



PLATIA MAGOULA ZARKOU

THE NEOLITHIC AND EARLY BRONZE AGE SETTLEMENT

ABSTRACTS

Eva ALRAM-STERN | OREA

NEOLITHIC TOOLS OF CLAY, SHERD TOOLS; NEOLITHIC FIGURINES

TOOLS OF CLAY

At Platia Magoula Zarkou a total of 13 sling bullets were recorded. All of them are single finds, coming from settlement layers. From their context no implications can be made for their use. All of them are ovoid, often with pointed ends. For their production half of them seems to be well fired, half of them are moderately fired, so that they may have been by-products of pottery production.

Five ovoid objects are identified as scrapers made of coarse clay. Their rough surface may have been used for abrading surfaces, like hides for leather production.

POTTERY TOOLS

Apart from several sherds used as burnishers, 86 rounded sherds, as well one disc come from all MN and LN layers of Platia Magoula Zarkou. However, these objects are especially abundant in the Tsangli-Larissa layers where up to eight were found in one stratigraphic unit. For their size, large sherd discs of coarse clay are most frequent, while smaller items are rare. The sherds were rounded by chipping their sides, in addition many of them had smoothed sides. Therefore we have to consider a multifunctional use.

THE FIGURINES

The paper discusses the house model of Platia Magoula Zarkou which was found in the debris of Phase VII and under the floor of Phase VIII. Therefore the house model is understood in connection with the destruction of phase VII, but at the same time closely connected to the rebuilding of the house in Phase VIII. The figurines themselves are characterized as being closely connected to the house model by their clay and their size which allows them to be placed into it in a lying position seen as soft depressions in the floor of the model exactly where they have been found. Therefore it is argued that the figurines were produced for a certain kind of arrangement and deposition, and maybe even their production was connected to this. With their position in the house model the figurines must have a certain meaning. The figurines were connected by the same style and decoration, which should indicate that they belonged to the same social group, most probably as members of the same household. At the same time the furniture of the house model which are an oven and a grinding stone are connected to household activities as well as to the inhabitants of this house.

The other figurines of Platia Magoula Zarkou show an interesting chronological sequence. The lowermost layers contained fragments of figurines seated on the ground, two legs, a head, a head of an animal figurine, a head of an anthropomorphic vessel and an upper body of a figurine. Of special interest is a number of legs found in subsequent layers without matching bodies. Another interesting sequence is seen for four figurines with heads to be inserted in their upper part which were found in subsequent Middle Neolithic to late Middle Neolithic layers and show increasing schematization. Furthermore, the upper MN layers produced a miniature bowl and two rod head figurines.

Christos BATZELAS | Larissa
Areti PENTEDEKA | OREA
Constanze MOSER | OREA

THE SURFACE COLLECTION OF FINDS

The geophysical prospection survey around the Platia Magoula Zarkou tell was accompanied by a small-scale and non-systematic surface survey of the area intending to check the dispersion density and extent of mobile archaeological remains (mainly pottery) at the periphery of the magoula as well as to enrich the prospective results of the geophysical survey with valuable auxiliary information.

The collected material consists primarily of pottery. The vast majority of the characteristic sherds dates to the Bronze Age and has been recorded by Constanze Moser. Only a few Neolithic sherds were found, all of them assigning to the Tsangli-Larissa phase of the early Late Neolithic and examined by Areti Penteteka.

Ground stone tools, chipped stone tools and some clay objects are also included in the collected material and have already been studied by the relevant specialists.

The preliminary results of this survey testify a thick dispersion of pottery in an average radius of 100m around the magoula. A significantly larger quantity and frequency of pottery was observed in the fields directly to the N/NW, E and SE of the magoula. Concerning the dating mostly Bronze Age pottery as well as sherds and tile fragments of historical periods (from the Classical/Hellenistic period to the Byzantine/post Byzantine period) are included into the collected material. Almost no pottery came from the area above the trenches of the Late Neolithic cemetery.

Christopher BRITSCH | OREA

NEOLITHIC AND EARLY BRONZE AGE WEAVING IMPLEMENTS

The production of textiles for clothing and other uses is an essential part of basic life for any society. Furthermore the possibility of creativity of the finished end product employs the craft with a representative character. Thus what distinct tools were applied with which techniques can reflect individual, as well as general social or cultural representation. Though it is not possible to reconstruct such behaviour in all detail, certain important aspects can be examined. While certain aspects, like the weight, shape and dimensions of spindle whorls seem to be primarily of technical character, features like incised patterns or the shape of loom weights are solely decorative. To get a comprehensive view, all aspects have to be taken into consideration.

