards Trinacrus on this coin as the model for one of Octavian's *denarius* (Mattingly and Sidenham 1968, no. 256) where the future *princeps* is portrayed standing with one foot placed on a globe, with a sceptre and an *aplustre* in his hands, and later for a bronze coin of Macedonian Pella (Burnett *et al*., no. 1548), where he places his foot on the prow of a ship and also holds a sceptre in one hand. It is usually believed, however, that Octavian referred to the figure on Sextus Pompey's silver coins (Crawford 1974, no. 511/3) interpreted as a statue of Neptune (Crawford 1974, 520) or a statue of Pompey the Great/Sextus himself (Zanker 1990, 40-42).

The next stage of propaganda with regard to Sicily began when Sextus Pompey took control of the island. On his coins he used such Sicilian motifs as the Catanean Brothers (Crawford 1974, no. 511/3), the lighthouse

at Messana (Crawford 1974, no. 511/4), and Scylla (Crawford 1974, no. 511/2, 4). Moreover he often referred to Neptune (cf. Evans 1987; Woytek 1995; Zarrow 2003; Kopij 2011a). In this case, however, none of Sextus' opponents responded by means of coinage referring to Sicily and aimed at winning the Sicilians over.

Conclusion

Sicily was never in the centre of action in the civil war between Caesar and Pompey the Great and subsequently those often called the Pompeians, in spite of its being near the geographical centre of the theatre of the struggle. Nevertheless, its importance as a granary, as a base of naval operations and finally as a redeployment point guaranteed that the island was an object of interest for both sides of the conflict. As we clearly saw, Sicilian motifs are present on the 'Pompeians' coinage as well as on the coinage of Caesar. In the first place, these coins may be the proof of the importance of Sicily. Secondly, the images placed on the coins may be a proof of the adjustment to local recipients of the propaganda messages encoded in them. If we therefore treat Roman coins in general as a mass medium the coins in question may be an example of the existence of a preferred recipient of propaganda broadcast encoded in some Roman coins.

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AUREI OF VESPASIAN STRUCK IN ALEXANDRIA

Abstract: *Alexandrian mint during the Roman Empire struck generally only bronze or billon coins. This rule has been violated in AD 69 when Vespasian came to rule, and gold coins with the portrait of the new emperor were struck between AD 69 and 70. These coins are rare and most probably were used outside Egypt, possibly before Syrian mint started producing gold coins.*

Keywords: *Alexandrian coinage; Flavian Alexandria; aurei struck in Alexandria*

Introduction

Flavian's accession to power started new phase of Roman history. The empire was ruled by people unconnected with the Julio-Claudian dynasty or Augustus' descendants. From the historical point of view this change is visible in Egypt from the very beginning of Flavian rule. Vespasian was proclaimed emperor by the garrisons in Alexandria and Syria in July AD 69. He then moved to Alexandria and stayed there between December AD 69 and September AD 70. This fact provides evidence that Augustus' rule was broken, the rule that forbade any of the emperor's family members from entering the province. Moreover, Vespasian did not wait until the Senate ratified his rule, which happened after Vitellius' death in December AD 69, and every year celebrated his accession to power on 1 July. This indicates the superiority of military power over the authority of the Senate (Bowman *et al.* 2008, 6-7).

Vespasian was proclaimed emperor in July AD 69, but had to wait until December for confirmation by the Senate and for starting coin production at the Roman mint. Other mints had therefore to fulfill his requirements for gold and silver. At the start of his reign the only mints that could produce such coins were Antioch and Alexandria, from the autumn of AD 69 *aurei* and *denarii* were struck in the mints of Asia Minor, and no earlier than late AD 69 at Lugdunum and Tarraco (Carradice and Buttrey 2007, 1-5). The dating and attribution of the *aurei* of the year AD 69 are somewhat problematic. The attribution of these coins to the mint of Alexandria has been disputed (Laffranchi 1915, 139-154; Metcalf 1982, 321-339; Burnett *et al*. 1999, 270), but judging by the 'Alexandrian' style it may be assumed that they were manufactured in Egypt. The dating is based on the obverse legend: IMP CAESAR VESPASIA AVG.

Burnett *et al*. (1999, 270) points out that Vespasian's *aurei* use the title AVG which does not appear on Alexandrian coins before the second year of his reign, and that this indicates that they were struck at the end of AD 69 or early in AD 70. One means of dating these coins to the first year, however, is the abbreviation of the emperor's name used on coins. No other coins struck later use the 'VESPASIA' abbreviation, and it may be assumed, as Burnett *et al*. (1999, 270) claims, to be a 'tentative rendering'. Moreover, the legend omits any 'tribunician' titles, such as TRP, COS or PM, which Vespasian was granted by the Senate in December AD 69, but as Buttrey (1980, 9) notes, that there were still coins bearing the legend IMP CAESAR VESPASIANVS AVG in AD 70. Additional information comes from Judea, where a milestone was found with inscription:

Imp(erator)/Caesar [Ve]spa/sianus
Aug(ustus) M(arco) [Ul]/pio Tr[ai]an[o]
leg(ato)/leg(ionis) X Fret(ensis)/ XXXIV

which is dated between July AD 69 and early in the following year (Isaac and Roll 1976, 15).

To sum up: the use of the AVG title dates the coins between AD 69 and early AD 70, but the abbreviation 'VESPASIA' indicates the earlier part of this period. The theory that these *aurei* were struck at the very beginning of Vespasian's rule may also be confirmed from the historical perspective. Egypt was first province to support Vespasian, then Judea, Syria, Asia Minor and, in October, Italia. No precious metal coins were struck in Judea in AD 69 and the first of them can be dated to after the fall of Jerusalem (Burnett *et al*. 1999, 271) which is historically very probable. I would at this point suggest retaining Savio's (1985, 247) view, that *aurei* were struck

in Egypt for circulation outside that province. Apart from being the first city that acknowledged Vespasian as emperor, it was also the safest place to strike gold coins – owing to close collaboration with Tiberius Julius Alexander (Sullivan 1953, 70).

The demand for gold coins

As has already been mentioned, on 1 July AD 69 two legions garrisoned in Egypt proclaimed Vespasian as ruler. Soon afterwards, on 3 July the Judean legions did the same, followed by the Syrian legions on 15 July. After Vespasian's victory, his son Titus took a command over the Judean troops, adding the XII Fulminata legion, as well as the III Cyrenaica and the XXII Deiotariana (Alston 1998, 73).

A Roman legion numbered 5000 soldiers, which also included officers whose salary was one and a half, or even twice as much as the regular soldier's (Alston 1998, 73). Tacitus (*Ann.* 1.17) mentions that Roman infantryman was paid 225 *denarii* per annum. The salary was however counted in *denarii*, but paid in *aurei*. Since the time of Julius Caesar three *aurei* (= 75 *denarii*) were paid regularly three times a year and from personal accounts of Roman soldiers preserved in Egypt (*P. Gen. Lat.* 1=*Doc. Eser. Rom.* 10=*CPL* 106=*ChLA* I 7=*RMR* 68 and *P. Gen. Lat.* 4=*RMR* 69)[1], we know that certain sums were deducted for military expenses such as food, clothes or weapons (Alston 1998, 103-104).

When therefore Vespasian became ruler he had to be prepared to pay at least three *aurei* (or one third of the salary) to every soldier in the seven legions that proclaimed him emperor at the very start. This sum can be estimated as *c*. 105,000 *aurei*. In mid-July moreover, at a meeting in Beirut, Vespasian, Mucianus and the representatives of the Eastern kingdoms had planned the conquest of Italia (Bowman *et al*. 1996, 276), which of course involved further expenses. The repair of damaged buildings and new equipment also had to be paid (Levick 1999, 95).

But it cannot be assumed that Vespasian began to search for money to pay troops and additional expenses only after the death of Otho. On the contrary, Vespasian together with Mucianus started to collect funds for this purpose even before Vitellius marched to Germania (Chilver 1957, 34).

After all, Vespasian paid soldiers quite modestly, and in addition to the normal rate owed to them from the annual payment he paid only

[1] The abbreviations are given according to the list in J. F. Oates, *Checklist of Editions of Greek Papyri and Ostraka*. *BASP*. *Suppl*. 4. Atlanta 1985 and the *L'Année Philologique*.

a small bonus, less than his predecessors. Tacitus (*Ann.* 2.81) evaluates that in this way the ruler avoided bribing his army and gained 'better soldiers'.

Style of 'Alexandrian *aurei*'

The *aurei* that might have been struck in Alexandrian mint are coins from 'Group I (i)' according to Burnett *et al*. (1999, 270, Nos 1901-1903) and 'Group 1 (i)' according to Carradice and Buttrey (2007, 174, Nos 1522--1524). They bear two types of reverse:
1. LIBERTAS AVGVSTA
Standing goddess *Libertas* facing r., holding in r. hand scale, in l. scepter. The personification of Liberty is employed on these *aurei* as propaganda, and in the light of historical events relate to the end the civil war. Vespasian derived this theme from Galba's Spanish issues where it is common both on *aurei* and *denarii* (i.e. Sutherland and Carson 1984, Nos 8 and 37). This motif is later also present on bronze coins of Galba struck in Rome (Sydenham *et al.* 1993, 225-226). On this ruler's billon tetradrachms struck in Alexandria too, personifications are the most common (Skowronek 1978, 31).On gold and silver coins minted outside Rome in AD 69 and 70 personifications of *Pax* and *Concordia* are also shown, representing the aspirations of the new government. These types are also present on the emissions of the Roman mint (Carradice and Buttrey 2007, 6).
2. T FLAVI VESPASIANVS CAESAR
Head of Titus wearing laurel wreath, facing r.
3. T ELAVI VESPASIANVS CAESAR (as above)
The depiction of the ruler's son on the reverse of coin is a typical propaganda procedure, reflecting Flavian dynastic plans. A bust of Titus also appears on the tetradrachm of Vespasian struck in Alexandria from the beginning of his reign. In the capital too, *aurei* and *denarii* with portraits of Titus and Domitian on the reverse were struck (Carradice and Buttrey 2007, 2-3, 27), and later (AD 71-79) coins were minted in the name of Titus and Domitian (AD 73-79).

Summary

The production of *aurei* at the beginning of the reign of Vespasian (AD 69-71) is relatively high, comparable to the late reign of Nero (Duncan--Jones 1994, 127). It is also evident from the unusual issue of Alexandrian *aurei*, the first gold coins produced at that mint since the time of Cleopatra.

Fig. 1. Obv. Head of Vespasian, laureate, right: IMP CAESAR VESPASIA AVG.
Rev. Head of Titus, laureate, right: T FLAVI VESPASIANVS CAESAR.
The American Numismatic Society 1944.100.39964, scale 2:1

The nature of Egyptian coin production, i.e. circulation and usage of specific local currency that does not include gold coins, suggests that Vespasianic *aurei* were struck for an external market. It can not be excluded moreover that some of these emissions were used to pay soldiers stationed in Egypt. It is difficult to determine how large this issue was, due to the paucity of the surviving coins. Type 1 of above mentioned reverse is only noted in one copy, the same with Type 2, whereas Type 3 survives in two copies (Burnett *et al*. 1999, 270).

In political terms, a similar situation to that prevailing during the 'Year of the Four Emperors' took place more than a hundred years later during the civil wars of AD 193-197. Once again, real power lay in the hands of provincial troops, and not in the capital (Mackay 2004, 237). One of the pretenders to the throne was Pescennius Niger, the Syrian legate, whose troops proclaimed him emperor in late April AD 193, almost at the same time as the Danubian legions proclaimed Septimius Severus (Jaczynowska 1979, 307). Niger ruled over the provinces of Syria, Egypt and Asia Minor. However, already on 13 February AD 194 Egypt began to support Septimius Severus (Bowman *et al.* 2005, 4).

From the time of Pescennius Niger's supremacy come *aurei* struck in Cappadocian Caesarea, Antioch and Alexandria. Their attribution to particular mints is achieved on the strength of the stylistic analysis of the images shown on the coins and their correlation with remaining specimens of indisputable provenance. Alexandrian *aurei* have been

identified as Group III, the so-called 'PP' series and six coins are known, two of which shared a single punch, a fact that indicates large emissions (Bland *et al*. 1987, 70-72). Images on the reverses of these coins are both Roman gods (*Roma*, *Iupiter*) and personifications (*Aequitas*, *Concordia*, *Victoria*).

Septimius Severus also minted *aurei* in Alexandria, following Niger with the themes of Roman gods (*Roma*) and personifications (*Aequitas*, *Victoria*). The next period in which the Alexandrian mint issued any *aurei* is probably the period of the usurpation of Saturninus (in AD 280) and the reign of Carus and Carinus in the years AD 282-283 (Kunisz 1983, 125).

We can see that that the decision to issue gold coins by the mint of Alexandria was taken in times of political instability. Vespasian was the first emperor to suspend, at least at the beginning of his reign, the rule about minting coins from precious metals in the capital, and transfer this responsibility to the ephemeral mints (Kunisz 1978, 110). Alexandrian *aurei* issued by this ruler were not found in hoards deposited in Egypt (Noeske 2006) or else the relevant information is scanty. Kunisz (1983, 128, 142) notes a hoard of *aurei* from Sakha (II) consisting of 299 gold coins from the reign of Nero to Marcus Aurelius. From the time of Vespasian come five types of *aurei*, but we do not know the actual denominations of these coins, their exact dates, nor the mints at which they were struck. We can be fairly certain that these coins were not in circulation in Egypt; they were most likely struck outside Egypt, as in the case of other *aurei* found in the province (Kunisz 1983, 160), hoarded for their precious metal.

Alexandrian *aurei* of Vespasian from the beginning of his reign must have been an ephemeral issue, and probably no more than 100,000 specimens were struck (see above). In any case, these coins were not to be used on the Egyptian market, where the requirements of trade were met by billon and bronze coins. Vespasian used the moment when he could officially indicate his rule, using a gold coin as a message. It is clear that the recipients of his message were not residents of the province, who still did not have the right to vote. *Aurei* were intended for the soldiers, first as payment, but just as importantly, as a propaganda medium, confirming the right of Vespasian to power.

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LE ERME DI DIONYSOS OVVERO DEL SUO IEROFANTE

Abstract: *This article is an iconographic investigation into three hermae from the Roman imperial age, the aim of which is to discover the original statue prototype from which they originated and to analyse the transformations which occurred in later sculptures, as well as the relationship between the identified type and its later elaborations.*

The herma recognized as the prototype for the other two (in the text named 'Tipo A') is dated to the 1st century AD, while the two variants (in the text named 'variante' A 1 and 'variante' A 2) are dated to the 2nd century AD.

The subject of all the sculptures, which can be deduced from the clothing, is Dionysos or his hierophant.

This work contains a catalogue description of each individual object as well as a discussion concerning the original from which each of them came. As these particular sculptures lacked lower limbs (they were replaced by pillars) it is not possible to recognize how the weight of the statue was balanced on the legs. Therefore, the factors determining type and variant are limited to the clothing and where the face and upper body are pointed.

Keywords: *Hermae; Dionysos; hierophant*

Introduzione

Le erme sono un prodotto della scultura greca utilizzato nell'età arcaica per la rappresentazione dei numi di Hermes e di Dionysos, e che, nelle epoche successive, con l'imporsi dell'antropomorfismo e del naturalismo, furono considerate le raffigurazioni più sacre e venerande della divinità.

Sul piano tipologico, relativamente alla presenza di elementi dell'abbigliamento rispondono alla definizione di *Mantelhermen* (Wrede 1985, 4-5), e, relativamente al grado di antropomorfizzazione, a quella di *Schulterhermen, Hufthermen* o *Körperhermen* (Lullies 1931, 78-84) a seconda che il pezzo sia scolpito fin alle spalle, ai fianchi o alle cosce.

Vi sono inoltre le cosiddette *Doppelhermen*, casi particolari di *Schulterhermen*, in cui la rappresentazione non è limitata ad un solo viso, ma ad una coppia di volti (Curtius 1903; Lullies 1931; Seiler 1969; Wrede 1972; Wrede 1981; Giumlia 1983; Wrede 1985; Rückert 1998).[1]

Il tipo di erme al quale appartengono quelle che sono oggetto del presente lavoro è indicato dal termine *Körperhermen*, cioè, erme scolpite in forma umana fin alle cosce, talvolta appena modellate o accennate da una incisione più profonda sulla superficie anteriore del pilastro in corrispondenza degli arti inferiori, avvolte in un mantello, ovvero un chitone lungo, oppure coperte da una pelle felina, ovina, o cervide.

Tutte rappresentano Dionysos oppure il suo sacerdote esono caratterizzate da un abbigliamento composto da tre elementi: corto chitone di lino sottile, pardalìs o nebride sovrapposta, cinti in vita da una fascia, ed un mantello di stoffa più pesante.

All'interno di tale gruppo sembra possibile individuare come tipo A l'erma detta di Dionysos, conservata ai Musei Vaticani (Braccio Nuovo). Si riconoscono, poi, due varianti – A 1 e A 2.

Catalogo e discussione

Tipo A. Erma di Dionysos (Fig. 1).

Collocazione: Roma, Musei Vaticani (Braccio Nuovo).

Luogo di rinvenimento: verosimilmente Roma e dintorni.

Misure: h. (senza la base moderna) cm. 187,5; marmo giallo a grana sottile.

Stato di conservazione: sono d'integrazione (in gesso), la testa ed il collo, l'orlo della veste sul collo, il braccio destro con il sostegno (vi sono tracce di un antico sostegno sopra e sotto quello attuale, sulla pelle felina). Rappezzi sono visibili sul mantello e sul braccio sinistro all'esterno. Ulteriori aggiunte sono, quasi tutto l'orlo della manica sinistra, parte del polso, pollice, indice e mignolo fin alla punta (insieme ad un dito

[1] Ad esempio, lo *skyphos*, proveniente da Nola, conservato a Parigi, Cabinet Méd. n. 839; *Hermes* di Sifno, proveniente da Kastro (Sifno), conservato ad Atene, Museo Nazionale, n. 3728: per entrambi si veda Siebert 1990, 296, n. 12, 301, n. 98.

tuttora dorato) e le punte delle altre due dita, queste ultime due sono spaccate in mezzo. Le fratture sono state trattate con il gesso. Il fusto è stato sistemato su una base moderna di marmo. Alcuni pezzi del mantello sono sgretolati, sulle spalle e sotto: sul lato sinistro del corpo, inferiormente, l'estremità anteriore, dietro, il resto di un piccolo sostegno, caduto a causa dell'estremità posteriore rottasi, infine, la zampa della pelle pendente sul davanti.

Fig. 1. Erma detta di Dionysos,
Roma Musei Vaticani (Braccio Nuovo).
Da Amelung 1903, 6-7, n. 1, Fig. 1

Descrizione: l'abbigliamento della figura è composto di un fino chitone con maniche, cinto in basso da una fascia, sul quale è applicata una pelle felina che gira intorno alle anche passando sulla spalla sinistra, stretta al busto da una larga cintura, una chlaina di una stoffa più doppia, che avvolge la spalla destra e l'ascella e copre la schiena, le cui due estremità sono appese davanti e dietro la spalla sinistra. Il braccio destro è quasi disteso, quello sinistro è piegato verso il basso, entrambe discostate leggermente dai fianchi. La mano sinistra è di marmo e certamente antica, ma è dubbia la sua pertinenza all'erma: il marmo non sembra esser del tutto identico, ed il lavoro è più modesto, inoltre, un appiattimento all'altezza delle pieghe del mantello accanto alla mano, fa pensare che quest'ultima tenesse una diversa posizione. La testa sembrerebbe esser stata inserita.

Stile: il lavoro è romano, ma molto accurato e ben eseguito, sono assenti fori di trapano ed il panneggio non risulta rigido o schematico.

Datazione: la prima età imperiale, in base ai dati stilistici.

Bibliografia e riproduzioni fotografiche: Amelung 1903, 6-7, n. 1, Fig. 1.

Discussione: Per quanto riguarda l'originale (*Vorbild*), la rappresentazione del chitone di lino sottile e la cimosa sul mantello rimandano alla metà

del V a.C., datazione con cui divergono però le ricche pieghe del mantello e l'altezza della cintura, particolari che porterebbero ad abbassare la datazione al IV a.C.

Variante A.1. Erma acefala di ierofante su base dedicata a Dionysos *Trieterikos* (Fig. 2).

Collocazione: sconosciuta.

Luogo di rinvenimento: isola di Melo, edificio degli *'Ιεροὶ Μύσται*.

Misure: h. cm. 180; marmo pario.

Stato di conservazione: la testa è d'integrazione, è il calco di una testa, non pubblicata, che fu trovata a Melo nella stessa zona in cui si scoprì l'erma, che ora è conservata ad Atene al Museo Nazionale (n. inv. 329). Cecil Smith fu colui che eseguì il calco della testa, che egli, poi, innestò sull'erma. La base del pilastro è danneggiata nella parte sinistra, tracce di rottura in quella inferiore destra del mantello. Mancano entrambe le mani; tuttavia la destra fu ritrovata successivamente alla scoperta dell'erma. Il braccio sinistro è mancante dal gomito in giù.

