

Atlas of sites for the production of ceramics: objectives for a publication and a “Mediterranean” project

1. The Atlas and the “*Immensa Aequora*” Project

Ceramics, as has been noted, are an important indicator for archaeologists; indeed, they allow scholars to determine dates, reconstruct trade relations between different regions, and gauge the level of technological development in ancient society.

Ceramics produced in South-Central Italy played a prominent role in Mediterranean trade, serving as containers for foodstuffs (wine most of all, but also oil, *garum*, fruit, and alum), and as merchandise themselves. Archaeological research, however, has not always treated the areas of manufacture (kilns and artisan quarters) with the attention they deserve. “Production and trade archaeology” as a field of research is fairly recent. Reports of ancient centers of production for ceramics, moreover, are not always easy to trace, being dispersed among specialist or local publications, which were until recently difficult to collect.

Already in the 1960s, Nino Lamboglia, summarizing the problematic state of research on Roman ceramics, wrote: “for Campanian ceramics, just as it was 50 years ago, in reality it all still comes down to the *sigillata*: when identified and subdivided into fundamental types at the edge of the Roman world, and in the fields of the German and British *limes* above all, the *sigillata* become much harder to picture in the very heart of their origin, that is, Italy herself.”¹ There is relatively little research on the regions and methods of production for ceramics in Central Italy. In reviewing the study of ceramic production, the lack of work on kilns is striking; this differs in the case of other areas, mostly on the fringes, for which surveys and studies on the technology of production of ancient materials have already been done.²

The idea for the Atlas and, more generally, for the whole *Immensa Aequora* project, for which the Atlas was the first phase, was conceived a few years ago, during preparations for my thesis in *Habilitation*, focusing on the production of ceramics in Rome and around the city.³ At that time, I had collected numerous data on the areas of ceramic production in Lazio and in Campania, which then remained jumbled together, in unedited notes, and later in the Atlas, although I only touched upon them there.

At the same time, through discussions with Maurice Picon, who had brought numerous fact-finding missions in Italy, aimed at identifying kiln sites and archaeometric studies on Italic ceramics, it became clear that there was a need to better focus on the situation of production at some prominent sites in South-Central Italy, by collecting information on artisan quarters. In fact, these are the very data that constitute the basis that is indispensable for conducting laboratory studies aimed at reconstructing the economy and trade relations in a given area.

With the launch of the FIRB project, **Immensa Aequora** “*Ricostruire i commerci nel Mediterraneo in epoca ellenistica e romana attraverso nuovi approcci scientifici e tecnologici* – Reconstructing Production and Trade in the Mediterranean Sea in the Hellenistic and Roman periods using new scientific and technological approaches,”⁴ which focused on the areas of production and the ceramics manufactured between Etruria and Campania, and on their circulation in the Mediterranean, the opportunity presented itself to fill in some of the gaps in research, at least partially.

The *Immensa Aequora* project focuses on the economies and trade of the ancient world, and in particular on the phase spanning between the Fourth century B.C. and the First century A.D., and works through the study of material culture in key areas of the Italic peninsula and the use of laboratory analyses applied to ancient ceramics (www.immensaequora.org).

Research on the production and circulation of ceramics in South-Central Italy has progressed a little differently than usual, leaning towards a multidisciplinary approach. The chosen area is deliberately large, just like the chronological spectrum: in fact, it includes the last three centuries of the Republic, and the First century A.D., with functional expansions into research on the preceding and following centuries (mostly related to the Fourth century B.C. and the Second century A.D.). Thus, the period was chosen with the most flourishing and growth of the Italic artisanal industry.

Within the project, the Atlas was succeeded by the realization of the **Immensa Aequora Database**, which provided access to various types of information (archaeological, epigraphic, archaeometric) via six search paths, by

which the data from the Atlas can be accessed.⁵ The purpose of this database is to provide available, and already edited, data instantly, with the ability to also cross-reference them.

Much has already been written on the necessity of organizing databases for archaeometric data, that is, not assembling data on the spot, but compiling it based on historical and archaeometric themes already considered:⁶ the objectives and suppositions remain valid, although, unfortunately, since the date of publication of the article (2002) not much has changed in the field of these studies.