This contribution to the work shop aims to evaluate the textile tools of Platia Magoula Zarkou in correlation to other contemporary sites. However, no craft existed solely on its own without influences of other developments. It is therefore ideal to discuss the preliminary results of this evaluation in light of all other contributions.

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HOLOCENE GEOLOGICAL AND MORPHOLOGICAL EVOLUTION

The questions posed by the project we attempted to answer to were primarily the following: firstly, describe and explain the Late Quaternary evolution of the Pinios River, especially along the reach interposed between the Karditsa and Larissa plains with the aim of unravelling the crucial role played by the Piniada Valley in the frame of the regional hydrographic system, and hence better understanding the various geographic and environmental changes occurred up to historical times; secondly, tentatively reconstruct the latest Pleistocene-Holocene palaeogeography and palaeomorphology characterizing the area where several Neolithic settlements established and particularly the Plateia Magoula Zarkou (PMZ) representing the major and best known archaeological site. Accordingly, we carried out an extensive field campaign based on the systematic measurement of the seismic noise within the alluvial plain of the Piniada Valley, which represents a major morphological anomaly along the hydrographic network of the Pinios River, the longest water course in Greece. In order to shed some light on this geographic and geological issue, the so called local microtremor technique was applied to more than 300 sites. This geophysical approach enabled us to reconstruct the geometry at depth of the palaeo-Piniada Valley and to document for the first time that the valley was recently hydraulically inverted, that is to say, till Late Quaternary the valley represented the lower reach of the Titarissios River before it was definitely diverted into the Larissa Plain as a consequence of the growth and increasing activity of the Tyrnavos and Larissa faults. Once abandoned the valley was progressively filled up by alluvial-lacustrine deposits rapidly prograding from the western Karditsa Plain drainage network and causing the final inversion of the hydraulic gradient along the Piniada Valley and the consequent definite outflow across the Kalamaki Gorge. During this transition period, which occurred during latest Pleistocene-Holocene, the area was characterized by important environmental changes with phases of i) reduced water discharge along the valley, ii) lacustrine-marsh conditions, and iii) frequent flooding events. The space and time 'oscillations' of the Neolithic (and younger) sites is a likely consequence of these natural changes and the variable exploitability of the territory.

Rozalia CHRISTIDOU | CNRS

NEOLITHIC AND EARLY BRONZE AGE BONE TOOLS

About forty bone objects are dated to the Bronze Age and sixteen to the Neolithic period. The dating of a dozen specimens is not yet confirmed. The material examined includes awls, edged tools and handles made from long bones, bipoints, perforated axes and a hammer made from deer antler, a toothed implement made from a scapula, pins with ornate heads and a perforated tooth. Quantification and distribution data are poor as a result of vagaries of artifact recording in the past, but the tool types, raw materials and technological features of the Bronze Age group allow us to assess general trends observed for this period as well as local features that seem to represent responses to local raw materials and tool functions. The discussion of this period's material traditions includes the use of bone and metal in parallel and for imitation. A detailed chronological breakdown of the sequence is necessary in order to enable future comparisons of tools and ornaments with the areas north of Thessaly and with the Aegean.

To evaluate results, the kind of analysis undertaken for the bone artifacts from Platia Magoula Zarkou will be briefly discussed and the data recorded for the site summarized. The main aim of the work has been to provide a detailed description of the tools and technological actions recognized. The material from the Neolithic deposits is too small to describe local change or variety in the use of bone technology and in artifact design. Patterning may sometimes be traced through comparisons with other Thessalian sites.

Kostas GALLIS | Democritus University of Thrace

PLATIA MAGOULA ZARKOU - HISTORY OF RESEARCH

The excavation at Platia Magoula Zarkou (PMZ) started in 1976, after there had been spotted (1974) and partially excavated (1976) cremation burials in urns 300 m north of the site. There were found pots – some times in the same burials – belonging to two different types, Tsangli and Larissa. At that time, these two categories of pottery were dated by some scholars – but not without dispute – to entirely different periods, beginning and end of the Late Neolithic correspondingly. So, this led to the decision to make a stratigraphic excavation in the site itself hoping to solve this chronological problem.

