19th International Congress
of Classical Archaeology
Cologne/Bonn
22–26 May 2018
ICCA
XIX
AIAC

Archaeology and Economy in the Ancient World

20

Strictly Economic?
Ancient Serial Production and its Premises

Panel 3.18

Arne Reinhardt (Ed.)

Propylaeum
SPECIALIZED INFORMATION
SERVICE CLASSICS

Proceedings of the

19th International Congress of Classical Archaeology

Volume 20: Strictly Economic?

Ancient Serial Production and its Premises

Proceedings of the 19th International Congress of Classical Archaeology

Cologne/Bonn, 22 – 26 May 2018

Archaeology and Economy in the Ancient World

Edited by

Martin Bentz and Michael Heinzelmann

Volume 20

Edited by

Arne Reinhardt

Strictly Economic?
Ancient Serial Production and its Premises

Panel 3.18

Propylaeum
SPECIALIZED INFORMATION SERVICE CLASSICS

Bibliographic information published by the Deutsche Nationalbibliothek:
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie;
detailed bibliographic data are available on the Internet at http://dnb.dnb.de.

Propylaeum
SPECIALIZED INFORMATION SERVICE CLASSICS

Published at Propylaeum,
Heidelberg University Library 2021.

This publication is freely available under https://www.propylaeum.de (Open Access).
URN: urn:nbn:de:bsz:16-propylaeum-ebook-704-7
DOI: https://doi.org/10.11588/propylaeum.704

Editorial Coordination: Florian Birkner, Ina Borkenstein, Christian Schöne
Editorial Staff: Florian Birkner, Mark Locicero

Layout: Torsten Zimmer, Zwiebelfisch@quarium

Cover illustration: Antikensammlung der Universität Heidelberg, inv. no. 87/1: a Tarentine terracotta model for arulae and modern impressions (photo: A. Reinhardt with friendly permission of Polly Lohmann).

ISBN: 978-3-948465-68-1
e-ISBN: 978-3-948465-67-4

CONTENTS

PREFACE

On behalf of the 'Associazione Internazionale di Archaeologica Classica (AIAC)' the 19th International Congress for Classical Archaeology took place in Cologne and Bonn from 22 to 26 May 2018. It was jointly organized by the two Archaeological Institutes of the Universities of Cologne and Bonn, and the primary theme of the congress was 'Archaeology and Economy in the Ancient World'. In fact, economic aspects permeate all areas of public and private life in ancient societies, whether in urban development, religion, art, housing, or in death.

Research on ancient economies has long played a significant role in ancient history. Increasingly in the last decades, awareness has grown in archaeology that the material culture of ancient societies offers excellent opportunities for studying the structure, performance, and dynamics of ancient economic systems and economic processes. Therefore, the main objective of this congress was to understand economy as a central element of classical societies and to analyze its interaction with ecological, political, social, religious, and cultural factors. The theme of the congress was addressed to all disciplines that deal with the Greco-Roman civilization and their neighbouring cultures from the Aegean Bronze Age to the end of Late Antiquity.

The participation of more than 1.200 scholars from more than 40 countries demonstrates the great response to the topic of the congress. Altogether, more than 900 papers in 128 panels were presented, as were more than 110 posters. The publication of the congress is in two stages: larger panels are initially presented as independent volumes, such as this publication. Finally, at the end of the editing process, all contributions will be published in a joint conference volume.

We would like to take this opportunity to thank all participants and helpers of the congress who made it such a great success. Its realization would not have been possible without the generous support of many institutions, whom we would like to thank once again: the Universities of Bonn and Cologne, the Archaeological Society of Cologne, the Archaeology Foundation of Cologne, the Gerda Henkel Foundation, the Fritz Thyssen Foundation, the Sal. Oppenheim Foundation, the German Research Foundation (DFG), the German Academic Exchange Service (DAAD), the Romano-Germanic Museum Cologne and the LVR-LandesMuseum Bonn. Finally, our thanks go to all colleagues and panel organizers who were involved in the editing and printing process.

Bonn/Cologne, in August 2019

Martin Bentz & Michael Heinzelmann

Strictly Economic?
Ancient Serial Production and its Premises
An Introduction

Arne Reinhardt

Making Sense of Repetitive Material Culture

Since its infancy, Classical archaeological scholarship has been the recipient of an immense increase of new materials, thanks to numerous excavations in the Mediterranean and to new identifications of existing collections. Already in the 18th century (and perhaps earlier), it became clear that Ancient art (primarily statuary that had survived mostly in the form of marble sculptures in Italy) included repetition.[1] A convincing explanation for this fact was soon found and agreed upon: the multiple identical versions actually date to the Roman era and thus are 'just' copies of older Greek artworks that the Romans loved to imitate.[2] This urge for repetition and seriality was thus characterized as a diachronic phenomenon, in contrast to the many synchronic repetitions in the 'minor arts'. For a long time, exceptions to this rule only seemed to exist in the form of 'Werkstattwiederholungen' (lit. 'workshop replicas'), which denoted a kind of self-quotation by the artist or his collaborators.[3] The notions of copy as a whole became hotly disputed in the later 20th century.[4] Today, not least because of the high influence that modern concepts of art exert on ancient scholarship, multiple copies with an identical date and origin no longer surprise scholars in ancient art. Indeed, it seems correct to stress the phenomena of replicas as a characteristic feature of all Classical Art.[5]

Regardless of the pros and cons of this paradigm shift, there remains a somewhat divided approach to the repetitive material culture of Classical Antiquity. This is, I suppose, because some of the old premises from the eighteenth and nineteenth-century traditions of writing art history have implicitly survived. One such division between 'minor arts' and 'real art' had a perspective which focussed more squarely on the production side than on the reception side of the art in question. According to this reasoning, the repetitiveness of toreutics and ceramics is not so surprising, since both crafts rely upon processes of impression and use the same basic technique (namely molds, at least from roughly the Dark Ages onwards).[6] Therefore, repetitiveness and seriality easily present themselves as questions of predominantly technique, division of labour, trade and commerce.

Of course, no-one would deny that these questions should not form important aspects of marble statuary too, or that bronze and marble statuary should be free from these semi-mechanical phases of work.[7] Nevertheless, ancient statuary provokes questions to a greater degree at the level of reception, for instance by asking what connotations would have been attached to the common statuary type of the 'Small

Published in: Arne Reinhardt (Ed.), Strictly Economic? Ancient Serial Production and its Premises, Panel 3.18, Archaeology and Economy in the Ancient World 20 (Heidelberg, Propylaeum 2021) 1–4. DOI: *https://doi.org/10.11588/propylaeum.704*

Herculanean Woman',; it also investigates how contemporary viewers engaged with the multiple copies of this scheme that were present at many places in the Roman Empire.[8] Even if my thoughts are bound to remain sketchy here, it becomes clear that the 'natural approach' to a Sigillata vessel or to a copy of the 'Small Herculaneum type' traditionally differ. The one typically privileges 'practical' questions, and the other focuses on prestige and values. This is the case, even though the two artefacts once existed in multiple versions and were naturally shaped by both 'sides of the coin', namely production and reception, and their mutual interaction.

Now, what is this all about in terms of the topic chosen for this 19th AIAC conference? To my mind, both fields of research are less remote from one another than one might first think. The reason for this is that both current visual studies, which takes art-historical archaeology as its traditional predecessor, and the modern archaeology of ancient economies have one major thing in common. They both offer explanations for the repetitiveness of ancient material culture. Of course, their perspectives, premises, and objectives are quite different. But they both give essential importance to ancient repetition.

Serial Production as one Pillar of Ancient Repetitive Material Culture

Surely, this statement is possible only from a very etic view point – one that regards the preserved material culture as a self-contained 'result' or 'sum', and thus probably overemphasizes the 'what' in place of the 'how'. It is a serious perspective, but still the question of the emic position remains open and this is needed to learn more about the multiple and often diverging ways that finally led to the circumstances we know today. When Session 3 offered the opportunity to take a close look at "Systems of production: land use, industry, technology, artistic production", it made sense to emphasize the internal, or emic, perspective. One step in this direction would first be to scrutinize the repetitive nature of ancient material culture in terms of serially produced artefacts;[9] a second step would characterize and scientifically evaluate this serial production in general as a form of producing material culture in Antiquity. Panel 3.18 attempts to undertake this task, whilst remaining aware that it will be possible only to shine a small light onto such a huge topic. But even if it cannot stake a claim to completeness, it has the explicit aim of responding to the constellation described above by combining both 'sides of the coin', namely the levels of production and reception. When reading the following five contributions of Panel 3.18, the reader will notice a constant shift between questions of production and questions of reception.

One final word concerns the chosen thematic emphasis. During the research for my doctoral thesis, it occurred to me that research on serial production as a topic in its own right (as presumably one of the major forms of production) seemed

relatively rare.[10] However, there is little doubt that many surviving ancient artefacts were once produced in large numbers. One reason for this lack of concentrated interest in serial production might be that it feels very familiar to our modern consumer society. When we find ourselves to be the consumers of many identical artefacts, it would seem absurd not to assume that they were produced because many people demanded them (i.e. as the logical conclusion of a certain division of labour, standardised working processes, etc.). So, on the one hand, serial production seems to be a very common thing, and perhaps it is not deemed worthwhile to filter out single series from the preserved 'pool' of ancient material culture and to characterize them. But on the other hand, relatively few attempts seem to have been made in order to approach the topic from the opposite side, namely reception.[11] For instance, one could query the whole range of possible motivations and influences that could have stimulated ancient serial production. On a case-by-case basis, it would be interesting to learn more about situations in which the production of multiple artefacts was motivated or dominated by set terms of content, ideology, and/or aesthetics.[12] How and where can we prove a close connection between a series of identical artefacts and a single commission in order to demonstrate a 'deliberate choice' behind serial production as an applicable mode of production? Of course, questions such as these are to be evaluated in the long run. For now, I hope that, by directing the focus as described, we will take one step further towards a multi-layered and comprehensive understanding of ancient serial production poised as an interplay between production and reception. A warm thank you to the contributors for engaging with interest in this perspective.

Notes

[1] A good example are the three 'Herkulanerinnen' from Herculaneum found in the early 1700s; two of the three 'Herculanean women' are replicas of the same type: Trimble 2011, 18–25; Daehner 2008.

[2] Cfr. Marvin 2008, 121–167.

[3] Cfr. Strocka 1979, 143 f.

[4] The literature on this topic is vast. Due to the very limited space, I only refer to Gazda 2002, 3–24 here.

[5] See the successful exhibition SERIAL/PORTABLE CLASSIC in Milan and Venice in recent years: Settis et al. 2015.

[6] E. g. Heilmeyer 2008, 244 f.

[7] See, for example, Mattusch 1996 and Landwehr 1985.

[8] See Trimble 2011 on this topic and Marvin 2008, 243.

[9] This bottom-up approach would require one to browse the preserved corpus and to look for identical objects of homogenous 'manufacturing origin' and date; see the approach by the author in: Reinhardt 2019, 60–65. 134 f.

[10] An important exception is Strocka 1979.

[11] Cfr. the example in footnote 8 and, at a more general level, Bartman 1988 for the related phenomenon of companion pieces in the display of copies.
[12] There are numerous material groups that fit this argument, such as portraiture, coinage, seals, etc. the question of written sources also remains interesting, see e. g. Plut., Numa 13.

References

Bartman 1988
E. Bartman, Pendants in Roman Sculptural Display, AJA 92, 1988, 211–225.

Daehner 2008
J. Daehner (ed.), Die Herkulanerinnen. Geschichte, Kontext und Wirkung der antiken Statuen in Dresden (München 2008).

Gazda 2002
E. K. Gazda, Beyond Copying. Artistic Originality and Tradition, in: E. K. Gazda (ed.), The Ancient Art of Emulation. Studies in Artistic Originality and Tradition from the Present to Classical Antqiquity, MemAmAc Suppl. 1 (Ann Arbor 2002) 1–24.

Heilmeyer 2008
W.-D. Heilmeyer, Kunst und Serie, in: K. Junker – A. Stähli (eds.), Original und Kopie. Formen und Konzepte der Nachahmung in der antiken Kunst, Akten des Kolloquiums in Berlin 17.–19. Februar 2005 (Wiesbaden 2008) 243–251.

Landwehr 1985
C. Landwehr, Die antiken Gipsabgüsse aus Baiae. Griechische Bronzestatuen in Abgüssen römischer Zeit, AF 14 (Berlin 1985).

Marvin 2008
M. Marvin, The Language of the Muses. The Dialog between Roman and Greek Sculpture (Los Angeles 2008).

Mattusch 1996
C. C. Mattusch, Classical Bronzes. The Art and Craft of Greek and Roman Statuary (Ithaca 1996).

Reinhardt 2019
A. Reinhardt, Reproduktion und Bild. Zur Wiederholung und Vervielfältigung von Reliefs in römischer Zeit, MAR 41 (Wiesbaden 2019).

Settis e. a. 2015
S. Settis – A. Anguissola – D. Gasparotto (eds.), Serial/Portable Classic. The Greek Canon and its Mutations, Ausstellungskatalog Mailand/Venedig (Mailand 2015).

Strocka 1979
V. M. Strocka, Variante, Wiederholung und Serie in der griechischen Bildhauerei, JdI 94, 1979, 143–173.

Trimble 2011
J. Trimble, Women and Visual Replication in Roman Imperial Art and Culture (Cambridge 2011).

A Case of Serial Production? Julio-Claudian "Tureen" Funerary Urns in Calcitic Alabaster and Other Coloured Stone

Simona Perna

The production and consumption of copious quantities of repetitive material culture are recognised features of Roman culture and society. Undeniably, the replication or serial production of artefacts – namely similar items sharing the same production means[1] – is found in many pre-industrial, non-mechanised ancient societies, such as Pharaonic Egypt and Classical Greece. However, it reached its peak in the Roman period. Roman pottery, tiles, coins, glass, bricks, stone sculpture, architectural elements and sarcophagi, but also most paintings, mosaics and reliefs are all classes of 'standardised' objects and artistic productions that can be quite easily categorised and thus aptly lend themselves to the study of the mechanisms of ancient serial production.[2] The latter is synonymous with standardisation, large-scale manufacturing, mass-production, and production-to-stock.[3] These modern terms have been used to explain the making of many ancient repetitive objects, particularly from an economic perspective. However, whilst these modern concepts are useful analytical tools, it is important to appreciate the many differences between ancient and modern serial production. For example, the wider socio-cultural, aesthetic, and contextual implications behind the emergence of serial production often have been overlooked. It is now acknowledged that the demand for standardised objects in Roman society was primarily a socio-cultural phenomenon determined by the adoption of a universal visual language. This was triggered by, amongst other factors, competition, emulation, conspicuous consumption, social changes, and social mobility.[4] These factors, and the now recognised importance of the role of customers in shaping the style and selecting the images of artistic productions, make it apparent that serial production in the Roman world was a more heterogenous phenomenon than anticipated, which was often motivated by much more than purely economic factors.

A case in point may be represented by the early Imperial cinerary urns carved in calcitic alabaster and other coloured stones. The sixty-five examples gathered so far are characterised by a double-handled hemispherical body with lid, pear-shaped finial and a short foot.[5] Such a peculiar shape, which I have labelled 'tureen' for its resemblance to a modern soup-bowl, began to appear in élite tombs at the end of the 1st century BC and reached a standardisation in the Julio-Claudian period (fig. 1). The apparent sameness of these artefacts, together with their repetitive features and typological idiosyncrasies, point to a potential case of serial production. The limited overall output, geographic spread and time span characterise it as a small-scale phenomenon prompted by a boom in demand in a relatively brief period of time. I argue that the tureen production responded to both aesthetic and economic factors and while these are not mutually

Published in: Arne Reinhardt (Ed.), Strictly Economic? Ancient Serial Production and its Premises, Panel 3.18, Archaeology and Economy in the Ancient World 20 (Heidelberg, Propylaeum 2021) 5–17. DOI: *https://doi.org/10.11588/propylaeum.704*

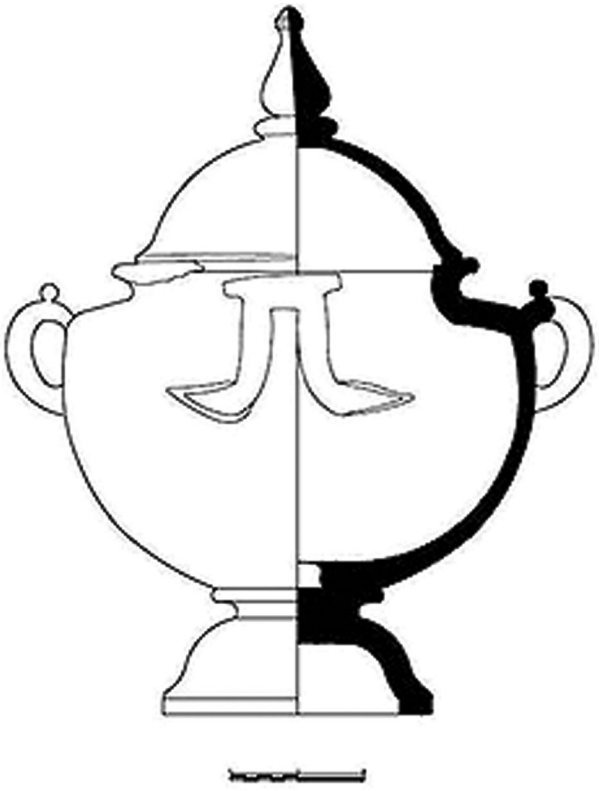

Fig. 1: Drawing of Tureen B from Rome, Museo Nazionale Romano, Terme di Diocleziano, Storage rooms; Inv. No. 531595.

exclusive, they are deeply rooted in ideological and socio-cultural aspects. To prove this point, and to further contextualise the hypothesis of a serial production, I shall illustrate the features of the tureens and discuss aspects of their semiotics, patronage, and distribution.

