

Organizations of Production and Crafts in Pre-Roman Italy: An Introduction

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Ancient economies and economic systems of the Mediterranean basin – ranging from small households to entire world systems – have been studied quite profoundly by classical archaeologists, ancient historians and prehistorians. The 19th International Congress of Classical Archaeology of the AIAC in Cologne and Bonn has shown the importance of the economy in current research and the broad range of topics and approaches involved in reconstructing ancient economies.

While economic approaches are generally becoming more important and even mainstream topics, this is not the case in research on pre-Roman Italy. Here, the term pre-Roman Italy refers to the area of the Italian Peninsula, Sicily and Sardinia during the Iron Age (from ca. 1000 BC onwards) before the ‘Romanization’ (the installation of a Roman territorial administration) and includes Etruscans, Italic cultures, as well as the ‘Magna Graecia’ (in the sense of indigenous populations and their colonial encounters with the Greeks). Until now, research on pre-Roman Italy has not focused a lot on economy and if so, mostly in very specific contexts:

- the specialization of crafts and production as well as the division of labor in this context and as an indicator of urbanization processes,¹
- specific forms of production, such as agriculture,² metal processing,³ and salt production,⁴
- Greek Colonies and Greek Colonial encounters with Indigenous populations,⁵
- and consumption patterns, often the consumption of Greek pottery.⁶

However, some (mostly recently published) general investigations and overviews exist and may lead to a rise in attention to economies in pre-Roman Italy.⁷ Due to this situation, four members of the study community ‘Etruscans and Italic Cultures’ of the ‘German Association of Archaeologists’ (Arbeitsgemeinschaft ‘Etrusker und Italiker’ des Deutschen Archäologenverbandes)⁸ formed this panel to discuss aspects of the economy of pre-Roman Italy on the basis of their projects and work.

We chose our topic, because recent excavations and investigations in the field of workshop structures, such as at Gabii,⁹ Pithekoussai,¹⁰ Kroton,¹¹ Lokroi Epizephyrioi,¹² Naxos,¹³ Selinunt¹⁴ and Kyme-Cumae,¹⁵ have provided a range of new data that is stimulating a fruitful discussion on the organization of production and crafts in pre-Roman Italy. The publication of our panel therefore focuses on this particularly interesting and topical research topic.¹⁶

The aim of the following four articles is to contribute to an intensified debate on geographical, chronological and functional patterns in the organization of crafts and productions by discussing current case studies and methods:

Robinson Peter Krämer analyzes the possibility of an Etruscan ‘ritual economy’ based on the archaeological evidence for organizations of production and crafts in Etruscan sanctuaries between the 8th and the 5th centuries BC. Ancient sanctuaries were important economic nexuses because of their storage function and religious services, contributions to the production of goods and function as market places and centres of knowledge and communication. Krämer discusses three economic activities: (1) metal processing, (2) textile production; and (3) trade and the standardization of weights. There is only scarce evidence of sacred embedded metalworking. In Satricum, Tarquinia and Gravisca clear traces of metal processing have been found. Krämer postulates a strong connection between the organization of metal processing in the city-state of Tarquinia and in the city-kingdoms of Cyprus. According to him, the ore of the Tolfa Mountains was worked and stored under sacred protection in the sanctuaries of the city-state of Tarquinia.

Context, spatial analyses and quantifications of typical tools for textile production may help to distinguish textile tool finds as parts of a sacred embedded production or as votive offerings. On this basis, textile production is very likely in the Etruscan sanctuaries of Caere, Ortaglia (Peccioli), Tarquinia, Veii and Poggio Colla (Vicchio) with a clear connection to female deities. Etruscan sanctuaries may have controlled specialist textile workshops. These workshops were attached to the sanctuaries and produced high quality textiles for ritual garments for statues and cult personnel, as well as for Etrusco-Italic linen books.

Scales and weights are rare finds in Etruscan sanctuaries, though a few have been excavated in Caere, Fucoli, Satricum and Tarquinia. Perhaps the weights functioned as a reference system in the city-states. Krämer postulates that these Archaic sanctuaries may have had a key function regarding the calibration, standardization and internationalization of weight systems. The Fanum Foltumnae near Orvieto and the sanctuary of Sant’Omobono next to the Forum Boarium in Rome may have functioned as market places for local and regional trade.

Based on these case studies, Krämer reconstructs Etruscan sanctuaries of the 8th–5th centuries BC in the sense of a ritual economy as retainer workshops, which exhibited a high degree of organisation, embedding and centralisation, and were strongly controlled by sacred institutions.

Raffaella Da Vela focuses on ancient ergonomics. She considers the possibility of reconstructing the spatial analysis of ancient pottery productions within the methodical framework of ergonomics, the study of the design of physical work, especially components of the tangible workplace environment that comprise the working conditions of the labourer. Da Vela compiles parameters of ergonomic research in order to make the methods useful for comparative analyses of pre-Roman workshops. The parameters are tested in a case study of an Etruscan Archaic pottery workshop in Florence in the area of the Cinema Apollo in the Via Nazionale.

She analyzes the dimensions, the inner spatial organization, and the embedding of the workshop in its surroundings. A single kiln allows for the analysis of the coordination between design, size, service level, ventilation option and orientation of the kiln mouth and the minimisation of the immediate risk of injury and long-term health risk. The archaeological evidence from a workshop area grants insights into the workflow, the distances and the visibility of different working spaces and the ventilation options. The known surroundings of a workshop offer the possibility to prove the position in or in relation to the settlement, the distance to houses or other structures, to the raw material, and to the space of the distribution of the products, which Da Vela refers to as 'community ergonomics'.