Fig. 2. Erma acefala di ierofante su base dedicata a Dionysos *Trieterikos*. Da Bosanquet 1898, 74-76, Fig. 6

Descrizione: l'erma rappresenta, quando è unita alla testa, un uomo di mezza età con un viso dalle guance piene, dai capelli ricci, e con la barba corta. La corona sulla sua testa è d'edera e di fiori, una tale corona spesso cinge il capo di Dionysos. Il soggetto indossa un chitone fermato sopra le ginocchia con un'alta ripiegatura che cade su e nasconde la cintura, una nebride stretta da un'ampia fascia e passante sulla spalla sinistra, ed un mantello. Parte del mantello è portata in avanti e gettata sopra l'avambraccio destro, così come a fornire il punto di partenza di un puntello per sostenere la mano destra, che sembra reggesse un vaso curvo, una *phiale* od un *kantaros*. Il braccio sinistro era piegato ad angolo acuto, e la mano era alzata quasi al livello della spalla e probabilmente

stringeva un pesante attributo come un *thyrsos*, a giudicare dal troncone di un sostegno obliquo che sporge dal braccio superiore. La parte inferiore della figura consiste di un fusto liscio sul quale è incisa l'iscrizione, ed una base più larga, destinata ad esser inserita in una pavimentazione. Davanti, la superficie levigata mostra dove la base incontra lo stilobate marmoreo. La parte posteriore ed i fianchi di questa base non sono rifiniti, per lo più a sinistra, la qual cosa s'accorda con l'ipotesi che la nicchia fosse stata costruita per accogliere l'erma, che, al momento del ritrovamento, giaceva sul pavimento. Tre foglie d'acanto spuntano dal livello della pavimentazione e rivestono il piede del fusto.

Stile: le sopracciglia e le pupille sono indicate, l'esecuzione è piuttosto grossolana, come emerge dalla *pardalís* con testa felina ma zampe di cerbiatto proprie della *nebrí*.

Datazione: La lettura epigrafica dell'iscrizione scolpita sulla base dell'erma assicura che questa non può essere posteriore alla fine del II d. C., tuttavia le caratteristiche stilistiche della scultura difficilmente rendono accettabile per entrambe una datazione all'età adrianea. L'una e l'altra potrebbero esser più antichi dell'edificio dei *Μύσται*, il quale è stato datato, sulla base della lettura dei mosaici pavimentali dell'ambiente, che hanno i loro più stretti confronti in pavimenti mosaicati del nord Africa (ad esempio, Orléansville, in Algeria) (Bosanquet 1898, 66-70, 80) al III d.C., ma che rimase in uso ancora fino al IV d. C. Allo stato attuale delle conoscenze, il lavoro del Bosanquet è l'unico a fornire una datazione per le strutture, identificate come *hall of Μύσται* in base alla presenza dell'erma e dell'iscrizione scolpita sulla sua base, rinvenute sull'Isola.

Note: in conformità del costume soprattutto dell'antica religione orientale, il sacerdote è qui rappresentato con le caratteristiche del dio.

Bibliografia e riproduzioni fotografiche: Michaelis 1882, 280, n. 3; Bosanquet 1898, 74-76, fig. 6; Reinach 1904, 148, n. 2; Wrede 1981, 260, n. 173, Fig. 24, 1-2.

Discussione: Il tipo statuario originale dovette essere prassitelico, poiché i più stringenti confronti statuari con quest'erma[2] e la testimonianza offerta da una moneta di bronzo di età ellenistica rinvenuta ad Andro (Wroth 1886, 86, n. 2, Fig. XX, n. 10) (dove, presso il tempio di Dionysos, si svolgeva una festa detta *Θεοδαίσια*, in cui da una fontana posta nello spazio sacro scorreva vino, la cui divinità si ritiene che la moneta riproducesse) la quale sembra richiamare

[2] Statua di *Dionysos* e un Idolo conservata a Deepdene (cfr. Michaelis 1882, 280, n. 3; Furtwängler 1895, 323).

la descrizione fatta da Callistrato (*Statuarum descriptiones* 8) di una statua di bronzo, eseguita da Prassitele, che indossa una corona d'edera sul capo ed una nebride e tiene il *thyrsos* nella mano sinistra, concordano nel fissare per l'erma una datazione compresa tra la fine del V ed il IV a.C. e nel riconoscere quale *Vorbild* una creazione statuaria intera probabilmente prassitelica. Quest'opera è stata riconosciuta nel Dionysos tipo 'Sambon-Grimani', sulla base delle corrispondenze di ritmo ed anatomiche di questa con le altre note creazioni giovanili dello scultore (Corso 1996). Il tipo iconografico sembra, dunque, che fosse conosciuto nelle Cicladi, o, comunque nell'area microasiatica, sulla base del fatto che è proprio particolarmente dell'antica religione orientale rappresentarla rappresentazione del sacerdote con le caratteristiche del dio. Il tipo originale sembra, quindi, essere il medesimo di quello ricostruito per il tipo A di riferimento.

Variante A.2. Erma monumentale di Dionysos con chitone e *pardalís* (Fig. 3)

Collocazione: Roma, Musei Vaticani (Museo Chiaramonti, n. inv. 665).

Luogo di rinvenimento: non noto.

Misure: h. cm. 170; marmo.

Stato di conservazione: mancano la testa, le braccia e la base; la parte terminale del fusto presenta segni di scheggiature.

Descrizione: la figura è vestita d'un fino *chitone* a pieghe verticali, che la copre per tutta la sua lunghezza, al di sopra del quale, attorno ai fianchi, è stretta una pelle di leone.

Bibliografia e riproduzioni fotografiche: Liverani 1989, 121, sala LIX, n. 9; Andreae 1995, 666 (assente in Amelung 1903).

Datazione: primo terzo del II d.C.

Discussione: Quest'erma rappresenta una variante del tipo A, poiché il chitone di cui è vestita copre tutta la figura, il pilastro non esprime i connotati della forma umana, ed è assente il mantello. In merito alla definizione cronologica del pezzo in oggetto bisogna ricordare che il Liverani (1989, 121, sala LIX, n. 9) si espresse per la non antichità, giudicandola creazione moderna, tuttavia sembra possibile mantenere la datazione proposta alla metà del II d.C. Quanto poi all'originale non sembra che differisca sostanzialmente da quello individuato per il tipo di riferimento.

Conclusione

Fig. 3. Erma monumentale di Dionysos con chitone e *pardalìs*. Da Andreae 1995, 666

L'esame tipologico ed iconografico condotto sulle sculture che sono state oggetto del presente lavoro ha permesso, secondo le intenzioni inziali, di giungere ad alcune conclusioni circa il tipo statuario, quello di riferimento (*Vorbild*) e la loro cronologia.

Il tipo dell'erma da cui possono esser fatti discendere gli altri due esemplari è stato individuato nel così denominato Tipo A Musei Vaticani, poiché questo sembra aver conservato nella maniera migliore e più fedele le caratteristiche iconografiche condivise dagli altri esemplari e che consentono di presentarlo come tipo.

Tali caratteristiche (chitone di lino sottile e la cimosa sul mantello, da una parte, e le ricche pieghe del mantello e l'altezza della cintura, dall'altra) sono poi le stesse che ci permettono di individuare l'originale (*Vorbild*) in un tipo statuario a figura intera collocabile cronologicamente tra la fine del V e la metà del IV secolo a.C. (età prassitelica) che sembra possa essere identificato nella statua raffigurata sul verso della moneta di età ellenistica rinvenuta ad Andro.

Dunque si osserva un sostanziale riferimento ad un modello comune per le tre erme considerate (isola di Melo; Musei Vaticani, Braccio nuovo; Museo Chiaramonti) la cui origine potrebbe esser trovata, geograficamente, nell'area cicladica e, per quanto attiene alla cronologia, nel momento di passaggio dal V al IV a.C. o nel neoatticismo.

Quanto all'identità dei soggetti rappresentati, in considerazione dello stato di conservazione delle sculture, resta molto difficile definire con precisione se si tratti di Dioniso oppure del suo ierofante, poiché per sua propria natura, lo ierofante doveva essere quanto più simile possibile

all'immagine del dio di cui egli era il rappresentante, ad eccezione del solo caso dell'erma rinvenuta sull'isola di Melo (nel testo indicata come variante A 1), per la quale l'iscrizione scolpita sulla base chiarisce che la statua era stata dedicata allo ierofante *M. Trophimos*, dai *Μύσται* dell'isola.

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MITHRA ON KANISHKA AND HUVISHKA COINS

Abstract: *Mithra is one of the ancient deities represented on coins of the Great Kushans. The initial Kanishka issue features the Greek version of the solar deity Helios accompanied by the legend in Greek. The next issues feature the identical figure but the legends are in Bactrian and read Mithra in a few varieties of spelling. On the Huvishka coins more diverse types of Mithra in varied positions are observed, as well as together with another deity Mao. The coins are similar to the Roman and Alexandrian coinage as the moneyers probably copied some Roman coin designs and drew the examples from pattern-books. This suggests that Kanishka and Huvishka were inclined to the Greco-Iranian traditions of Bactria, whereas their predecessors and successors gave the priority to the Iranian gods in their coinages. Scholars still dispute the moment when Mithra begun to be represented as himself, not just as a solar deity of a syncretic character.*

Keywords: *coinage of the Great Kushans; Kanishka coins; Huvishka coins; Mithra representations*

The pantheon of the gods depicted on the reverses of coins minted by Kanishka the Great (*c*. AD 127-151)[1] and Huvishka (*c*. AD 154-186) is extraordinarily complex in comparison with other ancient divine pantheons represented on coins. It includes over thirty gods worshipped in Rome, Alexandria, the Hellenistic Orient and India (Rosenfield 1967,

[1] The establishment of the Kanishka's succession date was disputed by scholars for a long time. At present, the introduction of the new era to celebrate the beginning of the king's rule is dated to AD 127/8 (Bivar 2009).

69). This reflected the religious diversity characterising the territories occupied by the Kushans. However, the popularity of, for example, Jainism, and Buddhism in their empire (evidenced by the other archaeological sources) is not sufficiently confirmed in the coinage (MacDowall 1975, 142). It is still not clear why the Kushans decided to place these specific deities on their coins which were also the means of disseminating their ideas through their iconography, and thus a propaganda issue.

Rosenfield (1967, 70) convincingly argues that the gods featured on the Kushan coins were *comites augusti* – the gods supporting the kingdom and the main directions of the ideological expansion of its rulers (see also MacDowall 1975, 143).

On coins of the Great Kushans, the images of Iranian deities that were popular particularly in eastern Iran prevail (Humbach 1974, 136-137), although representations of deities of Iranian origin appear very rarely on monuments other than coins. In the Kushan Empire, only Buddhism was a religion producing cult images on a large scale (Rosenfield 1967, 72). During the reigns of the Great Kushans, the Iranian tradition constituted the centre of their dynastic politics (MacDowall 1978, 308). Humbach (1975, 136) believes that Kanishka and Huvishka returned to the Greco--Iranian traditions of Bactria, whereas their predecessors and successors gave priority to the religions of Indian origin in their pantheon. According to Fussman (1974, 37), the fact that the Great Kushans set up inscriptions in places difficult to approach, employing legends in three languages, and introduced gold coinage perhaps suggest that they had in mind the Achaemenid tradition since they wanted to be seen as the guardians of Iranian values and the conquerors of Bactria, exacting revenge on the successors of Alexander the Great. In the opinion of Harmatta, the domination of Iranian cults in the religious policy of Kanishka may be connected with an increasing interest of the king in the western part of his empire ever since Parthia began to threaten the Kushans (Harmatta *et al*. 1994, 322).

The Bactrian inscription of Rabatak, discovered in 1993 (Sims-Williams and Cribb 1995/6, 75-142; Sims-Williams 2008, 53-68) contributed greatly to the study of the Kushan Empire. The inscription was written on a rock in the Bactrian language and in the Greek script during the early years of Kanishka's reign. It contains, *inter alia*, the information about replacing the Greek language with the Bactrian language called Aryan; it describes the cities under the rule of the Kushan Empire during his reign and lists the names of the kings who ruled up to his time. It also announces

the beginning of the new era introduced by Kanishka at the beginning of his reign. The gods mentioned in the inscription (Nana, Omma, Aoromozdo, Mozdooano, Sroshardo, Narasao and Mithra) are identified as the deities from whom he obtained the kingship. According to Cribb (2008, 122), the presence of Aoromozdo (Ahura Mazda) mentioned among them confirms Stein's (1888, 89-98) theory about the deities on the coins of the Kushans as deities related to Zoroastrianism. This had been disputed by Rosenfield (1967, 82), but some elements of the Kushan religion, such as for example the fact that Ahura Mazda was subordinated to the goddess Nana, suggest that their religion was clearly rooted in the same tradition as Zoroastrianism, but represented a variation specific to the territories spreading to the east of Iran (Cribb 2008, 122-126).

Vima Kadphises (reigned *c*. AD 100-127/8) introduced a new obverse type featuring a ruler sacrificing at a small fire altar clad in the traditional Iranian nomad costume and wearing an Iranian cap. The same attire is worn by the Kushan aristocracy depicted in the sculptures at Surhh Kotand belonging to the Mathura school (MacDowall 1978, 208). MacDowall (1978, 311) suggests that the image of Kanishka on the obverses of Greek issues of copper tetradrachms should be interpreted as an earthly representation of Ahura Mazda linked with Anahita (Nanaia) and Mithra (Helios) depicted on reverses; that would be an echo of the triad popular in Iranian religions of the Parthians. The representations of Kanishka making a sacrifice to one of the gods who gave him kingship on the obverse, and the relevant deity on the reverse of his coinage may be interpreted as parts of the same image. Although the names of the deities mentioned in the Rabatak inscription are not exactly the same as those on the coins so far as their spelling is concerned, the interpretation of the deities' iconography suggests that the purpose of placing them on the coins was the same as in the case of the Rabatak inscription (Cribb 2008, 122-126).

Coins of the Great Kushan are much more of a Roman than a Parthian type (Rosenfield 1967, 73). Göbl (1968, 104-106) claims that the inspiration for the images on Kushan coin reverses came from two main sources. One was the coinage of the *Imperium Romanum*, especially the Roman *aureus* that circulated in regions situated along trade routes. The other source was Alexandrian pattern-books containing coin designs that reached Bactria and parts of India. According to his findings, the Kanishka coins were imitations of coins of Hadrian and Antoninus Pius, and the Huvishka coins of coins of Antoninus Pius and Marcus Aurelius (see also MacDowall 1975, 143). Callieri (1990, 90-91) is of the same opinion in that he sees the source

of Mithra iconography in images on the reverses of some coins of Antoninus Pius[2] that can be interpreted as depicting the emperor as Sol. Callieri (1990, 90-91) also emphasises the similarity between the iconographic type appearing on the Antoninus Pius coins and that on the reverses of coins of Hadrian issued in Asia[3] bearing an image identified as Lunus whose cult was popular in Roman Asia and who could be a prototype for the Mao representations and underlines the relation between Sol and Lunus recalls that between Mithra and Mao. According to Rosenfield (1979, 73), the imagery on the Kushan coin reverses evokes the style of Roman coins on which gods are shown emotionally detached, usually as small figures, depersonalised and identified mainly by means of their legends or their attributes. They are certainly neither aesthetised nor expressive images.

MacDowall (1975, 145-149), who analysed the Kushan copper coinage, came to the conclusion that the employment of specific types of reverses had an additional utilitarian purpose. Three main Kushan mints (Bactria/ Kapisene, Gandhara and Kashmir) were divided into *officinae*, and the product of each was distinguished by a characteristic type of reverse. This system seems to be a borrowing from the Roman coinage organisation system that coincided with a period when Greco-Roman pattern books were in use. MacDowall (1975, 145-149) assumes that Mithra was popular in those parts of the confederation that had their roots in Bactria.

Undoubtedly, Mithra is one of the gods that appears most frequently on the reverses of the gold and copper coins minted by the Great Kushans. Göbl (1984, Fig. 25) states that Kanishka and Huvishka coins were issued in two mints: 'A' and 'B'. Mithra appears on the reverses of all three series issued at mint 'A' always as the products of the first *officinae*. In the first issue struck probably before the Bactrian language became official, the deity was accompanied by a legend in Greek with his name spelled as HΛIOC. In the second and the third issue, his name is written in Bactrian and reads MIIPO (Göbl 1984, Fig. 31), but in the third issue Mithra appears in four variants: A1 (Göbl 1984, Fig. 52), A2 (Göbl 1984, Fig. 56), A3 (Göbl 1984, Fig. 64), and B (Göbl 1984, Fig. 68). Only in one issue, being the product of the first *officinae* of mint 'B', Mithra is labelled as MEIPO (Göbl 1984, Fig. 75) or MIIPO (Göbl 1984, Fig. 75A, 79).

In the Kanishka coinage, Mithra is always in the same iconographic type. The initial issue of coins of Kanishka the Great shows him as the Greek

[2] Mattingly 1940, 84, Pl. 12.17, 269, Pl. 40.11.

[3] Mattingly 1936, 388, Pl. 73.3.

Fig. 1. Gold coin of Kanishka, the legend Helios on the reverse.
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solar deity labelled with his Greek name Helios (Fig. 1). That issue is called 'Greek' as it features Greek versions of gods on the coins that carry legends in Greek. The legend Helios appears only on Kanishka coins (Rosenfield 1967, Pl. V, 90; Göbl 1984, Fig. 25). The god is shown as a man standing facing, his head turned to the left with a radiate nimbus around his head. His right hand is raised in a characteristic blessing gesture, very common on Kushan coins. His left hand rests on a short sword hilt or on his hip. He is clad in a coat, tunic and boots. Apart from the legend, this representation

Fig. 2. Gold coin of Kanishka, the legend Mithra on the reverse.
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is identical with later representations of Mithra (Fig. 2) on reverses of Kanishka coins (Rosenfield 1967, Pl. VI, 115-116; Göbl 1984, Fig. 31, 56, 79). In one variant, the god carries a knobbed staff instead of a sword (Rosenfield 1967, Pl. VI, 117).

In the first gold Kanishka issue the following deities are represented: Mithra, Nana, Mao, Oado, Athsho and Oesho. Five of them are labelled with their Greek names: Helios, Selene, Hephaistos, Anemos and Heracles. The images of these six deities constituted the main designs on the coin reverses during the reign of Kanishka (Cribb 2008, 122-126). Since the introduction of Bactrian legends on coins, the representations of these deities continued to be the same regarding their iconography; only in the case of Selene replaced by Mao the gender of the deity is changed. Most probably a Kushan Helios had never been a Greek god but was one of the divine patrons of the dynasty, the Indo-Iranian or Zoroastrian Mithra depicted in the way described above according to an *interpretatio graeca* (Harmatta *et al*. 1994, 322). It is worth mentioning that in the Bhaviṣya Purāṇa the Sun God (usually Sūrya) is called 'Heli' and his land 'Heliloka' (Rosenfield 1967, 77).

On Huvishka coins representations of Mithra are more diverse. The god is still depicted standing, with a radiate nimbus, wearing a nomad's robe, but according to Rosenfield (1967, 82), eight iconographic types of Mithra images can be identified:

a) (Fig. 3) Mithra faces rights, holding a sword or *arikusa* in his left hand, and in his right a torque or a diadem (Rosenfield 1967, Pl. VI, 118-119; Göbl 1984, Figs 135, 136);
b) the same type as on the Kanishka coins described above (Rosenfield 1967, Pl. VI, 120-121; Göbl 1984, Figs 137, 138);
   b1) similar but slightly modified: Mithra holds a staff resting on his arm or on the ground (Rosenfield 1967, Pl. VI, 122-123, Pl. VII, 124; Göbl 1984, Fig. 172);
c) Mithra holds a diadem in his right hand, with his left hand on his hip (Rosenfield 1967, Pl. VII, 125-126; Göbl 1984, Fig. 174);
   c1) similar to c) above but he carries a staff in his left hand (Rosenfield 1967, Pl. VII, 127-128; Göbl 1984, Fig. 173);
d) Mithra holds a staff in his right hand, with his left hand resting on his hip (Rosenfield 1967, Pl. VII, 129; Göbl 1984, Fig. 172);
e) Mithra portrayed in a Classical style facing right and holding a staff in his right hand and an *arikusa* in his left hand, wearing a helmet (Rosenfield 1967, Pl. VII, 130; Göbl 1984, Fig. 200);

Fig. 3. Gold coin of Huvishka, reverse type a).
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f) similar to e) above, but the god holds a diadem in his left hand (Rosenfield 1967, Pl. VII, 130; Göbl 1984, Fig. 193).

During the reign of Huvishka, Mithra features on the first three (out of four) issues of the first *officinae* of mint 'A'. The first issue features three iconographic types: type a) with the legend MIIPO (Göbl 1984, Figs 135, 136), type b) with the god labelled as MIIPO (Göbl 1984, Figs 137, 138) or MIPO (Göbl 1984, Fig. 139) or MIPPO (Göbl 1984, Fig. 140), and type b1) with the accompanying inscription MIOPO (Göbl 1984, Fig. 140a). In the second issue, the following types are observed: the above mentioned type b) with the inscription MIOPO (Göbl 1984, Fig. 170) or MIYPO (Göbl 1984, Fig. 171), type c) with the legend read MIOPO (Göbl 1984, Fig.174), and type c1) with his name spelled as MIOPO (Göbl 1984, Fig. 173).