The Tureen Urns: Features and Semiotics

The tureen urns are characterized by a hemispheric body with a narrow neck and a horizontal, round, or straight-edged shoulder. The body varies from elongated to shallow and, depending on the width and height ratios, three main variants may be identified: A (height is more than the maximum diameter); B (height and width almost correspond to a perfect cube); and C (height being less than their diameter). The surface of most tureens is undecorated, a factor which differentiates this funerary production from other contemporary Roman stone urns. A pair of loop handles projects out from the sides and may attach either on the shoulder or on the neck of the vase. The lower attachment is typically shaped as an elongated leaf, a late Classical/Hellenistic motif

that regained popularity in the Julio-Claudian period as a handle complement for vases in metal and other materials. The lid is either conical, domed or convex and presents a pear- or teardrop-shaped finial. This latter feature so markedly characterises these urns that it seems to have been more than a mere ornament. Similar finials, often in miniaturised form, can be found on Classical Greek and Hellenistic ceramics and on late Republican archaizing metal vessels. However, the tureens' finial presents strong similarities with the tear-bottles and ointment jars that were placed next to, inside, or on top of cinerary urns. The choice of a shape with a strong funerary connotation was therefore deeply semiotic, but I argue it was also a technical one. The foot is generally convex and, like the finial, finds parallels on vases in other media. The average complete height and diameter of the tureens are 50 and 45 cm respectively, with an average weight of 20 kg and internal capacity of 5.8 lt. The thickness of the urn's body and its parts is constant: about 2 cm at the shoulder and bottom and 1 cm on the walls.[6] It may be thus envisaged that the tureen responded to a system of proportions that was based on complex geometric and mathematical calculations transposed onto stone by careful squaring. Sixty out of the sixty-five tureens are carved from a yellow, semi-translucent, and honey-coloured stone traditionally called 'Egyptian alabaster'. The reasons behind the preference for such material are manifold, and include symbolic and aesthetic factors connected to the stone's colour and origin as well as its physical characteristics.[7] Of the rest, three tureens are carved from purple porphyry, one from pink/red granite, and one from olivine basalt, all of Egyptian origin.[8]

The tureen's shape is a melange of elements which appear to be carefully selected from a repertoire of Archaic, Classical, and Hellenistic metal and pottery containers. The overall profile of the urn in fact can be assimilated to that of a volute amphoroid crater (variant A); a *stamnos* or *dinos* (variant B); a shallow lebes (variant C). Since the Orientalising period, these shapes, particularly *dinoi* and lebetes, were imbued with complex eschatological connotations and had strong connections with the ritual sphere across the Mediterranean. The 6th century BC *dinoi* from Capua were produced exclusively for funerary purposes by specialised workshops at Capua. The tureen shape, especially variant B, shows the closest formal similarities with these latter objects, which also offer the closest geographical parallels. Without implying a direct relationship or historical continuity with the past meaning and use of these vessels, I suggest that the tureen is the synthesis of these meaningful iconographic prototypes. The shape of the tureen did not need to have carried a specific meaning, and may simply be a formal choice motivated by aesthetic perceptions. Nevertheless, it is possible that the ritual and ceremonial associations of those earlier containers were not completely lost, but were somehow still perceived as both sacred and apt for the funerary context in the Roman period. Lidded tureen-like vessels featured in sacro-idyllic Second Style frescoes and their contemporary mosaics and became more frequent in the Third Style frescoes from the Augustan period. This is the time around when the coloured stone tureen urns came into use (fig. 2). I argue that

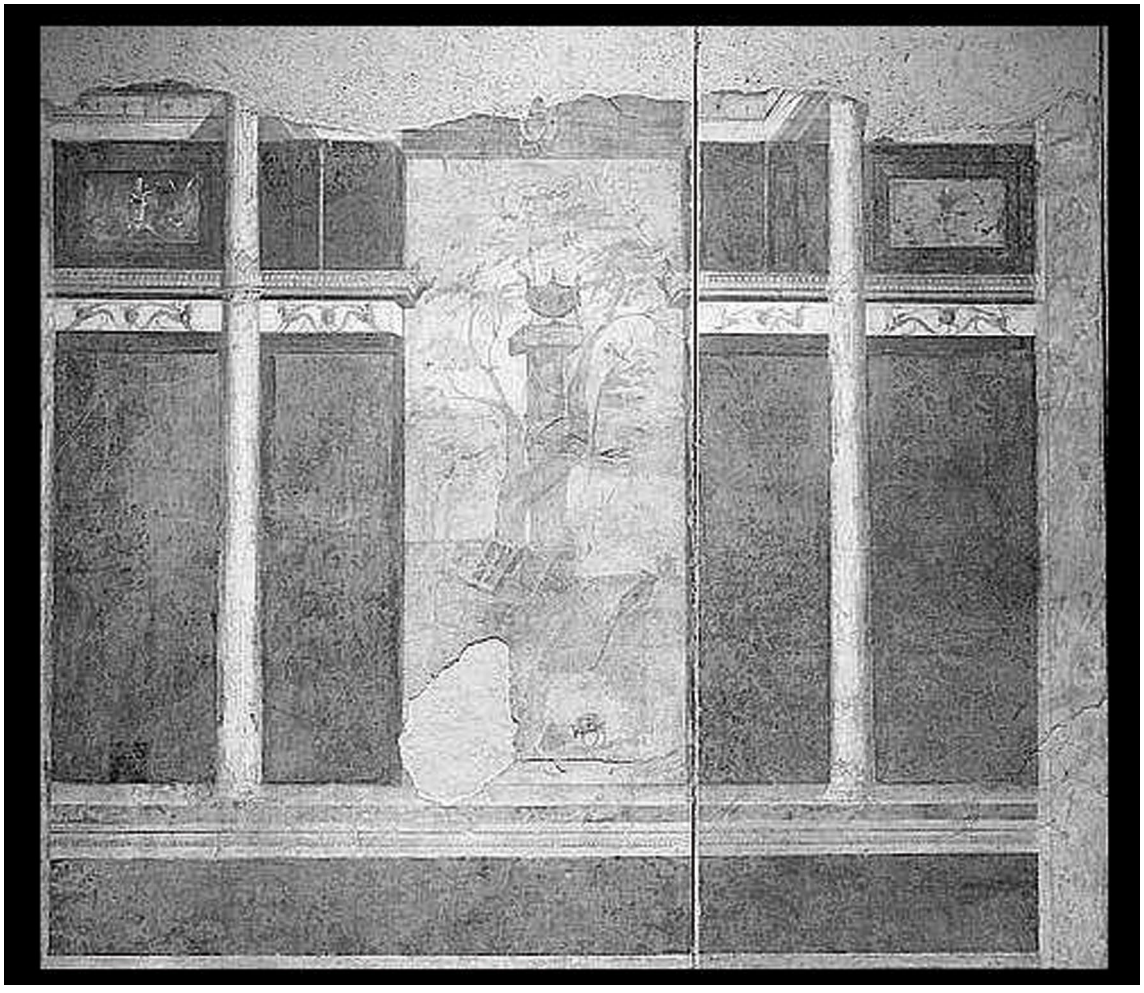

Fig. 2: Detail of a tureen-like vase on a pillar in a fresco: triclinium/oecus, House of "Livia" on the Palatine (Rome).

this is not a coincidence. Antiques, particularly Archaic, Classical, and Hellenistic vases, became sought after from the late Republican period into the Augustan age as they were deemed to possess, amongst other qualities, magical and apotropaic powers. "Necrocorinthia" is the definition given by Strabo to the many ceramic and metal objects the Caesarean colonists of Corinth began to dig out from ancient tombs to satisfy the increasing demand for antique art-works.[9] The phenomenon increased in the Augustan period when the demand for genuine antique metal vases led to the production of replicas. Capua was among the Italian centres that produced and reproduced metal works. I would not exclude that the local metal workshops, primarily those at Capua, were responsible for the dissemination into the late Republican period of a repertoire of traditional bronze vessel shapes that stylistically inspired the tureen. Augustan visual arts and propagandistic imagery

is packed with deeply evocative symbols that drew upon Archaic and Classical forms. The tureen urns, with their retrospective and eclectic shape, represent the physical and material manifestation of the Augustan allegorical syntax. The choice of the shape may be further understood considering the use of the new exotic stones. From the late Republican period onwards, marble became a powerful status marker and the taste for coloured stone items increased over time, but often with the contempt of moralists. I argue that the tureen was created with the intention to transpose a familiar formal language into an imported stone to fit a Roman ritual context. The classical-archaizing shape of the tureen, which appeared familiar and symbolically charged, encompassed people's desire to display a funerary urn in quintessentially Egyptian stone, but without having to give up a sense of tradition and piety.

The Distribution and Patronage of the Tureen Urns

Stylistic similarities and contextual evidence suggest a period of production and use for the tureen that runs from the end of the first century BC (Early Augustan period) to the mid-second century AD (Antonine), with a peak in the mid-first century (Julio-Claudian). In particular, type A appears as the earliest, while B is the most ubiquitous variant with the highest number of examples. This suggests a certain degree of standardisation inside and outside Italy by the Julio-Claudian/Flavian period. The tureen urns mainly appear across the Western part of the Empire (table 1). Judging by the current total of examples, the tureens were produced for a fairly narrow group of individuals in Italy and in some provinces that sought to distinguish themselves in death by means of these exotic containers in fancy materials (fig. 3). Elaborate funerary monuments, the methods of burial of these urns, and rich caches of grave goods (e.g. jewellery, coins, vessels) buried with or within them, attest to a desire to display status through

Tureen Find-spots	Tureen Total	Tureen Average type
Italy	24	A, B, C
France	8	A, B
Libya	4	B
Croatia	2	B
Egypt	2	C
England	1	B
Spain	1	B

Table 1: Breakdown of the find-spots of tureen urns, total number and types.

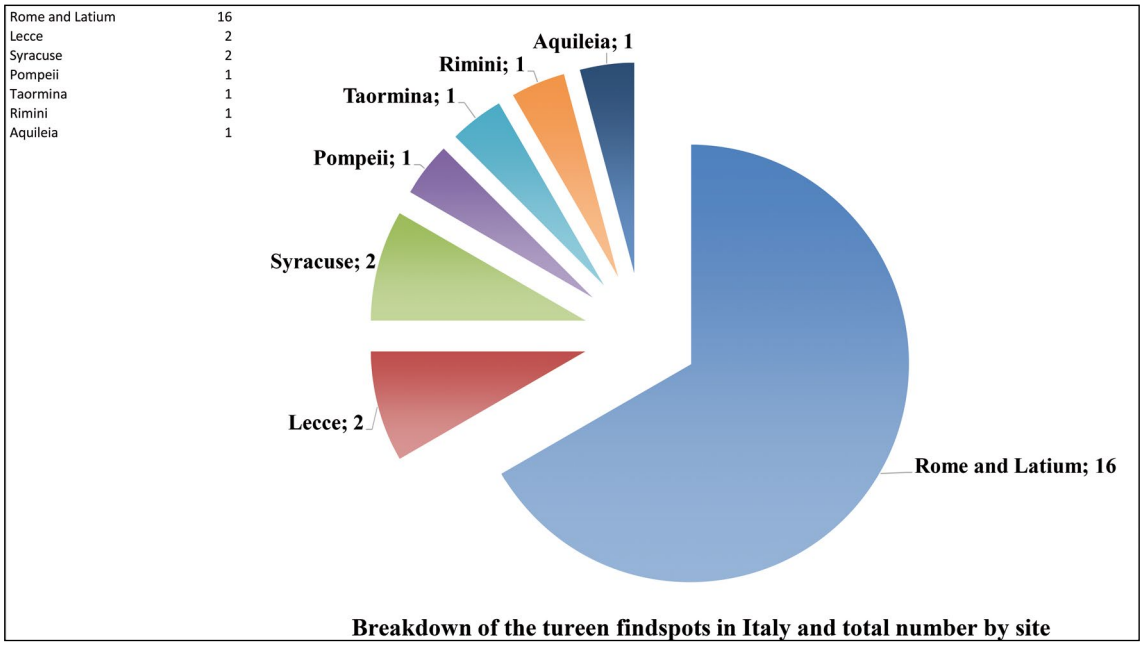

Fig. 3: Graph of the breakdown total of the tureens from Italy.

conspicuous funerary expenditure. Textual evidence confirms that the deceased were members of the high-ranking élite in Rome, including members of the Julio-Claudian family as well as imperial *liberti*, and in provincial contexts in Southern France (Aquae Sextiae) and Libya (Leptis Magna).[10]

The Tureen Production: Technicalities, Tools, and Workshop Organisation

The reconstruction of the tureen carving procedure (*chaîne opératoire*) is based on the analysis of the working traces and metrology of several genuine examples (mainly of calcitic alabaster B-variants) and is thus hypothetical. However, cross-cultural comparison of both pre-industrial and modern stone working practices, complemented by the archaeological evidence make it highly plausible.[11] One of the most striking aspects of this production is that the foot and the finial were separately carved and joined to the body and lid, while most of the handles are carved in one piece with the body. As for the tools used, the evidence allows the following suppositions: a tubular drill was used for hollowing the interior of the body and the lapidary lathe (possibly propelled by hydraulic power) was used to fashion the lid, foot and finial.[12] This hypothesis is further supported by the fact that there is a great correspondence, as we have seen, between the tureen parts (namely the foot and the finial), and pottery and metal forms, which were normally turned. As Dorothy Kent-Hill observed "cross currents from one industry to another naturally became stronger when the forms developed in one industry were

Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
Squaring	Roughing out/ cutting	Surface Preparation: Soaking/ coating	Tubular drilling	Hollowing by abrasion	Cutting/ Drilling/ Shallow carving/ abrading	Abrading/ polishing	Gluing/ pinning/ waxing
	Sawing			Cutting/carving			
				Lathe turning			

Table 2: Breakdown of the stages of the hypothetical carving sequence.

suited to the other".[13] I argue that the finial and foot were carved from the core that was extracted from the body through tubular drilling. The separate carving of these elements not only allowed a certain rationalization in peak production times and the efficient recoup of the costly debris, but it also avoided breakage of the protruding parts during consignment operations. Overall, the hypothetical manufacturing sequence was quite laborious as it was presumably carried out in some seven stages from roughing-out to polishing (table 2). According to mathematical calculations, the estimated total manufacturing time for a calcitic alabaster (Mohs 3.5) type B tureen measuring 50 cm × 45 cm is ± 70 days, but that may be halved depending on the division of labour. This figure is doubled in the case of tureens in porphyry, granite and basalt, which are harder stones (Mohs 7), although their body and foot seem to have been carved in one piece. It must be pointed out that this is only one of the many possible carving scenarios for the tureen urns, as methods would be adjusted by specialist artisans according to the quality and size of the stone block. The origin of the stones, particularly calcitic alabaster, suggests a specialised input (or training and apprenticeship) of entrepreneurial artisans almost certainly of Egyptian origin. From a technological perspective, the use of specific stone-drilling tools, such as the tubular bit, and equipment such as lathes (based on a presumed eastern origin of this tool), supports an Egyptian connection.[14] It may be persuasively argued that the Egyptians undoubtedly had the necessary know-how to carry out the work, having behind them one of the most prolific stone-vessel industries in antiquity. The technical similarities of the tureens show a fairly coherent workshop tradition particularly in Rome, where all three subtypes are attested and from whence the trend stemmed. Therefore, it can be inferred that production essentially took place in Rome by the initiative of one or a small group of nucleated workshops which relied upon specialist artisans or were run by the artisans themselves. On the other hand, the distributional pattern based on the known find-spots reveals tureen consumption clusters in certain areas, particularly in Southern France (Gallia Narbonnensis). It may be envisaged that the urban workshop(s) sent out their products upon commission to the end destination via preferential distribution networks. Artisans might have occasionally travelled to ensure the urn arrived safely, to finish the commission *in situ* or to meet the demand in those provinces where request was high.

Variants of the Tureen Type: Technical Measures, Trademarks or Customisation?