The finding of Early Bronze habitation levels at the top 4 m. delayed considerably the solution of the problem. Below these levels, at the depth 4.30 m, the excavation reached directly strata of the Late Neolithic (excavation periods 1981, 1983 and 1984). In these levels, of about 1 m total thickness, pottery of Tsangli and Larissa type was found together, in repeated strata. This showed that these two categories of pottery were synchronous. Hence the phase was named Tsangli – Larissa.

Below the lowest level of this phase there came to light a clay house model with eight figurines. From the excavation data it is concluded that it was deposited below the floor, during the construction of the house, as a foundation offering. The figurines seem to represent the members of the family during the construction of the house.

Below the Late Neolithic there came to light uninterrupted Middle Neolithic strata with characteristic pottery. As the objective of the excavation was fulfilled, we limited the excavation trench to half (5x4 m) at the depth of 6 m and at the depth of 7.40 m even more (5x2 m). At the depth of 8.20 m the excavation reached water table and had to be interrupted (1987). It was resumed in 1990 (the driest year of the century according to the Institute Godart). The excavation reached the sterile at the depth of 10.70 m, the lowest strata still dating to the Middle Neolithic.

Of the total 10.70 m habitation strata of the site nearly half of it is below the present surface of the ground. The fact that at the nearby magoula Koutsaki, only 1.5 km SE of PMZ, early Neolithic finds are exposed on the surface of the magoula shows how different the landscape in the vicinity of the settlement was in the Neolithic times.

Loe JACOBS | Leiden University

THE CHAÎNE OPÉRATOIRE OF NEOLITHIC GREY WARE

The grey on grey ware is a class of pottery representing one of the many varieties of Late Middle Neolithic pottery produced on Platia Magoula Zarkou. Due to its grey on grey decoration, consisting of dark grey abstract linear patterns on a light grey background, it is a very appealing class of fine ware. The technology behind the creation of the pleasing grey on grey effect, the latter being responsible for our categorization and naming of this ware, still is partly enigmatic however. The sherds formerly had been chemically and microscopically analyzed which revealed a part of the riddle but which at the same time raised new questions. How could such high temperatures, like necessary to obtain the intended effect be reached and how could the necessary control over the reduction be realized in a period where firing methods are generally assumed still to be rather primitive or at least not highly developed? To answer such questions experimental methods were used in an attempt to shed light over the situation by re-creating the grey on grey ware. The limits or parameters for the experiments were the use of techniques and materials that reasonably could have existed during the Late Middle Neolithic in Thessaly. This approach resulted in the building and firing of some experimental kilns. Besides these some laboratory kilns were used for extra firings necessary to make over the pigmenting and painting process. Altogether the experiments resulted in a re-construction of the shaping technique, the painting of motives on the vessels and their firing process, with an accent on the latter item. The new insights may help to sharpen the view of what could have happened during the end of the Middle Neolithic on a pottery production work spot in Platia Magoula Zarkou. They show that the grey on grey effect probably was obtained by the use of carbon as a paint ingredient and charcoal as a fuel and that the vulnerable fine ware vessels were placed inside bigger coarse ware vessels during firing. In the beginning maybe only to protect them and to use restricted space in an efficient way, but later on definitely by conscious in order to create the grey on grey contrast. We may thus conclude that this pottery was 'saggar' fired.

Constanze MOSER | OREA

THE EARLY BRONZE AGE SETTLEMENT. EVIDENCE AND POTTERY SEQUENCE

The pottery assemblage of the Early Bronze Age layers of Platia Magoula Zarkou, Trench A, provides for the first time a characterisation of the cultural development of the Early Helladic Phases in the Western Thessalian plain. Preliminary results show, that the pottery seems to be handmade. The macroscopic analyses suggests furthermore a local pottery production. The stratigraphy of the features analysed so far (Floor 13-8A) shows a continuous development from Early Bronze Age (mainly types of EH II) to the beginning of the Thessalian Middle Bronze Age. While the resemblance of the composition of the pottery assemblage of Argissa-Magoula becomes apparent, some shapes point beyond that to contemporary settlements in Northern and Southern Greece.