The third issue coins may be divided into three groups. In the 'A' series Mithra is depicted in type b) labelled as MIIPO (Göbl 1984, Fig. 194), in type c) with the legend MIOPO (Göbl 1984, Figs 190, 197) or MIYPO (Göbl 1984, Fig. 195), in type c1) with the incription MOPO (Göbl 1984, Fig. 191), MIPO (Göbl 1984, Fig. 192) or MIIPO (Göbl 1984, Fig. 198), in type e) with the legend MIIPO (Göbl 1984, Fig. 200) and, finally, in type f) labelled as MIOPO (Göbl 1984, Fig. 193). The 'B' series includes the Mithra representation in type c1) with the inscription MIIPO (Göbl 1984, Fig. 228) whereas the 'C' series includes representations intype c) with the legend MIOPO (Göbl 1984, Figs 250, 252) and in type e) labelled as MIIPO (Göbl 1984, Fig. 251).

In mint 'B', an image of Mithra appeared on the products of all four issues of the first *officinae*. In the first issue, the deity is represented in type b) together with the legend MEYPO (Göbl 1984, Fig. 293) or MIIPO (Göbl 1984, Fig. 294) and in type b1) with the legend MIIPO (Göbl 1984, Figs 290, 291) or MIOPO (Göbl 1984, Fig. 292). The second issue features Mithra depicted only in the iconographic type b) together with the inscription MIPO (Göbl 1984, Fig. 317) or MIIPO (Göbl 1984, Fig. 318) or MIOPO (Göbl 1984, Fig. 319) or MYPO (Göbl 1984, Fig. 320). The third issue is characterised by a Mithra representation of type c) with the legend MIOPO (Göbl 1984, Fig. 341) and in type c1) with the same legend (Göbl 1984, Fig. 340). The deity in type b) labelled MIOPO is the only type appearing in the last, fourth issue (Göbl 1984, Fig. 375).

Taking all the above into account, it can be stated that the most popular type of the representation of Mithra in the Huvishka coinage is type b), identical with the image used during the reign of Kanishka. Type b) predominates in the issues of mint 'B' and prevails, together with types c) and c1) in the issues of mint 'A'. Types a) and f) are the rarest of the Mithra representations on coins.

Furthermore, Mithra, the Sun God is depicted together with Mao, the Moon God only on the first issue coins struck by Huvishka in the first *officinae* of mint 'B' (Rosenfield 1967, Pl. VI, 113-114; Göbl 1984, Fig. 295). On the reverses of these coins two gods are standing opposite to each other. Mao faces right holding a sword and a short staff, whereas Mithra is radiate, armed with a sword and making a characteristic gesture of benediction. These two gods standing facing each other with Kanishka between them can also be seen on the Kanishka reliquary (Rosenfield 1967, 81).

It is also worth noting that daily transactions were probably made using copper coins of far less value than the gold coins that were not in everyday use. Therefore, the iconography of copper coins was probably the vehicle for the dissemination of ideas, propaganda issues, designed to reach a wide public.

The copper coins of the Kushans were the products of three main mints in Bactria/Kapisene, Gandhara and Kashmir (MacDowall 1975, 145). The first Greek issue of Kanishka coins could have been struck in Kapisene, and the reverse carrying a representation of Mithra was one of two (apart from Nanaia) types of copper coin reverses. In the next copper issues Mithra is one of the six main deities featuring on reverses (the others are Nana, Mao, Oado, Athsho and Oesho).

The first Huvishka copper issue from Kapisene features images of four out of these six deities: Mithra, Mao, Oesho and Athsho. In the next issues the number of reverse types was reduced yet the predominant image was that of Mithra.

Mithra did not enjoy such supremacy in the copper issues from Gandhara and Kashmir. During the reign of Kanishka, the reverse with his representation was one of six main types of reverses of coins belonging to the first issue, but in the second issue new types of reverse were introduced and the significance of this god diminishes. The reverse with Mithra does not appear in the third issue since it is replaced by Oesho. The reverse bearing Mithra is one of six main types of reverse on coins issued by the mint in Kashmir; however, MacDowall (1975, 148-149) believes that Mao is the more consistently important type for this mint.

In Indian iconography Mithra is never depicted in a chariot unlike the Sun God (Grenet 2006), although a chariot and horses feature in imperial Buddhist sculpture and in pre-Kushan coinage (Rosenfield 1967, 82). Mithra is always shown standing clad in an Iranian robe holding warrior attributes or a wreath that can be interpreted as a symbol of his royal investiture. In some cases, his hand is formed in a blessing gesture, in one case directed towards Mao (Grenet 2006). According to Humbach (1975, 136), this gesture (two raised fingers) may be interpreted as a *mudra*.

It is also possible that the deity labelled as Serapo on Huvishka coins (Rosenfield 1967, Pl. IX, 186-187; Göbl 1984, Fig. 185) should be interpreted as Mithra, the divine protector of the kingdom, although in this case his iconography was borrowed from Greek and Egyptian representations of Serapis. It could be, as with the coins with the legend Helios, an attempt on the part of the Kushans to identify their own god with an older, familiar deity (Bivar 1979, 741-750; Cribb 2008, 122-126).

Most of the deities belonging to the Kanishka and Huvishka pantheon should be interpreted as Zoroastrian and originating from the Median--Persian imperial tradition. Nevertheless, although the name Mithra appears in the Avesta (Nabarz 2005, 3), his role in the Kushan religious system is different. In the Kushan pantheon, the association between Mithra and Mao is unquestionable, whereas in the Avesta Mao is linked with Huuar, and there are only a few references to close relations between Mithra and the Sun in the book (Humbach 1975, 137). MacDowall (1978, 308) notes the fact that the Kushans chose only elements common to the Indo-Iranian heritage that could serve for propaganda purposes.

When the Yuezhi arrived in Bactria, they had their own religion and it definitely was not Zoroastrianism. They could get to know the cult of Mithra in the Sogdian language since linguistic evidence confirms the presence of a cult of this deity in the territories situated north of the Oxus River during the time of Alexander the Great (Harmatta *et al*. 1994, 315-317). Most probably, in the Kushan Empire Mithra was worshipped as the Sun God as is suggested by his representation wearing a radiate nimbus, as well as by coins on which Mithra is depicted standing facing Mao. MacDowall (1978, 314-315) notices certain analogies between the Mithra cult in the Kushan Empire and in the *Imperium Romanum*, and believes that in both cases it should be considered in an astronomical context. Perhaps the Kushans and the Romans drew from the same Lower Mesopotamia heritage when they created the image expressing the Iranian idea in the form of a Classical personification.

The period in which the Kushans met Romans on the Silk Road corresponds chronologically to the time when the first images connected with Roman Mithraism appeared, as well as to the moment when Kanishka started to expose the cult of Mithra on his coinage (MacDowall 1978, 314--315). It should also be emphasised that this solar deity on the coins minted in the territory of ancient Bactria had already appeared during the reigns of the Greco-Bactrian kings, and scholars still argue over the moment from when we can talk about an image of Mithra, and not about a solar deity of a syncretic character (Dani 1978, 92; Bivar 1979, 741-750; Grenet 2006). MacDowall (1975, 147) believes that Helios, or a ruler depicted as Helios, is shown on the Vima Takto coins (Rosenfield 1967, Pl. I, 14, 15), and that Helios was identified with Mithra from the beginning of the Kushan kingdom.

But complete certainty regarding the identification of this deity as Mithra is based on inscriptions with his name, and they appear on the coins of Kanishka and Huvishka only.

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THE ART OF RE-CREATION: TERRACOTTA STATUETTES AND THEIR COPIES. ABOUT ONE 'TANAGRA' FROM THE PRINCES CZARTORYSKI MUSEUM

Abstract: *Terracotta figurines of graceful young women discovered in the necropolis at Tanagra and found in many other places in the ancient world attracted great interest among collectors from the 1870s onwards. The simplicity of the processes used to facilitate large-scale production of clay products in the ancient world was exploited by antiquities dealers, who copied them in order to bring significant numbers of forgeries and pastiches onto the market, many of which are pieces now found in many museum collections. Conservation work, backed up by chemical testing, is currently underway to establish the authenticity of such statuettes and to create, from confirmed forgeries, simulations of the original appearance of the true antique with its full polychromy.*

Keywords: *Greek terracotta statuettes; Tanagra; reconstruction; forgery; antiquities dealers and collectors in 19th century; Princes Czartoryski collection*

As museum exhibits, Tanagra figurines attract attention due to their subtle, graceful pose and the elegance of their robes and coiffures. From the time of their discovery in 1872-1873 in the necropolis in the village of Schimatari, close to ancient Tanagra, they were popular purchases for both museums and private collections, and their decorative form rendered them ideal for the taste of the age. The digs at Schimatari, however, were not legally sanctioned; scholars were deterred by the provinciality

of the site and the fact that the land was privately owned, which made work more difficult. The very limited official digs that were undertaken were also subject to compulsory division of the finds with the site owners and, having essentially failed to produce the expected large number of good-quality statuettes, were wound up in 1886 (Zimmer 1994a, 12-14). Shortly after the discoveries in Tanagra, terracotta statuettes from the regions of Smyrna (Besques 1972, 153ff; Rumscheid 2008, 137ff) and Myrina in Asia Minor came onto the market; the necropolis in Myrina was discovered in 1870. Problem-free relations with the owners of these sites enabled French scholars to conduct systematic work there from 1880 to 1882, which purportedly led to the finding of numerous terracotta figurines (Mrogenda 1996, 3). Myrina and its coroplastic workshops were treated as the Asia Minor equivalent of Tanagra. Some of the finds referenced the forms of the Tanagra figurines, although there were also modified versions and a considerable number of new types which were not present in the pieces found in the Boeotia region. They were received with enthusiasm by the antiquities market, yet as soon as sales of these statuettes began to increase between 1872-1873, reports started to emerge that not all of them were original (n.b. various different versions of the 'Tanagras' from southern Italy or Cyrenaica had appeared on the antiquities market before them – three statuettes had also been acquired by Czartoryski, but had not aroused much excitement among collectors).

Dealers rapidly took advantage of the gullibility of buyers on the market and the ease of producing forgeries of such figurines and, as a result, the variety of forms documented by the findings in Asia Minor was exploited as an argument lending credibility to the copies they sold (Zimmer 1994a, 11). An important role in this practice was played by the Greek merchants: Lambros, Triantaphyllos and Xakoustis (Higgins 1987, 170ff; Kriseleit 1994, 59; Mathieux 2003, 294), who supplied figurines from Athens to antiquities dealers or directly to collectors. A considerable proportion of their wares were contemporary copies and pastiches or figurines that had been restored to varying degrees. In the case of the 'Tanagras' it was complete figures that were most sought after, and their value further increased when mere traces of the polychromy had been preserved.

Contemporary catalogues featuring the terracotta figurines did not question their originality. Perhaps the most influential figure in Paris was Wilhelm Froehner (1834-1925), who from 1862 worked at the Louvre and from 1870 was an antiquities expert much respected by collectors' circles (Zimmer 1994a, 18). The catalogues he prepared for auctions of collections

up for sale and his consultations on new historical acquisitions were considered entirely credible. They were used by museums and collectors of all calibres with an interest in 'Tanagras', among them Camille Lecuyer and Julien Gréau (Mathieux 2003, 295), as well as by the well-known Paris antiquarian Henry Hoffmann.

Towards the end of the 1870s, however, rumours emerged in museum circles hinting at suspicions of pastiche or contemporary retouches in the case of specific 'Tanagras' (Higgins 1987, 166, 174; Zimmer 1994a, 11). A decade later, scholars were fully aware that many of the figures had been furnished with false certificates of provenance, and that a significant number of forgeries had been placed in European collections via the Athens market (Zimmer 1994b, 31; Mathieux 2003, 297). Present-day physical chemistry tests on these antiquities have shown that, within a year of the discoveries at the necropolis in Tanagra, the number of counterfeit copies offered for sale by forgers had risen considerably (Goedicke 1994, 81; Bouquillon *et al.* 2003). At the time, however, even the most eminent Classical archaeologists, such as Adolf Furtwängler (1853-1907), emphasised the difficulties inherent in establishing (and the lack of precise criteria for assessing) the originality of these terracotta figurines (Zimmer 1994b, 33-36). In his analysis of pieces purchased from dealers (including Lambros), however, Furtwängler noted a certain regularity in their state of preservation, namely the fact that they had been reassembled from many fragments (which was cited as testimony of their authenticity). They seemed to have been deliberately smashed in such a way that they could be put back together without detriment to their aesthetic appearance (Kriseleit 1994, 68 n.17). One of the figurines from the Princes Czartoryski Museum in Krakow corresponds to this description.

At the time the abovementioned Greek antiquities dealers were active, Prince Władysław Czartoryski was living in Paris and buying ancient relics for his museum, which opened in 1876 in Krakow. He maintained contact with Hoffmann, attended auctions and was familiar with collections in Paris. It was here that in the summer of 1890, Czartoryski met a Greek acquaintance of Mme Rousset, his agent in Paris for many years. This may have been Xakoustis or E. Triantaphyllos, who were dealers on the Rue Combon (Higgins 1987, 170). They had antique figurines that served as models and they also ran workshops in which they employed craftsmen who had total command of the ancient coroplastic technique and had studied the form and style of these figurines (Higgins 1987, 170-176; Mathieux 2003, 296). The Greek had three good-quality statuettes with partially preserved

polychromy on offer and the prince asked Froehner for his opinion of them; Froehner was enthusiastic about the figurines and recommended that he buy them, but for a much lower price. On that occasion, Czartoryski did not buy any of the 'Tanagras' for his collection, although the vendor tried hard to persuade him, citing the competition, Lecuyer, who was an avid buyer of Tanagra statuettes. Around the same time, Czartoryski also viewed various objects offered for sale by Hoffmann, including 'Tanagras' which were 'pretty but dearer than the Greek's'.[1]

Inventory records at the Princes Czartoryski Museum updated on an ongoing basis as purchases made by the prince arrived suggest that the 21.8cm high statuette recorded as no. 1061 in the subsection 'antiquities' (now inv. no. MNK XI-1061; Pl. 1) may have come from Hoffmann (for a well negotiated price?). It is a woman standing in a relaxed pose, her weight supported on her right leg, while her left is slightly bent and extended to the side from beneath her robe. Her body is clad in a long *chiton* and a *himation* is thrown over her shoulders, while its edge, held to her breast by her right hand, falls in a deeply sculpted fold down the middle of her body. Her mantle reveals part of the *chiton* on her breasts and its heavy, regular folds below her knees. Both ends of the *himation* are held from underneath in the woman's left hand, which hangs down, slightly bent. Her long face, with its delicate features, is framed by wavy hair parted above her forehead and gathered in a knot at the nape of her neck. She wears a diadem on which traces of gilding survive, and round earrings in her ears. The reverse is unworked and there is a round aperture in the figure's back. It stands on an oval base, moulded at the front and flat at the back, on a flat rectangular plinth. The figurine, which has been glued together from many pieces, is made from light brown clay, on which traces of slip and pink paint remain.

There are analogous figurines among the 1880-1882 finds from Myrina that were dated to the end of the 3rd century BC (Mrogenda 1996, 8-9, 59--60, Taf. 1.97/4). Although the line of the cloak with the vertical fold running down the body is untypical, the woman's pose references one of the Tanagra types (Mollard-Besques 1963, 106, Pl. 125.b) that was a statuary model from the end of the 4th century BC known as the Kleine Herkulanerin (Daehner 2008). In the second half of the 3rd century BC, the advanced extent to which classic 'Tanagras' were processed in centres in Asia Minor, North Africa and Southern Italy produced traditional forms embellished with new stylistic

[1] On the basis of letters from Prince Władysław Czartoryski to his sister Izabela Działyńska dated 28.06.1890, 3.07.1890 and 5.07.1890 (Princes Czartoryski Library, ev. 2150).

Pl. 1. Terracotta statuette (Inv. no. MNK XI-1061,
Princes Czartoryski Foundation deposited with the National Museum in Krakow).
Photo by M. Studnicki

Pl. 2. Reconstruction of the polychromy on the terracotta statuette (Inv. no. MNK XI-1061, Princes Czartoryski Foundation deposited with the National Museum in Krakow). Photo by M. Studnicki

elements characteristic of Hellenistic statuary sculpture (Kleiner 1984, 157--160). Terracotta statuettes in the group referencing the Kleine Herkulanerin are distinguished by one fundamental repeated attribute, namely the position of the hands – the right holding the folds of the cloak at the throat and the left hanging down, shrouded in the other end of the robe. The lie of the robe, the position of the head (turned right or left) and the body weight (rested on the right or left leg) are, however, all rendered differently (Kleiner 1984, 105).

One key problem in identifying forgeries of terracotta figurines is the simple, repeatable method of their production (Muller 2003). Series of analogous statuettes were made in antiquity using moulds; in the 19th century an ancient original would be used as the patrix to make a matrix from which to obtain exact copies. In this way, it was also possible to model fragments missing from figurines. This practice may have taken place in the vicinity of the dig sites, where figurines discovered and designated for sale could be touched up and copies made. Workshops in such locations enabled local clay to be used, which added credibility to the forgeries (Bouquillon *et al.* 2003, 300). When figurines were touched up or reassembled from broken pieces, the glue lines were concealed as necessary by touching up the colour or, for more major 'restoration' procedures, artificially aged with a layer of slip and a layer of paint on top of that (Kriseleit 1994, 59). Chemical assessment of authenticity is not always decisive. As the paints were based on natural dyes it was easy to obtain a polychromy similar to the original as long as the forgers did not add artificial pigments not used in antiquity (Bouquillon *et al.* 2003, 300).

The figurine purchased by Prince Czartoryski probably did not arouse suspicion. He had bought objects of this type on previous occasions and this further statuette was a complement to the group representing Hellenistic coroplastic sculpture. An awareness of the importance of acquiring pieces of high quality and aesthetic value, meeting the standards necessary for museum display, is visible in the actions of not only the prince himself but also of the then director of the museum, Marian Sokołowski, and its curator, Bolesław Biskupski. While the prince might have been prepared to replace more 'unsightly' pieces with better ones – even some 'Tanagras' were considered controversial, albeit chiefly owing to their minimal aesthetic qualities – Sokołowski was less swayed by such dilemmas with regard to objects already acquired for the museum: 'The prince may do as he sees fit, but I personally, and as the director of the Museum, would be fundamentally opposed to objects constituting part of the collections

being disposed of in any way whatsoever. What once enters the Museum becomes cast-iron, immoveable capital, and should not leave the Museum. It would be best for (…) the more beautiful Tanagras (...) to augment the collection and supplement it. With the more beautiful examples, the worse ones gain in value, they form a series, the one complements the other, and the collection becomes all the more interesting (...)'.[2]

Czartoryski's behaviour as described above, though of significance for the history of the collection, did not come into play in relation to the 'Tanagra' bought in 1890. Although it was glued together from several pieces, this was common conservatorial practice in the case of archaeological relics in the 19th century and did not denigrate the value of the object in his eyes. Vital conservatorial work carried out in the Decorative Arts Conservation Studio at the National Museum in Krakow in 2008, though initially purely prophylactic in scope, nevertheless revealed that this piece is a forgery. The various fragments of the statuette are made from underbaked or unbaked, very fragile clay, saved from disintegration by a strong adhesive that keeps the figure stable and also serves the function of slip. On top of this layer, light pink paint was applied in an irregular fashion so as to achieve the effect of extensive effacement of the original polychromy and traces of gilding were added to underscore the diadem. The round aperture in the figure's back, necessary during the firing of the clay statuettes, was also retained. The surprising double base of this 'Tanagra', which cast doubt on its originality, should be treated as one of the elements of the creative activity of the 19th-century forgers. In antiquity, the rectangular bases typical for the Tanagra statuettes were not combined with the shallow, moulded, oval base added here, though the latter is documented – without the rectangular base – in Boeotian figurines from the second quarter of the 3rd century BC (Besques 1972, 25, Pl. 27, e) and also in forgeries (Kriseleit and Zimmer 1994, cat. 74).

In order to use this 19th-century forgery for educational purposes, an attempt was made to reconstruct the possible original appearance of the 'Tanagra' on the basis of the well preserved polychromy on a few original figurines (Pl. 2). The models used were pieces from the Munich Antikensammlung (Brinkmann 2007a, 195-196, Abb. 344), the Berlin Antikensammlung (Zimmer 1994b, cat. 1, 5, 10, 28) and the Louvre (Jeammet *et al.* 2007). The figure, swathed in robes, demonstrates the contrasting colours popular in polychromy on Greek sculpture – light

[2] Excerpt from a letter by M. Sokołowski dated 11.09.1890 (Princes Czartoryski Library, ev. 2150).

blue for the *chiton* and pink for the *himation*. The left shoe peeping out from beneath the robe, the woman's hair, and the surround of her eyes are all painted brown. Her dark pink lips stand out clearly against the pale pink of her complexion. The diadem and her earrings are accented with delicate gilding. An analogous colour scheme is attested to by the remains of paint on the *chiton* and *himation* of the Kleine Herkulanerin type statue found in Delos from the National Archaeological Museum of Athens, dating from *c*. 120 BC (Brinkmann 2007a, 198-200, Abb. 350-358). These tones reflect the palette of intense pastel colours that could be obtained from the basic pigments used at that time: the commonly occurring ochre for browns and yellows, azurite sourced from Spain, Italy or Sinai or Egyptian blue to make blue paint, and hematite, realgar, madder, or the rarer, precious cinnabar from Istria or Andalusia for shades of red. Kaolinite itself, the base ingredient for the paints, or lead white, were used for white (Brinkmann 2007b; Price 2007, 270-271).