New archaeological and laboratory research, some of which is still on-going, has made it possible to complete and expand investigations. The main goals of these investigations are:

- to call attention to the areas of ceramic production that play key roles in the area of the Tyrrhenian.
- to determine the types of ceramics that were widely circulated.
- to highlight the methods of work employed in the ceramics workshops.
- to investigate the economic structures used in production and distribution.
- to establish eventual connections between technological development and socio-economic changes in some sites/contexts.

A further objective is to place archaeological research on material culture into the context of the wider debate on the economic history of the Hellenistic and Roman ages.⁷ Subjects as laborious as these can be tackled only by thinking on a large scale, and gradually, by following up on intermediate goals, becoming more specific and refined.

1.1. Objectives of the Atlas

The goal of the Atlas is to collect, for the first time, edited data (as well as some unedited data) related to sites in which ceramics were produced in the Hellenistic and Roman ages (in some cases, also in preceding epochs and during Late Antiquity).

The collection does not pretend to be exhaustive, and is in fact conceived as an “internal” archive of the work produced by the FIRB project *Immensa Aequeora*, to which we have already alluded in the previous section,⁸ and whose main goal was to further elaborate the archaeological and archaeometric research that has been carried out in the principal sites of production that are known.

Research has been concentrated in some regions, which played an important role in the production and exportation of ceramics and foodstuffs during the period being considered here, those being Etruria, Latium, Campania, and Sicily.

The make up of the work group, which has benefited from invaluable collaboration with Caterina Coletti and Stefania Giunta, also thanks to the assignment of some contracts,⁹ has allowed it to organize a completely structured investigation. In some cases, the entries are syntheses of territorial work, or less frequently, as in the case of Vasanello, of dissertations given at La Sapienza, thanks to collaboration with the relevant Superintendencies.¹⁰

The hope is that the Atlas can serve as a valid aid for archaeologists active in the area of the Mediterranean, for whom it is intended to offer a survey of the areas of production in Italy, in particular of the artisan quarters and also a summary of the forms produced at each site, providing specialists, but also young archaeologists, an aid to orient themselves in the distinctions between the ceramic products from some diverse sites.

One fact is indisputable: the volume of facts collected makes it possible to read the history of production and economics in some important areas in a deeper and more structured way, especially during the Roman period. Because of the size of this work, it was decided to leave the interpretation of the data, along with critical review, that was gathered up to future publications.

1.2. Organization and Structure of the Work

The sites of production are entered individually, by region and province; the **entries** collect the fundamental information on a given site, but also leave room to reconsider the different classes of ceramics and their significance to archaeological studies and to the economic history of the area in question.

The **illustration section** features a careful selection from illustrations of materials produced in individual sites, which are reproduced according to typology. **Graphic data**, pertaining to the stamps left on the ceramics, were also collected, being fundamental for reconstructing a picture of the organization of production in different geographic areas, and for identifying the figures involved in production and trade activities, particularly in the Roman period.

A part of the Atlas is made up of a collection of information on **shipwrecks** that transported the ceramics produced in workshops in South-Central Italy to the markets of the North-West Mediterranean in particular, between the Fourth century B.C. and the First century A.D.

The **bibliographical collection**, carried out for the creation of the Atlas, provides a survey of the principal specialist publications related to each site.

1.3. The Shipwrecks

A survey of the principal wrecks that transported goods and ceramics coming from the South-Central Tyrrhenian coast of Italy, based on bibliographic data, gives an idea of the whole of the circulation of products from Italic workshops.¹¹ The areas considered in the review of shipwrecks are Liguria, Tuscany, Latium, Sicily, Spain, and Southern France.¹²

The wrecks are organized in a table, and the lists are certainly not complete; the data from the most recent publications, those whose summary publication does not allow for deeper investigation into the area of origin of the goods they carried, and those that did not yield finds are missing.