Catherine PERLÈS | Université Paris Ouest Nanterre La Défense

NEOLITHIC AND EARLY BRONZE AGE CHIPPED STONE TOOLS

My presentation was completed before we started receiving the new and fundamental information sent by Christos and Giorgios. Needless to say that I immediately looked at it, but I decided not to change my presentation: it seemed to me interesting to show that, through entirely different approaches, we found similar major chronostratigraphic breaks. I shall of course use their new framework for the publication.

My presentations centres around the following questions/problems:

1. Why are there so few chipped stones at PMZ?
2. How to group the material to have large enough samples for fruitful comparisons?
3. Differences in the use of raw materials between the “sure Tsangli” and “sure MN”
4. Differences in the aims of production between the “sure Tsangli” and “sure MN”
5. Differences in the rate of retouched tools between the “sure Tsangli” and “sure MN”
6. Which typology should we use: technomorphological or functional?
7. Synthesis on the “sure MN” assemblage
8. Synthesis on the “sure Tsangli” assemblage
9. What is the status of the so-called ‘Zarko phase’?
10. Broad lithic chronostratigraphy

Apostolos SARRIS | Foundation for Research and Technology, Hellas (F.O.R.T.H.)

REFLECTIONS OF THE SUBSURFACE. GEOPHYSICAL RESULTS FROM THE INVESTIGATIONS AROUND PLATIA MAGOULA ZARKOU

A number of geophysical techniques consisting of magnetic surveying, ground penetrating radar (GPR) soil resistance and electromagnetic induction (EMI) techniques was applied for the geophysical investigation of the surroundings of Platia Magoula Zarkou in December 2016.

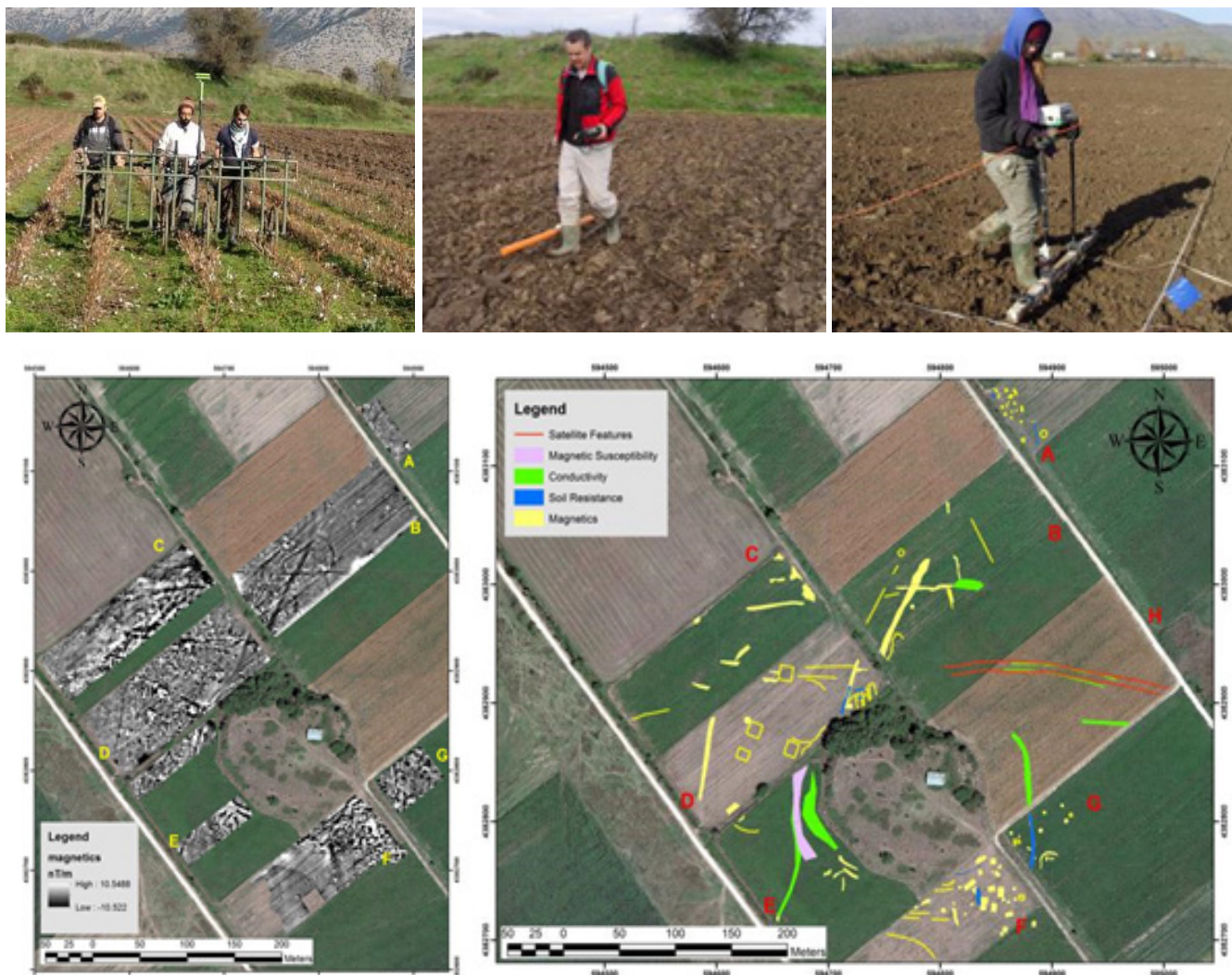
The aim of the prospection was to locate concentrations of human activities in the form of built environments as well as other habitation signatures around the tell of Platia Magoula Zarkou. Survey areas were determined opportunistically with the intention of the largest coverage when ground conditions permitted so. The prospection was also accompanied with non-systematic reconnaissance surface collection for dating purposes of different sections of the site.