Behind the apparent homogeny of the tureens exist several variations of the lid, foot or finial profile, and of the handle's attachments. These variations are distinguishable into sub-types[15] and occur across all the three body types (A, B, C) without a clear set pattern. This is illustrated by the three calcitic alabaster tureens discovered in Rome in the same tomb dating to the Julio-Claudian period (fig. 4). They are stylistically very much alike, however, they have different lids, finials, handles and even body profiles (table 3). Given their common find-spot and possible provenance from the same workshop, these variations may be due to the individual taste of the persons buried in each one of them (members of the same familial nucleus?), different artisans, material constraints and/or even a slight chronological disparity. Therefore, these variants might well be due to the agency of both the artisan and patron. Firstly, they are an unequivocal sign of artisanal work where no two objects are completely alike, but also of the artisan's problem-solving skills in masking faults and adjusting the model according to the material. Despite the highest experience of the artisans and careful squaring, stone carving is a subtractive process and some flaws are beyond repair. Carving stone, regardless of its hardness, can be an arduous task and complications, such as overcutting and accidental breaking,

Fig. 4: The tureens from a funerary monument on the Via Laurentina – Tre Fontane (Rome, excavated 1957).

Tureen Type	Material	Measures	Lid Type	Finial Type	Handle Type	Foot Type	Findspot	Location	Inv. No.	Date
B	C. Alabaster	53 × 45 cm	a3	a1	b2	a1	Rome	Museo Nazionale Romano	531595	Julio-Claudian
B	C. Alabaster	50 × 50 cm	a2	a1	b2	a1	Rome	Museo Nazionale Romano	135737	Julio-Claudian
C	C. Alabaster	32 × 41.5 cm	a1	a2	b	a1	Rome	Museo Nazionale Romano	135538	Julio-Claudian

Table 3: Breakdown of the variations of the three tureens from Rome.

may arise due to the material's natural faults.[16] Secondly, the constraints imposed by the material, such as the quantity of stone, must have also influenced the result. Thirdly, the artisan would have had to respond to the customer/buyer's requirements, both aesthetic and financial, and to adjust the model in order to result in a "made-to-custom" product. A certain degree of customisation is detectable in other forms of repetitive Roman artistic productions, such as frescoes[17] and sarcophagi[18], which show that customers (buyers or patrons) altered or adapted the visual language according to taste, requirements, and context. These resulted in unique products that combined personal preferences with large-scale trends. On the other hand, some of the tureen variations may be indicative of the existence of more than one workshop sharing technological know-how, or of different artisans within the same workshop. An interesting case in point may be represented by a ribbed motif, namely a series of horizontal lines across the centre of the loops of the handles. In one case, it takes the shape of a horizontal band tying the loops together at the centre. Such a pattern might recall the ribbons and fabric bands that were knotted around the handles and necks of cinerary urns and ritual vases in antiquity. The ribbing is found only on six urns and may well represent the "trademark" of a given workshop or artisan within it (table 4). This seems to be confirmed by the fact that there are five urns from Rome and only one from France which could have been imported directly from Rome. Or, at the most, they were carved locally by an iterant artisan "of the ribbed handles", who was sent for or travelled to France. On the whole, the tureens show high standards of workmanship that had to be directly proportional to the value of the stone and to the social level of the commissioners.

Conclusions: A Case of Serial Production?

The making of the tureens involved skilled artisans, tools, and techniques that reveal signs of rationalisation and production in series. However, given its idiosyncrasies we might speak of a serial production "sui generis" rather than "stricto sensu". First, the

Tureen Type	Material	Measures	Lid Type	Finial Type	Handle Type	Foot Type	Findspot	Location	Inv. No.	Date
B	C. Alabaster	43 × 42.5 cm	M?	M?	b1 ribbed	M	Rome?	Vatican Museums	204a	Julio-Claudian?
B	C. Alabaster	27 × 30 cm	–	–	a1 ribbed	–	Rome	Museo Nazionale Romano	516580	Julio-Claudian
B	C. Alabaster	30 × 25 cm	–	–	a1 ribbed	a1	Rome?	Capitoline Museums	3535	Julio-Claudian?
B	C. Alabaster	–	a3	a3	b3 ribbed	a1	Meynes, France	Chateau de Clauzone	–	Julio-Claudian?
C	C. Alabaster	28.2 × 50 cm	a1	a1	b ribbed	a1	Unknown	Rome?	–	Julio-Claudian?
C	C. Alabaster	22 × 40 cm	–	–	a1 ribbed	a1	Rome	Capitoline Museums	2354	Julio-Claudian

Table 4: Breakdown of the tureens with the ribbed handles and their different features.

extant number of tureens seems to suggest that overall it was a small-scale production. Thus, it shows that production in series did not always imply the reproduction of large numbers. Second, the variants within the standardised type characterise this as a serial production with a highly customised character, influenced by the consumer's choice, but also by a certain individuality of the product. This may represent the "signature" of a workshop or product of artisanal work. Given the small quantity of objects produced and the limited time span – early Augustan to late Flavian period -, such rationalisation and production in series might be understood and thus explained as responding to a sharp increase in the demand for these funerary items. Calcitic alabaster non-tureen urns began to appear in late Republican élite tombs in Rome and Italy, a factor which seems to have later stimulated the demand for tureen urns.[19] The impetus was given by a shift in the social fabric, which prompted early Augustan wealthy individuals (élite, sub-élite and non-élite) to seek novel, alternative means to express their status in death. The demand was met by highly skilled foreign artisans familiar with the materials and carving techniques who introduced novel tools – the tubular drill and lapidary lathe – and methods of production – separate movable elements, drill coring. In many ways, the actual standardisation of the tureen shape was determined by the élite embracing this form of funerary trend. Therefore, it can be argued that the tureen production was not a strictly economic phenomenon. The tureens make it apparent that ancient serial production responded to diverse criteria and presented itself each time with different facets. However, whilst this may be unsurprising for pre-industrial, non-mechanised societies where "systems changed and methods too, down to the individual workmen, it would be wrong to expect absolute uniformity and absolute standardisation"[20], it requires more nuanced explanations. The example of the tureen urns shows that beyond sarcophagi, statues, and other 'standardised' stone objects, which have been taken as symptomatic of

Roman mass-production, there are additional categories of artefacts, whose manufacture somehow conformed to the principles of serial production. However, their economic and socio-cultural implications need careful examination in order to avoid oversimplification and, above all, interference with views deriving from modern industrial manufacturing.

Notes

[1] On the definition of 'serial production', see Wilson 2008.

[2] On some of these categories see Harris 1980; Fülle 1997; Trimble 2000; Daehner 2007; Russell 2007.

[3] All roughly characterised by a certain division of labour, standardisation of sizes and forms as well as the creation of standardised interchangeable parts. However, these also are dependent upon the extent of the market, Wilson 2008, 393.

[4] On this, see for example Stuart 2008.

[5] Perna 2014.

[6] Perna 2015a.

[7] Perna – Barker 2018.

[8] Price 2007.

[9] Strabo, 8, 6, 23; Suet. Caes. 81.

[10] CIL VI 19; CIL VI 34939; CIL VI 22868, Perna 2012, 787–800.

[11] For a summary see Bevan 2007.

[12] Perna 2015b.

[13] Kent-Hill 1947, 256.

[14] Stocks 2003.

[15] Handle types: attaching on rim (a–a1–a2), shoulder (b–b1–b2–b3), or other (c). Lid types: convex (a1–a2), domed (a3), concave/conical (b), or other (c). Finial types: piriform (a1–a2), round (b), or other (c). Foot types: detached-high (a1–a2) or un-detached (b1–b2). These categories of course apply exclusively to genuine surviving elements; in many instances there are modern replacements (M) or parts that are irreparably missing (-).

[16] On this, see Rockwell 1993.

[17] Esposito 2017, 264–289 on IV-Style Pompeian frescoes.

[18] Huskinson 2015 on the semantic variables of strigillated sarcophagi, one of the most standardised forms of sarcophagi.

[19] Perna 2015b.

[20] Ward-Perkins in Dodge – Perkins 1992, 39.

Image Credits

Fig. 1: by author. – Fig. 2: after Peters 1963, fig. 33. – Fig. 3: by author. – Fig. 4: after Perna 2012, 793 fig. 7. – Table 1–4: by author.

References

Bevan 2007
A. Bevan, Stone Vessels and Values in the Bronze Age Mediterranean (Cambridge 2007).

Daehner 2007
J. Daehner (ed.), The Herculaneum Women. History, Context, Identities (Malibu 2007).

Dodge – Perkins 1992
H. Dodge – B. Ward-Perkins (eds.), Marble in Antiquity. Collected papers of J.B. Ward-Perkins (London 1992).

Esposito 2017
D. Esposito, The Economics of Pompeian Paintings, in: M. Flohr – A. Wilson (eds.), The Economy of Pompeii, Oxford Studies on the Roman Economy (Oxford 2017) 264–289.

Fülle 1997
G. Fülle, Arretine Sigillata Industry, JRS 87, 1997, 111–155.

Harris 1980
W. Harris, Terracotta Lamps Industry, JRS 32, 1980, 126–145.

Huskinson 2015
J. Huskinson, Roman Strigillated Sarcophagi: Art and Social History (Oxford 2015).

Kent-Hill 1947
D. Kent-Hill, The Technique of Greek Metal Vases and Its Bearing on Vase Forms in Metal and Pottery, AJA 51, 3, 1947, 248–256.

Perna 2012
S. Perna, The Colours of Death. Roman Cinerary Urns in Coloured Stone, in: A. Gutiérrez Garcia – M. P. Lapuente – I. Rodà (eds.), Interdisciplinary Studies on Ancient Stone. Proceedings of the IX ASMOSIA Conference Tarragona 2009 (Tarragona 2012) 787–800.

Perna 2014
S. Perna, Roman Cinerary Urns in Coloured Stone: Production and Significance (Diss. Royal Holloway University of London 2014).

Perna 2015a
S. Perna, Cinerary Urns in Coloured Egyptian Stone – Appendix II, in: P. Coombe – M. Henig – F. Grew – K. Hayward (eds.), Roman Sculpture from London and the South-East. Corpus Signorum Imperii Romani Great Britain I, 10 (Oxford 2015) 126–131.

Perna 2015b
S. Perna, Fabri Luxuriae. Production and Consumption of coloured Stone Vases in the Roman Period, in: P. Pensabene – E. Gasparini (eds.), ASMOSIA X, Proceedings of the Tenth International Conference: Interdisciplinary studies on ancient stone, Rome 2012 (Rome 2015) 1021–1031.

Perna – Barker 2018
S. Perna – S. Barker, Imitation Alabaster in Roman Wall-Painting: Varieties and Symbolism, in: Y. Dubois – U. Niffeler (eds.), Pictores per Provincias II – Status Quaestionis. Actes du Colloque de l'Association Nationale pour la Peinture Antique (AIPMA) Universite de Lausanne, 12–16 septembre 2016 (Lausanne 2018) 405–412.

Peters 1963
W. J. T. Peters, Landscape in Romano-Campanian Mural Painting (Assen 1963).
Price 2007
M. T. Price, Decorative Stone. The complete Sourcebook (London 2007).
Rockwell 1993
P. Rockwell, The Art of Stone Working (Cambridge 1993).
Russell 2010
B. Russell, The Roman Sarcophagus 'Industry': a Reconsideration, in: J. Elsner – J. Huskinson (eds), Life, Death and Representation: Some New Work on Roman Sarcophagi (Berlin 2010) 119–147.
Socks 2003
D. A. Stocks, Experiments in Egyptian Archaeology: Stone-Working Technology in Ancient Egypt (London 2003).
Stuart 2008
P. Stuart, The Social History of Roman Art (Cambridge 2008).
Trimble 2000
J. Trimble, Replicating the Body: the Herculaneum Women, JRA 13, 2000, 41–68.
Wilson 2008
A. Wilson, Large-scale Manufacturing, Standardization and Trade, in: J. P. Oleson (ed.), Oxford Handbook of Engineering and Technology in the Classical world (Oxford 2008) 393–417.

Töpfernde Toreuten!
Die Werkstatt des M. Perennius und die Entwicklung von serieller Produktion reliefverzierter Arretinischer Sigillata

Manuel Flecker

Wie kaum eine andere Gattung eignet sich die mit einem modernen Begriff als Terra Sigillata bezeichnete Feinkeramik, um die Grundlagen von Massenproduktion und Serialität in römischer Zeit zu untersuchen. Grund hierfür ist nicht nur ihre formale und dekorative Vielfältigkeit, sondern auch die häufig gute Quellenlage, die einen Blick gleichermaßen auf die Produktion als auch auf die Rezeption der Produkte erlaubt. Das, was man gemeinhin unter diesem Begriff subsumiert, ist ein meist qualitativ hochwertiges, rot engobiertes Tafelgeschirr in glatten, appliken- oder reliefverzierten Varianten, das in dieser ausdifferenzierten Ausprägung zum ersten Mal um 30 v. Chr. in verschiedenen Großbetrieben im Bereich des mittelitalischen Arezzo produziert wurde (Abb. 1).[1] Die Wurzeln dieses Phänomens liegen jedoch nicht in Arezzo, sondern sind zuerst im Osten des römischen Reiches zu suchen. Bereits ab der Mitte des 2. Jhs. v. Chr. wurde dort ein feines Tafelgeschirr produziert, das nicht mehr vorrangig auf einen schwarzen Überzug setzte, sondern eine oxydierend rot gebrannte Engobe bevorzugte.[2] Die Alternative einer roten Engobe wurde dann im Laufe des 1. Jhs. v. Chr. auch von verschiedenen italischen Werkstätten aufgenommen und in unterschiedlichem Maße weiterentwickelt.[3] Nukleus und Innovator der kaiserzeitlichen Sigillata-Produktion ist aber tatsächlich der Standort Arezzo, wo spätestens mit Beginn der augusteischen Zeit vollkommen neue Produkte hergestellt werden. Diese sind typische Vertreter der augusteischen Zeit, indem Sie verschiedene bereits im Hellenismus entstandene Einflüsse aufnehmen, diese nun aber zu etwas gänzlich neuem verschmelzen: So die Übernahme und Perfektionierung der in östlichen Betrieben entwickelten roten Engobe, der reiche, aus Matrizen gewonnene figürliche Dekor sowie der Einsatz von Applikendekor und Werkstattstempeln.[4] Besonders bemerkenswert sind zudem ein völlig neues, in seinen Profilierungen und scharfen Umbrüchen vielfach an Silbergeschirr erinnerndes Formenspektrum und vor allem der angesprochene reiche figürliche Dekor, der besonders im Kontext von Trinkgeschirr auftritt. Die arretinischen Töpfer nehmen damit nicht nur passiv Einflüsse auf, sondern gestalten ganz aktiv ihre Produkte.[5] Obwohl Arezzo weit im Landesinneren liegt, wurden die Arretiner Produkte sehr schnell und in großen Mengen in alle Teile des Mittelmeeres exportiert.[6] Zudem entwickelte sich Arezzo rasch zum Zentrum eines weitläufigen Netzwerkes, denn bald nach dem Erstarken der Betriebe in Arezzo kam es zur Gründung weiterer neuer Produktionsstandorte, die sich zudem in manchen Fällen in direkter Abhängigkeit zu Arezzo befanden: So entstanden um 20 v. Chr. Produktionsstätten in Pisa und etwa zeitgleich auch in Puteoli, gegen 15/10 v. Chr. wurden sogar Betriebe im Umfeld von Lyon gegründet, um an dieser Stelle nur die wichtigsten Produktionsorte zu

Published in: Arne Reinhardt (Ed.), Strictly Economic? Ancient Serial Production and its Premises, Panel 3.18, Archaeology and Economy in the Ancient World 20 (Heidelberg, Propylaeum 2021) 19–30. DOI: *https://doi.org/10.11588/propylaeum.704*

Abb. 1: Auswahl an Fragmenten, Matrizen und Gipsabgüssen Arretinischer Terra Sigillata.

nennen.[7] Eine der führenden Werkstätten war dabei der Betrieb der Atei mit seinen "Filialtöpfereien" in Pisa, Lyon und La Graufesenque.[8] Es existierten aber auch eine Vielzahl an kleinen und mittelgroßen Betrieben im näheren und weiteren Umfeld von Arezzo.[9] Als ein Beispiel sei mit dem jüngst ergrabenen Scoppieto nur ein Ort genannt, der von der mittelaugusteischen bis in die flavische Zeit produzierte. Der Besitzer des Standortes in Scoppieto war möglicherweise ein Lucius Plotidius, wir finden hier aber auch Produzenten, die wir bereits aus Arezzo kennen. Mit Titius Nepos einen Namen der augusteisch-tiberischen Zeit, und mit M. Perennius Crescens einen Produzenten der Mitte des 1. Jhs. n. Chr. Zusätzlich hat die Beprobung der tönernen Matrizen, aus denen die reliefverzierte Keramik gewonnen wurde, ergeben, dass ein Teil von diesen aus Arezzo eingeführt worden war.[10]

Wenngleich das Gros der Sigillata produzierenden Betriebe in Arezzo auf die Produktion von glatter oder nur reduziert applikenverzierter Ware setzten, produzierten einige Betriebe im Gegensatz zu den unterschiedlichen Herstellern der hellenistischen Schwarzfirniswaren in Italien auch reliefverzierte Keramik. Diese wurde in relativ großem Umfang und Stückzahl aus Formschüsseln gewonnen. Wie bereits angesprochen, fällt der Beginn der Produktion reliefverzierter Keramik in die Zeit um 30 v. Chr. Aufgrund der schlechten Quellenlage lässt sich jedoch nicht mit Sicherheit sagen, ob der Produktionsbeginn noch in vor- oder erst in nachaugusteische Zeit fällt, und auf wessen Initiative sich die Produktion dort entwickelte. Deutlich zu sehen ist, dass bereits die erste Phase der reliefverzierten Produktion nicht nur mehr als ausgereift war, sondern qualitativ hochwertiger als alles Folgende. Die Relieftöpfer griffen also auf das Knowhow der Betriebe zurück, die in Arezzo seit dem 3. Jh. v. Chr. schwarz engobierte Campanaware produziert hatten.[11]