Obviously, a direct review of the loads from shipwrecks in the Western Mediterranean, above all those coming from South-Central Italy, would be very useful and, as much as possible, and at least partially, such a review has been launched for those spanning the Third century B.C. and the First century A.D., with the hope of verifying, also with the help of some laboratory methods, the origins of the ceramics that were being transported.¹³

Simply by connecting the traded goods and their containers to possible areas of production and origin, it is possible to try to reconstruct the privileged relations between areas, as well as the type and quantity of the goods being transported, the identities of the merchants and their spheres of activity.

2. A Mediterranean Prospect for Interdisciplinary Research on Roman Production and Trade

The Study Center for Material Culture in the Mediterranean at Ostia: Interdisciplinary Research and Training.

The initiatives collected within the *Immensa Aequeora* project constitute a base for an expansion of research on the reconstruction of Roman trade through the study of finds, ceramics in particular, in Italy and the Mediterranean.

Ceramics from the principal artisanal quarters operating in the area of South-Central Italy have been identified in the production centers, even in the lab; such facts have been used to identify the origin of materials found in sites of consumption and on shipwrecks. The methods of investigation are diverse and intertwined: they are typological/archaeological, epigraphic, macroscopic, and archaeometric.

The archaeology of production and trade is often talked about but new, tangible findings, ones obtained thanks to investigation on finds are still few, relative to what such studies could actually offer. The use of laboratory methods, whose potential for studies of this type is great, have not rather reached the necessary level of maturity. Because of this, the investigations that have been undertaken have a particular value, even if they require further development; it is hoped therefore that they can count on shared participation between groups and institutions, which is indispensable for research that is ambitious enough to claim for itself a "Mediterranean" scope.

Among the final goals for the project is also the creation of a **structure/center for research**, dedicated to the study of Roman economy and trade in the Mediterranean, in particular that of the West, through the study of ceramics which were circulated on a broad scale. Research moving in such a direction has begun in recent years as part of the project and some results are either in the process of elaboration or printing.¹⁴

The goal of this center, in whose activities groups and scholars from different Mediterranean countries might hopefully participate, is precisely research on finds, on ancient technology, and the reconstruction of trade routes, themes which will be investigated by means of archaeology and archaeometry.

An important step in that direction was the *Immensa Aequeora Workshop*; organized at the conclusion of the project, it brought together various specialists from many parts of the Mediterranean,¹⁵ to elaborate on problems related to circulation and trade in the Hellenistic and Roman ages. However, it was held even more importantly for the **creation of a study center/laboratory at Ostia**, a "symbolic" location for trade in Roman Italy, thanks to the convention stipulated between La Sapienza and the Archaeological Superintendence of Rome-Ostia, The goals of this center include research, but also the training of specialists in material culture. The great quantity of data, both archaeological and archaeometric related to the centers of production and the shipwrecks, collected during the years that formed the basis of historical-economic objectives, may contribute to the research

and teaching activities. The center has the further goal of reflecting upon and organizing the research in South-Central Italy, expanding on themes connected to production, economics, and trade.

2.1. *The Role of Archaeometry in the Study of Mediterranean Ceramics: the Proposal for a Shared Network of Research and Training*

As I said before, the Atlas was conceived as a basis for work to which we could apply archaeological and laboratory research on the ceramics of the Mediterranean. The implementation of the research has allowed us to consider the use of the laboratory analyses, both chemical and mineralogical, and submit it to further verification for specific problems related to the archaeology of production and trade.

Already in the 90s, thanks to intense trading of opinion with some specialists, among whom I would make note of Maurice Picon, the relationship between ceramics, archaeology and archaeometry has been analyzed in numerous articles, with special attention to the state of research in Italy¹⁶.

The laboratory methods, while being very successful, did not have an impact proportionate to their potential. That is because of various reasons: the difficulty of launching complete programs of investigation, the lack of a scale of priority for archaeological themes to elaborate, and last, but not least, the difficulty of assembling groups from more disciplines than can function together. Further problems come from the scarcity of specialist, such as mineralogists or chemists, who are involved in archaeometry, since there exists no specific, institutionalized training in these fields (such training is taken individually, and is almost “self-taught,” and that goes also for archaeologists who are involved with such themes), such that there are not even jobs for archaeometrists, who are not fully recognized either by scientists or humanists; they are therefore left without a possible place to find work. For Italy, such a situation is as incomprehensible as the need is more and more evident to be able to count on specialist, who are indispensable for many important archaeological themes, such as in the case of our production and trade.