The potential burial ground of **Area A** did not produce any kind of prominent features. The isolated magnetic anomalies and the linear high resistance feature to the south do not make any clear suggestions of structural remains or other anomalies related to urn burials. On the other hand, GPR data indicated that the area of the cemetery is located on top of a slightly elevated geological formation, which rises towards the NE. If so, the particular region could form a protective locus from the flooding episodes of the surroundings.

The most significant features in **Area B** seem to be related to past hydrological activities and/or a buried gully similar to the one described by van Andel et al. (1992) running from the cemetery to the east of the magoula (even though its trace cannot be clearly seen in the satellite data). These features may suggest that the magoula itself was confined between two gullies running from the north (area of the cemetery) towards the east and west of the magoula. Similar hydrological features indicating the high energy of water flow have been suggested in **Area C**.

As we move further away from the magoula, the quiet magnetic levels indicate the boundaries of the anthropogenic activity in all sections surrounding it. The areas to the NW and SE of the magoula disclosed the most important findings of the geophysical survey. Four large highly magnetic targets of archaeological interest, together with a few more structures at the northern fringes of the magoula were pinpointed to the NW (Area D). Similarly, occupation activity (mainly consisting of Bronze Age structures?) seems to be dense along the low elevation rise to the SE of the magoula (Area F), extending even further from the limits of the surveyed region (for more than 100m further to the E/SE of Area F).

A number of enclosures are also suggested from the various datasets. To the north, a thin enclosure wall seems to encircle the buildings at the fringes of the magoula. A couple of much wider curvilinear features (a low-susceptibility and a low conductivity one) follow the contour of the magoula to the west. Similar thinner curvilinear features continue to circulate the magoula in Area E and Area F. Traces of curvilinear features, located a little further away from the foot of the magoula, are also evident in all datasets (EM, resistance and magnetic) to the east of the magoula. The low conductivity/high resistance/high magnetic signature of these features could designate perimeter/fortification wall/s encircling the site. Still we cannot ignore the hypothesis that some of these features could be also related to running gullies within a much more conductive soil context.



Gerwulf SCHNEIDER | Freie Universität Berlin
 Małgorzata DASZKIEWICZ | Freie Universität Berlin

CHEMICAL ANALYSES AND COMBINED METHODOLOGY OF CERAMIC ANALYSIS

Some 1300 samples of pottery from Thessaly has been analysed by WD-XRF between 1979 and 1992. The analyses covered styles from early Neolithic (Protosesklo) to Late Neolithic (Classical Dimini and Otzaki) styles and Mycenaean pottery. Also more than 400 thin-sections were also studied and included in the interpretation. Analysed sherds mainly originated from surface finds from sites in the eastern and western Thessalian plains but included also pottery samples from excavations at Platia Magoula Zarkou. The most important results are published (Schneider et al. BCH 1991, 1-64). An open access databank is under preparation. Around 150 clay samples from all over Thessaly have also been analysed and a few also used for firing tests.

