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Pottery Production at Eretria (Euboea) from Early Helladic to Hellenistic Times

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ABSTRACTS

Three pottery groups from the Hellenistic plain ware production at Eretria

Guy ACKERMANN (ESAG/ Lausanne University)

Within the context of the pottery analysis project led by the Swiss School of Archaeology in Greece between 2014 and 2016, the Fitch Laboratory of the British School at Athens studied three groups of common ware from the Hellenistic period at Eretria. Two fabric groups are semi-coarse cooking wares (H-SG1 and H-SG-2), while the third group is a semi-fine ware (H-SF1).

The first group (H-SG1) is widespread in the Early Hellenistic period (late 4th to early 3rd cent. BC) and contains a large amount of schist inclusions. Nearly half of the cooking wares at Hellenistic Eretria, from the late 4th to the middle of the 1st cent. BC, is produced with a semi-coarse fabric without schist but with the same inclusions as the group 1 (H-SG2). These two fabric groups together represent almost three quarters of the cooking vessels of Hellenistic Eretria, this is why we decided to analyse their chemical and petrographic composition to define the supposedly local production of semi-coarse vessels at that time. The results of the analyses conducted by the Fitch Laboratory showed that the first group with schist (H-SG1) corresponded with a homogenous fabric group that was probably imported (fabric group B). The samples selected from the second group proved to be more disparate (fabric group D var. and loners). The third group (H-SF1) is macroscopically characterized by a semi-fine fabric with some small white inclusions and silver mica, which seemed to confirm that more than half of the semi-fine vessels (jugs, kraters, mortars, storage bins, *lekanai*, beehives, etc.) were produced locally during the three centuries of the Hellenistic period. However, the petrographic and chemical analysis by the Fitch Laboratory demonstrated that it actually consisted in a variety of fabrics (fabric groups E, G, I var., loners and one cluster).

The aim of this paper is to present the problematics of local pottery production in Hellenistic Eretria and the sampling choices, and to discuss the results of the petrographic and chemical analysis.

Preliminary results of the compositional characterization of the pottery from the Hygieionomeion cemetery (Spanou plot) at Eretria

CHARALAMBIDOU Xenia (ESAG/The Fitch Laboratory), KIRIATZI Evangelia (The Fitch Laboratory, dir.) and MÜLLER Noemi S. (the Fitch Laboratory)

Long after Kourouniotis' excavations of the cemetery at the Hygeionomeion site at Eretria, Angelos Liangouras investigated what appeared to be its continuation on the Spanou plot. The pottery finds from the latter site included various categories of vases mainly dated from the Geometric until (at least) the Classical periods, including a number of pithoid amphorae dated from *c.* 700 to the late 7th/early 6th century BC, mostly fragmented, probably used for child *enchytrismoi*. The latter vases comprise the focus of this presentation discussing their compositional characteristics, based on the combination of macroscopic, petrographic and chemical analyses, and their association with other categories of local products. Furthermore, connections between the fabric characteristics and the stylistic assignments of pithoid amphorae by Boardman 1952 are assessed for the first time.

Geometric and early Archaic pottery in Eretria: results of the macroscopic, petrographic and chemical analyses.

CHARALAMBIDOU Xenia (ESAG/The Fitch Laboratory), VERDAN Samuel and THEURILLAT Thierry (ESAG/Lausanne University)

In the Geometric period and in the early Archaic period Eretria's role in regional and interregional networks doesn't seem the same. In the 8th century BC Eretria, one of the leading forces in Greek colonization then, has yielded a mass of information that demonstrates the site's overall growth, while in the 7th century there is less evidence from the site (especially from the known settlement and burial contexts) and probably less Euboean material in related colonial contexts. This presentation addresses first the questions that have been posed as a result of the macroscopic research on the Geometric and early Archaic pottery in Eretria and how these questions were approached and answered through the combined results of the macroscopic, petrographic and chemical analyses. The samples analysed come from eighth-century vases from the Apollo Daphnephoros sanctuary including categories known also in Euboean colonies and other regions in the Mediterranean (the Geometric pendent semicircle, chevrons, and concentric circles groups) as well as representative categories of seventh-century ceramic products from the Heroon. Based on the results of the macroscopic, petrographic and chemical analyses, we discuss characteristics of local pottery products in the 8th and in the 7th century BC and whether continuity and/or changes can be discerned in pottery craftsmanship from the 8th to the 7th century as well as the compositional values of the eighth- and seventh-century fabrics that fall within the range of the local Bronze Age fabrics.

Eretrian pottery of the Classical Period

GAMMA Claudia (ESAG/Basel University) and GEX Kristine (ESAG/Lausanne University)

To cover the Classical period, 37 samples were chosen, all presumed to be of local (Eretrian?) production on the basis of archaeological criteria. They include drinking vessels from the Thesmophorion on the acropolis (first half of 5th c.), lekythoi of three sizes from the western necropolis (late 5th c.) and two types of mortaria from the Bouratza excavation near the agora (4th c.).

The drinking vessels all belong to Fabric Group K ("local") with one exception, a kotyle qualified as a loner. Interestingly, it also differs from the others in decoration and is possibly to be connected with the later development of the shape, the Classical skyphos.