The forged terracotta figurine, though not an illustrious piece in any art collection, may nevertheless fulfil a doubly important function. On the one hand, we might supplement Prof. Sokołowski's words by adding that a forgery is also a significant element of a museum collection as it is testimony to the history of the development of the antiquities market and to the activities of the dealers. On the other hand, 19th-century copies demonstrate the standard of craftsmen's work at that time and allow us to examine their working techniques, which often required considerable knowledge of original relics. Given that the antiquities market was flooded with forgeries of terracotta figurines, it might seem surprising that Prince Czartoryski's collection includes so few 'Tanagras'. This was certainly not due to excessive fears as to their originality, however. Although there was undoubtedly talk of forgeries, the approval of experts such as Froehner dulled the vigilance of collectors and museum buyers, as the number of forged terracottas acquired by museums from Greek dealers up to the early 20th century testifies.

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VIRTUAL RECONSTRUCTION IN ARCHAEOLOGICAL SERVICE: A CASE STUDY OF THE TEMPLE OF *DIVUS IULIUS* ON THE FORUM ROMANUM

Abstract: *The main goal of the present work is to restore the splendor of the Temple of Divus Iulius, albeit in an unconventional manner. After a discerning analysis of its history and construction and architectural details, the examined edifice has been reconstructed in virtual form using computer programs. The reconstruction was prepared using the results of archaeological research conducted by Otto Richter (1889), the ancient treatise of Vitruvius on architecture (De arch.), a comparison with better preserved architectural structures erected at the time (e.g. the Temple of Saturn), as well as using architectural research done by the author. It is a purely theoretical proposal of how the edifice may have appeared two millennia ago.*

Keywords: *Virtual architecture; 3D reconstruction; Templum of Divus Iulius at Forum Romanum*

Historical background

The Temple of *Divus Iulius*, located in the Roman Forum in Rome, began the tradition of erecting structures dedicated to the meritorious successors of Caesar. The decision to erect the Temple of the Divine Julius was made simultaneously with the announcement of Caesar's divinity by Augustus, Antony and Lepidus in 42 BC.[1]

[1] Interestingly enough, long before the structure was established, it had been incorporated

The surroundings of the podium, where an agitated group of patricians had laid down the murdered body of Caesar, were selected for the temple's location. This place was chosen for the funeral ceremony because of its proximity to *Regia*, where Caesar had performed the function of high priest (*Pontifex Maximus*). After the ruler's cremation, his ashes were placed in the family tomb in the Field of Mars. A few days after these events, the first altar was erected in place of the podium. It was erected by Herophilos or Amatius, although the name is still disputed today (Grant 1970, 94). The same man initiated the construction of a six-meter high column made of Numidian marble bearing the inscription PARENTI PATRIAE (Suet. *Iul*. 85), namely: For the Father of the Homeland. In the future, the temple itself would become the first building of this type in the history of Rome which was dedicated to a mortal and erected in the Roman Forum. Before the temple was even built, other edifices erected in honor of Caesar had been demolished at the decision of the consuls (Grant 1970, 93-96).

The following description of the temple was based mainly on the work of Otto Richter *Die Augustusbauten auf dem Forum Romanum* published in 1889, the treatise of Vitruvius *De architectura* and the work of Wilfried Koch (2003), from whence the explanation of the architectural terms was taken.

The characteristics of the edifice

The temple was built on the southeastern edge of the Roman Forum, the border of which was determined by the temenos of Vesta (composed of the temple of Vesta, the home and garden of the Vestals and the house of the High Priest – all surrounded by a wall). Its dedication was led by Augustus on the 18 August 29 BC, while its name was *Templum Divi Iulii* (Ostrowski 1999, 200). The entire structure rested on a podium, which measured 88.5 x 92.5 Roman feet (approximately 26.1m x 27.3m) and was 12 Roman feet (3.54m) high. A tribune with an on-axis niche was placed at the front on the podium. This niche had a semi-spherical shape with a radius

into Augustus' policy of spreading propaganda through visual influence. This was also the reason for issuing coins in 29 BC presenting the temple with the clearly marked Star of Julius in tympanum and with the heavily exposed dedication *DIVO IULIO*, namely 'For the Divine Julius'. Also of note was the altar, placed on the left side, which stood out so clearly from the building (see Zanker 1987).

of 13 feet (3.84m) and was not just a simple decoration of the façade. This was the place where the funeral ceremony of Caesar took place, namely the emperor's cremation. An altar erected by Herophilos had stood in this spot earlier, while the notch was meant to emphasize and perpetuate the holiness of this place. Symmetrically arranged stairs, each ten feet (2.95m) wide, lead into the tribune. Extending from both stairways, the 12.5 feet (3.69m) wide terraces ran along the longer walls of the temple. There was a supposition, later confirmed by images on coins from the time of Hadrian, that the terraces could have been used as an art gallery to display statues and sculptures (Richter 1889, 143-144), for example quadriga, as seen in a London coin of Hadrian (Mattingly 1936, no. 1309; cf. Fig. 1: 1). The balustrades, running along the terraces and in front of the semi-circular niche (with a notch in place for a speaker), have been reconstructed based on the same coins. The cornices and ships *rostrum* located on the front are decorations of this part of the edifice. These bows were gained by Augustus at the Battle of Actium with the fleet of Cleopatra and Mark Antony and were votive offerings. They were arranged in two rows on both sides of the recess and numbered 14 in total (Richter 1889, 143).

The actual temple of Divine Julius was set on the high podium described above. It consisted of a *naos* and *pronaos* and had a total size of 58 x 63 Roman feet (approximately 17.11m x 18,59m). The *naos*, which occupied the entire width of the structure, was where the statue of the Divine Julius (with a distinctive star on his head) was supposed to have been placed. The statue was visible from the outside through a high and wide entrance opening and the framing was formed by front columns. The same statue, seen in the interior of the temple, was depicted on a coin minted in 36 BC (Crawford 1974, no. 540, 1).

According to some, following analysis of the base and column trunks, the temple was a *prostylos* and *hexastylos* with doubled peripheral columns. Vitruvius (*De arch*. 3.3.2) described it as a *pyknostylos*. Others believe it was simply a temple with triple free-standing columns on the far ends of the side walls. Fragments of decoration found (such as entablature), a comparison of shape with the similar but subsequent Temple of Saturn and images on coins such as a Hadrian coin in Vienna (Cohen 1880-1892, Hadrian nos 416-419) indicate the Ionic or Composite order of the temple, although Stamper (2008, 110) has suggested Corinthian. The *naos* is an elongated

rectangle, set longitudinally against the colonnade, with an interior measuring 22 x 48 Roman feet (6.49m x 14.16m), with walls three feet (0.89m) thick. The dimensions (including the colonnade) are 58 x 63 feet (17.11m x 18.59m). The height of the temple can be determined on the basis of preserved column fragments and using calculations made on the basis of an ancient architectural manual, namely the work of Vitruvius (*De arch.* 3.5.1). With the known dimensions of the plinth which forms the base of the column (which is six feet [1.77m] wide) (Richter 1889, 138) and Vitruvius' calculations, we get the lower diameter of the column to be 1.18m or four Roman feet. The height of the column was established as nine times the diameter and further use of the findings obtained by Vitruvius helped to establish the overall height of the temple as 20 feet or 5.9m (Richter 1889, 147). These calculations are clearly mistaken since the height of the column was higher than 10m. This value suggests the height of the entire edifice was at least 22m.

Work on the virtual reconstruction

The reconstruction of the Temple of the Divine Julius in the Roman Forum was conducted by the author in several stages. The first step was the preparation of a linear drawing using the architectural computer software, ZWCad. Work began with the establishment of the units and creation of layers. The chosen units were centimeters, because they are used in today's architectural drawings. The scanned projection and elevation[2] (Fig. 1: 2) were processed, resulting in computer copies of these drawings ready for further transformations. In the case of work on the projection, while simultaneously analyzing the dimensions in the drawing and the building's description, it was possible to distinguish the basic axes of the building. The dimensions of other items covered neither by dimensioning nor by the description prepared by Richter were obtained by using ratios according to the calculations made by Vitruvius. The elevation from the study prepared by Otto Richter provided equally useful information. The height of several differently located stairs was measured and the most common pattern was chosen. After analyzing the level of their elevation and projection, the basic levels of the edifice were set, namely those of: the surrounding area, the terrace surrounding the edifice, the main level behind the colonnade,

[2] All drawings and measurements used in the reconstruction come from the above-quoted publication by O. Richter (1889).

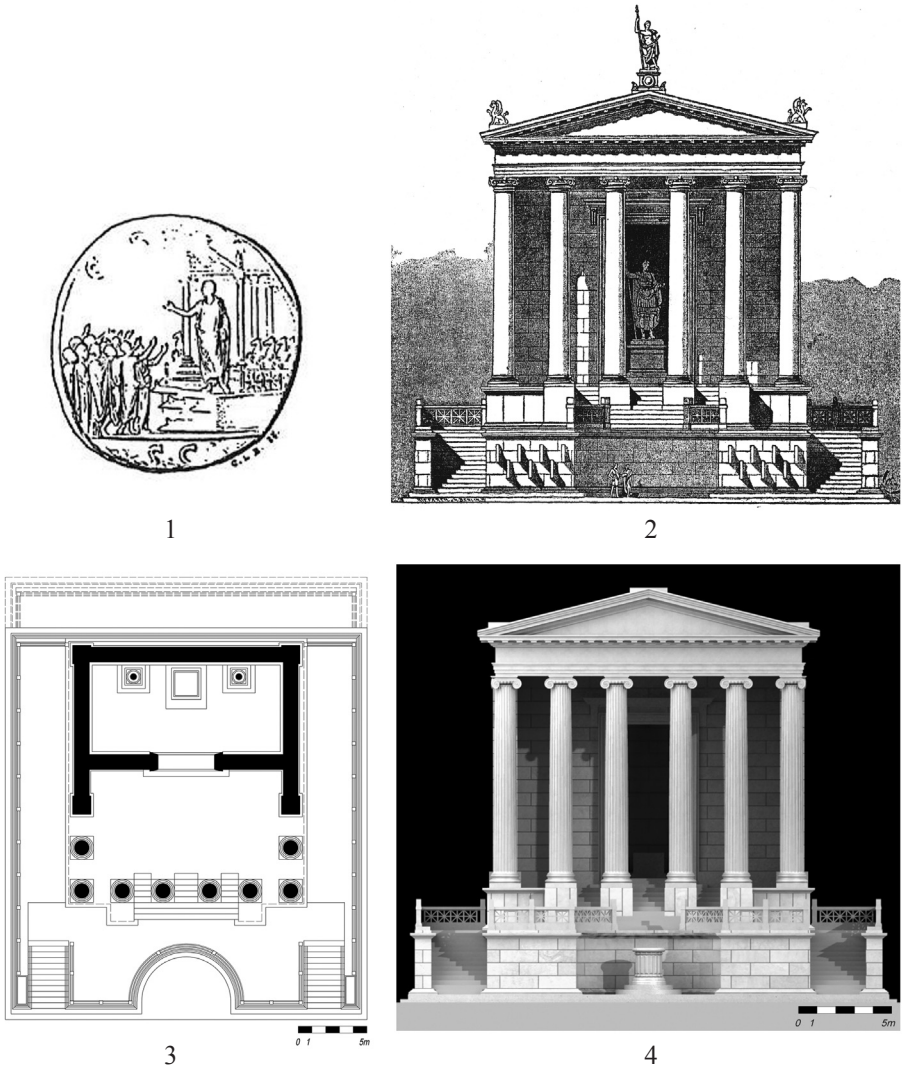

Fig. 1. 1 – Coin of Hadrianus in London. Reproduced from O. Richter 1889, Abb. 6c, 144;
2 – Drawing of façade reconstruction. Reproduced from O. Richter 1889,
Abb. on page 141;
3 – Plan of Temple *of Divus Iulius*.
Drawing by the author after Richter 1889, Abb. on page 140;
4 – Reconstruction of façade. Visualization by the author

the entrance area and the interior of the temple. The area levels inaccessible to humans were also set, namely those of the columns' heads, friezes, serration, tympanum and the ridge of the roof. According to these, the conventional division of the levels was introduced and marked with solid lines. In the following stage, they were used to build a three-dimensional

model. The parts of the elevation where the elements of architectural details began and ended were also endowed with auxiliary lines, with the aim of facilitating the placing of three-dimensional architectural details in later work.

The contour of the projection in the appropriate scale made by the author (Fig. 1: 3) served as the basis for further work (this time using not two, but three dimensions) in another architectural program, ArchiCAD. Using the storey configuration tool, 'virtual' edifice levels were established. In the case of the unusual task of creating the three-dimensional Temple of the *Divus Iulius*, particular elements of the entire facility were placed on the floors. Although theoretically the temple had only one utilitarian floor, namely the level of the interior and the level of the ground, the three--dimensional elements were deployed on several 'virtual' levels while creating the 3D model. This afforded the possibility of placing the tympanum on the sixth level, while at the same time having a preview concerning its position in relation to the base of the columns located on the fourth level, etc. (Fig. 2).

After importing the 'raw' projection of the edifice on the -1st level it was possible to build the first basic elements such as walls, pillars and ceilings. Building took place in accordance with the 'top-down' principle and it began on the zero level, where the base of the altar and the base of the temple's body were located. On the first level were the walls surrounding the sides and the main terraces supporting the temple's body up to the height of the terrace in front of the interior, as well as the slab of the terrace and the entire flight of stairs. On the second level were the ceiling slab, the base of the columns and the continuation of the body's walls. The third level was designed exclusively for volute capitals of columns inserted in schematic form while the fourth level was taken up by the architrave. The frieze and the cornice were placed on the fifth and the tympanum on the sixth. On every level discussed, only the basic elements were built. From an architectural and constructional point of view, only after creating the frame of the main walls and ceilings can one begin to supplement the details. At the stage of adding details to the basic structure already built, the obstacles posed by the limitations of the program appeared. The possibilities of three-dimensional modeling in the program did not include the ability to create complex shapes such as the volute capitals of Ionic columns or column shaft profiles. Among other factors, this is the reason why at this stage of construction, elements in simplified and solid form were introduced, rather than the targeted Ionic columns. At this stage, this provided a feeling of completeness to the drawing.

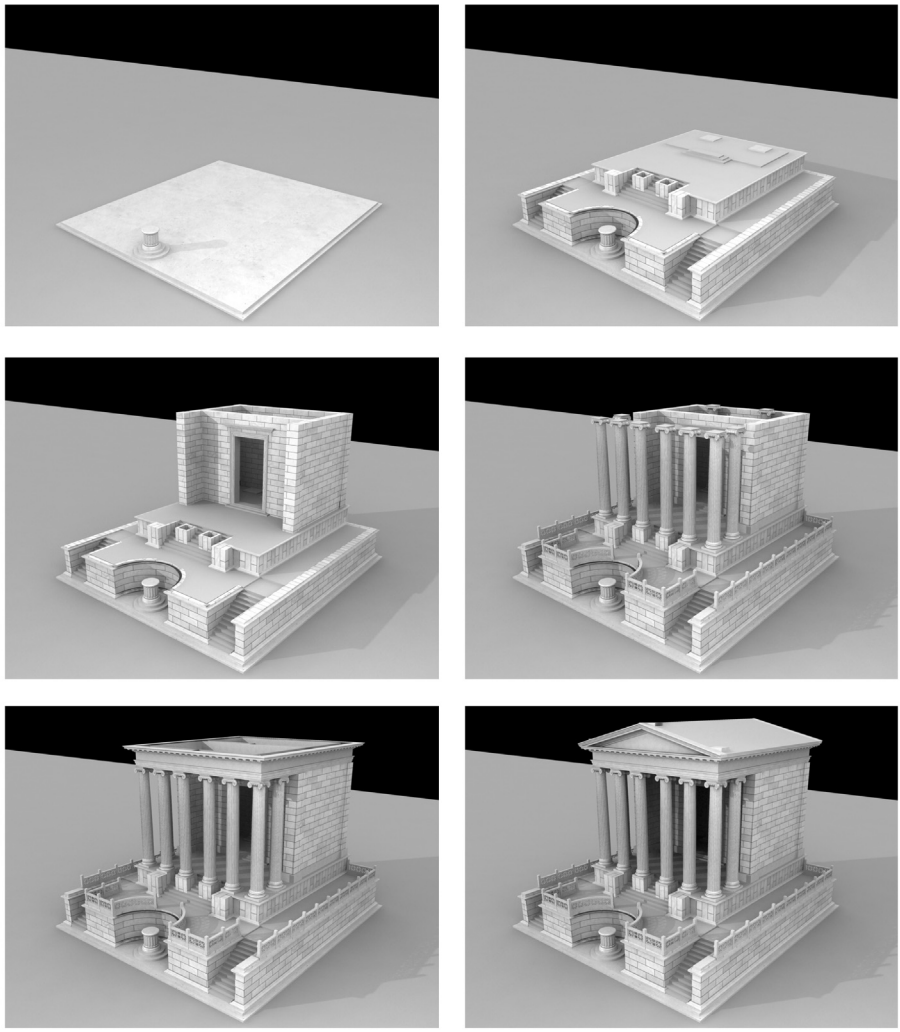

Fig. 2. Phases of the reconstructed temple during virtual rebuilding.
Visualization by the author

The program fulfilled the task of constructing all types of socles and cornices on the basis of the profiles contained in the study of Richter. The stone dressings of the lowest parts of the building, the elements at the base, the railings' finial and the most important parts of the Ionic order, such as the base of the column, crown cornice and *sima* were made using them. Another program for three-dimensional reconstruction fulfilled the role of joining the results that had been obtained thus far together,

giving the reconstruction its almost final shape. The program used was 3D Studio Max. The reconstruction was done in two stages. In the first stage, the subject of the three-dimensional model construction was completed, while in the second one, the visualization of the reconstruction was obtained using specific configurations of light and cameras, etc. When the 3D model was ready, the author started the process of visualization preparation, the so-called 'scene'. Matching the lighting was the first step. The application and mutual tuning of several light sources was required. Directional light simulating the sun (the most powerful light) was created at the approximate height above the horizon for the geographical location of Rome during the summer months. It was the only light that cast a shadow on the scene, the shading of which could be adjusted. Luminous planes playing an illuminating role were further added. They were placed in three corners of the object: the left and right lower and the upper right. The lights were set to specific shots determined by virtual cameras, just as in reality. It was necessary to set the focus, zoom and of course the height above ground from which the shot is taken.

The selection of materials is the key activity in the preparation of each visualization scene. The realness of the final effect depends on that factor. In the window of the materials editor, the presets for every type of stone, tile, metal, etc. were imported. However, this was only the basis for the transformation, as each scene required individual settings. Such models and all the settings enabled the author to obtain a series of photorealistic shots of the reconstructed temple. Among other things, the following shots demonstrate where particular items were added and the virtual process of raising the temple (Fig. 2).

Summary

The aim of this study was the virtual reconstruction of the Temple of Caesar, using both archaeological findings and computer programs of the latest generation. The collected material and knowledge from the field of the history of ancient architecture, as well as the knowledge of the computer techniques of virtual reconstruction, allowed the author to implement this plan. The resulting reconstruction is just one of many possible interpretations of this edifice, of which not much has survived to the present day. Alternative solutions are, of course, acceptable and they depend only on the author's imagination and on the support of the research material. In the results

of the reconstructive work presented here, the solutions which are most often recognized by researchers have been adopted.

The result of the work in the form of drawings and virtual representations of the temple and its architectural details (Fig. 3) may be that of an individual entity, but it could also become the blueprint for subsequent reconstructions of temples, of Augustian edifices

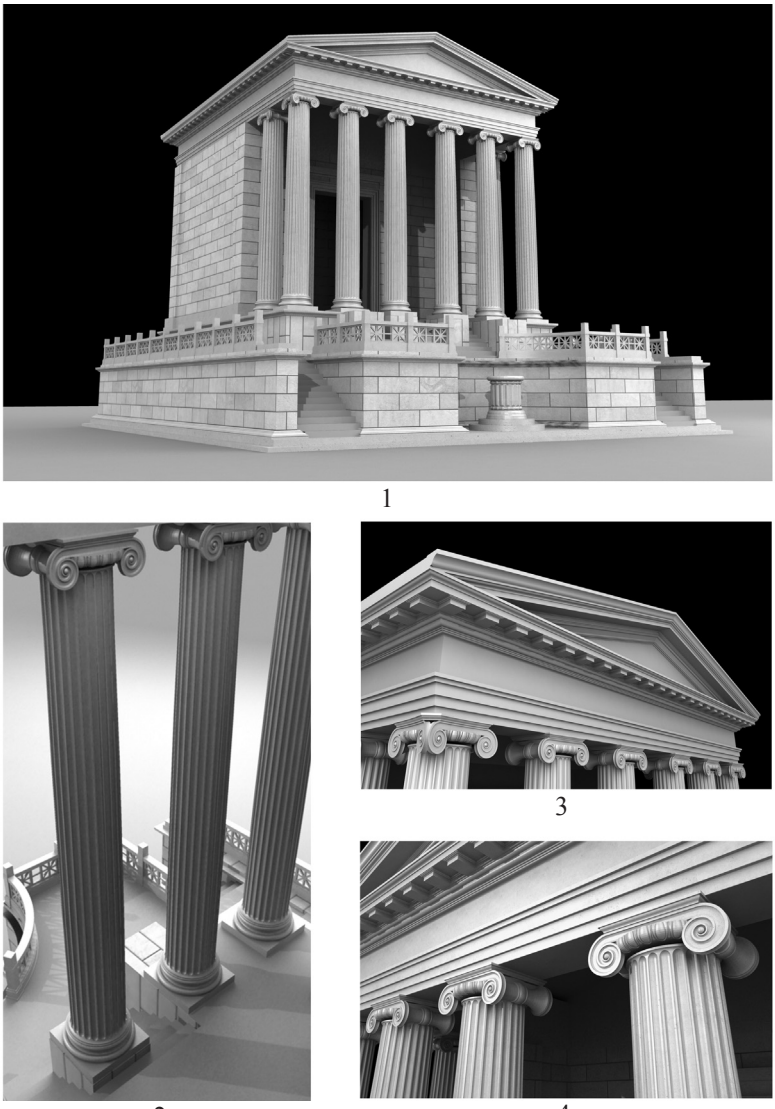

Fig. 3. 1 – Perspective view of the temple visualization;
2-4 – Architectural details of the temple in 3D reconstruction.
Visualization by the author

or for attempts to reconstruct all the buildings of the Roman Forum. At any rate, innovative solutions of this type can be widely used in the world of science, as well as in popularizing ancient culture and the achievements of past generations. Such reconstructions could become a didactic tool facilitating, for example, the acquisition of knowledge of the architecture of Rome. This applies not only to book publications but also to various types of multimedia presentations, which more and more frequently constitute an indispensable item in university lectures. Such a reconstruction could additionally be used in various kinds of guides, which, using a historical image as a basis, could be placed next to structures which are now in ruins to complete a mental image for the observer. The possibility of using new communication media, such as the Internet, is also particularly evident here.

