Early Iron Age Pottery: A Quantitative Approach

Proceedings of the International Round Table organized by the Swiss School of Archaeology in Greece (Athens, November 28–30, 2008)

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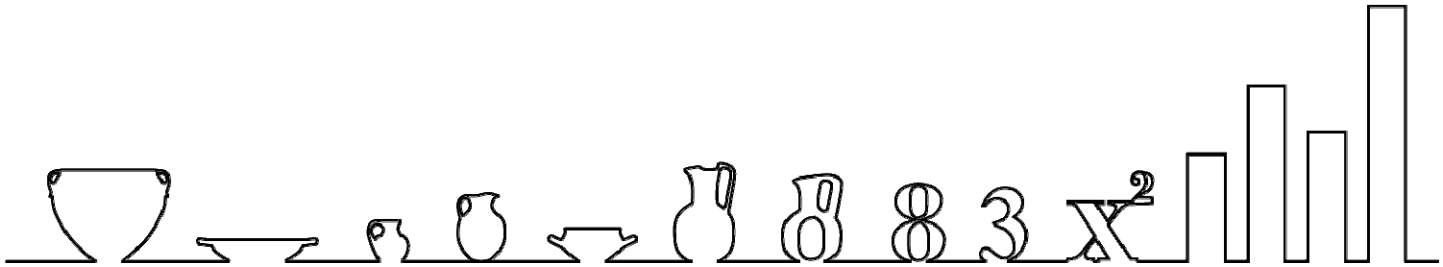

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INTRODUCTION

Samuel VERDAN

Quantitative approaches in ceramology are gaining ground in excavation reports, archaeological publications and thematic studies. Hence, a wide variety of methods are being used depending on the researchers' theoretical premise, the type of material which is examined, the context of discovery and the questions that are addressed. This diversity of approaches is certainly beneficial as it enriches the scope of research but it has disadvantages, too. For example, quantified data, as published today, are not always easy to interpret. In addition, the heterogeneity of data made available often impedes comparison between two different sites. Consequently, a better coordination is advisable and this is what prompted us to bring together researchers with experience in the field of quantification of Early Iran Age (EIA) ceramics. The round table that took place in Athens on November 2008 was therefore intended to offer the participants the opportunity to present a selection of case studies on the basis of which methodological approaches were discussed. Eventually, our aim was to define a set of guidelines for quantification which would prove to be of use to all researchers.

The first part of this volume is devoted to a presentation of these case studies. The contributions, which also include theoretical considerations, have been grouped by theme according to the different archaeological contexts examined (e.g. religious, domestic and artisanal or funerary). As we shall see, the questions addressed and problems encountered tend to pervade from one paper to the next, especially when it comes to sanctuaries. Whether it is at Isthmia, Ephesus, Kalapodi or Olympia, researchers attempt to infer religious activities on the basis of relatively limited ceramic assemblages.[1] The uses of quantification appear more varied in settlements studies. At Delphi and Oropos, for example, the function of the artefacts found in a limited number of buildings is emphasised, whereas in the Chalcidice peninsula, research draws attention to the commercial relationship between local production and imports from central Greece.[2] The contributions on Crete and Naxos also provide valuable insights into grave goods, for instance.[3] Theoretical issues are presented in four different articles dealing with counting methods at Kalapodi and Tenos, statistical tools at Lefkandi and classification of local pottery at Gortyn.[4] Finally, a paper based on the results of an archaeological survey carried out in Magnesia and Boeotia, helps to situate this project on a broader regional scale covering all the archaeological contexts mentioned above.[5]

[1] See following papers by C. Morgan, M. Kerschner, I. Kaiser *et al.*, and B. Eder.

[2] See papers by J.-M. Luce, V. Vlachou and S. Gimatzidis.

[3] See papers by A. Kostonas and X. Charalambidou.

[4] See papers by S. Strack, J.-S. Gros, D.A. Mitchell and I.S. Lemos, and E. Santaniello.

[5] See paper by V. Stissi.

GUIDELINES

The case studies discussed in this volume are extremely edifying. They underline a wide range of themes that can be investigated by means of ceramic quantification and eventually state the obstacles strewn across the path of this type of approach. One of the problems, as we have already mentioned, is the diversity of the quantification methods that are currently being used. Besides, another difficulty is the relatively limited quantity of data available today. Only a few publications provide accurate figures on ceramic counts and, when they do, the assemblages considered are often small. In order to address some of these issues, we propose some guidelines to the quantification of ceramics at the end of this volume. We believe that these may facilitate the researchers' endeavours and prop up the systematic use of quantitative approaches whenever it is possible. In the end, the use of standardized counting methods should ensure that quantified data remain comprehensible to all archaeologists.

When we organized this round table meeting we had in mind a similar event held in France in 1998 where many French-speaking ceramologists were brought together. On this occasion, they came up with a protocol recommending and defining a common quantification method (Arcelin and Tuffreau-Libre 1998, 141–157).[6] Initially, our aim was to generate a document along the lines of that protocol, but applying more specifically to EIA ceramics in Greece. This somewhat restrictive standardization of working methods did not win the approval of all the participants at the round table. We have therefore kept these guidelines relatively open and the reader shall find at the end of this volume a number of recommendations concerning quantification practices (see p. 165 *sqq*).