The Huge Lekythoi, of semi-fine clay, are the core members of Fabric Group I ("local?"), variants of which include an Archaic hydria as well as a Hellenistic jug. One sample turned out to be a loner, a result that remains unexplained.

Almost all the lekythoi of normal size belong, again, to Fabric Group K. The sole exception goes with the three lekythoi of small size: these four constitute Fabric Group L. Rather than being "imported?", they might come from the workshop of the Berne Painter, which produced decorated pottery around 430/20; this workshop is already known to have used more than one sort of clay.

Two types of Classical mortaria can be distinguished, no doubt adapted to different uses in the kitchen and household. With two exceptions, the larger mortaria, made of coarser clay, were found to belong to Group C, the smaller, of semi-fine clay, to Group E – both considered as "local". The two exceptions are associated with Group A, which comprises "local" pottery otherwise exclusively of Geometric or Archaic date. Their profiles would in fact allow a date earlier than the 4th c. (though not Archaic let alone Geometric).

The Eretrian miniature hydriae: archaeological contexts, fabric groups and functions

HUBER Sandrine (ESAG/Université de Lorraine at Nancy)

This paper deals with the miniature hydria that is a recurring vessel shape in ritual contexts at Eretria. A large number of them comes from the *Aire sacrificielle* north of the Apollo Daphnephoros temple, the sanctuary of Athena on the summit of the acropolis, and the cultic structure that has been interpreted as a Heroon since it was discovered. Furthermore the miniature hydriae constitute a diachronic data set in these contexts as they are attested from the Late Geometric to the Early Hellenistic period in the second half of the 4th c. BC and the beginning of the 3rd c. BC.

My presentation focuses on the Archaic period corresponding with that of the samples analysed as part of the Eretria Pottery Analysis Project. Various types were included in the sample selection: wheel-made and hand-made, plain and crudely decorated either by dipping or with horizontal bands. This production qualifies as medium to low quality and it has rightly been described by Susan Langdon as "*artifacts that look amateurish*" and "*inexpert pottery*". It leads us to wonder about the producers of these vessels, whether potters or apprentices from regular workshops, or else children-whorshippers... The cross-referencing of the study of the – ritual

– archaeological contexts and the results of the petrographic and chemical analyses allows to reconsider the question of the production and function of these peculiar small vessels.

Pottery production at Eretria through time: Methodology and results of the integrated analysis of ceramic products and raw materials

KIRIATZI Evangelia (The Fitch Laboratory, dir.), CHARALAMBIDOU Xenia (ESAG/The Fitch Laboratory) and MÜLLER Noemi S. (the Fitch Laboratory)

The current paper aims to summarise the work carried out over the last three years on the study of pottery production (as well as supply) at Eretria, through the combined application of traditional archaeological and scientific methodologies, the latter including petrographic and elemental (WD-XRF) analyses. The ultimate target will be to bring together the results of the two phases of the whole project (concerning the study of pottery from prehistoric and Geometric-Hellenistic periods, respectively), and discuss them under the light of the expanded geological sampling across central and southern Euboea and parts of the eastern coast of the Euboean Gulf, and the comparisons drawn with analogous results from on-going projects at neighbouring sites/regions (e.g. Lefkandi, Oropos, Boeotia). Emphasis will be put on discussing methodological aspects, such as the effort made for targeted selection of representative samples, both archaeological and geological, given time and funding limitations, as well as the process of interpretation of scientific data (with special reference to shortcomings and limitations of various types), and the issue of comparability across periods and between the results of different projects. This paper will set the framework for more specialised discussions to follow the papers on specific periods, as well as the final discussion at the end of the workshop.

High quality pottery made in a small village on top of a rock? Characterising Middle Helladic Eretria

KRAPF Tobias (ESAG/Basel University)

Traces of Middle Helladic occupation in Eretria come mainly from the top of the acropolis plateau and date to the second half of the period and the transition to the Late Bronze Age. 28 pottery samples have been analysed in collaboration with the Fitch Laboratory of the BSA: 10 grey minyan, 10 semi-fine to fine buff ware, 6 coarse ware and 2 pithos fragments. Two major results have been obtained: 1) The most common MH fine and semi-fine wares of Eretria are made with a local clay recipe, which was already used for several Early Helladic types, regardless of the possible gap in the settlement history. 2) The MH coarse wares are much less homogenous as previously thought and are at least partially imported.

Due to the small sample, it is difficult to evaluate the second result, but it is – in any case – a further proof for the circulation of coarse ware pottery during the MH period. Important, however, is the evidence for locally produced grey minyan pottery of the highest quality in both MH II and the shaft grave period. The latter, in combination with similarities in the general

pottery assemblage composition and typology, indicates that Central Euboea shared the same ceramic values with Boeotia during the MBA, which is traditionally identified as the main centre for the production of minyan pottery. High quality MH matt painted pottery, the other most characteristic ware of the period, has been found in Eretria (including Mainland Polychrome) but has not been included in the analysed samples. However, due to its relation to the buff ware, it is very probably and at least partially locally made as well. As Eretria appears to have been a small and unstable MH settlement, in contrast to Lefkandi and Amarynthos, it might reasonably be asked whether this pottery was produced at a neighbouring site using the same clay sources as Eretria.