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THE APPLICATIONS OF AIRBORNE LASER SCANNING IN ARCHAEOLOGY

Abstract: *LiDAR (Light Detection and Ranging) is a new tool that has been changing aerial archaeology since the late 1990s. By using a georeferenced laser beam, it can survey through tree canopies. This ability allows researchers to track anthropogenic remains in woodland and jungle environments. The device has great potential in archaeology as vast areas of our planet are covered with trees. A systematic survey may uncover new archaeological sites and determine the full geographical extent of partially known features. The LiDAR system is based on a device measuring distance between the aircraft and the ground. Due to the high density nature of the laser beams used, there is a significant chance that some of them penetrate through canopies and reflect off the ground. The second step in this process is to differentiate of points that are reflected off of tree trunks and ground to make a digital elevation model (DEM) of the bare surface. The presentation of results has also been problematic in the past because the human brain is unable to perceive DEMs. To solve this problem, there are many alternative methods of display such as hill-shade imaging and three-dimensional modeling. Through this process, one is able to find traces of past human activity. Important case studies in Europe and North America will be mentioned.*

Keywords: *Airborne Laser Scanning; Light Detection and Ranging; aerial archaeology*

Introduction to aerial archaeology

Field surveying is an important part of archaeological research which enables archaeologists to find new sites and also yields new data to landscape archaeology (more about landscape archaeology see Branton 2009). This could, for example, allow for the identification of ancient settlement patterns or structures like roads or channels made by prehistoric and historic societies. The main problem when conducting such research is the vastness of the areas that should be surveyed. The solution is aerial archaeology. Thanks to aerial and satellite images, scholars can investigate a much bigger area in a relatively short amount of time. Also, some structures cannot be identified unless viewed from above (Parcak 2009, 3). Aerial archaeologists have developed their methodology to trace ancient features by using the play of light and shadow on elevated structures and by detecting buried remains using soil and crop marks (Rączkowski 2002; Renfrew and Bahn 2002, 76-77). Remote sensing techniques are developing at an increasing rate, giving new tools to aerial archaeologists; one of these is airborne laser scanning. This study will present the basic principles of LiDAR application in archaeology.

Light Detection and Ranging

LiDAR is a technique in collecting information about the physical relationship between a sensor and a material that reflects light energy. LiDAR stands for Light Detection and Ranging and in wider contexts could refer to a stationary or vehicle-mounted scanner. In this article, however, the author will focus on the airborne survey use of aerial archaeology (also known as Airborne Laser Scanning). It is worth mentioning that there are also stationary systems for making 3D models of artifacts or architecture.

History of Airborne Laser Sensing

Modern LiDAR has its roots in military equipment from the Cold War. The first attempt to create an airborne laser detecting system was made by the United States military in the mid-1960's (Crutchley and Crow 2010, 3). Airborne Laser Bathymetry systems, operated also by Canada and Australia, were provided to detect enemy submarines. A modern system called SHOALS (Scanning Hydrographical Operational LiDAR Survey), operated by the U.S. Army Corps of Engineers, is able to make very

accurate maps of seabeds (Banic and Cunnigham 1998). The problem with the introduction of laser sensing 'to land' is mainly due to the difficulty of providing accurate absolute orientation in space. Before the development of satellite positioning systems, using airborne laser scanning on the ground was useless. This 'GPS turn' was made in the mid-1990's. Introducing GPS systems and later GLONASS with precise enough data opened up new possibilities for LiDAR in many fields, such as: archaeology, construction, agriculture and environment management. LiDAR surveying in archaeology became popular in the late 1990's. The first survey using the technology in Great Britain was done in December 1996 south of Coventry by the Environmental Agency (of England and Wales). However, the first attempts to use LiDAR in archaeology were in the 1980's in Costa Rica (McKee and Sever 1994, 135). Since that time, the usage of airborne laser scanning has risen dramatically and now LiDAR survey plays an important role in the scientific effort in many projects worldwide.

The introduction of the LiDAR system to Maya studies was long overdue, since scholars had previously backed the use of satellite images (more about satellite surveying in Mesoamerica see Garrison *et al*. 2008) and undervalued the potential contribution of aerial archaeology, a mistake considering the extensive forest cover characteristic of Mayan sites. Today, this kind of surverying is only in use in two projects. These are at Copan (Copan, Honduras) (Gutierrez *et al.* 2001) and Caracol (Cayo, Belize) (Chase *et al*. 2011, 388).

Principles of operation

The LiDAR system is based on the reflection of a laser beam from the ground (or other reflective surface). The core of the system is a device which emits a laser beam (Crutchley and Crow 2010, 3). The beam is reflected from the surface and comes back to the emitter (Wehr and Lohr 1999, 69--70; Pfeifer and Breise 2007). The difference in time between the sending and return allows the system to calculate the distance between the plane and the ground (Fig. 1). Every point is georeferenced by both the satellite positioning system on board the aircraft (American GPS or Russian GLONASS) and an inertial measurement unit (IMU), which records the altitude, velocity, roll, pitch etc. of the airplane). The result of the survey is a point cloud, which is a set of points referenced by X and Y value (GPS/IMU) and Z (laser ranging). The resolution can vary between one point

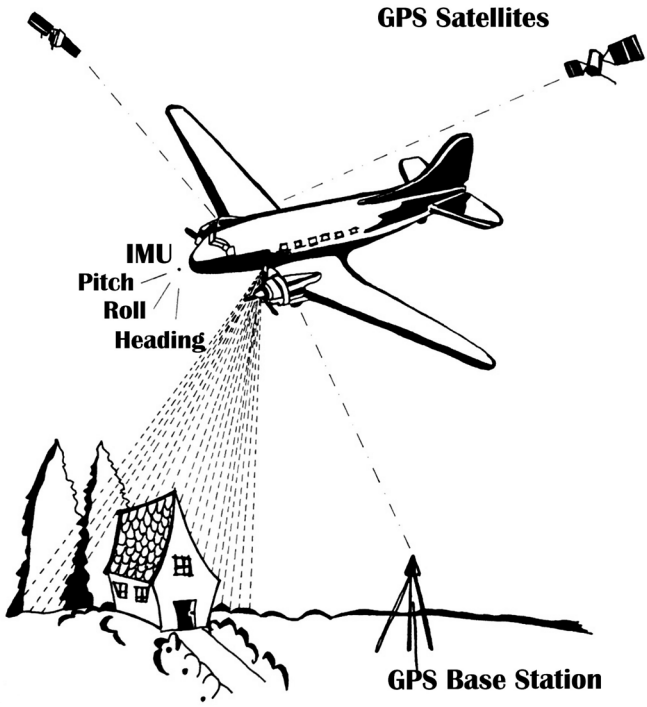


Fig. 1. Components of LiDAR system. Drawing by the author and E. Smagur

per few meters up to 20 points per m^2. In addition to spatial information, the system can yield other types of data, namely the reflection intensity or reflection characteristics in the form of a Gaussian curve.

Full Wave Form

Full Wave Form, also called second generation LiDAR, has the ability to collect information about reflection parameters (Doneus and Breise 2006a; Doneus and Breise 2006b, 156; Doneus and Breise 2010, 60). This kind of information is essential, because reflection characteristics give information about objects that the beam hits. This parameter is presented as a Gauss curve, which can be read by a computer program which then gives the researcher some hints about the surveyed area. In 2006, Doneus and Breise (2006a) conducted an aerial survey in Austria to show the full potential of their technique. The research took place in the Lethia mountain range, southeast of Vienna. The survey parameters were as follows: flight altitude 600m, point density min 4 per m^2, scan angle +/- 22.5°. In addition

to the airborne laser scanning, vertical photographs were also taken. During data elaboration using software from the SCOP++ package, Gauss curves aided interpretation, especially in the area of distinguishing points reflected from vegetation and from bare ground. The survey yielded a large amount of new data, for example the investigation around the Purbach hill fort showed parts of a rampart and around 50 barrows (Doneus and Breise 2006b, 159).

Data processing

The elaboration of LiDAR data is usually a long process. After surveying, the data is usually provided as an ASCII file (Crutchley and Crow 2010, 14). In this kind of text, file numbers are recorded in rows representing the XYZ values of each point. The goal of elaboration is to convert this cloud of points into a digital elevation model. Due to the fact that such big files are difficult to process (because of computer hardware limitation), data is usually 'cut' into two by 2km^2. Specially designed software is able to reference points in space. Referenced points create a web which, when covered with texture, reflects terrain elevation.

There are two ways to connect points. The first of them is called a triangulated irregular network (TIN). TIN is a vector-based network of non-overlapping triangles. Every triangle vertex is one LiDAR point with an XYZ value. Later, the network is covered with texture, which represents the surface. The advantage of TIN is that all data is presented and the processing is quite straightforward with almost all available GIS software. The disadvantage is that visualization and interpretation are much more complicated. The second way is using a raster digital elevation model, which is based on a regular grid. The elevation data is based on the average Z value of points allocated to each cell. The benefit of raster is the ease of visualization and raster analysis. It is also more suitable for cross-sections. The main problem with this kind of elaboration is data loss through averaging (Crutchley and Crow 2010, 10-11).

Digital Elevation Model

A digital elevation model (DEM) is a digital representation of the Earth's surface (Podobnikar 2009, 2-3). It consists of points that are yielded during a LiDAR survey. This elevation model is a digital reflection of the surface topography. With such an accurate topographical map, archaeologists can find traces of the activity of ancient societies present in the modern landscape. LiDAR data can be presented in several different ways, the two

most popular being the hill-shade and 3D models. Hill-shade presentation is based on the ability of the human brain to distinguish distance and convexity by shades in grayscale (Fig. 2). We could consider hill-shade as a DEM illuminated by an artificial sun, where ridges and ditches cast shadows. This kind of representation owes its popularity to advantages such as the fact that it does not require time-consuming elaboration and its ease of viewing. In fact, hill-shade images can even be printed on paper that can

Fig. 2. Hill-shade image showing residential group and field terracing at Caracol. Reproduced from Chase *et al*. 2011, Fig. 6

be taken into the field. However, this kind of image has some limitations. The first of them is the fact that it is a representation of 3D data on a 2D surface, which means that some data is missing. Another problem is that when some structures are parallel to the source of artificial light, it renders them hardly visible. To avoid this problem, it is advisable to elaborate images with sources of light coming from several directions (Loisios *et al*. 2007), so as not to miss any feature. Another possibility of representing data gained during airborne laser scanning is making a 3-dimensional computer model (Pl. 1: 1). Elaboration of this kind of data is more difficult than hill-shade, but this representation reflects all of the data. The problem is that working in this environment requires special computer software. There is also the possibility of attaching additional GIS data to a 3D model. A DEM could be the basis for additional elaboration, e.g. the slope aspect. DEM is a general term that can be divided into two specific categories: Digital Terrain Model and Digital Surface Model.

Digital Surface Model

A Digital Surface Model (DSM) is a kind of elevation model that includes all structures on the surface. That means that a DSM represents all structures, including modern buildings and vegetation, for example tree canopies. In the case of LiDAR, we can say that it is the first return of a laser impulse, reflecting the highest points. During the surveying of terrain with no or low vegetation, like a desert or grassland, a DSM is usually sufficient to make a topographical map containing ancient features.

Digital Terrain Model

A DSM shows all objects that are present on the Earth's surface. This is not important when dealing with desert of grassland, but many archaeological features are covered by tree canopies. A ground survey is usually a long and labor-intensive task (Oswald *et al*. 2008, 86). To see these traces, scholars have to prepare a Digital Terrain Model (DTM), which presents the bare surface of the Earth without vegetation or buildings.

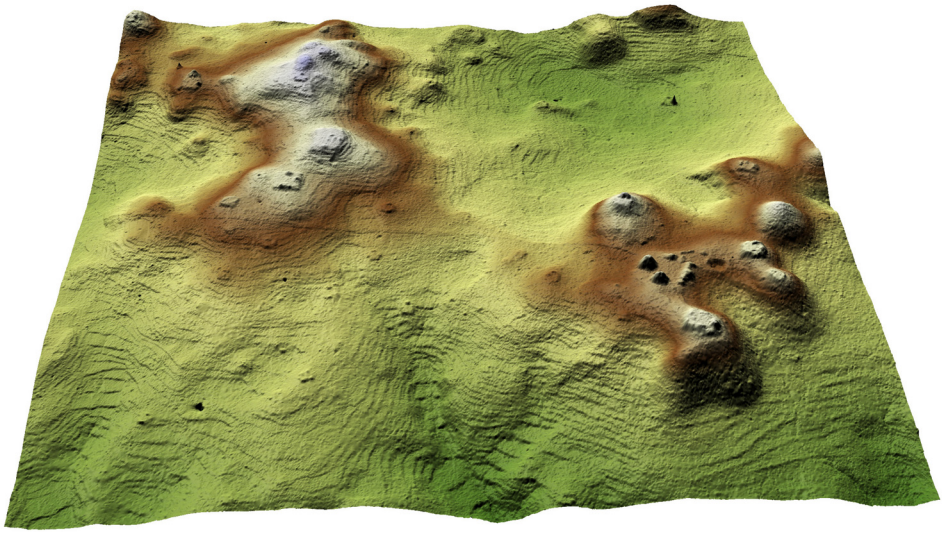
LiDAR's ability to penetrate vegetation is due to the high density of its laser beams. Many beams reflect back from tree trunks, but there is the possibility that some of them will pass through and reflect from the ground (Pl. 1: 2). The points that reflect back from the ground will form a DTM, which can be used in future elaboration (Crutchley and Crow 2010, 34). Due to the fact that only a small percentage of laser beams will penetrate the tree canopy, the set resolution should be higher than during

a grassland survey. During survey planning, factors such as the type of forest or the time of year should also be taken into consideration. In general, seasons with the lowest vegetation are better, so a European survey should be conducted during Winter (provided there is no snowfall) or early Spring; in tropical areas the dry season is the best period. When considering the type of forest, we should remember that with less dense vegetation there is a bigger chance that the beam will penetrate, so mature broadleaf trees are better than conifer plantations (Crow 2008; Crutchley and Crow 2010, 36). The second step is the computer based processing of a point cloud. Although the device records all the reflections, the goal is to distinguish points that hit the bare earth from points that reflected from tree trunks, buildings etc. Special computer programs are able to divide these points by using algorithms, but researchers should still be aware of the fact that some data could be lost. For woodland surveying, a full wave form device is especially useful. The Austrian researchers, Doneus and Breise (2006a; 2006b; 2010), proved that points with reflection parameters are much easier to distinguish between for computer programs, which thereby increases the resolution and certainty of airborne laser scanning. After processing, a DTM can show archaeological features that cannot be seen on a traditional aerial photo.

Archaeological features visible in LiDAR

The next step after preparing a digital elevation model is its interpretation, namely the search for traces of activity by ancient societies. LiDAR images can provide a visual representation of many features that are present on the ground, such as linear features like ditches, canals or roads (Crutchley 2008, 105) (Pl. 2). Elevated or sunken structures should also be visible, both small (e.g. barrows) and large (e.g. hill forts). During a survey, archaeologists should be aware of disturbances and errors. For example, errors can occur if modern structures appear similar to historical ones. For instance, a modern water collector could look like an ancient barrow. To avoid such mistakes, it is advisable to verify LiDAR findings using other sources of data. In addition to an ALS instrument, the aircraft could be equipped with a camera taking visual range or infra-red photographs. The DEM could also be compared with existing maps showing modern buildings. The best way of verifying a LiDAR survey is checking on the ground. A LiDAR map can be printed or uploaded into a portable GPS device and the ground survey team should find and check any questionable feature without any problem.

A good example of the transformation of LiDAR data into an archaeological result can be found in a survey currently being conducted



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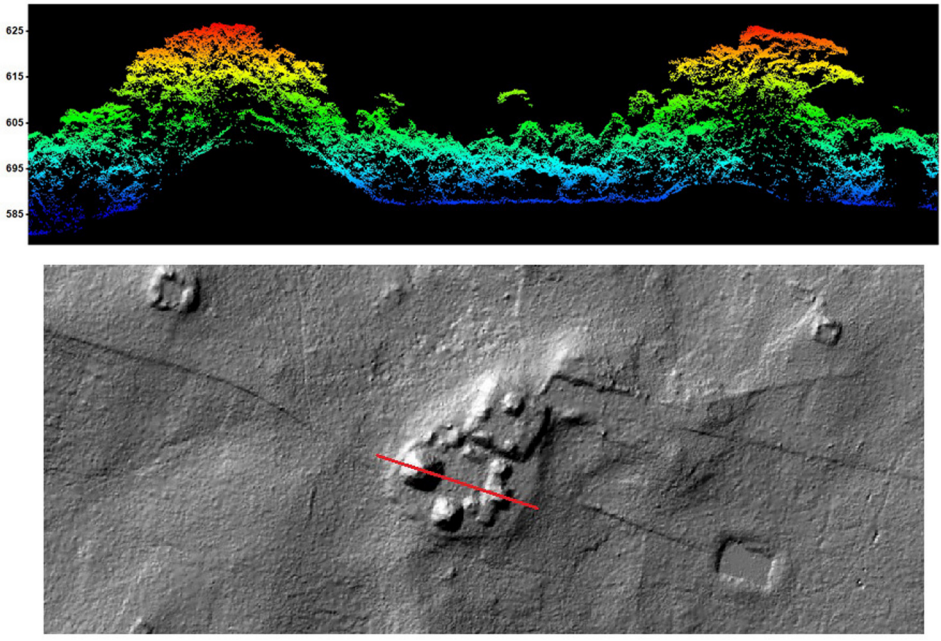

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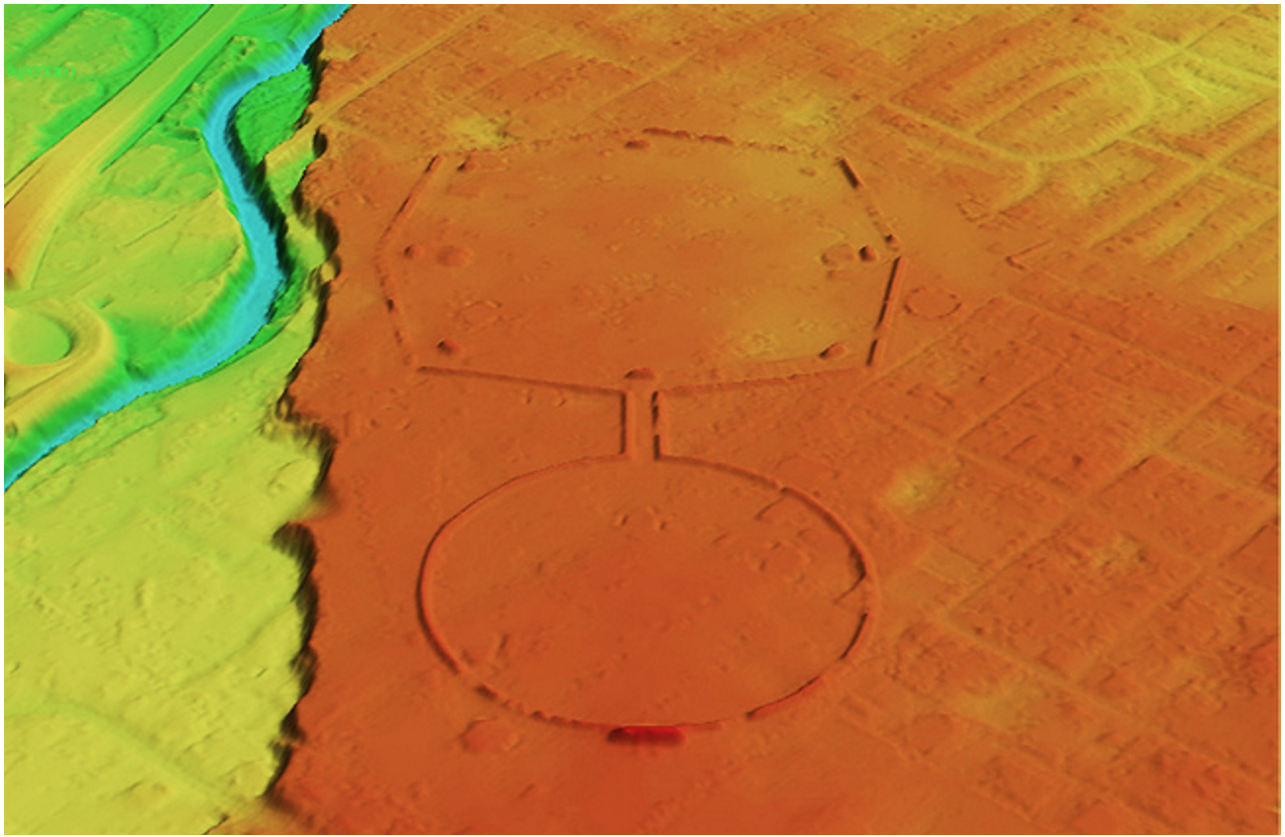
Pl. 1. 1 – 3D model of Caracol. Reproduced from Chase *et al*. 2011, Fig. 7
2 – Cross-section (bottom image: red line) of tree canopies and archaeological structures. Some points are reflected from plants, other reflected from ground.
Reproduced from Chase *et al*. 2011, Fig. 4



Pl. 2. Ancient structures that could be seen on LiDAR. Earthworks called ‘Observatory Circle’ and ‘Octagon’ from Newark Earthworks, Ohio. Reproduced from Romain and Burks 2008a. Retrived from http://ohioarchaeology.org (status as of 22 April 2012)

at the World Heritage Site of Angkor, Cambodia, in which the author of this article is involved. Using DEM to create an extremely accurate topographic map (vertical and horizontal resolution up to 15cm), it has been possible to better understand the urbanization of this site, the biggest urban complex of the preindustrial world. The archaeological features under closest investigation have been embankments, canals, water cisterns and occupational mounds. The low-density urban complex of Angkor (the area of which compares to the modern Washington-Baltimore agglomeration) was dependent on an elaborate hydro management system that ensured access to water for the growing population. Currently, scholars are trying to reconstruct this system and to ascertain how it functioned. Here, LiDAR surveying has played the role of a 'game changer', as it has revealed numerous previously unknown water management features such as canals and levees. It has also uncovered a massive, new defense embankment with an unfinished moat. This embankment will cast new light on the demise of the Angkorean civilization. The author is currently working on paleo-demographical estimations based on LiDAR data. The Angkorean population used water cisterns to store water during the dry season. These cisterns are clearly visible in the LiDAR's DEM, which made it possible to calculate the total amount of water that could have been stored and hence the size of population which could have been supported. The cisterns density could also shed new light in terms of the occupation density in different parts of the site.