WHY THE EARLY IRON AGE?

Since quantitative approach encompasses pottery from various periods and places, for which a general methodological clarification would be of use to many researchers, why then did this round table focus exclusively on the EIA? The first reason is personal as Euboean and more widely Greek Geometric pottery has been our main area of research for several years (Verdan *et al.* 2008). However, this choice was also grounded in more scientific reasons since the Geometric period is a field of research with its own specificities. For instance, studies of emerging sanctuaries

[6] Review in AJA 104.2, 2000, 377–378 (K.W. Slane).

have made use of a quantitative approach, as the following presentations on Isthmia, Ephesus, Kalapodi and Olympia illustrate clearly. Moreover, Geometric pottery presents a few characteristics, such as categories, shapes but mostly decoration, which justify a separate treatment. The recording and counting of geometric patterns, for example, require methods that may not necessarily be relevant to later material.

Several times during the Round Table the necessity of elaborating an appropriate terminology for EIA pottery and the need for a multi-lingual lexicon came up. In order to address these two issues, a preliminary version is given in appendix. It provides only basic elements like categories and shapes of vases.

Finally, it goes without saying that if the papers in this volume deal primarily with EIA in Greece, the methodological considerations developed here will assuredly interest researchers working on different periods and areas, as well.

QUANTITATIVE APPROACHES IN EARLY IRON AGE POTTERY STUDIES: AN OVERVIEW

By way of introduction, a short historical description of the quantitative approach in the field of ceramology is recalled in a few words below, retracing the significant stages of its development.

A. Outside Greece

Pottery quantification was mainly developed by archaeologists working on pre- and protohistorical periods in Europe and the United States where it was used rather sporadically until 1960.[7] A turning point in archaeological practices took place in the late 60s and early 70s when the New Archaeology created not only an interest in the application of quantification methods but also stimulated a wide range of theoretical and comparative approaches. A fair amount of these studies were led by researchers working on the Roman period in Great Britain. Clive Orton's contribution, which amounts to numerous articles on the quantitative approach, was probably the most exhaustive.[8] Apart from British studies, it is worth mentioning the research done by protohistorians working in the South of France, mainly by Patrice Arcelin and Michel Py. These two scholars are well-known for their studies of the archaeological site of Lattes where digging methods and material processing were carefully elaborated and published (Py *et al.* 1991, 91–94; Py 1997, 133–134; Py *et al*. 2001, 11–13).[9]

This represents the two main streams or 'schools' in Europe, each having its own specificities and area of expertise. The former favoured rigorous quantification methods based on precise measurements calibrated with mathematic tools, while the latter used a more pragmatic approach, giving priority to techniques that could be easily and quickly implemented on excavation sites.

B. In Greece

In the field of Classical archaeology, the quantitative approach to pottery has not been particularly significant due to the traditional scope of research in this area. Vases were first considered to be objects of art and submitted primarily to stylistic analysis. Their rather rapid stylistic evolution was meant to provide relative dating and chronological sequences. Hence, the criteria taken into account were qualitative rather than quantitative.

There are, however, a few early examples where a quantitative approach found its way into post excavation analysis and published reports, mainly in the works of prehistorians such as John Davies Evans and Colin Renfrew who worked at Knossos and Saliagos during the 60s (Evans 1964; Evans and Renfrew 1968, 34 sqq; Evans 1973). Their publications have stressed the importance of taking into account material finds as a whole and to present data in visual terms (e.g. graphs).

EIA studies show the same trends as Classical archaeology, for it was essentially interested in the style of Geometric pottery, in order to establish a chronological frame and to characterise regional productions. However, it should be noted that these studies have relied primarily on material excavated from necropolis where elaborate quantification methods were not required since offerings found in graves represent the 'real population' of objects and not just a sample of it. Besides, they are usually extracted unbroken and not randomly fragmented. Although counting artefacts from funerary deposits is not too problematic, it should not be an excuse for not synthesizing data for quantitative analysis. For all these reasons, neither publications on cemeteries, like the one in the Kerameikos, nor major studies like those conducted Desborough's (1952) or Coldstream's (1968) have resorted to quantification of large groups of pottery.

This situation started to change in the early 80s following the impetus from the so-called 'Snodgrass School'. The Cambridge professor was an advocate of some New Archaeology ideas (Snodgrass 1985) and called for the use of quantitative analyses in EIA studies. In his study retracing the formation of the Greek *polis*, he used graphs to show the demographic growth rate between the Protogeometric and the Archaic periods (Snodgrass 1980, 22–23). Ian Morris undertook the analysis of Snodgrass' data in a more complex way, using statistical tools (Morris 1987). Their studies, however, did not deal directly with pottery but numbers of tombs. In 1991, two researchers from the same 'school' focused specifically on pottery this time. In his *Style and Society*, James Whitley concentrated on the relationship between funerary contexts, grave goods and vase decorations (Whitley 1991). That same year, Cathy Morgan and Todd Whitelaw presented an

[7] For a detailed history of research, see Orton 1993.