This paper will also raise the question of the Late Bronze Age pottery, which has not been incorporated in this analysis programme, as it is only scarcely found in Eretria. Indeed, only a few sherds dating to the palatial period have been found so far, but there is an assemblage of LH IIIC vessels from the acropolis, attesting to some activity. This small assemblage finds many parallels in Lefkandi but also includes at least one unique shape. Additional sampling of LBA sherds might be interesting as it would considerably narrow the chronological gap between the EH-MH and the Geometric samples.

Early Helladic pottery from Eretria: Cultural influence versus technological change

MÜLLER CELKA Sylvie (ESAG/CNRS Lyon)

Excavations at Eretria in the Bouratza plot have recovered significant amounts of Early Helladic (EH) II-III pottery from partly stratified levels underlying Classical-Hellenistic buildings. In spite of its fragmentary condition this material deserves special attention as it provides an interesting data set to complement the still unpublished Lefkandi I-III pottery. Furthermore, together with the newly discovered EH III settlement at Aliveri, it offers a rare insight into the EH III phase in Euboea.

This paper aims at presenting the results of an integrated study of the main EH II-III pottery groups at Eretria based on combined macroscopic, petrographic and WD-XRF chemical analyses of 122 samples. Apart from characterising the clay recipes of the Eretria first potters, specific issues to be investigated were a) the origin of the Anatolianising shapes that characterise the EH II fine ware, b) the origin of two large competing groups of EH II coarse ware and c) possible changes in clay resources matching changes in style and technology at the beginning of the EH III period marked by the appearance of fine Grey Ware and a new shape repertoire dominated by S-profile vessels.

The preliminary typological, quantitative and macroscopic study resulted in the definition of 9 large, potentially local groups of coarse, semi-coarse, semi-fine and fine wares. A further small group of Talc Ware, usually related to the western Cyclades, was selected for analysis to test possible correlations with the talc-schist deposits that have been spotted on the north-west slope of the acropolis. In addition, 2 fragmentary pithoi were sampled in order to test the common assumption that large storage vessels are indicative of local production.

The petrographic and chemical analysis resulted in 3 local fabric groups (coarse to semi-coarse metamorphic FG1 and semi-coarse to semi-fine metamorphic FG5, both characterised by quartz, and mica and phyllite/schist fine silicate with white mica FG8), 2 possibly local or regional fabric groups (medium carbonate and metamorphic FG6, corresponding with one of

the pithoi, and fine silicate FG7 characterised by the presence of serpentinite) and 3 non-local coarse and semi-coarse metamorphic fabric groups (Greenschist, Blueschist and Talc Ware).

These results allows to characterise, both compositionally and technologically, local products at Eretria as well as some imported vessels associated to similar technologies. Despite evident changes through time in the appearance of the vessels, continuity mainly characterises the production of local wares. A diachronic examination of the material shows that both fine and coarse local EH III wares are made of the same clay paste recipe as those of EH II but clearly differ in terms of shaping, surface treatment and firing. However, a significant part of the EH II coarse ware is imported from the western Cyclades or South Euboea, unlike the EH III coarse ware that looks exclusively local. Interestingly, the Anatolianising fine ware of late EH II is made of local clay, while typical central Aegean shapes such as sauceboats appear to be non-local.

Analysis of potential raw materials for pottery production in the vicinity of Lefkandi, Euboea

WHITBREAD Ian K. (University of Leicester, UK), MÜLLER Noemi and KIRIATZI Evangelia (The Fitch Laboratory)

Recent excavations at Lefkandi have concentrated on settlement remains from the Late Bronze Age to the beginning of the Archaic period. The considerable quantities of pottery recovered raises several questions about the technological properties of local ceramic products. To what extent can they be characterised by their fabrics? Can potential sources of raw materials be identified in the region with the aim of reconstructing the technological choices made by local potters?

Previous analyses of Lefkandi pottery have been mainly concerned with fine ware production and its relationship to the major clay deposits at Phylla. In contrast, the current study focuses on coarse ware. It reports on petrographic and WD-XRF chemical analysis of the principal LHIIC and EIA coarse ware fabrics identified at the site to establish a frame of reference for Lefkandi coarse ware characterisation. It also summarises the variety of potential raw materials sources in the area of the site and evaluates evidence for potters' choices in the selection of clays and temper used in coarse ware production. Furthermore, comparisons are drawn with analogous data recently acquired from the analysis of pottery from neighbouring Eretria and raw materials sampled from across southern and central Euboea and the opposite coast of Attica, in the context of the latter project.

Preliminary results have identified a range of phyllite-quartzite fabrics that are consistent with local production. Pottery with serpentinite fabrics may have a local or regional origin, whereas distinctive Whiteware and "granitoid" fabrics were probably imported. Some local clay samples overlap compositions of the phyllite-quartzite fabrics, but clay samples from volcanic deposits do not match examples of pottery containing weathered volcanic inclusions.