Another type of data that can be gleaned from a survey is that of reflection intensity (Boyd and Hill 2007), which is especially useful for detecting crop marks. Crop marks can indicate buried structures (Wilson 2000) because of the disturbance in plant growth. The LiDAR laser makes use of Near Infrared Light (NIR), which reacts with chlorophyll, meaning vegetation disturbance is more visible than in a visual range.

Case Studies

To present the full potential of this method we should look at some examples of archaeological surveys where LiDAR has gathered a large amount of data and brought new ideas to scholars about ancient societies.

Caracol, Cayo District, Belize

Caracol was an important site of the Mayan culture that flourished in Mesoamerica. The classic period of this culture is dated to between

AD 250 and 900 (Coe 1966, 16). The site lies in modern Belize, near the border with Guatemala, on the Vaca Plateau in the foothills of the Maya Mountains and has an elevation of 500m.s.l. (Chase and Chase 1987). The history of mapping in Caracol is that of 60 years of 'labor-intensive, tedious and partial' surveying (Chase *et al*. 2011, 388), which has provided data focusing on this administrative and cult centre with monumental architecture. Arduous surveying in the jungle, *inter alia* along causeways, has revealed occupation platforms and an agricultural system. Ground surveying in the jungle is extremely difficult because of the dense vegetation. It is therefore limited to relatively small areas, which obscures the true spatial aspect of the site (its true extent, the number of structures and inhabitants it had, etc.). A LiDAR survey was conducted in late April 2009 by a team led by Arlen Chase (*et al*. 2011) from the University of Central Florida. A LiDAR device was mounted onto a Cessna light aircraft that completed 23h of flight in total. Because of the 200% overlap of each swath, the resolution reached 20 shots per m^2. On average, 1.35 laser shots per m^2 reached the ground and the survey covered 199.7km^2 in total with a vertical accuracy of 5-30cm (Chase *et al*. 2011, 391). The LiDAR survey yielded a great quantity of new information, proving that 90% of the landscape was modified by the men of Caracol (for example, the terracing of the valleys and hills). Not only did LiDAR reveal structures in areas that had not been surveyed earlier, but it also showed structures that had been missed during ground mapping. 15% more elevated plazas were recorded during aerial survey than while surveying on the ground. A high-resolution map gives clues concerning landscape modifications and settlement patterns and, in the case of Caracol, refuted the view of the Mayan city as a small scale socio-political unit by proving that it was a vast low-density urban centre, similar to Angkor in Cambodia (Fletcher *et al.* 2003). The survey showed that Caracol was a low-density agricultural city with an area of around 110km^2 (Chase *et al*. 2010) with good transport made possible by a network of causeways. The strict border between terraced and unmodified hills and valleys revealed the limits of the site and helped in estimating the population. The evidence of terracing proved that Caracol had an advanced agriculture that was able to feed the rising population.

Licking County and Ross County, Ohio, United States of America

Another interesting study using LiDAR technology was conducted by William Romain and Jarrod Burks (2008a; 2008b) in Ohio

in the United States of America. The research focused on the surveying of known archaeological sites and confirming old data using LiDAR and also related sites to the surrounding environment. Licking and Ross County are scattered with monumental earthworks connected with Hopewell tradition and Hopewell culture. Sites such as Newark Earthworks (Pl. 2), Hopewell Mound Group, Baum, Mound City were mapped amongst others. The survey resulted in the elaboration of a digital map that could be used as the basis for further investigation with GIS software. For example, the spatial aspect of constructions showed how archaeological features were located in relation to rivers. Finally, using comparisons with maps from the 19th century, it demonstrated that many earthworks had been damaged by plowing.

Limes Germanicus, Germany

The River Rhine was a border between the Roman Empire and land settled by the Germanic tribes. To strengthen the defence of this strategic river, the Romans created a system of forts and towers, which they called *limes*. The main problem that archaeologists now face is that many Roman defence structures are covered by the temperate forests of Western and Southern Germany. To solve this problem, German researchers also used Airborne Laser Scanning (Symonds 2011, 30). The survey revealed many unknown Roman constructions, both stone and wooden. Aside from architecture, numerous pits, believed to have been small quarries, were also detected. Finally, the survey contributed to debate concerning the height of the border wall. The rubble of a wall in the Heinheimer forest was spread across the space of 3.4m^2. This could mean that the original wall was 3m high (which would correspond to 10 Roman feet), a round number which was often favoured by *limes* architects.

The Issue of Low Cost Surveying

The main problem that projects must deal with is the enormous cost of LiDAR surveying, which can reach up to a few hundred thousand US dollars. Apart from the price of the loaning and insurance of LiDAR devices, the main costs are generated by data elaboration and plane or helicopter charter. As a result, many archaeologists cannot afford to conduct an Airborne Laser Survey. The author's idea, which he would like to develop in the following years, is to make the survey cheap. As of today, these are only theoretical assumptions, but I hope I will be able to develop and check them in the field.

The first expense that makes ALS costly is the price of the flight. The rising price of jet fuel and the cost of chartering flights leads to a cost, in Poland, of about 1000 PLN (around 250 Euro) an hour. The author's idea to reduce this cost is to use an ultra-light plane. The miniaturization of equipment and the development of technology (especially IMU) will enable LiDAR to be mounted on ultra-light aircraft, the maintenance of which is much cheaper.

Today's elaboration of LiDAR data is usually done by a data provider. This also generates costs. With the development of computer software that is simpler and more user-friendly, archaeologists should be able to interpret data on their own. In addition, the narrowing of specialization within archaeology could lead to an emergence of specialists in ALS.

The third expense (and the one most difficult to reduce) is that of the loaning of equipment. In this case, the author believes inter-project agreements could be made, with one device being used in many places. Another method could be cooperation with private companies, in which the two parties are able to use the same data for their own purposes.

Conclusions

Airborne Laser Scanning is a great tool for tracing past human activity. The potential of this tool is particularly evident in forested areas where classical surveying is very difficult to conduct, but it also has great applicability in areas with low vegetation. LiDAR data could be used in two ways: either independently to provide answers to research questions or as an auxiliary survey to supplement field archaeology and excavations. The wider use of this method, which would require reduced running costs, would result in new archaeological discoveries. As has been presented in the case studies, LiDAR surveying has revealed much data that has proved extremely useful in solving research problems. The case of Caracol shows that, using this tool, scholars are able to map vast areas of difficult terrain and answer questions concerning urbanism in tropical low-density urban centres. The survey in Ohio, as well as providing other benefits, proved that an Airborne Laser Survey could serve the objectives of monument protection and heritage management. The research on limes, apart from providing information about the location of defence structures, also gave clues about quarrying and the height of walls.

Several facilities are using this kind of survey today in Poland, for example *Lasy Państwowe* (National State Holding 'State Forests'[1]) and the ISOK programme run by the *Instytut Meteorologii i Gospodarki Wodnej* and *Główny Urząd Geodezji i Kartografii* (Institute of Meteorology and Water Management and the Head Office of Land Surveying and Cartography[2]). The elaboration of this data by archaeologists will reveal many sites that are now covered by forests.

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[1] See http://lasy.gov.pl.

[2] See http://www.gugik.gov.pl/projekty/isok.

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MARCIN CZERMIŃSKI AND HIS EYEWITNESS ACCOUNT OF THE MINOAN EXCAVATIONS IN CRETE AT THE BEGINNING OF THE 20TH CENTURY

Abstract: *In the late 19th century, almost coinciding with the expulsion of the Ottomans from Crete, the Jesuit priest Marcin Czerminski arrived on the island. Between 1899 and 1904, this traveller from Krakow made three visits to Crete, mainly staying around the central and western parts of the island. He described his impressions in a number of publications. During his second visit (1903), Czerminski focused his attention on the most important archaeological excavations of the time. First, he visited the sites of Phaistos and Ayia Triada in southern Crete and had the opportunity to meet the pioneers of Italian archaeology, Luigi Pernier, Federico Halbherr and Roberto Paribeni. Afterwards, he visited the great palace of Knossos and finally arrived at the Heraklion museum, whose director, Iosif Hatzidakis, shared a great discovery with him.*

Keywords: *Crete; Marcin Czerminski; Minoan archaeology; Polish travellers*

The Jesuit priest Marcin Czerminski arrived on Crete around 1899, during a crucial period in the modern history of the island.[1] Just a year before,

[1] Taking into account the growing interest, especially among some fellow researchers from Greece and the British Isles, we have decided to publish some papers in both languages, in order to make information about this Polish traveller available in academic circles. We sincerely thank the Rector of the Jesuit University Ignatianum in Krakow, Revd. Prof. Dr. Henryk Pietras SJ, for the facilities provided for researching the files related to the Jesuit Marcin Czerminski in his magnificent library. The research was sponsored

the Turks had been definitively expelled and Crete had acquired the status of an autonomous region under the rule of King George II. This was also the time when the most important excavation (but not the first) concerning the archaeological history of Crete was about to be undertaken.

More than a century has elapsed since Czermiński's tour of the Cretan lands, yet the huge amount of valuable work he contributed to the archaeology of the island has received astoundingly little attention (with the understandable exception of some Polish[2] and Greek[3] researchers). His personality, however, as well as his clear-sighted, thorough scientific research and his ability not to omit any interesting detail, definitely place Marcin Czermiński beyond the frame of his missiological work and warrant him special attention.

Thus, before focusing on the archaeological references of his account, it seems pertinent to provide some biographical information regarding the life and works of this Polish traveller. Marcin Czermiński was born in 1860 in Glińsk. After finishing secondary school in Krakow, he went to Rome to study theology at the Gregorian University, where he subsequently defended his doctoral thesis on historical philosophy and became a priest in 1883. After his return to Poland in 1885, he made his vows to the Order of Jesuits and became a novice in Stara Wieś. In 1887, he became a preacher at St Barbara's Church in Krakow and in the following years he began teaching Church History at the Jesuit Seminary. Between 1889 and 1919, he was the General Editor of *Missye Katolickie* [The Catholic Missions] (Załęski 1908, 324; Krzyszkowski 1938, 339) and thanks to his thorough knowledge of various European languages and his personal contact with

by the project DIGICOTRACAM (Prometheus Program Valencia, Spain). Ref.: PROMETHEUS-2009-042, within the IVITRA project of the University of Alicante.

[2] The only references that we had found until recently, apart from his writings, were biographical elements, mainly related to his huge missiological work in various European territories. In this regard, we can mention: Załęski 1906; Załęski 1908; Krzyszkowski 1931; Krzyszkowski 1938; Kwaśniak 2008; Dziekan 2011. There are also scanty but interesting biographical references in *Βιβλιοφιλία* 64, 1994, 34-35. Finally, we have recently had access to the book by Kordos (2009, 140-143), in which the author made several references to the Polish traveller. We thank Dr. Kordos for his kindness in sending us his book.

[3] The first researcher to devote tireless efforts to the publication of the Cretan passages from the work of the Polish Jesuit was the Cretan, Georgios Ekkekakis. We highlight here two small editions, with minor differences, published the same year, in which the author collected an anthology of the work of Czermiński translated into Greek: Ekkekakis 2000a, and Ekkekakis 2000b.

many dignitaries in Curia and on missions, he was able to contribute towards the development and definition of Polish missiology (Krzyszkowski 1938, 339).

During that time, he went on many missions around the world visiting, amongst many other places, the Balkans (specifically the regions of Dalmatia, Bosnia and Herzegovina,[4] Montenegro, and Albania) as well as Greece, Crete, Patmos, Ephesus and Mount Athos. From the materials and notes gathered during his journeys, he published some papers in periodicals such as *Czas*, *Przegląd Powszechny* and *Missye Katolickie* and also some separate volumes such as: *Albania* (1893), *W Dalmacji i Czarnogórze* (1896) [In Dalmatia and in Montenegro], *Z podróży do Bośni i Hercegowiny* (1899) [From the journey to Bosnia and Herzegovina], *Z Grecji i Krety* (1902) [From Greece and Crete], *Wyprawa na Patmos, Efez i Kretę* (1904)[Journey to Patmos, Ephesus and Crete, cf. note 11], *Na górze Athos. Wśród mniszej republiki* (1908) [On Mount Athos. In the Monks' Republic] (see Krzyszkowski 1938, 339; Łukaszyk *et al*. 1995, 834-835).[5]

Also worthy of note is the fact that Marcin Czermiński travelled many times to Turkey, where he visited an old Polish settlement, a small village situated about 30km from the old centre of Istanbul called Adampol (today Polonezköy). This village, which was founded in 1842, took its name from its founder, the leader of a political emigration party, Prince Adam Jerzy Czartoryski (1770-1861). The priest visited Adampol in 1889, 1903 and 1906, and was each time warmly welcomed by its inhabitants, who were completely devoid of spiritual care in the Islamic world (Załęski 1906, 835).[6]

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[4] At the end of 19th century, after the occupation of Bosnia and Herzegovina by Austria, the northern part of the country was settled by Polish colonists. They addressed Marcin Czermiński directly to ask him for spiritual care. He travelled many times to them and it is recorded that, in 1902, he worked in 16 Polish villages. Wherever he came, he founded libraries, chapels and in one case even a school. He also worked among the Italian colonists, who were deprived of a priest and whom he taught in Italian (see Załęski 1906, 834-835).

[5] There are some other books by Czermiński connected with missions in Africa and Asia and other countries: *Szkice cywilizacyjne Afryki Południowej* (1890) [*S*ketches of Civlisation in South Africa], *Szkice z Indyj* (1891) [Sketches of India], *Z Norwegii i Laponii* (1897) [From Norway and Laponia]. He did not, however, visit these regions, but based his writing on the accounts of other Jesuit priests (see Krzyszkowski 1938, 339). It is worth mentioning that he was also the author of some hagiographic and biographical books about the lives among others of: Jesuit father Maksymilian Ryłło SJ (1911-1912), St Andrzej Bobola SJ (1922) and blessed Jan Beyzym (1913), whose letters he also published in 1925. Some of the biographies written by Czermiński were translated into French, German and Italian.

[6] Marcin Czermiński devoted a whole chapter to Adampol in his *Wspomnienia z missyj między Polakami nad Bosforem, w Bośni i na Krecie* [Memoirs from Missions among

Similarly, he was a relatively frequent visitor to Istanbul, where he used to stay as part of his return from Anatolia.

In fact, his missiological work made Marcin Czermiński the founder of Polish missiology and one of the most important Jesuits in history. The accounts of his journeys to the Balkans and Anatolia are still accurate and have great value, as they contain many interesting details seen through the fresh gaze of a traveller commenting within the context of knowledge at the time. Moreover, one cannot overestimate his contribution to Polish emigrants during a difficult time for the country. After Marcin Czermiński later left his position at the periodical, *Missye Katolickie*, he continued to work as a missionary in Krakow (1921), in Poznań (1923) and finally in Lwów, where he died in 1931 (Grzebień 1983, 263).

Czermiński arrived in Crete for the first time in the spring of 1899 at the harbour of Souda in Chania, following his journey from the Syros and Tinos islands, as part of the Russian Army, which had undertaken the protection of the prefecture of Rethymno.[7] One part of the Russian fleet consisted of Polish-Catholic soldiers, who were to be accompanied by a priest. This first journey would result in the publication two years later of the first of his books, in which he mentions Crete among other sites (Czermiński 1901). It was also during this first journey that the Polish traveller first decided to combine his Catholic duties with research, making various references to the history of the island from ancient times and visiting and describing the most important archaeological sites of the period.

In the preface to his first complete and comprehensive monograph, Marcin Czermiński set out his agenda to cover all relevant aspects of the island, initially estimated at five books, with the proviso that he did not intend to mix historical aspects with contemporary ones or include religious references. This plan, which appeared not to have been realised by Czermiński, led us to conduct further research in the libraries of Krakow, which resulted in some quite surprising discoveries. So far, we have managed

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the Poles in the Bosphorus, Bosnia and Crete] (see Czermiński 1901, 15-32; Czermiński 1904, 236-238).

[7] We have carried out thorough research at the Jesuits' archive in Krakow at the St Barbara church (near the Main Square of the town), the place to which Marcin Czermiński bequeathed all of his writings. This bequest included most of his published work and also documents from his apostolic missions in Europe, as well as an extensive account of most of his travels. All this was compiled in a catalogue by the author himself, which greatly simplifies the researcher's task. However, there are barely any references in Czermiński's personal files relating to our subject, with the exception of a formal letter addressed to the Italian archaeologist Luigi Pernier.

to find three of the five publications he had originally planned,[8] which would lead one to believe that the others are missing, assuming the author was actually able to achieve his aim.

In the second book written by Czermiński we can see the first references to the Minoan history of the island.[9] The second journey of the Polish Jesuit to Greece,[10] with an extended stay in Crete and finishing in Constantinople, took place in 1903 and the Cracovian traveller published his impressions just the following year (Czermiński 1904, 143-217).[11] In the preface, the author, following his plan, revealed that, because he had already provided much historical data regarding other topics and pertaining to his missionary duties, he wanted to write something more about the excavations on the island. When he had first come to Crete in 1899, many of its treasures had still been hidden underground and four years had had to pass before they came to light. This was the reason why he had to mention the most representative names connected with the history of the Cretan excavations in his account.[12]

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[8] In the first stage of our research we have found only two books about Crete by Czermiński, but after our recent additional research in the libraries of the Jesuits and of the Jagiellonian University in Krakow we discovered an important third book (Czermiński 1901); its importance lies in its chronology, because it is the very first book in the series with reports of Crete we have come across so far.

[9] In this second book devoted to Crete, the Polish priest wrote two long chapters and an almost complete description of the history of Crete from the Minoan period to the end of Ottoman rule and the arrival of Prince George of Greece, including historical references from an archaeological background. It seems that the Polish traveller continued with his plan because the following year he would publish his great book: Czermiński 1902, 281-295.

[10] Previously we had thought it was the last of Czermiński's journeys to Greece. The end in Constantinople made us think that he had come to Mount Athos on this journey. However, during our recent research we discovered that the Polish priest returned again – for the third and probably the last time – to Greece in 1906, his only purpose being to visit *Ἅγιον Ὄρος*. The result of his journey was the publication two years later of another large volume with a complete and detailed description of the site: Czermiński 1908. In the prologue, the author emphasized that despite his travels, he had always dreamed of visiting the Mountain of the Holy Orthodoxy [Święta Góra].