Im Produktionszeitraum von ca. 30 v. – 60 n. Chr. lassen sich an die 20 Werkstätten in Arezzo nachweisen, die nicht nur glatte, sondern auch reliefverzierte Sigillata produzierten.[12] All diese Werkstätten weisen zudem ein eigenes Verbreitungsbild auf, wobei in der Forschung nach wie vor diskutiert wird, was die Gründe hinter den unterschiedlichen Verbreitungsmustern sind.[13] Die wichtigsten Werkstätten sind die Offizinen der Perenni, der Rasini, des Cn. Ateius, des L. Annius und des P. Cornelius. Die bekannteste und am längsten Produzierende ist dabei die erstgenannte: die Werkstatt des M. Perennius.[14] Diese Officina ist besonders spannend, da sie unter wechselnden Besitzern im gesamten oben genannten Zeitraum arbeitete und sich ihre Entwicklung damit über fast 100 Jahre nachvollziehen lässt. Den Produktionszeitraum kann man dabei in vier Phasen unterteilen. Zwischen 30–15 v. Chr. nennen die Stempel einen Marcus Perennius als Besitzer, für Phase 2 (etwa 15 v. – 10 n. Chr.) dagegen einen M. Perennius Tigranes als Inhaber. Möglicherweise handelt es sich hier um einen Freigelassenen des Perennius, wie auch bei M. Perennius Bargathes, der dem Betrieb im Zeitraum zwischen ca. 10–25/30 n. Chr. vorstand. Eine letzte, 4. Phase datiert in die Zeit zwischen 30 und 60 n. Chr. und ist mit den Namen M. Perennius Crescens und M. Perennius Saturninus verbunden.[15]

Gerade in Hinblick auf das Bildrepertoire der Werkstatt des Perennius bleibt die 1. Phase über einen langen Zeitraum prägend. Die meisten der in dieser Werkstatt entwickelten figürlichen Bildthemen entstehen in dieser Phase und werden vielfach bis in tiberische Zeit, also die 3. Phase der Officina weitergeführt. Ein Bruch setzt dann erst in der letzten Phase ein.[16]

Das Themenspektrum der Werkstatt und sein reiches und ausdifferenziertes Punzenrepertoire speisten sich dabei aus ganz unterschiedlichen Quellen des späten Hellenismus und Vergleiche lassen sich in verschiedenen Gattungen der spätrepublikanischen Kunst finden. Die Werkstatt der Perenni steht dabei nicht alleine, sondern auch das Themenspektrum der anderen großen Werkstätten unterscheidet sich nur graduell von dieser. Ein besonderer Schwerpunkt liegt auf figürlichen Szenen

aus dem dionysischen Repertoire, der Funktion der Produkte als Trinkgeschirr beim *convivium* entsprechend. Neben den beliebten Symposion- und Symplegmaszenen sind zudem Kompositionen zu nennen, die eine sakrale Atmosphäre evozieren. Erstaunlich ist darüber hinaus der relativ hohe Anteil an Mythenbildern, so beispielsweise Szenen aus der Orestie, aus dem trojanischen Krieg sowie Kentauromachien oder Amazonomachien. Nimmt man das Themenspektrum aller Werkstätten in den Blick, so fällt jedoch auch das Fehlen bestimmter Bildthemen auf. Dies wird besonders augenfällig bei einem Vergleich der Arretina mit den augusteischen Bildlampen, die ebenfalls reich figürlich verziert waren. An dieser Stelle sei nur auf Gladiatorenkämpfe und *venationes* verwiesen, die wir auf den reliefverzierten Sigillaten aus Arezzo nicht finden. Grund hierfür dürfte ebenfalls die spezifische Funktion des Geschirrs im Kontext des römischen *convivium* sein. Das Thema Gladiatur ist so auch kein Thema in der malerischen Ausstattung der großen Speisesäle dieser Zeit.[17]

Möchte man die Nähe der Arretina zu einer bestimmten Gattungen der römischen Kunst herausgreifen, so ist der Forschung schon immer die enge Beziehung zwischen der augusteischen Feinkeramik und zeitgenössischem Silbergeschirr aufgefallen.[18] Und tatsächlich lässt sich eine ausgesprochene Nähe zwischen Silber und Arretina auf verschiedenen Ebenen feststellen. Dies beginnt bei formalen und typologischen Aspekten, setzt sich beim Themenspektrum fort und endet nicht zuletzt beim Stil der figürlichen Reliefs.[19] Nimmt man all die genannten Kriterien genau in den Blick, wird aber auch deutlich, dass das augusteische Tafelgeschirr aus Arezzo nie eine einfache Imitation seines wertvolleren Pendants ist, sondern stets in kreativer Transformation darüber hinausgeht. Gerade diese kreative Aneignung verschleiert jedoch auch den tatsächlichen Grad der Abhängigkeit zwischen Silber und Keramik zu Beginn der Arretiner Produktion. Offenkundig eng am Silbergeschirr orientiert ist das Formenspektrum, sowohl der glatten als auch der reliefverzierten Sigillata. Am Übergang zwischen später Republik und augusteischer Zeit verloren die weichen Rundungen und Übergänge der hellenistischen Campanawaren immer mehr an Bedeutung, stattdessen bestimmten zunehmend scharfe Umbrüche und Profilierungen die Gefäßformen der Terra Sigillata. Die Toreutisierung der Sigillataformen zeigt sich vor allem bei den unterschiedlichen Trinkgefäßen, bei denen es sich aber ebenfalls nicht um reine Kopien handelt. Vielmehr werden nur einzelne Formelemente wie besonders scharfkantige Profile aus der prestigeträchtigen Silberware übernommen. Zudem scheint auch die Konkurrenz zur Toreutik zunehmend den kreativen Umgang der Töpfer mit ihren Gefäßformen gefördert zu haben. Dies äußert sich beispielsweise in einer Vielzahl an Umbrüchen und Profilierungen, die so aus dem *argentum potorium* nicht bekannt ist, oder auch an der Gefäßgröße und dem Fassungsvermögen der Arretiner Kelche, die ihre silbernen Pendants oft um ein Vielfaches übertreffen.[20] In manchen Fällen kann man vielleicht sogar von einer Hypertoreutisierung sprechen.

Wenngleich die Reliefware produzierenden Betriebe Arezzos natürlich ein ganz eigenes Themenspektrum aufweisen, so fällt doch in mancher Hinsicht auch hier

die Nähe zum Themenrepertoire des Silbergeschirrs der frühen Kaiserzeit auf. Dies betrifft vor allem die Häufigkeit von mythologischen Bildern.[21] Besonders deutlich wird die Nähe bei den Bildthemen, die auf die gleichen Vorlagen zurückgreifen. Die bekanntesten Beispiele sind hierbei die beiden Silberbecher aus dem Grabfund von Hoby – der sog. Achill und der sog. Philoktetbecher – sowie ein Kantharos mit der Darstellung der Iphigenie auf Tauris in London. Für all die genannten Beispiele finden sich Fragmente in Terra Sigillata, die belegen, dass man die Bildthemen in fast vollständiger Übereinstimmung in den Werkstoff Ton übersetzte.[22] Die offensichtlichen Ähnlichkeiten und die geringen Unterschiede, die nur in Details zu finden sind, haben zu der Frage nach der konkreten Abhängigkeit geführt. Knud Friis Johansen hat so 1930 noch an eine Vermittlung der Szene durch Gipsabgüsse gedacht.[23] Frank Hildebrandt hat dies zuletzt noch einmal explizit ausgeschlossen und auf frühere Vorbilder verwiesen, deren sich sowohl die Silberschmiede als auch die Töpfer bedienten.[24] Dass wir es bei den Produkten aus Arezzo nicht mit überarbeiteten Abformungen von Silberbechern zu tun haben, zeigt nicht zuletzt der Größenvergleich. In allen genannten Beispielen übertreffen die Figuren der Sigillatabecher ihre silbernen Pendants um einiges. Natürlich wäre durchaus auch an die Verwendung einer Abformung eines größeren Silberbechers gleicher Thematik zu denken, jedoch spricht m. E. die extrem hohen Qualität der tönernen Gefäße und ihrer Reliefs dagegen. Es lassen sich keinerlei Spuren einer Überarbeitung der Abformung oder einer Adaption an den Werkstoff Ton erkennen, vielmehr weisen die Sigillatabecher keinerlei stilistische Brüche auf.[25] Dies schließt m. E. aus, einfache Töpfer zu postulieren, die Modelle nach Gefäßen in Edelmetall in Ton umgesetzt hätten. Ungeklärt bleibt damit jedoch die Frage, wie sich die ungeheure Nähe zwischen Ton und Silber sowie im Besonderen die außergewöhnlich hohe Qualität der Arretiner Reliefkeramik erklären lässt. Die Nähe zu Silbergeschirr zeigt sich nämlich nicht nur in formtypologischen Details, sondern auch in dieser hohen Qualität und im Stil der Figuren; einem Stil, der sich fast als Silberstil bezeichnen lässt. Diesen zeichnet u.a eine feine Linienführung, ein großer Detailreichtum und eine nuancierte Relieftiefe aus. Die einzelnen Punzen sind zudem nie plump in die Formschüssel eingestempelt, sondern stets mit großer Präzision. Die Figuren wachsen so häufig aus dem Untergrund heraus (Abb. 2).

Was sind nun jedoch die Gründe für die hohe Qualität der Erzeugnisse der Werkstatt des Perennius und anderer Arretiner Relieftöpfer in frühaugusteischer Zeit? Der Schlüssel liegt m. E. in einer Stelle bei Plinius d. Ä. Dieser schreibt über Pasiteles, einen der führenden Künstler der ausgehenden Republik, der sowohl als Toreut und Erzgießer als auch als Bildhauer arbeitete: „Er (Varro) lobt auch Pasiteles, der die (Ton-) Plastik als die Mutter der Toreutik, des Bronzegusses und der Bildhauerei bezeichnete und, obwohl er auf allen diesen Gebieten der Größte war, niemals etwas schuf, ohne zuvor ein Modell herzustellen“.[26] Die Arbeit in Ton und das Erstellen eines Modells in Ton erscheint hier als die Mutter jeden künstlerischen Schaffens und verbindet auf

Abb. 2: Fragment mit Darstellung einer Nike aus der 1. Phase der Werkstatt des Perennius.

dieser Ebene Ton und Silber.[27] Die angeführten Spezifika der reliefverzierten Arretina zeigen, dass diese weder Abformungen von Silber noch freie Nachschöpfungen sind. Die Stelle bei Plinius legt vielmehr nahe, dass die Personen hinter der Arretina zumindest teilweise Künstler gewesen sein müssen, die ebenfalls Expertise auf beiden Feldern aufwiesen. Am wahrscheinlichsten erscheint es mir daher, erfahrene Toreuten hinter den frühen, hochqualitativen Erzeugnissen aus Arezzo zu sehen. Diese brachten nicht nur ihre handwerklichen Fähigkeiten ein, sondern auch ihr profundes Wissen der spätrepublikanischen Kunstproduktion, welches nicht zuletzt die Grundlage für das elaborierte Themenspektrum der Produkte aus Arezzo war.

Das Außergewöhnliche der frühen Erzeugnisse zeigt sich auch bei einem genaueren Blick auf die erste Phase der Werkstatt des Perennius, die wir Dank der Arbeiten von Francesca Porten Palange gut fassen können. Die erste Phase zeichnet sich vor allem dadurch aus, dass die meisten Themen in genau dieser Phase entworfen worden waren und dann bis in das 1. Jh. n. Chr. hinein nur wenig verändert weitertradiert wurden. Darüber hinaus zeichnet sie sich durch den Einsatz einer großen Zahl an Sekundärmotiven aus – d.h. oft sehr kleine Punzen –, die zudem mit ungeheurer Präzision gearbeitet sind.[28]

Arne Reinhardt hat zuletzt anhand der Analyse des sog. Puteal Tegel den hohen ästhetischen Anspruch der Erzeugnisse des Römischen Ausstattungsluxus in Marmor

etwa zwischen 50 v. Chr. und 50 n. Chr. hervorgehoben.[29] Den seriell hergestellten Produkten geht es dabei oft nicht um ein simples Wiederholen der Bildthemen, eine große Rolle spielt vielmehr das gezielte Abwandeln von Einzelmotiven. Im Sinne der antiken Begriffe *variatio* und *varietas* gehen Wiederholung und subtile Abwandlung Hand in Hand. Gerade in der zeitgenössischen Literatur und Rhetorik findet sich *variatio* als positiv besetztes Konzept.

Blickt man dies vor Augen auf die 1. Phase der Werkstatt des Perennius zurück, so findet man ein ganz ähnliches Phänomen. Dies zeigt sich besonders bei einem Blick auf die ornamentale Produktion, die man den Töpfern Cerdo, Philemo und Nicephorus zuweisen kann. Die ornamentalen Designs werden durch eine Vielzahl an kleinen Motiven gebildet. Zusätzlich werden diese Punzen auch in immer neuen Kombinationen in die Formschüsseln eingestempelt. Dass dies gänzlich unserem modernen Verständnis von Serienproduktion widerspricht – wenngleich die nachweisbaren Stückzahlen der 1. Phase im Vergleich zu den folgenden Phasen wesentlich geringer sind –, zeigt vielleicht die Bemerkung Porten Palanges: „Die vielen kleinen und unwirtschaftlichen Motive, […], wurden von Cerdo und den anderen Töpfern ständig unterschiedlich kombiniert, so dass wir für diese Gruppe von Gefäßen auf keinen Fall über serienmäßig hergestellten Produkte wie in den folgenden Phasen sprechen können".[30] Unter den etwa 650 erhalten Matrizen und Matrizenfragmenten der ersten Phase findet sich kaum ein Stück gleichen Dekors. Die Arretiner Künstler suchten also, wenn auch oft nur mit geringen Änderungen, immer nach neuen Lösungen für ihre Produkte. Damit spricht aus Ihnen derselbe Geist als aus den früher als „neuattische Kunst" bezeichneten Objekten aus Marmor. Über diese hat Reinhardt geschrieben: „‚Kunst' und ‚Dekoration' sind keine grundsätzlichen Gegensätze – ebenso sind die ‚neuattischen' Reliefs sowohl Kunst als auch Dekoration, ohne dass hierbei ein negativer Beigeschmack mitklingen sollte."[31] Dasselbe lässt sich ohne Abstriche auch für die ersten reliefverzierten Gefäße aus Arezzo behaupten.[32]

Dies ändert sich jedoch etwa um 15 v. Chr. mit der 2. Phase der Werkstatt des Perennius. Die Produktionsmenge steigt nun an und während sich die Figurenstempel nur langsam verändern, verschwinden die vielen kleinen Dekormotive unter M. Perennius Tigranes vollkommen: „Bei den ersten Töpfern (Cerdo, Nicephorus, Pilades und P[h]ilemo) ist zu beobachten, wie sie noch von der Toreutik abhängig sind, bei den anonymen Arbeitern des Tigranus beginnt man erst – insbesondere in der ornamentalen Produktion – die „Töpfer" zu spüren".[33]

Zuletzt muss vielleicht noch kurz die kaum zu beantwortende Frage angesprochen werden: Warum passierte all das gerade in Arezzo? Denn trotz der relativ guten Quellenlage ist es nur schwer zu bestimmen, warum das inländische Arezzo zu einem global player wurde, und warum es spätestens ab augusteischer Zeit zu diesem gewaltigen Qualitätssprung kam. Für die Zeit der späten Republik hat man den Kontakt lokaler gentes in den Osten diskutiert.[34] Allerdings sticht Arezzo in dieser Zeit kaum aus den anderen Produktionsorten heraus. Für die augusteische Zeit kann

eigentlich nur persönlicher Einfluss dahinterstehen, sei es auf Ebene der lokalen städtischen Eliten[35] oder sogar auf Ebene der Reichselite. Andrew Wallace-Hadrill hat zuletzt Maecenas ins Spiel gebracht. Arezzo ist nicht nur dessen Heimatstadt, in den Saturnalia des Macrobius wird er zudem von Augustus selbst als *iaspis figulorum*, als Juwel unter Töpfern bezeichnet.[36] Dies ist ein Vorschlag, der natürlich hypothetisch bleiben muss, der aber trotzdem viel für sich hat und in jedem Fall ein vergleichbares Szenario beschreibt. Kaum abzuschätzen sind auch lokale Standortvorteile. Bereits für die spätrepublikanische Produktion von Schwarzfirnisware hat Morel auf eine frühe Toreutisierung verwiesen, die der starken ‚Toreutisierung' augusteischer Zeit vorausgeht.[37] Bei Livius wird beispielsweise eine große Waffenproduktion für Arezzo erwähnt.[38] Es stellt sich deswegen auch die Frage, ob nicht lokale Werkstätten einen Pool an hervorragenden Toreuten boten, aus dem man sich bedienen konnte.