The acquisition, collection, and conservation of the data also offer even further arguments for discussion. The phase of elaborating archaeological and archaeometric data is still without adequate discussion and expansion. After reflecting on this situation, I conceived my proposal, formulated as part of the Conference on the Presentation of the *Immensa Aequeora* Project¹⁷, to create a **Mediterranean Network of Interdisciplinary Specialists**, who can join forces with other scholars and try to take on the themes of research concerning ceramics,¹⁸ which are no longer able to be covered by a single scholar.

3. Updates and Acknowledgements

The Atlas can be thought of as an work open to future expansion; the individual entries can be updated, and new entries can be added for other geographic areas. Whoever might then wish to contribute to the completion and updating of either the Atlas or data related to the circulation of ceramics, produced at sites in the South-Central Tyrrhenian coast of Italy, around the Mediterranean can write to immensaequeora.db@gmail.com.

Finally, I wish to thank my colleagues, who are too numerous to list here by name, who contributed to the realization of this work.

Particular regards are owed to Maurice Picon, to whom this work is dedicated, who, with his intelligence and skill, has passed down, to me as to others, interest and enthusiasm for ancient ceramics. His works are indispensable for the study of the ancient world, and also for laboratory analyses, which constitute an apt tool for the investigation of the field of artisanship in the ancient world.

Gloria Olcese

ENDNOTES

¹ Lamboglia 1972, p. 330

² For an example, see Swan's work on kilns of the Roman period in England, Swan 1984.

³ "Aspetti della produzione ceramica a Roma e in area romana tra il II secolo a.C. e il I d.C. alla luce della ricerca archeologia e archeometria", *Habilitationschrift, Fachbereich Altertumswissenschaften der Freien Universität Berlin*, Berlin 1997.

⁴ www.immensaaequora.org.

⁵ Olcese 2010a.

⁶ Olcese, Picon 2002.

⁷ In recent years, there have been many works and research projects published, most incredibly interesting; in many cases, however, and for different reasons, often also because of the difficulties in gathering specialist information disseminated between different types of publications, these works do not always take material culture into consideration.

⁸ A Ministerial FIRB Project, 2005-2011.

⁹ Given to doctors R. Baldassarri, C. Coletti, L. Ceccarelli, G. Picchi and E. Rivello as part of the FIRB project.

¹⁰ In the case of Vasanello, the agreement was with the Superintendence for Southern Etruria (Dr. C. Sforzini).

¹¹ The section on the shipwrecks comes principally care of Stefania Giunta, in collaboration with R. Baldassarri for the part on Sicily, and D. Asensio for that on Spain.

¹² For Sardinia, the collection is limited at this point to work on the wreck at Spargi.

¹³ The first phase covered the Aeolian wrecks, the Filicudi F, and the Secca di Capistello wreck, in collaboration with the Museo Eoliano Luigi Bernabò Brea; the first reports from these wrecks and the archaeometric investigations into the ceramics from the load were published in Olcese 2010. Other wrecks are in the process of revision, thanks to the generosity of Luc Long from DRASSM, in Marseilles.

¹⁴ Such as the publication of the load of the Filicudi F or the *Atlas of ceramic fabrics* from principal production sites in South-Central Italy, Olcese *et al.* 2004, Olcese, Thierrin-Michael 2009; Olcese 2009b; Olcese *et al.* 2010; Olcese, Capelli 2011.

¹⁵ The conference was held at Sapienza Università di Roma, Department of Archaeological Sciences, from the 24th to the 26th of January, 2011.

¹⁶ Olcese 1993; Olcese, Picon 1995; Olcese 2000; Olcese 2006; Olcese 2009a; Olcese 2010b.

¹⁷ January 24th to 26th, 2011, Sapienza Università di Roma, Department of Archaeological Sciences.

¹⁸ Among these I shall specifically call attention to the discussions with Miguel Angel Cau of the Ereb of Barcelona, with it would be good to start a common project, shared with colleagues who specialize in analogous themes in different areas.