[11] As the title (*Wyprawa na Patmos, Efez i Kretę w r. 1899 i 1903. Tekst objaśniony 70 rycinami 2 planami i 3 mapkami* [*Journey to Patmos, Ephesus and Crete in 1899 and 1903. Text illustrated with 70 figures, 2 plans and 3 maps*]) shows, the Polish traveller added some impressions from his first journey to the second book.

[12] In fact, as we know, this is only partially true, because important excavations like Malia, Phaistos, and Gortys, for instance, had already begun some decades previously. Our Polish traveller, however, clearly had the big Knossos excavation, started by A. Evans in 1900, in mind.

Our traveller began his journey in Rethymno,[13] because he had suddenly been invited there to confess Polish Catholic soldiers in the Russian army. Firstly, he took the road to the mountain of Mylopotamos and then arrived at the impressive archaeological palace of Phaistos. Since the Italian archaeologists were Catholics, it probably made him decide to take the southern way around the island, but it could also have been the simple fact that the road at that time was less rugged than the direct one leading to Heraklion. On the second day, he arrived first in Voroi, where he was already familiar with the residence of the Italian archaeological school. This was located very close to key archaeological places like Phaistos and Ayia Triada, where the most important Italian pioneers of Aegean archaeology were working: Federico Halbherr, the director, and also Luigi Pernier, Roberto Paribeni and Emilio Breccia. None of them were present at the time of the arrival of the Polish priest (Czermiński 1904, 174).

Marcin Czermiński alluded in detail to historical sources ranging from Homer to Strabo, as well as to passages from the writings of some of his contemporary travellers, such as Thomas Abel Brimage Spratt (1811-1888), regarding the site of Phaistos and some significant coordinates. He then gave a first-hand report on recent archaeological discoveries. According to him, the same above-mentioned literary sources were used by Federico Halbherr and Antonio Taramelli, the first archaeologists to arrive in Kamilari,[14] who made the very first surveys, which were unfortunately interrupted by the unstable situation caused by the Cretans' insurrections against the Turks. Archaeological work was subsequently resumed by Luigi Savignoni and Gaetano de Sanctis in September 1899.[15] The fruit of those excavations was the discovery of the so-called second and third acropolis of Phaistos, which had remained hidden until 1900, when Luigi Pernier decided to start new excavations in order to uncover the remains of the palace.

[13] Marcin Czerminski's descriptions of the archaeological sites he visited basically consist of his field observations and notes. The brief bibliographical material he was able to use (which appeared as footnotes in his paper on Cretan antiques) consisted rather of references provided by the Italian archaeologists, since these works are not preserved at any of the Jesuit libraries in Krakow. The same may also be said about his description of the former Heraklion museum, which he visited twice, where he was obviously helped in the description of the exhibits by the then director, Iosif Hatzidakis.

[14] At the same place, many years later, Doro Levi excavated the famous vaulted tomb (Middle Minoan IB period).

[15] When our traveller had concluded his first journey to Crete.

The Jesuit priest, finishing the first part of his account, gave his attention to another interesting fact concerning the archaeological discoveries during the time he visited Crete. A few months before his arrival in the western part of the hills, a second palace dating back to the same period was found at a village called Ayia Triada by the locals, where there was a small Byzantine church built on the ruins of a prehistoric building. Besides the detailed description, Czermiński's account is also enriched by photographs of great historical and testimonial interest taken with the camera that he had with him during his second voyage to Crete.

After this introduction, the Polish traveller went directly to the abovementioned archaeological sites, moving from Voroi to Ayia Triada, where he arrived half an hour later (Czermiński 1904, 180--200). Marcin Czermiński was greeted by none other than the director of the excavation himself, namely the young Roberto Paribeni. It had been a difficult day, because the workers were to be paid, as he significantly noted. For the first time, Czermiński introduces the description with some details of objects found in recent excavations. For instance, many interesting finds had appeared in a Mycenaean tomb including a stamp of Queen Ti, wife of Amenhotep III (*c*. 1400 BC), and gold necklaces, some with the bovine form or a lion's head at rest. In the other sector of the palace the author describes the discovery of a black marble sphinx, which, according to him, proves the existence of close relations between the Aegean and Egyptian civilizations.

At the time when Czermiński passed through Ayia Triada, the palace complex had not been completely excavated, but he was able to get a general idea of how it might have looked and to describe it in detail. In the southwest wing he noted the courtyard with an *atrium* that opened into what he believed was likely to be a throne room. The walls covered with paintings and the remains of a marble staircase proved, in his opinion, the existence of a second floor. On the ground floor, one could also see many tiny rooms decorated with wall paintings, as well as a difficult access to the corridors. Gigantic urns made of clay, a large number of spheres with holes and terracotta-like beads were also found. We do not know yet what their use could have been. Apart from this, he also describes the bathrooms in alabaster, several bronze objects and concludes with what was an important remark at the time. He speaks of the existence of a large number of seals and tablets inscribed with archaic writings, similar to those that were found

in Phaistos and Knossos, which permitted the same chronological dating of the three palatial complexes.[16]

Marcin Czermiński left Ayia Triada and headed back to Voroi, where he had been invited to stay for the night and was given director Federico Halbherr's room. The latter had had to go to Heraklion, where he was expecting some important news. Fate determined that our Polish traveller should be a witness, alongside Halbherr, of some of the events described later.

Czermiński spent the following day visiting the palace of Phaistos, where he was guided by the great Luigi Pernier.[17] The admiration of the Polish traveller for the site is best visible in his exclamation, which is worth citing: 'I could have had no better guide than precisely he to whom science owes the discovery of this magnificent building, which provides a picture of civilization as it was 4000 years ago'[18] (Czermiński 1904, 183). Riding one of the mythical horses of the pioneers of Minoan archaeology, he was able to see the palace from the west and admire the impressive skills of the Minoan architect who had worked in such a rugged area of around 10,000m^2. The traveller also highlights the north-south orientation that provided more light to the rooms. There then follows a detailed description of the palace, specifying the special separate rooms for women (*gynaikonitis*) and men (*andronitis*), the courtyards and the so-called amphitheatre, in which, as Pernier suggested to Czermiński, some religious rituals or secular celebrations might have taken place. From there, through a *prodromo*s, there would have been access to the throne room of the Palace of Phaistos (Czermiński 1904, 185).

The Polish Jesuit placed emphasis on the use of local building materials, such as alabaster, limestone and gypsum, but the finest materials, such as marble, had had to be imported. His attention was drawn to the large jars (*πίθοι*) and ceramics stored in a large hall. The Polish traveller was deeply surprised by two things: firstly, the presence of incised stones similar to those he had seen in Ayia Triada (which he would later have the chance

[16] What Czermiński saw and described would later become the largest collection of tablets written in Linear A we know today. At the time the studies were obviously at a very early stage, at which they were discerning the differences between different hieroglyphic writings and Cretan Linear scripts.

[17] During this year, Luigi Pernier and Federico Halbherr, after the end of Ottoman rule, continued the excavation of the large palatial building. Once again, Czermiński became an eyewitness of the landmarks of Minoan archaeology.

[18] 'Nie mogłem mieć lepszego przewodnika, jak tego, któremu nauka zawdzięcza znalezienie wspaniałej budowli, dającej obraz cywilizacyi z przed 4000 lat'.

to see in Knossos and which are now well-known) and secondly, the large number of seals (Czermiński 1904, 186-187), the function of which remains a mystery to the present day. The next calling point on Czermiński's journey was the palace of Knossos, towards which he took the traditional route across the river Geropotamos and the Messara plain. However, before reaching his destination he had to fulfill his religious duties by going through the *Άγιοι Δέκα*, built close to the ruins of Gortys. The traveller did not miss out on the opportunity to visit the magnificent Basilica of St Titus and the place where, according to legend, the mythical 'Labyrinth' was located. Czermiński continued with a description of the great inscription of the so-called Gortyn law code (also known as the Great Code), a picture of which he also included in his book,[19] making in his footnote (Czermiński 1904, 190f., footnote 1) the most important bibliographic comment concerning this code since the discovery by Federico Halbherr of a further four columns of text in 1884.[20] After a short rest in the neighbourhood, the next day at dawn he followed the traditional route through Ayia Barbara and Dafnos[21] to Candia, where he arrived in the evening. After giving some news of the latest discoveries, he describes entering via the northern entrance that stands in front of the excavation site (it was already the third season of Arthur Evans' excavations), noting that it seemed more a city than a palace to him (Czermiński 1904, 94). We do not know the guide the Polish Jesuit had, but we can suppose that it was not Evans, since he is not mentioned at all.

The description of the palace is not just a chance traveller's account. It allows us, thanks to its attention to detail, to imagine and understand the significance of the place, especially during the first stage of its discovery in 1903. It presents the measurements of the corridors (see the excellent photograph on page 196), makes note of the central courtyard and the staircase leading to the first floor, as well as the cellars with *πίθοι* discovered by Minos Kalokairinos. He finishes with a description of the Throne Room, of which he even offers a plan (on page 195) together with the picture of the Throne itself (on page 197).

As Czermiński (1904, 198) noted, one had to cross seven small rooms as well as another additional room (called 'a waiting room' by the traveller) in order to reach the final one where the throne was situated.

[19] The photograph of a section of the inscription was taken in 1903.

[20] The first fragment of the Code was discovered in 1857 by the French archaeologists M. Thénon and G. Perrot, the other ones in 1879 by B. Haussoullier.

[21] The modern Δαφνές (Dafnes) about 15km from the present capital of the island.

The thoroughness of Czermiński's account is also visible in his description of the room that was supposed to have been a bathroom, the famous Lustral Basin, which he describes as an *impluvium* built in the Pompeian fashion. At the end of his account of his visit to the archaeological site, he also mentions the restoration work that had been begun by Evans on the columns and walls using the existing remains as a basis.

The final chapter of his book devoted to the island of Crete is a description of the Archaeological Museum of Heraklion (Czermiński 1904, 200-217). The Polish traveller seemed to be well informed, since, in addition to the abovementioned areas which he had visited, he added the district of Sitia with the Gournia excavations.[22]

When he was about to visit the museum,[23] he suddenly came across a gathering of the world's most distinguished Minoan archaeologists: Arthur Evans and his assistants, Federico Halbherr from Phaistos, Harriet Boyd and her assistant from Gournia, whom the Polish traveller claims to have known before, although he does not provide a name.[24] This pioneering group was completed by none other than the director of the museum himself, the respected Iosif Hatzidakis.[25] Such company delighted him so much that he allowed himself to express an opinion that is really worth citing: 'Thanks to the consideration and kindness of this veritable areopagus of archaeologists, acquainting myself with the objects gathered in the museum was greatly facilitated from the moment of my entering the building'[26] (Czermiński 1904, 202). The reason for such a statement seems rather obvious, considering the fact that three days earlier archaeological treasures of great value had been found.

As a result, Hatzidakis himself, a doctor and Cretan archaeologist who had directed the museum from its foundation in 1883, asked him to return the next[27] day, so he could show him the masterpieces that his institution

[22] Between 1901 and 1904, the American pioneer Harriet Boyd discovered and excavated the city of Gournia (see Boyd Hawes *et al*. 1908). Thus, Czermiński already knew about the second campaign of excavations at the site.

[23] About the second week of June 1903.

[24] It is obvious that such a meeting happened during his previous journey to Crete. It could be either R. Seager or E. H. Hall, who had accompanied H. Boyd from 1903 (see Shaw 1990, 5-14).

[25] He mistakenly calls him 'Athenian'. About the Cretan-born physician see Serrano 2007, 761-777.

[26] 'Dzięki uprzejmości tego areopagu archeologów, zapoznanie się z nagromadzonym materyałem było bardzo ułatwione od pierwszej chwili wejścia do muzeum'.

[27] We can therefore understand Halbherr's quick departure from Phaistos, which had

possessed in an unhurried fashion. Surprisingly, Czermiński tells us nothing about the objects which had recently been found and that had provoked such a stellar gathering at the museum.

The first objects that he saw the next day during his second visit to the museum in Candia[28] were the remains of wall paintings from Knossos. He pays particular attention to a bronze figure of a young man with black hair in a processional ritual holding a cone-shaped glass, probably used for wine.[29] A second fresco with a processional scene had only retained the feet of its participants. He also stresses the artistry visible in the way the paintings showed the differences between the sexes; the artist not only differentiated men from women by giving them different clothes, but he also created their complexion in different colours, colouring men brown and women white. He then, in an indirect way, alludes to the great Toreador fresco,[30] underlining that it did not look like the bullfighting known from Spain because of some obvious differences. With astonishment he emphasizes that here, instead of men with swords, he could see girls doing gymnastic jumps over the back and horns of the bull, which was presented in the well-known position of the flying gallop (Czermiński 1904, 205). He even adds that there were some squares in front of the palace of Phaistos that could be regarded as potential 'arenas' for such a performance. Additionally, as a popular motif not only in painting but also in sculpture, Czermiński (1904, 205-207) refers to the existence of a chryselephantine figure of a girl with her hands raised while performing the bull jump.[31]

He then goes back to the wall paintings with a description of well--known pieces, namely the fresco of the Prince of the Lilies of Knossos and the Priest-King Relief, which, according to the Polish traveller, resembled Bourbon heraldic figures. After this, he describes the Great Bull relief from the West Quarter of Knossos (Czermiński 1904, 205-207).

In describing the sculptural ceramics, the Polish traveller is not too successful in his guesswork, but he is very sensitive to the expert opinion

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allowed our traveller to take his room when he spent the night in Voroi. He was probably not received and guided to the excavation site of Knossos by Evans, as the latter was busy with new findings.

[28] The collection that Czermiński must have seen then was the temporary exhibition when the museum was in the church of Ayios Minas.

[29] The Knossos Fresco Procession, found in the room next to the southern *Propylaeum* of the palace.

[30] The Bull Leaping Fresco from the East Wing of the Palace of Knossos.

[31] It is the well-known ivory figurine of the Bull Leaper from the Domestic Quarter of Knossos.

of the archaeologists. We have included this description by Czermiński in detail, as it is a document that we consider very enlightening when considering the discussions that took place *in situ* among the pioneers on the newly discovered archaeological findings. As a prime example, the Polish traveller tells us of a black marble vase from Phaistos (the measurements of which he provides) that lacks a bottom and represents military and country life. The leader is walking in front with his sword, while behind him eight soldiers appear in pairs, carrying fork-shaped weapons. Another one follows carrying a musical organ and three other singers after him, with open mouths haranguing the troops. At the end of the parade, another 13 soldiers march with the same weapons, their heads covered with helmets. Today we know that this represents something different[32] and that the alleged weapons were three-pronged forks, but Czermiński wanted to put forward his own theory. Moreover, he was supported by another cup in relief from the same period (he does not tell us of its place of origin) which presents a soldier with helmet and armour in his hands, who is handing his weapon to a higher-ranked one.[33] Another illustrious guest, a painter and sculptor, enters the discussion here, whom Czermiński describes as an assistant to Evans. They rightly suggest to the Polish priest that this is a group of harvesters returning from work with their big forks.[34] Therefore, the leader is not carrying a sword, but rather a long pole to urge workers. Czermiński (1904, 208) concludes that the technical representation of the characters and the accuracy of the detail of the same make this cup unique. The facial expression and muscles of the body show us the sensation of movement of living persons and not of mannequins.

Finally, Iosif Hatzidakis brought Czermiński's attention to a specific piece, a beautiful frieze (1.5m long, 25cm wide) of grey-green stone. This was interesting because, in his opinion, the pattern and finish were very similar to another coming from Mycenae kept at the Archaeological Museum

[32] The Harvester Vase of Ayia Triada (not Phaistos) (Savignoni 1903, 77-182; Forsdyke 1954, 1-9). Description of the vase at Heraklion Museum: 'Steatite-Vase with the image of a procession of agricultural workers (reapers) from the Hagia Triada palace'.

[33] This is the famous 'Chieftain Cup', also from Ayia Triada. Like the above-mentioned glass, both were found in 1902, thus Czermiński was once again in the presence of newly discovered masterpieces. Its excavator, Roberto Paribeni, at first thought that it was a military scene. Evans himself concurred with his opinion. Today, another interpretation of the scene has appeared, that of a 'rite of passage' (Koehl 1986, 99-110).

[34] The assistant quoted would almost certainly have been Emile Gilliéron, the father, who in those early years was very active in the restoration of the wall paintings from the palace of Knossos.

of Athens. He does not, however, add any information about the motif which could have allowed us to identify it.

As for the pottery, the Polish traveller gives a large number of examples that attest to the good taste of Minoan art, noting familiar motifs, including polychrome, floral, marine, rosettes, etc., ranging from the Mycenaean to the Hellenic period, although most of them belonged to the time of Minos[35] and Kamares. Hatzidakis kindly explained to him how to distinguish Kamares pottery from Mycenaean and Hellenic (Czermiński 1904, 211). Concerning precious and semiprecious materials, the Polish traveller refers to glass objects from Knossos and Ayia Triada. Regarding silver, Czermiński's attention was drawn by a delicate plate of blue enamel silver inlaid with gold, ivory and stone rock (most probably crystal rock), in which the artist presented various types of a pattern of geometric shapes – circles, squares, lines and rosettes – all decorated with a wreath of yellow and blue flowers.[36] As for gold objects, Czermiński wondered why so few were found, finding an explanation in the fact that during the Ottoman Empire there were supposedly frequent robberies by local people during the illegal excavations while they searched for so-called 'treasures'. He hoped simultaneously that one day, in Smyrna or in any other city of Asia Minor, some gold objects would be found that were then lost, coming from Knossos or Phaistos (Czermiński 1904, 2012).

Some significant items had, however, been saved in Ayia Triada, as the archaeological site turned out to be well hidden under the rubble. Marcin Czermiński refers to objects that are now well-known: three exquisite bovine heads, two sleeping lions (seated) and a necklace from the tomb of Queen Ti, wife of Amenhotep III. From the same place, Czermiński (1904, 2012) also referred to a finding which was intriguing until today,[37] namely that of a heart-shaped gold amulet (1.5cm), in which the artist depicted the struggle of a beetle with a crab or a scorpion. The artistry and skillfulness in which the details of the object were made aroused the undisguised admiration of Czermiński.

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[35] There is an obvious confusion in Czermiński's account of the ceramic periods. After mentioning the Minoan, he adds in parentheses '(Mycenaean)', apparently identifying both of them. What he saw naturally belonged to the Minoan period.

[36] Our traveller is most likely describing the famous Chess Board (Ζατρίκιον) found by Evans in 1901. The Corridor received the name 'Royal Draught Board Corridor' (Evans 1900-1901, 1-120).

[37] Czermiński did not even remember if the object came from the same tomb. The object, along with a similar one in the sanctuary at the peak of Mount Iuktas, has led to various theories and interpretations, in literature from M. Nilsson to G. de Pierpont, as a ritual item associated with a magical cult.

The Cracovian priest then moves to the topic of scriptures preserved in clay tablets and ceramics, whose translation, according to him, would be beset with difficulties. In reference to this, he includes the well-known story of the discovery and subsequent translation of the Rosetta stone. It seemed to Czermiński (1904, 2014) that Arthur Evans had gradually made a little progress in deciphering the alphabet preserved on the tablets. Surprisingly, the Polish priest noted that the signs listed in a vertical or horizontal unit might correspond to the decimal system of measurement, a hypothesis which would be further investigated.[38] He concludes his archaeological account like a mystery story, making reference to something he had briefly mentioned earlier but not described, namely a small altar that had just been found at Knossos in mid-June 1903. A witness of the finding told the Polish traveller about the circumstances in which the object was found, which are worth citing:

'The eyewitness […], on the eve of his departure from Candia to Athens and subsequently to England due to the high temperatures, returned once more with prof. Evans to Knossos, for the last time to give the last orders to the guards. Walking down a corridor he hit the ground with his stick and heard a hollow, deaf sound. Filled with curiosity, he ordered the stone cover to be raised and discovered very important ritual objects below it; these objects after some small repair work, were in excellent condition and suitable to exhibit in the museum. There were two female porcelain figures, an isosceles cross and a lot of different worship offerings' (Czermiński 1904, 214).[39]

Taking into account the abovementioned facts, there should not be any doubt as to what had provoked the unusual interest that had drawn the famous archaeologists of the time together at the Heraklion

[38] Whoever the scholar was that commented on this theory (probably it was Czermiński himself), was very successful. In addition, the Polish traveller shows a small graphic with signs of the various Cretan scriptures and a photograph with signs incised on a stone from Phaistos.

[39] 'Naoczny świadek [...], w wigilię wyjazdu z Kandyi do Aten, a następnie do Anglii na czas najsilniejszych upałów w tych stronach, poszedł z prof. Evans'em raz jeszcze do Knossos, aby ostatnie dać polecenia strażnikom tych ruin. W jednym z korytarzy, uderzywszy laską w ziemię, usłyszał dudnienie. Ciekawością zdjęty, kazał płytę kamienną odwalić, a pod nią znalazł najciekawsze przedmioty służące do kultu, które po niewielkich naprawach dały się doskonale ustawić. Były tam dwie postacie niewieście porcelanowe, krzyż równoramienny i wielka ilość najrozmaitszych anthematów'.

Archaeological Museum.[40] The Polish traveller, who calls the female figures goddesses, continues with a detailed description of them, comparing the shape of their head covering to the common Turkish *fesi* at the time and noticing, in addition, that it was a little higher. Hatzidakis said to the Polish traveller that his first impression of the votive figurines was that they represented the archaic cult of Athena, daughter of Zeus, which later spread to the Greek mainland. Another colleague specializing in antiquities, however, suggested another possibility, namely that it probably represented the cult of Demeter.