Stratified coarse thick-walled pottery showed local patterns which is not the case of painted and other fine wares. Grey-on-grey is the (nearly) only style with a homogeneous composition and, based on chemical composition, is similar to the local pottery of Platia Magoula Zarkou. This, however, should be checked with more thin-section studies and, after experience with many of our pottery projects after 1994, by using matrix classification by refiring (Daszkiewicz 2017, in Oxford Handbook of Archaeological Ceramic Analysis, chapt. 27 part MGR-analysis). Only this latter method classifies the pottery according the composition of the clay used by the potter independently of the temper material. Thus only the combination of three methods offers a real compositional classification of ceramics. Also other aspects of technology had not yet been studied using methods which proved to be successful in other cases (determination of firing temperatures, porosity measurements and water permeability). These methods and MGR-analysis will be discussed.

Stella SOUVATZI | Hellenic Open University

USE OF SPACE AROUND THE NEOLITHIC SETTLEMENT: SOCIO-SPATIAL IMPLICATIONS

The organisation of space at Platia Magoula Zarkou (PMZ) is a complex phenomenon indicating different patterns and structuring principles at different scales, from the landscape to the household, as well as similarities and differences in habitation patterns and perceptions of place between PMZ and other contemporary sites. Key features include the mound; the surrounding area; the presence of ditches; and the existence of a separate cemetery, one of the very rare such examples thus far in Neolithic Greece.

Although the limited horizontal exposure of the site does not permit a secure understanding of the settlement layout or firm inferences about inter-household relationships, the careful and deep excavation and the thorough processing of the excavation archive, in conjunction with the earlier and recent geophysical investigation around the site, certainly allow a picture of the wider socio-spatial practices materialised in PMZ. For instance, the presence of ditches indicates, if nothing else, a degree of spatial ordering and of collective decision and labour. Likewise, the existence of an external mortuary domain, i.e. in a non-everyday context, which moreover, includes both children and adults, challenges several 'rules' widely held so far for the Neolithic world, such as the burial of children inside or around houses and the idea that extra-mural funerary rituals were not an important means of social integration.

It is expected that the results of the other participants and the discussion at the workshop will shed further light on intra-site patterns. In anticipation of those results therefore, my presentation will focus on the larger scale, including some comparisons with habitation patterns in other settlements. Some key questions include: what exactly was the settlement type of PMZ? Was there perhaps a more flat settlement around the tell or not? What is the relationship of the cemetery to the settlement and what does the existence of the former signify? What is the role of the ditches? How can PMZ contribute to our understanding of the meaning and significance of living in a Tell in the particular landscape, and how the relationship between people, place/land and time may have been constituted?

Anna STROULIA | University of Southern Indiana

THE NEOLITHIC MACROLITHIC ASSEMBLAGE

The PMZ excavations yielded 135 Neolithic macrolithics (also known as ground stone tools). A variety of local materials are represented in the assemblage. The artifacts were divided into five groups on the basis of technomorphological characteristics. In each group, MN and LN specimens were treated together.

1. *Grinding and abrading tools* (n=54). These tools were made of gneiss, schist, and sandstone. There is evidence to suggest that: a) toolkits of two different sizes were manufactured/used; b) the excavated area served as a locus for use and maintenance, but not manufacture, for this type of tools; c) intact non-exhausted tools were removed from the excavated area before the construction of a new floor. The highest concentration of such tools is found in the 2-m thick lowermost portion of the Neolithic deposit that contains no floors.
2. *Cutting edge tools* (n=33). These artifacts were made in small and large sizes using two different materials (gabbro and serpentinite) and *chaines opératoires*. Cutting edge tools were used in the excavated area but probably manufactured elsewhere. Only a few large complete non-recycled specimens were found, a possible indication that such tools were also removed before a new floor was constructed. A substantial percentage of specimens were found in direct or indirect association with MN Floor 25. No cutting edge tools were excavated in the earliest portion of the Neolithic deposit.
3. *Percussive tools* (n=29). Two different raw materials (quartz and gabbro) were used for tools of two different shapes and functions. A substantial number of the percussive tools were found in direct or indirect association with MN Floors 25 and 26.
4. *Specimens with narrow grooves* (n=3). The grooves were probably used for straightening, grinding, and/or smoothing wooden shafts.
5. *Miscellanea* (n=16). This group includes specimens that could not be included in the other more homogeneous groups, e.g., a macehead and a possible pendant shaped like a cutting edge tool. Several unique macrolithics date to LN, pointing to a possible diversification of material culture during this phase.