Anmerkungen

[1] Ettlinger et al. 1990, 4–6; Rudnick 2018, 340–347. Die Produktion der glatten Ware setzt dagegen schon gegen 60/50 v. Chr. ein. s. Marabini Moevs 2006, 7–29.

[2] s. beispielsweise die Eastern Sigillata A (Malfitana 2005, 126–130; Lund et al. 2005) oder die sog. Pergamenische Sigillata des späten Hellenismus (Meyer-Schlichtmann 1988).

[3] z.B. die sog. Vesuvian Sigillata (McKenzie-Clark 2012, jedoch mit ungenauer Chronologie) oder die sog. Republican red-gloss pottery (Stone 2014, 169 f.)

[4] Zu den Bildern s. Marabini Moevs 2000.

[5] Wallace-Hadrill 2008, 416.

[6] Mees 2012; Rudnick 2018.

[7] Sternini 2016; Rudnick 2018, 344–348.

[8] Kenrick 1997.

[9] Die genaue Größe der einzelnen Betriebe ist dabei umstritten. Klar scheint jedoch, dass viele der Werkstätten über die Größe normaler Familienbetriebe hinausgingen: s. dazu Sternini 2016, 146 f. (anders Fülle 1997, 135).

[10] Zusammenfassend zuletzt Bergamini et al. 2017.

[11] Zusammenfassend zur Produktion von Schwarzfirnisware in Arezzo: Morel 2009.

[12] Wegweisend sind die Arbeiten von Porten Palange, die das weitgehend unpublizierte Material aus Arezzo zugänglich machen und erschließen: Porten Palange 2004; Porten Palange 2009a.

[13] Zur Verbreitung der Werkstatt des Perennius s. Mees 2012, 26. 37–39. 41.

[14] Dazu und zum Folgenden s. Porten Palange 2009a, 4–138 und Porten Palange 2009b, 210 f.

[15] Porten Palange 2009a, 32 f.

[16] Porten Palange 2009a, 34–36.

[17] Flecker 2015a, passim.

[18] Ettlinger 1967; Roth-Rubi 1997.

[19] Auch in der roten Engobe ist eine Nähe zur Toreutik, in diesem Fall zu Gold, vermutet worden. Diese Verbindung lässt sich jedoch kaum aufrecht erhalten: s. dazu Grüner 2017, 29 f.

[20] Flecker 2015b, 111.
[21] Zum Themenspektrum von Silbergeschirr der frühen Kaiserzeit s. Wölfel 1996, 127–142.
[22] Zuletzt Hildebrandt 2017.
[23] Friis Johansen 1930, 274 f. Tatsächlich existierten auch Gipsabgüsse von toreutischen Gefäßen: s. beispielsweise der Gipskrater des Arkesilaos: Fuchs 1999, 74 f. und Grawehr 2010, bes. 115–124.
[24] Hildebrandt 2017, 43.
[25] Wie ein überarbeiteter und adaptierter Abguss aussehen kann, zeigt vielleicht eine Formschüssel aus der dritten Phase der Werkstatt des Perennius, die den Phaetonmythos zeigt. Porten Palange 2009a, 100–102 und Simon 2010.
[26] Plin. nat. 35, 156.
[27] Zu dieser Stelle ausführlich Fuchs 1999, 73–88.
[28] Porten Palange 1995; Porten Palange 2009a, 34. 88 f.
[29] Reinhardt 2018
[30] Porten Palange 2009a, 89.
[31] Reinhardt 2018, 321.
[32] Interessant ist zudem, dass die Künstler der ersten Phase ihre Gefäße teilweise signieren, was vielleicht für ein größeres Selbstvertrauen oder die Herkunft aus einem anderen Tätigkeitsfeld spricht. Auch dies ändert sich in Phase 2 der Werkstatt: Porten Palange 2009a, 6–14. Marabini-Moevs 2017, 141 hat besonders auf die hohe Kunstfertigkeit des Cerdo verwiesen und deswegen in ihm einen Alexandriner sehen wollen. Zur Frage der Herkunft der Künstler s. auch Flecker – Haug 2017, 276.
[33] Porten Palange 2009a, 24.
[34] Pedroni 1995.
[35] Sangriso 1998.
[36] Macr. Sat. 2, 4, 12. – Wallace-Hadrill 2008, 415 f.
[37] Morel 2009, 129.
[38] Liv. 28, 45.

Bildnachweis

Abb. 1: Sammlung Institut für Klassische Archäologie Tübingen. Foto: Thomas Zachmann. – Abb. 2: Sammlung Institut für Klassische Archäologie Tübingen, Inv.-Nr. 1924.

Literatur

Bergamini et al. 2017
M. Bergamini – C. Troso – V. Dezza, La manifattura romana di Scoppieto (Italia, Umbria). La produzione di terra Sigillata, in: M. Flecker (Hrsg.), Neue Bilderwelten. Zu Ikonographie und Hermeneutik Italischer Sigillata. Kolloquium vom 16.–18. April 2015 in Tübingen, TAF 23 (Rahden/Westf. 2017) 73–89.

Ettlinger 1967
E. Ettlinger, Arretina und augusteisches Silber, in: M. Rohde-Liegke (Hrsg.), Gestalt und Geschichte. Festschrift Karl Schefold (Bern 1967) 115–120.

Ettlinger et al. 1990
E. Ettlinger – H. Bettina – H. Bettina (Hrsg.), Conspectus formarum terrae sigillatae italico modo confectae. Materialien zur römisch-germanischen Keramik 10 (Frankfurt 1990).

Flecker 2015a
M. Flecker, Römische Gladiatorenbilder. Studien zu den Gladiatorenreliefs der späten Republik und der Kaiserzeit aus Italien. Studien zur antiken Stadt 15 (Wiesbaden 2015).

Flecker 2015b
M. Flecker, „So sollst Du erfahren, wo ich das Gastmahl bereite sowie verschiedene Spiele und ein prächtiges Trinkgelage." Zur Trinkkultur in augusteischen Militärlagern im römischen Germanien, in: J.-A. Dickmann – A. Heinemann (Hrsg.), Vom Trinken und Bechern. Das antike Gelage im Umbruch. Kat. Ausstellung Freiburg (Freiburg 2015) 100–114.

Flecker – Haug 2017
M. Flecker – A. Haug, Terra Sigillata. Fragen und Perspektiven, in: M. Flecker (Hrsg.), Neue Bilderwelten. Zu Ikonographie und Hermeneutik Italischer Sigillata. Kolloquium vom 16.-18. April 2015 in Tübingen, TAF 23 (Rahden/Westf. 2017) 273–286.

Friis Johansen 1930
K. Friis Johansen, An Ancient Replica of the Priam Bowl from Hoby, ActaArch 1, 1930, 273–277.

Fuchs 1999
M. Fuchs, In hoc etiam genere graeciae nihil cedamus. Studien zur Romanisierung der späthellenistischen Kunst im 1. Jh. v. Chr. (Mainz a. Rein 1999).

Fülle 1997
G. Fülle, The Internal Organization of the Arretine Terra Sigillata Industry: Problems of Evidence and Interpretation, JRS 87, 1997, 111–155.

Grawehr 2010
M. Grawehr, Eine Bronzewerkstatt des 1. Jhs. n. Chr. von ez Zantur in Petra/Jordanien, Petra ez Zantur IV. Ergebnisse der Schweizerisch-Liechtensteinischen Ausgrabungen, Terra Archaeologica VI. Monographien der Schweizerisch-Liechtensteinischen Stiftung für Archäologische Forschungen im Ausland (SLSA) (Mainz a. Rhein 2010).

Grüner 2017
A. Grüner, Schönheit und Massenproduktion. Die Ästhetik der Terra Sigillata, in: M. Flecker (Hrsg.), Neue Bilderwelten. Zu Ikonographie und Hermeneutik Italischer Sigillata. Kolloquium vom 16.-18. April 2015 in Tübingen, TAF 23 (Rahden/Westf. 2017) 25–35.

Hildebrandt 2017
F. Hildebrandt, Silberne Prunkbecherpaare. Vorbilder für die Italische Sigillata?, in: M. Flecker (Hrsg.), Neue Bilderwelten. Zu Ikonographie und Hermeneutik Italischer Sigillata. Kolloquium vom 16.-18. April 2015 in Tübingen, TAF 23 (Rahden/Westf. 2017) 37–49.

Kenrick 1997
P. M. Kenrick, Ateius: the Inside Story, ReiCretActa 35, 1997, 179–190.

Lund et al. 2005
J. Lund – D. Malfitana – J. Poblome, Eastern Sigillata A in Italy. A Socio-¬Economic Evaluation, BABesch 80, 2005, 199–212.

Malfitana 2005
D. Malfitana, Le terre sigillate ellenistiche e romane del mediterraneo orientale, in: D. Gandolfi (Hrsg.), La ceramica e i materiali di età romana. Classi, pro- duzioni, commerci e consumi, Quaderni della Scuola interdisciplinare delle metodologie archeologiche 2 (Bordighera 2005) 121–153.

Marabini Moevs 2000
M. T. Marabini Moevs, The Hellenistic Roots of Imagery in decorated Arretine Vases, ReiCretActa 36, 2000, 491–495.

Marabini Moevs 2006
M. T. Marabini Moevs, Cosa. The Italian Sigillata, MemAmAc Suppl. 3 (Ann Arbor 2006).

Marabini Moevs 2007
M. T. Marabini Moevs, Evocations in Arretine Ceramics of the Battle of Actium and its Protagonists, in: M. Flecker (Hrsg.), Neue Bilderwelten. Zu Ikonographie und Hermeneutik Italischer Sigillata. Kolloquium vom 16.–18. April 2015 in Tübingen, TAF 23 (Rahden/Westf. 2017) 139–145.

McKenzie-Clark 2012
J. McKenzie-Clark, Vesuvian Sigillata at Pompeii. Archaeological Monographs of the British School at Rome 20 (London 2012).

Mees 2012
A. W. Mees, Die Verbreitung von Terra Sigillata aus den Manufakturen von Arezzo, Pisa, Lyon und La Graufesenque. Die Transformation der italischen Sigillata-Herstellung in Gallien. RGZM 93 Monographien (Regensburg 2012).

Meyer-Schlichtmann 1988
C. Meyer-Schlichtmann, Die Pergamenische Sigillata aus der Stadtgrabung von Pergamon, PF 6 (Berlin 1988).

Morel 2009
J. P. Morel, Le produzioni ceramiche a vernice nera di Arezzo, in: G. Camporeale – G. Firpo (Hrsg.), Arezzo nell'antichità (Rom 2009) 125–134.

Pedroni 1995
L. Pedroni, Riflessioni sulla nascita dell'aretina, Ostraka 6,1, 1995, 195–204.

Porten Palange 1995
F. P. Porten Palange, Una produzione poco nota della prima fase dell'officina Aretina di M. Perennius, NumAntCl 24, 1995, 257–276.

Porten Palange 2004
F. P. Porten Palange, Katalog der Punzenmotive in der arretinischen Reliefkeramik, Kataloge vor- und frühgeschichtlicher Altertümer 38 (Mainz a. Rhein 2004).

Porten Palange 2009a
F. P. Porten Palange, Die Werkstätten der arretinischen Reliefkeramik. RGZM Monographien 76 (Mainz a. Rhein 2009).

Porten Palange 2009b
F. P. Porten Palange, La ceramica aretina, in: G. Camporeale – G. Firpo (Hrsg.), Arezzo nell'antichità (Roma 2009) 205–215.

Reinhardt 2018
A. Reinhardt, Delectari varietate: Zur Erklärung der repetitiven Darstellung auf dem ‚Puteal Tegel', in: N. Dietrich – M. Squire (Hrsg.), Ornament and Figure in Graeco-Roman Art. Rethinking Visual Ontologies in Classical Antiquity (Berlin 2018) 299–325.

Roth-Rubi 1997
K. Roth-Rubi, Silber und Terra Sigillata im Vergleich. Zur Herkunft einiger glattwandiger Gefäße aus dem Hildesheimer Silberfund, in: M. Boetzkes – H. Stein (Hrsg.), Der Hildesheimer Silberfund – Original und Nachbildung. Vom Römerschatz zum Bürgerstolz (Hildesheim 1997) 142–150.

Rudnick 2018
B. Rudnick, First to the Market – Zur Marktorientierung römischer Qualitätsgeschirrproduzenten aus Italien und Südgallien, in: Ch. Eger (Hrsg.), Warenwege – Warenflüsse. Handel, Logistik und Transport am römischen Niederrhein, Xantener Berichte 32 (Mainz a. Rhein 2018) 339–360.

Sangriso 1998
P. Sangriso, Terra sigillata e politica augustea. Alcune note su Cn. Ateius, StClOr 46, 1996–98, 919–932.

Simon 2010
E. Simon, Phaeton und Nemesis, WürzbJb 34, 2010, 81–86.

Sternini 2016
M. Sternini, Italian Sigillata: some Insights into a Complex Reality, HEROM. Journal on Hellenistic and Roman Material Culture, 5.2.1, 2016, 143–160.

Stone 2014
S. C. Stone, The Hellenistic and Roman Fine Pottery. Morgantina Studies 6 (Princeton 2014).

Wallace-Hadrill 2008
A. Wallace-Hadrill, Rome's Cultural Revolution (Cambridge 2008).

Wölfel 1996
C. Wölfel, Mythos und politische Allegorie auf Tafelsilber der römischen Kaiserzeit (Diss. FU Berlin 1996), <https://refubium.fu-berlin.de/handle/fub188/4473> (22.11.2018).

Seriality and Restoration: The 'Restored Coins' of the Roman Empire

Christoph Klose

Coins and Reproduction

Leaving aside all economic features of coinage, this paper is focussed on how coin images were reproduced. Coins constitute a well-suited material group for studies aimed at the complex modes of serial image production due to their crafting technique. Their double nature – consisting of types and die-identical sequences – results in a two-fold form of serial image production. Both forms can be seen as pivotal when discussing the serial production of images in antiquity. On the one hand, mass production by use of the same dies (estimates go up to about 30,000 or 40,000 specimens produced from a single [obverse] die);[1] on the other, there is the reproduction of the same images through the use of different, individually cut dies provided with the same image type.[2] While the former marks a simple procedure of mass duplication of an identical image via imprint, the latter is an example for antiquity's manifold phenomena of prototype copy and transfer to new objects or media.[3] Thus, in the case of coins, questions regarding reproduction from the Archaic to the Imperial Period are to be broken down to the operational process of minting.[4]

During the Late Republic and the Principate, coining was executed via two individually cut dies in between which the flan was inserted.[5] The obverse die was fastened on the anvil and the reverse die was set into a shaft, which was hammered on the flan in order to strike the coin. Both dies were individually cut by the die engravers, called *signatores* or *scalptores*.[6] Nearly all Roman dies preserved today are reckoned to be the remains of forgers' workshops and therefore, inapplicable for an investigation on serial production.[7] However, conclusions about the operational process of copying can be gained by a comparative approach to coins struck from different dies but showing the same image with minor variations or in a different style.

Restored Coinage

One category of coins seems to be particularly appropriate for such examination, as both the prototype and the result of repetitive production are extant: the so-called restored coins of the Roman empire. This group comprises coins which reproduce (or in some cases pretend to reproduce) earlier coinage. The essential criterion of this group of issues by the emperors Titus, Domitian, Nerva, and Trajan – as defined in two influential articles by Mattingly in the 1920s – is the legend REST(ITVIT), usually on the reverse.[8] Besides this verbal statement of restoration, the group is rather heterogeneous in itself. Titus and Domitian issued restored

Published in: Arne Reinhardt (Ed.), Strictly Economic? Ancient Serial Production and its Premises, Panel 3.18, Archaeology and Economy in the Ancient World 20 (Heidelberg, Propylaeum 2021) 31–43. DOI: *https://doi.org/10.11588/propylaeum.704*

coins of all the 'good emperors' (omitting Caligula, Nero, Otho, and Vitellius) in *aes* only.[9] Nerva, however, minted only restored coins for Divus Augustus, in silver and *aes*.[10] The restored coins of Trajan are divided into two separate groups. The one issued only in *aurei* is following in the footsteps of his predecessors and restoring types of previous rulers, starting with Caesar.[11] But, as on the restored coinage of his predecessors, most of these types only pretend to restore the authentic prior coinage. In fact, they form an independent coinage, in which the restoration hardly exceeds single elements such as the obverse portrait, the reverse type, or parts of the legend, as the following three examples document.

1.) A *sestertius* of Titus reproduces an obverse prototype of Tiberius, showing the seated Augustus with the legend DIVVS AVGVSTVS PATER. It is combined with an imageless reverse type consisting entirely of a new legend, of which only the central S C could be considered restored.[12]

2.) An *aureus* of Trajan combines a portrait of Caesar with the legend DIVVS IVLIVS.[13] In prior coinage this legend consistently was associated with an eight-rayed comet.[14] So this obverse is in fact a new combination and not a restored type. Its reverse, on the other hand, showing Pax-Nemesis with a winged *caduceus* pointing at a snake is borrowed from Claudian *aurei*, and exchanges the legend PACI AVGVSTAE for Trajan's titulature.[15]

3.) Another *aureus* of Trajan combines a portrait of Titus with an authentic reverse type of that emperor.[16] The reverse shows an elaborately carved seat draped with cloth hanging in folds and on which is placed a thunderbolt. But since the obverse portrait is labelled DIVVS TITVS, this coin is not a mere reproduction of a Flavian type, but also new to some extent.