Thanks to Hatzidakis, Marcin Czermiński was fortunate enough to see the mysterious objects and to learn about them before they were exhibited. When he returned to the Candia Museum two weeks later, he noticed that the objects had already been placed in a glass-case and put on show to visitors (Fig. 1). The Polish traveller paid particular attention to the votive cross that was placed between the two female figures, which, according to both Evans and Hatzidakis, must have been used in a worship ritual. Czermiński emphasized that it was neither Byzantine nor Christian and probably might have been of Egyptian origin. He also referred to the other votive offerings: shells, lotus flowers, animal figures, a dog, a bull, a calf and some libation cups and two female 12cm decorated skirts. Czermiński also mentions the *peploi* offered in the *Panathenaia* and wonders whether this practice might have come from Crete too. He concludes his tour of the museum mentioning the other goddess statues with hands turned toward their breasts (Czermiński 1904, 217; see also Rethemiotakis 2001) and the sign of horns as a symbol of Mother Earth.

Marcin Czermiński (1904, 217) finishes his account by stating that his work was just a short survey of the last three years of Aegean archaeology (paying particular attention to the excavations at Knossos, Phaistos and Gournia) and that he had not been able to mention every single object,

[40] This fortuitous discovery in 1903 by Arthur Evans would become one of the most salient findings at the Knossos palace to date. However, a few years would elapse until a detailed description was available (see Evans 1921, 463-485). The guide best describing the findings: Alexiou 1973, 191-192, pl. IA΄. Also, Davaras 1976, 294-296, pl. 169. There are two interesting works telling the story of the finding and making reference to it: Ward (1994, 53, Pls 50-51), whose author, Curator of the Ashmolean Museum, may have used the files by Evans and MacGillivray (2001, 223, Pl. a-c, 280). The most interesting archaeological text is by Panagiotaki (1993, 49-91), as it allows us to complete our knowledge of the discovery and offers a detailed description. In Panagiotaki (1999), chapters II-III constitute a thorough study of this area of the Knossos palace. See also Panagiotaki 1998, 185-198, fig. 1, 186 as well as other religious references in Rutkowski 1972, 228-229, fig. 100 and Serrano 2006, 59-60.

Fig. 1. Photo of the shelf of the Archaeological Museum of Heraklion with the findings of Temple Repositories of Knossos as M. Czerminski saw and described them.

because of the multitude of materials gathered in the museums. Interestingly, the author concludes that, with regard to material culture, the magnificent civilizations of 4000 years ago did not differ significantly from us and, while they were still barbarians, their spiritual level must have been on a par with their material side. In this way he finishes his archaeological review, which was published the following year in Krakow in the book we have already cited.

However, further research using the resources of the library of the Jesuits in Krakow has allowed us to discover another small treasure which defines the uniqueness of our traveller and man of letters very well. Marcin Czerminski (1903) also decided to publish an extensive article about the recent discoveries of Aegean archaeology in Krakow.[41] What is striking is that his article was published on September 15, 1903 and it was probably

[41] This lengthy article is a copy, with some nuances, of the text he would publish the following year in the book *Wyprawa na Patmos, Efez i Kretę w r. 1899 i 1903. Tekst objaśniony 70 rycinami 2 planami i 3 mapkami*, Krakow, Drukarnia Czasu, 1904, 247 pages. As part of our investigation into the Polish traveller's writings, we intend to publish the Greek translation, already prepared, of the text, and then the English version, which will be aimed at the entire international scientific community.

one of the first things he did after returning to Krakow following his second journey to Crete. Deeply aware of the importance and greatness of the new archaeological discoveries of the island of Crete, the Polish Jesuit decided to advance his work and to disseminate his findings among the scientific community in Poland as quickly as possible.

When we look today at the enormous work of the Polish Jesuit traveller, we can see that we are dealing with an exceptional person; he was a traveller who, apart from his intensive missiological work, was a careful and clear-sighted researcher and observer of many places in Europe that he did not only minutely describe, but, more importantly, also tried to understand and to know better.[42] A considerable part of his work was devoted to Greece and especially to the island of Crete, which he had the opportunity to visit during a crucial time in its modern history. We believe it is our duty to pay our dues to the important contribution of this still little-known Jesuit as well as to restore the memory of his life and work. His story and work are, undoubtedly, worth disseminating within academic circles beyond Poland.

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[42] In our systematic research in the main libraries in Krakow and Warsaw we have so far identified 29 works published by Marcin Czermiński, of which nine are travel books.

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PHARAONIC DISGUISE. CONTEMPORARY POLITICS IN EGYPTIAN CAMOUFLAGE

Abstract: *This paper presents a few insights into certain aspects of Egyptian themes in Polish literature in two short stories from the late 19th and early 20th centuries, namely 'From the Legends of Ancient Egypt' by B. Prus and 'The Judgment of Osiris' by H. Sienkiewicz, which both utilized the tool of Egyptianization in political commentary of the time.*

Keywords: *Egyptian influences; Egyptomania; Polish literature – 19th century; Bolesław Prus; Henryk Sienkiewicz*

One area of study of Egyptian inspiration in contemporary culture is the search for the identification and the analysis of various elements taken from ancient Egypt when used as the material for literary creation. I am neither referring to travel writing nor the consideration of these questions within the obvious context of the sightseeing of various sites or individual monuments, but to literary works of fictional character: novels, stories, novellas, and furthermore drama, librettos, and even poetry.

What is interesting here is not solely the study of the reasons behind the Egyptian inspiration of individual writers and the search for the possible sources which they drew upon, but also, or perhaps even more so, the recreation the subtle ways in which they adopted and reinterpreted Egyptian legacy as well as the influence of patterns, stereotypes, false assumptions, deformations etc.

The Polish writer, Mikołaj Rey (1505-1569), narrating the story of Joseph in his Renaissance Biblical-apocryphal drama *Żywot Józefa*

(1545) [The Life of Joseph] (which possibly partly imitated the *Comedia sacra cui titulus Joseph* of 1535 by the Dutch playwright Cornelius Crocus), used the phrase 'the city of Egypt' several times, presumably regarding the state of the pharaohs as one possessing a structure similar to the Greek *polis* and made his characters speak with phrases directly copied from the reality of the courtly etiquette of his time. Two centuries later, the aristocrat and second-rate writer Urszula Franciszka Radziwiłł (1705-1753) made use of ancient Egypt (or rather, her impression of it) as the background for her theatrical work (which she termed a 'pastoral ballet') entitled *Igrzysko Fortuny* [The Playground of Fortune]. The play was probably staged only twice and this was exclusively on a private palace stage in the mid-18th century. The plot of this (rather graphomaniac) play, complicated and trivial at the same time, concerns the romantic and political tribulations of Prince Sesostrix and his lover Timaret and takes place in Memphis and on Elephantine Island in southern Egypt. The plot suggests that the author had a superficial knowledge of Herodotus or of Diodorus Siculus (shown by the motif of Amasis and Apries, here called by the author 'Amadys' and 'Apriusz' respectively), the French romance by Madeleine de Scudéry, *Artamène ou Le Grand Cyrus* (1653; from whence the Sesostrix and Timaret theme probably emerged) and possibly also the *Aethiopica* of Heliodorus. She was probably also fascinated by the antique, oriental and pastoral themes so characteristic of the time, which betrayed a tendency towards exotic fancy. The print attached in this edition depicts the staging or rehearsal of a scene with a killed crocodile which dispels any doubt as to the author's lack of 'Egyptological' competence (Fig. 1). Let us add here, that one cannot exclude the possibility that the motivation for taking an interest in Egypt could have come from the memory of an ancestor, Mikołaj Krzysztof Radziwiłł (Kalfatovic 1992, 21; Dawson *et al*. 1995, 346-347), who from 1582 to 1584 travelled to the Holy Land and Egypt, leaving an extensive, enthralling account and also brought back some Egyptian antiquities to the family palace in Nesvizh (now Нясвіж, Belarus).

Of course, one could identify several more or less accurate interpretations of Egyptian themes in Polish literature as is the case with other European literature. However, I would like to focus on a phenomenon of a different nature, namely the usage of Egyptian staffage, a 'costume' in which works were constructed as parables. One can point out at least two interesting examples of this kind; both are very short stories written by authors who normally produced full-length novels. The two works share another

Fig. 1. Igrzysko Fortuny. Reproduced from Biblioteka Czartoryskich, 39028. Drawing by M. Żukowski, 1750

similarity. Due to the political situation of Poland at the turn of the 20th century (partitions and formal dependency on neighboring superpowers), an 'Egyptian costume' hides the very concrete and quite easily recognizable characters and situations of the political scene of the time.

The first is a short story by Bolesław Prus (born Aleksander Głowacki 1847-1912; Milosz 1983, 291-303; Czerwiński 1994, 326-330) entitled *Z legend dawnego Egiptu* [From the Legends of Ancient Egypt][1] published for the first time in the special New Year sections of the popular magazines *Kurier Codzienny* and *Tygodnik Ilustrowany* in January 1888. Prus is, of course, incomparably better known as the author of another Egyptian themed work – his world famous novel, *Pharaoh* (1895). For historians of literature, both works remain quite puzzling. Bolesław Prus never took any particular interest in ancient Egypt, as he never travelled there (he suffered from agoraphobia) and in all probability drew the knowledge he needed to write *Pharaoh* from surprisingly few sources (primarily from Gaston Maspero's *Histoire ancienne des peuples de l'Orient* and *L'Archéologie égyptienne*). Moreover, he always declared his reluctance towards writing historical novels – in fact, as the author of tens of novels, novellas, stories and journalististic works, he took recourse to history only twice, both times to ancient Egypt. His motives are unknown; perhaps he decided that the Egyptian camouflage was abstract enough to make practically anyone read the content allegorically.

His narratives surely cannot be placed in the quite popular literary trend of the time of the 'archaeological novel' (Théophile Gautier, Georg Moritz Ebers) without reservation; Prus transcended the formula, preserving only several of its elements. Undoubtedly, Egypt is not a mere exotic decoration for the romance, as, in *Pharaoh*, an epic political conflict is taking place. As was the case with the novella, *From the Legends of Ancient Egypt,* seven years previously, the message is to contrast hopes and desires, to demonstrate the irrational logic of life and also to present a direct portrait of a historical episode, namely the breakthrough moment of conflict between the aged German Emperor, Wilhelm I ('Ramses'), and his successor, Friedrich ('Horus'), also including the crucial role of a third person, the influential politician, Otto von Bismarck (Fig. 2). The dispute between the 'good' Horus and 'evil' Ramses is, as most scholars would see it, a commentary made by Prus, who took a lively interest in German politics. The secondary title from *From the Legends of Ancient Egypt* provided the author with the possibility

[1] Published in English in *The sins of childhood & other stories*, (*European Classic*s) transl. B. Johnston, 221-228. Evanston 1996.

Fig. 2. From the Legends of Ancient Egypt. Reproduced from *Tygodnik Ilustrowany*, 1897, 51,1001. Drawing by A. Kamieński

to add a political punch line (The Killing of Horus), and a historiosophical generalization. Prus, as I have mentioned above, was not particularly interested in ancient Egypt. Undoubtedly, he did have a generalized, and in fact stereotypical, idea of ancient Egypt – he imagined the land of the pharaohs as a perfectly organized and hierarchical society, and Egypt itself as 'the first civilization', an archetype and source of all developmental laws and stimuli. Egypt probably was, for Prus, a place where all social, political, intellectual, and emotional processes took place in an archetypal manner, and were model ones in structural terms.

All this fitted into the realistic spirit of the epoch. However, many scholars argue that the 'Egyptian' narratives are filled with metaphysics and the logical sequence of events is interfered with by transcendence. They point out that Bolesław Prus was irrationally fascinated by the peculiarities of breathtaking natural phenomena (for example, the solar eclipse which he used to create the twist in *Pharaoh's* plot). Prus was a very close and enduring friend of Julian Ochorowicz (1850-1917), a psychologist, philosopher, and inventor, who was strongly involved with matters of so-called mediumism, and studied the applications of non-conventional methods of psychotherapy (hypnosis). Ochorowicz was also interested

in Egypt and it was most probably he who recommended (and even imported) literature on Egypt for Prus. In his book, *Wiedza tajemna w Egipcie* (1898) [Egyptian secret knowledge] which was published after Prus had written both *From the legends…* and *Pharaoh*, but had existed before both works in the form of public lectures, Ochorowicz considered the psychology of creating religious doctrines, the application of persuasive methods, the connection of magic with technology, the Egyptian priests' practice of creating natural phenomena and mechanical devices as well as 'divine acts' and the divine indication of priests as the sole agents and executors of divine will. The title *Secret Knowledge* was ironic; a monopoly on knowledge and astronomical, mathematical, natural and anatomical skills was the 'secret' tool of ruthless power. Prus noticed that similar mechanisms also governed the world of politics.

Twenty years later, Henryk Sienkiewicz (1846-1916, literary Nobel Prize winner; Milosz 1983, 308-314; Czerwiński 1994, 376-382) published a humorous sketch, *Sąd Ozyrysa* (1908) [The Judgment of Osiris], which was supposed to be, according to the author's claim, his 'translation of an ancient Egyptian papyrus'. Sienkiewicz plays with the convention of the Medieval morality play – a deceased, wicked state official, Psunabudes (this name, imitating Egyptian ones, is in fact a distorted idiomatic phrase taken from Polish with a meaning comparable to the English 'down the drain'), faces the throne of Osiris. Here, the 'goddesses' *Niegodziwość* [*Wickedness*] and *Głupota* [*Stupidity*] engage in a fight over his soul (Fig. 3). *Mądrość* [*Wisdom*] interferes, attempting to remember some episodes from Psunabudes' youth, which prove that he had not been so much of a villain at that time. However, in the end, the scales come to an exact balance and Osiris decrees that the deceased return to Earth, to prove whether he is more of a fool or a villain. For the contemporary reader, this satire was clearly about Konstantin Petrovich Pobyedonostsyev (Константин Петрович Победоносцев, 1827-1907), a doctrinaire of the Tsars' absolutism and an apologist for the Russification of the Poles, who claimed to have had a significant influence on decisions made by the Tsars, especially Alexander III and Nicholas II (Romanov) and who had died several months earlier. The Egyptian costume plays an obvious secondary role, and the very 'procedure', of course, has nothing to do with our scientific knowledge of Egyptian eschatology, except perhaps for the 'weighing of deeds'. Sienkiewicz introduced no Egyptian decoration here, apart from perhaps humorous ones (Osiris' words: 'I'll be an ibis' uncle or On Apis' holy tail!').

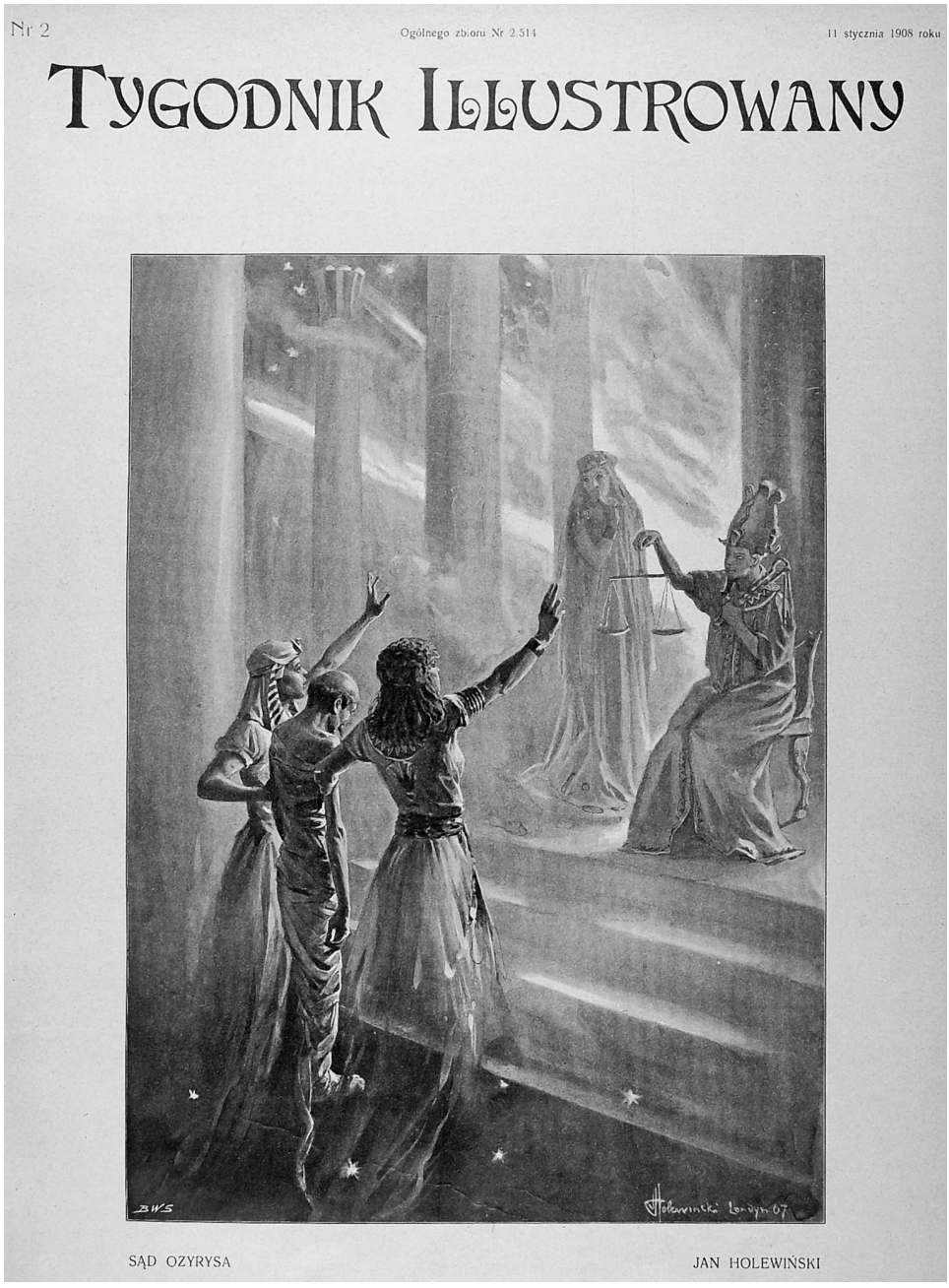

Fig. 3. The Judgment of Osiris. Reproduced from *Tygodnik Ilustrowany*, 1908, 2, front cover. Drawing by J. Holewiński

This was surely not evidence of the author's ignorance concerning ancient Egypt, but a consciously adopted literary stylization. Sienkiewicz did, in fact, go to Egypt (1891) and expressed a certain, if brief, interest in its antiques and civilization;[2] it is, however, by no means proof that this was his inspiration for *The Judgment of Osiris*.

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[2] *Listy z Afryki* [Letters from Africa] published as book in 1893 (two volumes).

Editorial Note

Since volume 14 of the *Studies in Ancient Art And Civilization*, published in 2010, the design of our periodical has slightly changed, and we also started to use the so-called Harvard referencing (or parenthetical) system, all due to the fact that *SAAC* was listed in the reference index of reviewed journals of the Polish Ministry of Science and Higher Education (List B).

Since 2011 (vol. 15) the publisher has been Księgarnia Akademicka Ltd. in Krakow. Starting with volume 16 (2012) external review procedure has been introduced, compliant to the double-blind review process (anonymity of both the reviewed author and the reviewer). The referees are both members of the Editorial Board and other researchers. The list of referees is published on the journal's website and in the hard copy. The primary version of the journal is the electronic format. As far as the names of the towns in Poland are concerned, these are given in their original form (e.g. Poznań, Gołuchów etc.), with the exception of the well established English ones such as Warsaw and Krakow (but in the title pages the original name Kraków is used).

With the 2011 issue we also introduced the following abbreviations, apart from the ones used in the *American Journal of Archaeology* and *Lexikon der Ägyptologie*:

PAM – Polish Archaeology in the Mediterranean, Warsaw

RechACrac SN – Recherches Archéologiques. Serie Nouvelle, Krakow

SAAC – Studies in Ancient Art and Civilization, Krakow

Guidelines for prospective authors can be found on our webpages:
http://www.farkha.nazwa.pl/saac/
http://www.akademicka.pl/saac

Studies in Ancient Art and Civilization were created in 1991 by professor Joachim Śliwa as an irregular series and since vol. 10 (2007) have become a regular yearly journal edited by the Jagiellonian University Institute of Archaeology. Since 2011 Księgarnia Akademicka S.A. has become the publisher.

Until present fifteen volumes have been published, among them two monographic issues and three festschrifts for distinguished researchers from our Institute.

SAAC publishes papers in the fields of archaeology, art and civilization of ancient Egypt, the Near East, Greece and its colonies, Cyprus and Rome, as well as other, non-Mediterranean ancient civilizations, and also in history of archaeology, antiquities collecting and reception of ancient culture in modern Europe. Special attention is being given to topics concerning predynastic and early-dynastic Egypt, the Greek and Roman periods in the Black Sea region, and archaeology of Cyprus, due to the excavations conducted by researchers from our Institute in these areas. Objects and artefacts from these excavations are published in SAAC.

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