Giorgos TOUFEXIS | Ephoria of Antiquities Larissa
Christos BATZELAS | Larissa

NEOLITHIC PHASES: STRATIGRAPHY, ARCHITECTURE AND TELL FORMATION

From the three trenches (A, B, Γ) located in different parts of the PMZ only Trench A near the center of the magoula was fully excavated down to the sterile soil revealing thick Neolithic deposits (approx. 6.40m) from depth 4.30m – 10.70m. The Neolithic deposits were found directly beneath Early Bronze Age deposits (approx. 4.30m thick). On the basis of the architecture description and the soil properties of the neolithic deposits, nine (at least) building phases with additional sub-phases were distinguished which were processed in detail through Harris' method (E. Harris, Principles of Archaeological Stratigraphy, 1989). To a great extent these building phases and sub-phases correspond to equal number of "floors" which appeared repeatedly in the excavation diaries. The clarification of these "floors" shows that these are to be seen in a broad sense as "use areas" including both indoor and outdoor areas. Fifteen (at least) such "floors" were identified although not always with certainty. Four "floors" were assigned to the Building phases VIII and IX which in all evidence are dated to the early Late Neolithic (Tsaggli-Larissa phase) whereas the rest of them to the phases III-VII of Middle Neolithic but no "floors" were securely identified in the initial phases I and II. Pending the results from pottery analysis, radiocarbon dates and other topics, the chronological correlation of the building phases is speculative.

Regarding the use of space and formation of the PMZ, the present data allows for the recognition both of a tendency for stabilization and a degree of variability and differentiation in the building techniques, the alignment and location of houses and the construction and location of thermal structures no matter of the constraints posed by the magoula (tell). On the other hand the role of the yards might not have been insignificant. These observations may contribute to a better understanding of this type of settlement for which a lengthy discussion has been developed.

Bernhard WENINGER | University of Cologne

PLATIA MAGOULA ZARKOU - THE 14C-DATING

To establish the absolute chronology of Platia Magoula Zarkou we have (since recently: Oct 2017) at our disposal ten 14C-ages for the Neolithic and eight 14C-ages for Early Bronze Age layers. The 14C-measurements were performed at the Heidelberg AMS laboratory under the direction of Ronny Friedrich. The majority of 14C-ages have standard deviations of ± 30 BP or better. During sampling, great care was taken to avoid any kind of 'old carbon' effect (e.g. due to re-use of old wood, or dating of inner tree-rings) and the samples selected from Platia Magoula Zarkou are all short-lived. They consist of charred seeds and bones that derive from subsequent floor sequences of the Neolithic and the Early Bronze Age settlement layers. For support of the dating project we are grateful, in particular, to INSTAP and the Austrian Academy of Sciences. In the present paper I will describe, in necessary detail, the first results of using the excavation teams' archaeological stratigraphy (inter alia the Harris matrix) for purposes of statistical 14C-age modelling. The analysis is based on INTCAL13-calibration data, with application of CalPal-software (version 2017). Special focus is placed on a comparison of the potentially quite different results that may be achieved, when different archaeological age models are applied to the same data. In the present case we are comparing the (model-free) single-calibrated ages with the results obtained both by (metric-scaled) stratigraphic and by (ordinal-scaled) phase analysis of the data. The analysis includes artificial sample order randomization, in order to simulate the chronological effects of potentially unrecognised stratigraphic sample reworking. In a nut-shell, the achieved modelling results are highly satisfactory, with Monte Carlo derived numeric dating precision (based on extended 8-12 hrs run-time) in the order of 1-2 decades (95%-confidence) for each of the stratigraphically distinguishable Floors. By graphic animation (on-screen) of the applied modelling procedures, efforts are undertaken to ensure that the statistical processing remains as transparent as possible, hence open for critical discussion by the team members.



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