Although there are restored coins, especially of Titus and Domitian, which more faithfully copy the prototypes, most of the so-called restored coins are merely new combinations of existing reverse and/or obverse types, variations, or even new inventions. Hence the issuing of restored coins under Titus goes hand in hand with a tendency of reviving older types starting in the civil wars after Nero's death and lasting (with varying degree of intensity) until at least the Severan age. This has long since been recognized but barely studied.[17] From a solely iconographic perspective the phenomenon of restoration goes even back to the Late Republican period, when types were being copied for the first time.

Illuminating is the example of *denarii* issued by moneyers belonging to the noble family of the Metelli, in 127 BC and again between 82 and 80 BC.[18] The obverse image is subject to change: a helmeted female head in the case of the coin from the 2nd century BC, and a curly male head in a somewhat sub-archaic style on the latter coin. Both are labelled ROMA. The reverse type, however, is marvellously reproduced on the latter issue. As on the prototype, inside a laurel wreath, a Macedonian shield with an elephant's head at the centre is depicted and surrounded by the legend: M METELLVS Q F. In both issues the elephant's head makes a deliberate reference to their mutual forefather, L. Caecilius Metellus, the first Roman *imperator* to display elephants in his

triumph after victory in the first Punic War.[19] Thus, the latter issue clearly anticipates modes of reproduction and new combination as on the imperial restored coins.

Trajan's restored Republican *denarii*

In fact, this reverse type was not copied only once during the Republic. But it is also featured among the 49 *denarii* of Trajan that are restoring Republican coinage and which constitute the second group of the Trajanic restoration series.[20] These restored *denarii* copy authentic old coinage much more carefully than his contemporary *aurei*.[21] They seem appropriate for a closer examination in order to appreciate how faithfully they were copied, to what extent alterations occur and what this kind of reproduction may tell about their manufacturing – and thus about ancient serial production in general.

Trajan's Republican *denarii* all reproduce both the obverse and reverse of their prototypes. This results in the striking absence of any emperor's portrait, which must have made these coins very conspicuous within Roman imperial coinage. Due to the reverse legend IMP CAES TRAIAN AVG GER DAC P P REST the series can be dated between 102 and 114 AD. The restorations are commonly associated with a passus in the epitome of Cassius Dio for the year 107 AD, which reports that worn out coins were melted down. But the exact nature of the relationship between that note and the restored coins remains a matter of debate.[22] Certainly, not every older worn-out issue was restored. The re-issue is believed to be a matter of deliberate choice, presenting parallel examples of positive rulership not only to past emperors (as in the restored coins of Titus, Domitian, Nerva, and Trajan's *aurei*), but also extending them to *summi viri* and the virtues of the Republican era.[23]

Fig.1: Trajan, restored *denarius* of 61 BC (Komnick 2001, 119 no. 26).

One *denarius* of Trajan's series reproduces a famous *denarius* of M. Aemilius Lepidus from the year 61 BC (fig. 1).[24] On the obverse, a veiled and laureate female head, believed to be that of the Vestal Virgin Aemilia, is accompanied by a small *simpulum* and a wreath to the left and right. Both delicate objects also appear on Trajan's carefully mastered re-issue in the exact same position. Also on the reverse, the Trajanic restoration faithfully reproduces all the details of the two-storeyed building depicted on the prototype, the Basilica Aemilia in the Forum Romanum[25]: five exterior and four interior columns, five shields fixed at the entablature, the details of the roof and the positioning of the original legend above, below, and to the sides of the building.

In the original prototype there also exists a variation that neither depicts *simpulum* nor wreaths on the obverse.[26] This form of variation does not appear in the extant examples of the Trajanic issues. Thus, it is tempting to ask whether this is just a result of mere chance, a consequence of preservation, or an intentional selection with a special appeal to details?

That a special predilection for details cannot be ascribed to Trajanic Republican *denarii* in general can be derived from the comparison of the coins of L. Scribonius Libo and their 2nd century restoration (figs. 2–5).[27] The obverse (fig. 2) with the diademed head labelled BON(VS) EVENT(VS) is a faithful reproduction with minor variations in style that can also be detected among the variations of the Republican prototype (figs. 3–5). The reverse (fig. 2) shows the Puteal Libonis or Scribonianum in the Forum Romanum,[28] and is decorated with garland and lyres at its corners; no tool is depicted as on the three Republican prototypes which feature either a hammer (fig. 3), tongs (fig. 4), or an anvil (fig. 5) in that position. So, in this case, due to the omission of the several

Fig. 2: Trajan, restored *denarius* of 62 BC (Komnick 2001, 118 no. 25).

Fig. 3: L. Scribonius Libo, *denarius* of 62 BC (RRC 416/1a).

available objects in the prototype, one must state a certain degree of reduction within the restored coin.

But on a couple of restored types something was added. A restored anonymous *denarius* from the end of the 3rd century BC depicts on its reverse the armed Dioscuri galloping over a shield and a war trumpet lying on the ground (fig. 6).[29] Besides differences in the stylistic execution and the Trajanic restoration legend, it is identical to the original type. The obverse side portrays a female head with curls falling on the shoulder wearing a

Fig. 4: L. Scribonius Libo, *denarius* of 62 BC (RRC 416/1b).

Fig 5: L. Scribonius Libo, *denarius* of 62 BC (RRC 416/1c).

winged helmet. Besides that, only the denomination mark for *denarius* is depicted on the prototype. On the Trajanic restoration the name DECIVS MVS is added, referring to the legendary hero of the Latin and Samnite wars. From the historical data available it can be excluded that either Decius Mus or descendants of his family were in any way connected with the striking of the prototype. By adding a name on the coin in the age of Trajan, this type was deliberately re-interpreted as material evidence of a legendary hero of Roman history.[30] Whereas there are other examples of re-interpreting the coins

Fig. 6: Trajan, restored *denarius*, end of 3rd century (Komnick 2001, 112 no. 3).

Fig. 7: Trajan, restored *denarius* of 115/114 BC (Komnick 2001, 113 no. 5).

by adding the names of Horatio Cocles[31] and Furius Camillus,[32] there is no example for a newly added pictorial element in Trajan's Republican *denarii*.

However, there is one example, which is unanimously accepted as a deliberate variation of an iconographic detail (fig. 7).[33] On the reverse of the original prototype (fig. 8), dated to 115/114 BC, Roma is resting on a heap of arms consisting of two shields and a helmet. In front of her, the she-wolf is suckling Romulus and Remus. This founding scene of Rome is complemented by two birds flying right and left which the written sources describe as helping to nourish the twins.[34] In the restored *denarius*

Fig. 8: Anonymous *denarius* of 115/114 BC (RRC 287/1).

of Trajan the scene is depicted identically with the exception of the birds, which are uniformly believed to have been replaced by the prows of ships.[35] This replacement of detail would result in a quite distinctive re-semantification of the scene, which would now show not only the humble beginnings of early Rome, but also refer to the victorious future to come. While such a re-interpretation would indisputably fit well into Trajanic state art in general, with its focus on victory and *virtus*, the identification as prows is not convincing. Comparison with ship prows from Trajanic coinage exemplifies that the two slightly curved strokes above the supposed prows do not occur in these symbols of victory.[36] As tempting as it would admittedly be to see the birds being replaced by ship prows, this kind of modification would seem incompatible with the level of detail invested in the rest of the restored *denarii*. To me, the cove strokes rather seem to be rudimentary elements of the flying birds. Therefore, I would rather suggest considering these details as poorly executed – or perhaps even not fully understood – reproductions of the birds. This would offer further proof that the restored coins were manufactured using authentic older coins (sometimes, perhaps, already worn) rather than pattern books, authentic older dies, or transfer dies as a template to cut the dies.[37] Thus Trajan's Republican *denarii* have not a little to tell about ancient serial production.

1.) In coinage, serial production in its strictest definition can only be stated for types struck from identical dies.

2.) Apart from these, coins with the same types that are struck from different dies show variations in style, proportion, and details. This is normally seen as a result of the organisation and rationalization of the manufacturing process, as several die-engravers worked simultaneously to guarantee a sufficient output of coins.[38] But in the case of restored types, regardless of whether or not they are labelled REST(ITVIT), this was rather the result of cutting new dies on the model of old prototypes.

3.) The known types of Republican *denarii* restored by Trajan certainly share a mutual interest in promulgating a concept of rulership not only orientated on past exemplary emperors, but which is also deeply rooted in the history of the *res publica* and the virtues of its most eminent role models. So, whereas the general picture is clear, it is much harder to detect general tendencies regarding the way the images were reproduced. If there is a tendency, besides trying to be exact, it is probably simplification. Details were sometimes omitted, and if something was added, these were only the letters of the legends, which are easy to produce and fit into the field of the coin.[39] Due to the added reverse legend, this field was narrowed even further, resulting in reduced image sizes which left less space for iconographic detail and variation. Hence, the alleged deliberate shift in iconographic meaning of the restored ROMA type (figs. 7–8) much more likely turns out to be the result of the manufacturing process of copying the image on the coin. This indicates that extant earlier pieces of coinage must have played a major role in the replication of the Republican *denarii* – and perhaps also in general in the revival of types.

Notes

[1] Cf. RRC 578. 694–697;Kraay 1976, 18; Göbl 1978, 53 (1,000–16,000); Mørkholm 1991, 15–16 (10,000–20,000); Wolters 1999, 107–114 with note 246 (opting for up to 10,000 specimens); Metcalf 2012, 8; Mittag 2016, 30.

[2] Cf. Grüner 2014, 81–87 and below note 16.

[3] See the bibliography in Reinhardt 2020 and all the contributions of this panel.

[4] On production of longlasting types, reproduction and imitation in Greek coinage cf. the numerous mentions, mostly en passant, in handbooks and catalogues, for example: Kraay 1976, 2–5 (types). 73–74. 76–77 nos. 204–219 (eastern imitations of Athenian owls). 106–107 (on copies of Elean coinage in the Peloponnese, Crete, and by Philip II. For Croton cf. Mittag 2016, 132 fig. 159). 108–110 nos. 338–346 (late Archaic coinage of the Boeotian League copying reverses of Aegina). 102. 122. 223. 233–235 nos. 321–322. 406. 862–877. 1037 (copies of the head of Arethusa at Syracuse by Pheneus, Messene, Opuntian Locris, Siculo-Punic mints and Tarsus); Mørkholm 1991, 35–37 (on Hellenistic imitations, above all types of Alexander and Lysimachus). More comprehensive studies are offered by van Alfen 2005 (with emphasis on forgery) and esp. Weir 2010.

[5] On coining see Hill 1922; RRC 569–583; Göbl 1978, 50–55; RIC I²11–17; Wolters 1999, 100–114; cf. also Kraay 1976, 11–19; Mørkholm 1991, 12–19.

[6] CIL VI 44; RRC 578–579. 582; Göbl 1978, 52; RIC I² 14–15; Wolters 1999, 103–107. – For the disputed question of hubbing, cf. Hill 1922, 19–22; RRC 577–578; Göbl 1978, 52–53; RIC I²12–13; Wolters 1999, 102–103.

[7] In fact, this is a question of defining the few extant dies that feature types of official mints as authentic or forged. On ancient dies, cf. Hill 1922, 13–16; Vermeule 1954; Göbl 1978, 51; Wolters 1999, 82–83; Paunov 2014, 29–34.

[8] Mattingly 1920; Mattingly 1926; Buttrey 1972, 102–106; Gross 1981 (focus on portraits); Komnick 2001, 3–5 (definition of series); 9–26 (research history). Occasionally, later restorations appear among Hadrian, M. Aurelius, L. Verus and Traianus Decius, cf. Wolters 1999, 277–278; Komnick 2001, 3–5.

[9] Cf. Mattingly 1920, 179–204; RIC II 141–148 nos. 184–249 (Titus); 211–213 nos. 453–464 (Domitian); BMCRE II 281–292 nos. 261–305 (Titus); 414–417 nos. 504–512 (Domitian); Komnick 2001, 28–99 nos. Titus 1–62; Domitian 1–10 pls. 1–18. On types and selection: Mattingly 1920, 181–183; Komnick 2001, 165–171; Gallia 2012, 245–246.

[10] Cf. Mattingly 1920, 179–186. 204–207; RIC II 232–233 nos. 126–138; BMCRE III 28–30 nos. 149–161; Komnick 2001, 100–109 nos. 1–11 pls. 19–23. On types and selection: Mattingly 1920, 185–186; Komnick 2001, 172–175.

[11] Mattingly 1926; RIC II 311–313 nos. 815–836; BMCRE III 142–145 nos. 696–706; Komnick 2001, 110–111. 125–138 nos. 52–74 pls. 26–28.

[12] Komnick 2001, 34 no. 2 pl. 1. – Prototype RIC I² 97 no. 49.

[13] Komnick 2001, 126 no. 54 pl. 26; Seelentag 2004, 440–441.

[14] BMCRE I 59 nos. 323–328; 301 nos. 49–50.

[15] RIC I²122 no. 9; BMCRE I 165–174 nos. 6–7. 26–27. 39–47. 51–53. 58–59. 61–62. 68–69; 296 no. 26.

[16] Komnick 2001, 130–131 no. 70 pl. 27. – Reverse prototype: RIC II 119 no. 23: *aureus*, Titus, 80 AD, but legend: TR P IX IMP XV COS VIII P P.

[17] Wolters 1999, 268 note 46. Cf. the brief remarks of RIC II 6. 335; BMCRE II xliii. lxxvii. xcvi; Buttrey 1972; Gross 1981; 602–603; Wolters 1999, 270–271. 298–299. 315; Komnick 2001, 4–5; Winkler-Horaček 2010.
[18] Prototype: RRC 288 no. 263/1 pl. 38; restoration: RRC 387 no. 369 pl. 48. Two more types of 127 BC were restored between 82–80 BC. Cf. generally: Luce 1968, 34–36; Buttrey 1972, 104–105; RRC 288–290 nos. 263–265; 387–388 nos. 369–371; 745; Komnick 2001, 4.
[19] Cf. Luce 1968, 36; Komnick 2001, 4; RRC 287–288. In addition, the Macedonian shield is alluding to the victory of 148 BC of Q. Caecilius Metellus Macedonicus.
[20] Mattingly 1926; RIC II 302–313 nos. 765–814; BMCRE III 132–141 nos. 673–695; Komnick 2001, 110–124 nos. Trajan 1–49, pls. 23–25; Seelentag 2004, 413–484; Gallia 2012, 219–247. 260–270. The types Komnick 2001, 125 nos. 50–51 are restoring Augustan *denarii* struck for M. Agrippa in 12 BC, but are nonetheless often classified among the Republican *denarii* (Komnick 2001, 110; Gallia 2012, 219). – Restoration of the Metellus type: Komnick 2001, 117 no. 18 pl. 24.
[21] Mattingly 1926, 260; Buttrey 1972, 103; Komnick 2001, 145 with notes 415 and 416; 176; Gallia 2012, 219.
[22] Cass. Dio 68,15,3. Recent research has dated the series confidently to ca. 112 AD: Komnick 2001, 11–12. 20. 23–24. 137–138; Seelentag 2004, 413–418; Gallia 2012, 219–220.
[23] Komnick 2001, 17–26 (for a summary of previous interpretation). 159–165. 175–178 (Komnick's interpretation); Seelentag 2004, esp. 483–484; Gallia 2012, 219–247. 260-270, esp. 245–247. This interpretation does not perfectly fit among the 11 reasons for coin imitation distinguished by Weir 2010, 139–142. Restoration of past virtues and achievements is to be added – at least for the Roman era.
[24] Komnick 2001, 119 no. 26 pl. 24; Seelentag 2004, 439–440. – Prototype: RRC 443–444 no. 419/3b pl. 51.
[25] Bauer 1993; Steinby 1993; Lipps 2011, 17–22; Freyberger – Ertel 2016.
[26] RRC 443–444 no. 419/3a.
[27] Komnick 2001, 118 no. 25 pl. 24. Prototypes: RRC 441–442 nos. 416/1a–c pl. 51; Hollstein 1993, 210–215.
[28] Chioffi 1999.
[29] Komnick 2001, 112–113 no. 3 pl. 23. – Prototype: RRC 207–208 no. 128/1 pl. 23.
[30] Komnick 2001, 175–176; Gallia 2012, 224–226.
[31] Komnick 2001, 111–112 no. 1 pl 23. Similar type as for Decius Mus but with head instead of shield and war trumpet. Prototype: *denarius* 206/200 BC: RRC 207 no. 127/1.
[32] Komnick 2001, 112 no. 2 pl. 23. Prototype: *quadrigatus* 225/212 BC, RRC 144–147 nos. 28/3; 29/3; 30/1–34/1. pls. 2–5.
[33] Komnick 2001, 113 no. 5 pl. 23. Prototype: Anonymous *denarius* 115/114 BC, RRC 302 no. 287/1.
[34] Serv. Aen. 1,273, Non. 518 M; cf. RRC 719 note 5.
[35] Mattingly 1926, 237 no. 5; RIC II 306 no. 771; BMCRE III 132 no. 673; Komnick 2001, 113. 145 note 415; Gallia 2012, 261 no. 5.
[36] E.g. RIC II 245 no. 4; 248 no. 59.
[37] Buttrey 1972, 104–106; Komnick 2001, 142–145. Both the evidence from written sources and coin hoards suggests that Republican coinage was available in considerable quantities at the end of the 1st and the beginning of the 2nd century: Buttrey 1972, 102; Komnick 2001, 4. 142. 191–195. Information on coin hoards (e.g. those from Pompeii including Republican *denarii*) can now easily be collected via the Oxford Coin Hoards of the Roman Empire Project (online: <http://chre.ashmus.ox.ac.uk/> 30.10.2018).
[38] Cf. Grüner 2014, 84–87.