Ergonomic approaches offer new potential for the study of production contexts. The ergonomic analysis provides a way of separating local peculiarities and common necessary conditions, and of observing the transfer of know-how in the pre-Roman world as well as in the Mediterranean basin.

Nadin Burkhardt argues that we cannot simply assume the existence of production quarters in the early period from the 8th to the 7th century BC. For the purpose of the argument, she presents the known archaeological remains and finds of the so-called metal working quarter of Mezzavia of Pithekoussai, the first Greek settlement in the west. Afterwards, Burkhardt compares these structures to similar and contemporary early production places in mainland Greece, such as Oropos, and in other western Greek settlements, such as Locroi Epizephyrioi, Megara Hyblaia, Naxos and Selinus. The article includes several different questions: How was such an early area of metal production constructed, and which functions were included? What can we learn about the structure of the working areas and about the use of space there? With what kind of urban structures and functions were such working places combined? Do the analysed settlements show a discernible development trend from the 7th to the 6th century BC?

The production sites of the 8th and 7th century were not permanent installations with their own building structure. In a way similar to the production of ceramic, the production of metals was part of the *oikos*. The position of the *oikos* with metal production indicates a specialisation of selected *oikoi*. The relatively small installations with up to three kilns were located inside the settlements as part of the habitation area or in direct connection to a dwelling. There were no metal production quarters as in later periods. In parallel to this model of production in familial workshop, larger specialized factories or a kind of workshop consortium developed in some Greek colonies during the 7th century BC.

Sophie Helas analyzes and reconstructs the location, the working conditions and the techniques used at a recently excavated early Iron Age metal workshop at Gabii, twenty kilometers east of Rome. This workshop has been excavated in the eastern part of the settlement, on the arx and directly behind the fortification wall of Gabii. The lack of slags and melting structures or traces of iron working lead Helas to interpret this workshop as a bronze foundry with two construction phases. The younger structures

can be dated by pottery sherds found in the collapsed remains of its superstructure to Latial period IIB–III, so the workshop was used in the 9th and in the early 8th century BC.

A circular kiln, set on a platform made of stone slaps, was installed in the first phase. In the 9th century BC, the fortification wall was erected and the kiln was now positioned directly against the rampart. In its second phase, the kiln was formed into a rectangular base with a dome, a tunnel-like stoking chamber and an air flue opposite it. It was a horizontal kiln with combustion channel and stoking chamber arranged in a row (downdraft kiln). Because of the high operating temperature of over 600° degrees Celsius and the lack of specific small finds attesting the production of ceramic vessels, Helas interprets the kiln having been used in the manufacture of casting models for metal production.

A casting pit in the shape of a semi-circular structure was installed to the east of the kiln, thus forming a kind of basin-like pit filled with fine sandy layer. It was set against the city wall and must have been part of the second phase of the workshop. A third installation was found directly to the south of the casting pit and has been interpreted as a drying chamber: A circular substructure formed a low platform of 2.5 m diameter; two long rows of stones were added at the western side. These parallel walls formed a kind of ventilation corridor and made the structure useable as a drying cabinet. She assumes that the freshly shaped terracotta moulds for the lost-wax technique of the casting may have been slowly and carefully dried there. That raw metals were melted here is indicated by a piece of fired clay with a hole for the nozzle of bellows. In the upper layers of the workshop, a fragment of a sandstone casting mould was found, originally made for five different objects. This shows that non-expendable mould casting and the so-called lost-wax casting technique were practiced in this workshop.

The four papers share the topic of the economy in pre-Roman Italy and show that a changed focus with its own framework of questions and methods might help to generate new results and perspectives. The close look at materials and structures of the archaeological remains, against the background of economic conditions, allow new interpretations. Our four case studies hopefully provide new insights that might stimulate a new discussion and new perspectives about economic systems in pre-Roman Italy.

Votive offerings and findings in ancient sanctuaries should not only be interpreted as components of rituals and cult actions, but may also be analyzed to answer broad economic and socio-political questions. A pottery workshop with kilns might represent ancient ergonomics and workplace environments. Early contexts of production and metal processing could be interpreted in the sense of urbanization developments and household/*oikos* organizations, rather than as anachronistic, specialized working quarters.

In this sense, it might be possible to generate guidelines or to show at least flexible patterns by means of examples and case studies. We hope that our examples lead to an intensified discussion about the economy in pre-Roman Italy and that the transfer of known patterns facilitates the analysis of hitherto less known or difficult to interpret contexts.

Notes

- ¹ Damgaard Andersen 1997; Nijboer 1997; Nijboer 1998; Nijboer 2004; Fulminante 2014.
- ² Cifani 2009
- ³ Zifferero 2017; Nijboer 2018.
- ⁴ Attema – Alessandri 2012.
- ⁵ Donnellan et al. 2016; Zuchtriegel 2018.
- ⁶ Reusser 2002; Bentz – Reusser 2004; Kistler 2014; Bonomi – Guggisberg 2015; Kistler et al. 2015.
- ⁷ See for example: Nijboer 1998; Viglietti 2011; Cifani 2016; Becker 2017a; Becker 2017b; Becker 2017c; Nijboer 2017a; Nijboer 2017b.
- ⁸ <<https://darv.de/arbeits-gemeinschaften/etrusker-und-italiker/>> (17.08.2019).
- ⁹ Helas in this volume with further references.
- ¹⁰ Burkhardt in this volume with further references.
- ¹¹ Marino et al. 2012; Marino et al. 2013.
- ¹² Meirano 2012.
- ¹³ Lentini 2012.
- ¹⁴ Bentz et al. 2016.
- ¹⁵ D'Acunto 2009.
- ¹⁶ For a general, current view at the topic, see: Bentz – Helms 2018.

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