[8] See among others Orton 1975; 1982; 1989; Orton and Tyers 1990; 1991; 1992.

[9] See also Arcelin and Arcelin-Pradelle 1981.

analysis of the relationship between various Argive sites according to the pottery produced in these places (Morgan and Whitelaw 1991). Although these studies were dealing with ceramic quantification in a very specific way, they also attested to a real evolution of practice which, in the end, opened up new perspectives on what could be achieved in this field.

Yet, despite this breakthrough, there has been no real synchronous development in the quantitative treatment of pottery from excavations. I know of only two examples, both in publications about settlements: Asine and Nichoria (Wells 1983; Mc Donald *et al.* 1983).

Let us first have a look at the city of Asine in the Argolid. Berit Wells' book contains a series of well-known graphs showing the frequency of categories, shapes and patterns (Wells 1983, 125–136). At first glance, the information seems abundant but the reader is warned that the graphs represent only the ceramics that were catalogued and which account for approximately 10% of the collected material (*id*., 125). One may wonder what these figures represent then: the composition of the pottery found on the site in general? Or rather the choices made by the ceramologists for the catalogue? Besides, the systematic use of graphs sometimes leads to absurd situations, such as the presentation of percentages based on a population of two items, or even just one (*id*., 131, 133). Finally, the method of quantification chosen is not commented on. Each entry in the catalogue counts as one item, as it seems, no matter if it is a complete vase or an isolated body fragment.

William Coulson's publication of the Nichoria pottery provides pieces of information that were rather different from Well's (Mc Donald *et al.* 1983, 61–116, *passim*). The count is essentially made on the basis of the typological characteristics of the pottery—a very detailed approach. As types are theoretically defined according to the morphology of the rims, or sometimes of the bases, the counts supposedly register significant elements. Having said that, counts do not always relate to the same population, for they sometimes refer solely to catalogued pieces, while on other occasions, they included a broader material of non-catalogued rims or even body fragments.[10] Besides, there is no synthetic graph by category or shape and, whereas the occurrences of types can be visualised in detail, there is no overview of the pottery on the site. Finally, information on the quantification methods is often scarce.

In other words, these examples underline two different aspects of the quantitative approach applied in EIA ceramic studies. To begin with, most of the studies mentioned above lack comprehensive information as to the methodology employed. This aspect is recurrent even in the most recent publications as if it were irrelevant to provide insights into the theoretical approach chosen. Hence, the value of the quantitative data is difficult to assess. In the end, a comprehensive overview of the pots found within a site is rarely provided.

[10] Compare for instance, in the Nichoria volume, table 3–1 (p. 64), 3–3 and 3–4 (p. 72–73).

A decade later, the publication on the Toumba building in Lefkandi (Catling and Lemos 1993, 147–160) shows an apparent shift in the practice of and approach to ceramic quantification. Here, the presentation of the quantified data was preceded by a thorough commentary about the objectives and the methods chosen (*id*., 5–8, 147–148). The aim was to proceed to a statistic analysis of the whole pottery assemblage by recording as many variables as possible (e.g. category, shape and decoration). To reach this goal, various modes of quantification were implemented, whether by mainly weighing and counting sherds but also by counting bases of vessel specifically. The array of quantification modes implemented in this study is very interesting because it allows a comparative approach of the results. It is the first time that such bounteous data were put together. All the available data were carefully analysed in order to define the profile of the assemblage, especially as far as morphology and decoration of each shape were concerned. A commentary about the function of the pottery is also proposed (*id*., 153–154). However, it could not be related to the function of the building itself, given the fact that most of the material was found in the landfill covering the structure (*id*., 3–5, 91). It might seem paradoxical to go at such lengths to obtain precise information on material whose primary context is unknown. Yet, the quantitative approach seemed particularly justified by the fact that the discovery context was confined to a single edifice but also by the large quantity of pottery that was unearthed (about 26'000 sherds). As put forward by the authors of this study, their work did not provide comparative references with the data obtained from other sites for the obvious raison that none were available (*id*., 147–148). In 1990, the statistical analysis of Toumba was still an unique case study.

It was only in the late 1990s that an interest in the quantitative study of EIA pottery started to grow. Recently, archaeologists have conjointly expressed, at both conferences on Greek pottery and Classical archaeology, the necessity of conducting quantitative analyses on ceramic assemblages (Arcelin 1999; Stissi 1999). Publications released over the past ten years cannot be listed here. Some of them were written by the same researchers who took part in this Round Table and can be found in the bibliographical references given in the following papers.
The contributions collected in this volume offer a wide range of applications in the field of ceramic quantification but do not pretend to be exhaustive. They highlight the problems that were commonly faced and the solutions implemented. But above all, they give an incentive to explore new paths in the study of ceramics.

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