[39] According with Hill 1922, 24–26: additions to a die are much easier produced than erasures or corrections.

Image Credits

Fig. 1: Münzkabinett Berlin 18207127, <https://ikmk.smb.museum/object?id=18207127> (02.05.2019). – Fig. 2: Münzkabinett Berlin 18204981, <https://ikmk.smb.museum/object?lang=de&id=18204981> (02.05.2019). – Fig. 3: Münzkabinett Berlin 18201835, <https://ikmk.smb.museum/object?lang=de&id=18201835> (02.05.2019). – Fig. 4: Münzkabinett Berlin 18204980, <https://ikmk.smb.museum/object?lang=de&id=18204980> (02.05.2019). – Fig. 5: Gorny & Mosch, e-auction 259 20.10.2018, lot 3599, reproduced with permission. – Fig. 6: The New York Sale, auction XVII 09.01.2008, lot 189, reproduced with permission. – Fig. 7: Paris, Bibliothèque nationale de France, département Monnaies, médailles et antiques, IMP-3028, Source: gallica.bnf.fr / BnF: <https://gallica.bnf.fr/ark:/12148/btv1b10448890h/f1.double> (02.05.2019). – Fig. 8: with permission of wildwinds.com, ex CNG auction 61, 2002, <http://www.wildwinds.com/coins/rsc/anonymous/RSC_0176.5.jpg> (02.05.2019).

References

Bauer 1993
LTUR I (1993) 183–187 s.v. Basilica Paul(l)i (H. Bauer).

Buttrey 1972
T. V. Buttrey 1972, Vespasian as Moneyer, NumChron 7. Ser. 12, 1972, 89–109.

Chioffi 1999
LTUR IV (1999) 171-173 s.v. Puteal Libonis/Scribonianum (L. Chioffi).

Freyberger – Ertel 2016
K. St. Freyberger – C. Ertel, Die Basilica Aemilia auf dem Forum Romanum in Rom: Bauphasen, Rekonstruktion, Funktion und Bedeutung, Sonderschriften DAI Rom 17 (Wiesbaden 2016).

Gallia 2012
A. B. Gallia, Remembering the Roman Republic. Culture, Politics, and History Under the Principate (Cambridge 2012).

Göbl 1978
R. Göbl, Antike Numismatik (München 1978).

Gross 1981
W. Gross, Augustus als Vorbild, ANRW II 12,2 (1981) 599–611.

Grüner 2014
A. Grüner, Antike Reproduktionsmedien. Siegel und Münze zwischen Serialität und Authentizität, in: W. Cupperi (ed.), Multiples in Pre-Modern Art (Zürich 2014) 59–93.

Hill 1922
G. F. Hill, Ancient Methods of Coining, NumChron 5. Ser. 2, 1922, 1–42.

Hollstein 1993
W. Hollstein, Die stadtrömische Münzprägung der Jahre 78–50 v. Chr. zwischen politischer Aktualität und Familienthematik, Quellen und Forschungen zur Antiken Welt 14 (München 1993).

Komnick 2001
H. Komnick, Die Restitutionsmünzen der frühen Kaiserzeit. Aspekte der Kaiserlegitimation (Berlin 2001).

Kraay 1976
C.M. Kraay, Archaic and Classical Greek Coins (New York 1976)

Lipps 2011
J. Lipps, Die Basilica Aemilia am Forum Romanum: der kaiserzeitliche Bau und seine Ornamentik, Palilia 24 (Wiesbaden 2011).

Luce 1968
T. J. Luce, Political Propaganda on Roman Republican Coins: circa 92–82 B.C., AJA 72, 1968, 26–39.

Mattingly 1920
H. Mattingly, The "Restored" Coins of Titus, Domitian, and Nerva, NumChron 4. Ser. 20, 1920, 177–207.

Mattingly 1926
H. Mattingly, The Restored Coins of Trajan, NumChron 5. Ser. 6, 1926, 232–278.

Metcalf 2012
W.E. Metcalf, Introduction, in: W.E. Metcalf (ed.), The Oxford Handbook of Greek and Roman Coinage (Oxford 2012) 3–11.

Mittag 2016
P.F. Mittag, Griechische Numismatik. Eine Einführung (Heidelberg 2016).

Mørkholm 1991
O. Mørkholm, Early Hellenistic Coinage. From the Accession of Alexander to the Peace of Apamea (336–188 B.C.) (Cambridge 1991).

Paunov 2014
E. I. Paunov, Dies for Striking Republican and Early Imperial Coins from Moesia and Thrace: Ancient Forgeries or Something Else? Journal of Ancient History and Archaeology 2014/1, 29–35.

Reinhardt 2020
A. Reinhardt, Strictly Economic? Ancient Serial Production and its Premises: An Introduction, in: Arne Reinhardt (ed.), Strictly Economic? Ancient Serial Production and its Premises, Panel 3.18, Archaeology and Economy in the Ancient World 20 (Heidelberg, Propylaeum 2020) 1–4. DOI: https://doi.org/10.11588/propylaeum.704

Seelentag 2004
G. Seelentag, Taten und Tugenden Traians. Herrschaftsdarstellung im Principat, Hermes Einzelschriften 91 (Stuttgart 2004).

Steinby 1993
LTUR I (1993) 167–168 s.v. Basilica Aemilia (E.M. Steinby).

van Alfen 2005

P. van Alfen, Problems in Ancient Imitative and Counterfeit Coinage, in Z. Archibald – J. Davies – V. Gabrielsen (eds.), Making, Moving, and Managing: The New World of Ancient Economics, 323–31 B.C. (Oxford 2005) 322–354.

Vermeule 1954

C.C. Vermeule, Some Notes on Ancient Dies and Coining Methods (London 1954).

Weir 2010

R. Weir, Interpretation and Imitation of Classical Greek Coin Types, MBAH 28, 2010, 123–170.

Winkler-Horaček 2010

L. Winkler-Horaček, Parthersieg und cista mystica. ‚Tradition' und ‚Reduktion' in Münzbildern unter Vespasian und Titus: Zwei Fallbeispiele, in: N. Kramer – Chr. Reitz (eds.), Tradition und Erneuerung. Mediale Strategien in der Zeit der Flavier (Berlin 2010) 457–481.

Wolters 1999

R. Wolters, Nummi Signati. Untersuchungen zur römischen Münzprägung und Geldwirtschaft, Vestigia 49 (München 1999).

Iconographic Series in Attic Vase Painting: Technical Simplification or Semantic Strategy?

Mariachiara Franceschini

The repetition of iconographic motifs and compositions is a widespread phenomenon within Attic vase painting. Most commonly, repetitive motifs are considered 'standardized' in terms of iconography, or 'mass products',[1] if one focuses on the production process. Seriality is perceived as triviality and contrasted to more varied iconographic compositions, less common decorations, masterpieces, or bespoke products, whose uniqueness or rarity are indicative of their value and esteem.[2] However, in Torelli's words: "[…] è la ripetizione del pezzo (o della forma o della classe e dello stile) che crea il fenomeno artistico non la sua unicità (o inclassificabilità)".[3] Thus, repetition means that a motif or shape has been popular and commercially successful. Examining the process that leads to the crystallization of iconographic series, such as serial productions, reveals information about aesthetic and semantic phenomena that may have influenced the economic success of wares in ancient society. It can help to shed light on the productive factors behind the aesthetics of images.

Before focusing on the repetition of iconographic motifs in vase painting, one must first consider issues of definition. I will first delineate what defines a series, how and why a motif becomes a serial product, and what technical factors may influence this process. Closely related to this is the concept of standardization, which then must be reviewed. This poses questions about the dynamics of series formation: should this be seen as a purely technical phenomenon or are its semantics more significant? This analysis will be supported by the exemplary case of mantle figures, one of the most popular motifs of the Athenian imagery, whose first signs of standardization appeared between the first and second quarter of the 5th century BC, drastically developing into a relatively uniform mass production.

Series, Mass Product and Standardization

Dealing with the concepts of replication and copying within Attic vase painting, Konrad Schauenburg recognized different types of replicas: 1) images repeated on different sides of the same vase; 2) different vases with identical motifs painted by the same painter; and 3) different vases with identical motifs decorated by different painters.[4] However, the use of the same motifs is not enough, Schauenburg argues, to constitute a replica: the composition has also to be the same. Consequently, Schauenburg excludes mass products from this classification,[5] although he remains concerned with isolated replicas and copies of extraordinary 'works of art'. When thinking about series, Volker Michael Strocka focused on compositions which match in dimensions and were produced at

Published in: Arne Reinhardt (Ed.), Strictly Economic? Ancient Serial Production and its Premises, Panel 3.18, Archaeology and Economy in the Ancient World 20 (Heidelberg, Propylaeum 2021) 45–59. DOI: *https://doi.org/10.11588/propylaeum.704*

Fig. 1: Left: New York, The Metropolitan Museum of Art, X.21.21; Right: New Haven, The Yale University Art Gallery, 1913.137.

the same time, assuming they depend on the use of models in the case of Attic vases.[6] The serial production is limited to certain workshops or to the distribution of templates from the same cultural background and chronological period. Such an approach seems to have been influenced by a terminology adopted from sculpture research. However, if one tries to transfer this concept to iconography, the definition requires revision.

An iconographic series in vase painting can not only refer to the repetition of the entire composition, but also to a single motif used independently from the scenes and standardized by the repetition of distinctive features. This is what makes it adaptable to different contexts. Cases of motif repetition on the same vase shape are rather rare, but examples were produced during the second half of the 5th century and became more frequent during the 4th century BC (fig. 1).[7] Iconographic series in vase painting may well have been limited to a specific time period, yet it is not uncommon for motifs produced in series to go beyond their temporal boundaries and workshop walls, to develop diachronically across a wide geographical area. A series therefore results from the repetition of an archetype of either figure or composition that produces a standardized iconography and can extend over a longer period of time. In vase painting, iconographic series are more flexible, because, in contrast to sculpture, variations

are not interpreted as errors or inaccuracies[8] but belong to series development. The accuracy of the repetition of a model is otherwise, in the case of terracotta, guaranteed by the use of matrices.[9] Again, this is not the case in Attic ceramics, in which figures and compositions were not meant to reproduce precise copies, since the drawings were always designed by hand.

In addition, iconographic series are not static, as characterizing features of a motif are gradually standardized into series. Nevertheless, 'standardization' has been mostly considered as mere simplification or trivialization, caused by technical needs. For example, Trendall considered that the figures wearing a himation on the 'reverse' of south-Italian vases became standard objects by being repeated so often and monotonously.[10] Similarly, Giampiero Pianu interpreted the standardization of Etruscan pottery by the Sokra- and Fantasma-Groups in the 4th century also as a regression of quality. He connected the phenomenon with increasing demand[11] and linked it to apprentices in the workshops, who would have been in charge for monotonous and easier procedures.[12] This technical and economic causality would have led, according to Pianu, to lower quality products, resulting in a levelling and depersonalization of the object. Trendall, on the contrary, sees the reason for the repetition as an attempt by the painter to transmit his Greek identity, therefore recognizing its semantic value.

Following this debate on the dichotomy between economic and semantic factors influencing the series, I would like to point out how these aspects should rather be regarded as integrating parts of a consistent strategy.

The Creation of Iconographic Series

On a theoretical level, the standardization of motifs appears as the result of the development of mental patterns (the form of an object in the mind of a creator).[13] The prototype, with all its necessary characteristics, must have always been present in the memory of the painter. Afterwards, familiarity with the technique and the motif itself led to the simplification of frequently repeated figures. However, technical aspects cannot be detached from semantic contents, since the pictorial vocabulary[14] of the imagery also standardizes in order to guarantee the communication of essential narrative contents.[15] Therefore, the development of iconographic series must be considered both from the technical and the semantical point of view.

Mantle figures serve as an adequate example, as they are a uniform series with common and recursive characteristics, reproducing redundant figurative schemes or image compositions. Literary sources also offer an additional overview on the semantic of the himation. The best-known representations of the 4th century BC represent the endpoint of a standardization process (fig. 1), which can be traced back to the beginning of the red-figure production. In the second quarter of the 5th century we recognize the first signs of the standardization of mantle figures, gradually developing into a series

Fig. 2: Left: Munich, Antikensammlungen, 2313; Right: Vatican City, Museo Gregoriano Etrusco, 16544.

and being often depicted in so-called 'conversation pieces', which have groups of static figures, apparently not involved in an action. At this point, the motif is in a consolidation phase, characterized by the fixation of basic iconographic details. Consequently, this process is to be considered as a vivid and non-linear development, which led to youths with one arm free from the mantle or completely draped, to be the most represented figures. Perhaps this is also, but not only, because they were easier to draw.[16]

The first stages of the development of this motif in the first half of the 5th century BC can be illustrated concretely by considering the œuvre of the Berlin, Harrow and Achilles Painters, as well as the Penthesilea Workshop. Focusing on the workshops also allows the technical requirements involved in the design and production processes of the motif to be highlighted.

Considering some examples of draped men by the Berlin Painter, we can recognize the tendency to repeatedly depict certain standardized figures corresponding to the same type. Some figures (fig. 2)[17] stand with their right knee slightly bent and turn their heads to the right, stretch their right arm forward and hold a stick with their left hand; the mantle is draped in the same way and even the wrinkles are similar, if we look, for example, at how the mantle folds on the left shoulder or how it falls down by the left leg.

Fig. 3: Berlin, Staatliche Museen zu Berlin, Antikensammlung, 1965.5.

Of course, there are also variations that affect the age of the figures, the different kinds of stick, the gestures of their hands, or even how they turn their heads. Concentrating on the small details, the patterns of the figures are not identical: each one is a new creation, even though it refers to the same scheme.

Fig. 4: Ferrara, Museo Archeologico Nazionale, T475.

All the considered figures (see fig. 2 and note 17) appear in a similar composition: they are alone on one side of the vase and address themselves to persons on the other side. Nevertheless, the same type was used by the Berlin Painter in different contexts: the mantle figure could be involved in a ritual,[18] other draped youths receive a lyre – probably as a love gift – from an older man,[19] or a wreath from a flying Nike (fig. 3). Despite the evident variations, the scheme remains the same.

The repetition of the same compositions is best explained with examples by the Harrow Painter, although these are rarely identical. Between two completely draped figures we could find another draped youth (fig. 4) or a bearded older man.[20] Repetition of almost identical compositions appears more frequently from the second quarter of the 5th century BC within the workshop of the Penthesilea Painter. The phenomenon spreads not only to vases attributed to the same hand, like some vases by the Painter of Bologna 417 (fig. 5), but also links different painters with each other, as in the case of some *kylikes* by the Veii and Curtius Painters.[21] Also in these cases, the variations do not significantly alter the general pattern, but indicate that no intentional copy or replica was meant, rather that the painters worked with simplified archetypical models and combined them freely.

Fig. 5: Above: Tübingen, Universität, E 83; Below: Berlin, Staatliche Museen zu Berlin, Antikensammlung, F2526.

The vase shape can in part influence the composition. The outside of *kylikes* were well suited for three-figure groups (fig. 5), while the tondi were often used for two mantle youths, like in some examples by the painter of Orvieto 191A (fig. 6)[22]. Such

Fig. 6: Orvieto, Museo Civico, 1050.

considerations can also be made for amphorae by the Berlin and Achilles Painters. Isolated figures, as those described above, are often on one side of amphorae and usually show a standardized iconography. Considered alone, these figures look enigmatic and detached from the communicative system of the vases and seem more likely to be regarded as ornamental. However, their gestures restore the relationship between different image fields (fig. 7),[23] allowing us to interpret them as co-agents or spectators of the events taking place on the other side.[24] Thus, reconstructing the macro scene extending over both sides of the vase, on one of which there is always a mantle figure, the painter reveals the conscious use of a specific strategy, in which figure schemes, composition patterns and vase shapes concur to define a series.

Based on the examples presented here, as representative of many more vases, the consolidation process of iconographic series has to be defined diachronically[25]

Fig. 7: Baltimore, Walters Art Gallery, 48.54.

by the constant repetition of standardized features, details, figure types and image compositions, being reproduced in the same way. Thus, the evident similarities allow for the clear recognition of a series.[26] Nevertheless, variations cannot be avoided in Attic vase painting, since every vase, despite the increasing standardization, is an autonomous creation not depending on matrices or intentional copy.

Economic Success and Semantic Strategy

When reproducing similar schemes, the painter potentially reduced the production time, thereby affecting also an immediate production cost saving. By choosing to use standardized figures and patterns – which are the easiest to be sketched – the painter is already familiar with the figures and does not have to be particularly original, even if it definitely does not mean he is uncreative. Variations are always present

and affect actively the meaning of the images. Saving the painter time should not be underestimated, since at this stage the quality of both sides of the vase is the same. Standardization cannot be seen as a consequence of the shoddy work of the apprentices in the workshop.[27] Simplification, therefore, becomes an economic factor in the work process; nevertheless, it is not enough to cause the development of an iconographic serial production, mostly because such series develop diachronically and not only within the workshop of one painter. Therefore, semantic factors must also be considered to explain the broad marketing of iconographical series.

"The selective reference reveals not just what the eye observes, but what the brain has been culturally conditioned to see as crucial in making a human appear human or a Greek appear Greek".[28] What Osborne says here about the perception of the image of the body can also be applied to the discussion on the creation of series, especially in the case of a mantle figure. Thanks to their repetition, figures and patterns mould the perception of the viewer and point out the important element of the visual narration. Thereby, the viewer was also used to receive the omnipresent element of the image, as the most relevant content bearer. Thus, details become superfluous in the simplification process: it is enough to show core archetypical elements in order to achieve visual communication with the viewer.

To understand the meaning of the mantle figure, we also require the help of literary sources, which clearly refer to an Athenian context, in which the himation denotes the affiliation to the male polis acting in the Athenian public space.[29] "Ἑλληνικὸν δὲ τὸ σχῆμά ἐστι τῷ Ὀρφεῖ":[30] wearing the himation turns even the Thracian Orpheus into an Hellene, showing that mantle figures refer not only to the Athenian polis as a socio-cultural background, but moreover to a broadly perceived Greek koine. Since simplification and redundancy reinforce its significance and serve to build narrative structures and strategies,[31] the repetition of mantle figures forms a meta-discourse.[32] This allows the viewer to have a different perspective on the picture and serves as a link between different representations and different vases, thus, permitting to perceive the image in the context of its cultural environment.

Yet there is another important effect of this process. The serial production of iconography and their consequent simplification render these figures more understandable and, therefore, valid, not least by amplifying their meaning and making them 'universal' in essence. This is of the highest relevance, if we consider that mantle figures spread throughout the Mediterranean.[33] The more the iconography is simplified and generalized, the greater the opportunity is for each viewer to recognize themselves in familiar mantle figures. Consequently, the serial reproduction *in primis* guarantees the greater diffusion of the motive. This, in the end, helps to answer the economic question of the marketing of series as 'mass-production', since the achieved general understanding ensures that the vases appeal to a broader audience. This popularity justifies, therefore, the success on the market.

To briefly conclude, different factors concur to define the question of the *Produktionsästhetik* of iconographic series: both technical issues and semantic aspects closely affect the impact of the series on the perception and taste of buyers. On one hand, the craftsman plays an essential role in the development of series production, by reducing the labour to speed up the process. On the other hand, the serial simplification and redundant repetition increase the general validity of a motif in the perception of the viewer, thus contributing to its economic success.

Notes

[1] For this definition of mass products, see Langner 2012c, 11 f.

[2] The discussion is strictly connected to the debate on the alleged dichotomy between image and decoration, see newly Squire – Dietrich 2018, esp. Reinhardt 2018, 300 f.

[3] Torelli 1985, 5.

[4] Schauenburg 1977, 198–200. Unlike Beazley, who only speaks of replicas when vases are of the same shape and iconography (cf. ABV 569, 664, 567, 634, further examples in Schauenburg 1977, 195 no. 3), although the term is not always used consistently.

[5] Schauenburg 1977, 197.

[6] Strocka 1979, 158.

[7] See also, with the same motif: Pilsen, Museum of Western Bohemia, 8314 (BAPD 230321; CVA Pilsen [1] pl. 21, 1); Saint Petersburg, Hermitage Museum, B4256 (BAPD 30552); New Haven, Yale University, 136 (BAPD 230323; CVA New Haven [1] pl. 6, 2).

[8] Schauenburg 1977, 197 f.

[9] For series and variation in terracotta reliefs see Reinhardt 2016; about Terra Sigillata see Flecker in this volume.

[10] LCS, 11. Nevertheless, standardization offers considerable help for connoisseurship: where the iconography rarely changes, any variation can refer to a different painter.

[11] Pianu 1978, 171 f.; Pianu 1985.

[12] Pianu 1978, 172; also: Beazley 1959, 47 f.; Heilmeyer 2008, 245 f.

[13] Marks et al. 2001, 26.

[14] Catoni 2005, 3; see also Steiner 1997, 167.

[15] For the semantic of repetition as syntactical element see Steiner 1993; Steiner 1997; Steiner 2007, esp. 39 f. 52–73. 94–128; see also Pirson 2014, 211.

[16] See Franceschini 2018, esp. 121–150.

[17] See with the same motif also: New York, Metropolitan Museum of Art, 56.171.38 (BAPD 201811; Kurtz 1983, pl. 1. 36); Montpellier, Musée Fabre, 139 (BAPD 201818; Landes – Laurens 1988, 156 no. 100); Napoli, Museo Nazionale, 86049 (BAPD 201826; Beazley 1922, 77). Other examples feature youths stretching their arms, with or without a stick, to one side of the amphorae: Baranello, Museo Civico, 93 (BAPD 9882; Dareggi 1977, pl. 7); Boulogne, Musée Communale, 656 (BAPD 201856; Beazley 1974, pl. 16); Havana, Museo Nacional de Bellas Artes, 160 (BAPD 201910; Olmos 1990, 104–107 no. 29); Munich, Antikensammlungen, 2319 (BAPD 201830; CVA Munich [5] pl. 210, 4).

[18] See Basel, Antikenmuseum und Sammlung Ludwig, KÄ423 (BAPD 275095; CVA Basel [3] pl. 40, 1).
[19] See Mannheim, Reiss-Engelhorn-Museen, 11 (BAPD 201872; CVA Mannheim [2] pl. 17, 1. 3).
[20] See Caltanissetta, Museo Civico, 352517 (BAPD 352517; Panvini 2005, 41 fig. 37).
[21] e.g., Gotha, Schlossmuseum, 80 (BAPD 211961; CVA Gotha [1] pl. 47, 2–3) and Columbia, Museum of Art and Archaeology, 66.2 (CVA Columbia [1] pl. 32, 3–4).
[22] See also Rome, Villa Giulia, 50513 (BAPD 212646); London, Sotheby´s (BAPD 212620).
[23] See Isler-Kerényi 1971, 28–30; Franceschini 2018, 211; see also Saint Petersburg, State Hermitage Museum, B1561 (BAPD 213829; Oakley 1997, pl. 9 c; 45 d no. 11); Vienna, Kunsthistorisches Museum, 696 (BAPD 213831; CVA Vienna [2] pl. 63, 1–2).
[24] Franceschini 2016, 175 f.
[25] In this paper, I focus on some painters and workshops, but the same figure types are repeated and continue to be simplified until the 4th century BC, e.g., for the types in fig. 2 and 4 see Franceschini 2018, 81–84. 109–111. 115–118.
[26] Cf. Heilmeyer 2008, 244.
[27] For workshop organization see Langner 2016, 774; Mackay 2016.
[28] Osborne 2011, 45.
[29] See Langner 2012b, 14; Franceschini 2018, 215 f.
[30] Paus. 10.30.6.
[31] Steiner 1993, 211; Steiner 1997, 163; about repetition linking images together see Pearson 2015, 150. 158 f.
[32] For repetition in general as meta-discourse, see Steiner 1997, 163. 167; Steiner 2007, 53–62. 100–108.
[33] Thereby mantle figures are relevant in regards to the acceptance of the product, see Langner 2012a, 45 f.

Image Credits

Fig. 1 left: digital image courtesy of The Metropolitan Museum of Art; online collection: ww.metmuseum.org – right: digital image courtesy of the Yale University Art Gallery; online collection. – Fig. 2: drawings by M. Franceschini. – Fig. 3: ©Antikensammlung, Staatliche Museen zu Berlin – Preussischer Kulturbesitz – Foto: Johannes Laurentius / Fotowerkstatt SMB. – Fig. 4: drawing by M. Franceschini. – Fig. 5: above: © Museum der Universität Tübingen, Institut für Klassische Archäologie – below: ©Antikensammlung, Staatliche Museen zu Berlin – Preussischer Kulturbesitz – Foto: Johannes Laurentius / Fotowerkstatt SMB. – Fig. 6: drawing by M. Franceschini. – Fig. 7: digital image courtesy of The Walters Art Museum; online collection.

Abbreviations

ABV – J. D. Beazley, Attic Black-Figure Vase-Painters (Oxford 1956).
BAPD – Beazley Archive Pottery Database. (http://www.beazley.ox.ac.uk/databases/pottery)
LCS – A. D. Trendall, The Red-Figured Vases of Lucania, Campania and Sicily (Oxford 1967).

References

Beazley 1922
J. D. Beazley, Citharoedus, JHS 42, 1922, 70–98.

Beazley 1959
J. D. Beazley, Spina e la ceramica greca, in: Spina e l'Etruria padana. Atti del I Convegno di studi etruschi, Ferrara 8–11 settembre 1957, Suppl. SE 25 (Florence 1959) 47–57.

Beazley 1974
J. D. Beazley, The Berlin Painter (Mainz 1974).

Catoni 2005
M. L. Catoni, Schemata. Comunicazione non verbale nella Grecia antica (Pisa 2005).

Dareggi 1977
G. Dareggi, Ceramica greca e italiota nel Museo di Baranello (Rome 1977).

Franceschini 2016
M. Franceschini, Mantle Figures and Visual Perception in Attic Red-Figure Vase Painting, in: J. Bracker – C. Doose-Grünefeld (eds.), Visuelle Narrative – Kulturelle Identitäten, Universität Hamburg 27.–29. November 2014 (Hamburg 2016) 163–198.

Franceschini 2018
M. Franceschini, Attische Mantelfiguren. Relevanz eines standardisierten Motivs der rotfigurigen Vasenmalerei, ZAF 5 (Rahden/Westf. 2018).

Heilmeyer 2008
W.-D. Heilmeyer, Kunst und Serie, in: K. Junker – A. Stähli – C. Kunze (eds.), Original und Kopie. Formen und Konzepte der Nachahmungen in der antiken Kunst, Akten des Kolloquiums in Berlin, 17.–19. Februar 2005 (Wiesbaden 2008) 243–251.

Isler-Kerényi 1971
C. Isler-Kerényi, Ein Spätwerk des Berliner Malers, AntK 14, 1971, 25–31.

Kurtz 1983
D. C. Kurtz, The Berlin Painter (Oxford 1983).

Landes – Laurens 1988
C. Landes – A.-F. Laurens (eds.), Les vases à mémoire. Les collections de céramique grecque dans le midi de la France. Exhibition Catalogue Musée de Lattes (Lattes 1988).

Langner 2012a
M. Langner, Kam es auf die Bilder an? Handelskontakte, Verwendungskontexte und lokale Imitationen spätrotfiguriger Vasenbilder aus Athen, in: S. Schmidt – A. Stähli (eds.), Vasenbilder im Kulturtransfer. Zirkulation und Rezeption griechischer Keramik im Mittelmeerraum, München 8.–10. September 2010, CVA Beih. 5 (Munich 2012) 35–50.

Langner 2012b
M. Langner, Mantle-figures and the Athenization of Late Classical Imagery, in: S. Schierup – B. B. Rasmussen (eds.), Red-figure Pottery in its Ancient Setting. Acts of the International Colloquium held at the National Museum of Denmark, Copenhagen November 5.–6. 2009 (Aarhus 2012) 11–20.

Langner 2012c
M. Langner, Meisterwerk und Massenware. Chronologie, Dekor und Funktion spätrotfiguriger Bildervasen aus Athen (Habilitationsschrift Freie Universität Berlin 2012).

Langner 2016
M. Langner, Centre and Periphery Levels of Quality in red-figure Productions of the 4th Century BC, in: M. Giannopoulou – C. Kalline (eds.), Timētikos tomos gia tēn kathēgētria Stella Drougou (Athens 2016) 760–782.

Mackay 2016
A. Mackay, Exekias & Co. Evidence of Cooperative Work in the Workshop of Exekias, Group E and their Associates, in: N. Eschbach – S. Schmidt (eds.), Töpfer - Maler - Werkstatt. Zuschreibungen in der griechischen Vasenmalerei und die Organisation antiker Keramikproduktion, CVA Beih. 7 (Munich 2016) 87–95.

Marks et al. 2001
A. E. Marks – H. J. Hietala – J. K. Williams, Tool Standardization in the Middle and Upper Palaeolithic. A Closer Look, CambrAJ 11, 2001, 17–44.

Oakley 1997
J. H. Oakley, The Achilles Painter (Mainz 1997).

Olmos 1990
R. Olmos, Vasos griegos, collección condes de Lagunillas (Kilchberg 1990).

Osborne 2011
R. Osborne, The History Written on the Classical Greek Body (Cambridge 2011).

Panvini 2005
R. Panvini, Le ceramiche attiche figurate del Museo archeologico di Caltanissetta (Bari 2005).

Pearson 2015
S. Pearson, Bodies of Meaning. Figural Repetition in Pompeian Painting, in: S. Lepinski – S. McFadden (eds.), Beyond Iconography. Materials, Methods, and Meaning in Ancient Surface Decoration (Boston 2015) 149–166.

Pianu 1978
G. Pianu, Due fabbriche etrusche di vasi sovradipinti. Il gruppo Sokra ed il gruppo del Fantasma, MEFRA 90, 1978, 161–187.

Pianu 1985
G. Pianu, La Standardizzazione: la ceramica, in: M. Cristofani (ed.), Civiltà degli Etruschi (Milan 1985) 329–331.

Pirson 2014
F. Pirson, Ansichten des Krieges. Kampfreliefs klassischer und hellenistischer Zeit im Kulturvergleich (Wiesbaden 2014).

Reinhardt 2016
A. Reinhardt, Ton – Technik – Serie. Zur manufakturartigen Fertigung von Campana-Reliefs durch römische figuli, in: P. Baas – M. Flecker (eds.), Fragmentierte Bilder. Die Campana-Reliefs des Instituts für Klassische Archäologie Tübingen. Exhibition Catalogue Tübingen (Tübingen 2016) 47–49.

Reinhardt 2018
A. Reinhardt, Delectari varietate: Zur Erklärung der repetitiven Darstellung auf dem ‚Puteal Tegel', in: Squire – Dietrich 2018, 299–326.

Schauenburg 1977
K. Schauenburg, Zu Repliken in der Vasenmalerei, AA 1977, 194–204.

Squire – Dietrich 2018
M. Squire – N. Dietrich (eds.), Ornament and Figure in Graeco-Roman Art. Rethinking Visual Ontologies in Classical Antiquity (Berlin 2018).

Steiner 1993
A. Steiner, The Meaning of Repetition. Visual Redundancy on Archaic Athenian Vases, JdI 108, 1993, 197–219.

Steiner 1997
A. Steiner, Illustrious Repetitions. Visual Redundancy in Exekias and his Followers, in: J. H. Oakley – W. D. E. Coulson – O. Palagia (eds.), Athenian Potters and Painters. The Conference Proceedings, American School of Classical Studies at Athens 01.12.–04.12.1994 (Oxford 1997) 157–169.

Steiner 2007
A. Steiner, Reading Greek Vases (Cambridge 2007).

Strocka 1979
V. M. Strocka, Variante, Wiederholung und Serie in der griechischen Bildhauerei, JdI 94, 1979, 143–173.

Torelli 1985
M. Torelli, L'arte degli Etruschi (Rome 1985).

Comparing Innovative Strategies. Serial Production of the Paestan Workshop of Asteas and Python and Etruscan *ceramica sovraddipinta*

Sabine Patzke – Elisabeth Günther

Repetitiveness in ancient vase-paintings has often been interpreted as a sign of a lower quality and an indicator of a decline in craftsmanship. In accordance with our fellow speakers in panel 3.18, we would like to offer a new perspective. This paper discusses Paestan and Etruscan figured vases, both produced in approximately the same period (4th to 3rd century BC) and roughly in the same area.[1] By comparing them, we examine which factors might have promoted the apparent serialization of these vases, and to what extent their repetitive vase-paintings resulted from serial production processes. When discussing the phenomenon of serial production, it has to be taken into account that the levels of production and reception are two sides of one coin.[2] Therefore, we examine the technical aspect of the production process and the standardization of the iconography, while considering their ancient reception context and use as far as possible.[3]

The Workshop of Asteas and Python in Paestum

Asteas and Python were the only painters, potters, and/or workshop owners in South Italy who signed their products.[4] We know of twelve vases signed with "ΑΣΣΤΕΑΣ ΕΓΡΑΦΕ",[5] and only two with the name of Python.[6] Dale Trendall identified about 400 vases so close in shape and style that he attributed them to these painters.[7] As far as the provenances are known, the vases made by Asteas and Python are distributed mostly within the area around Paestum along the Tyrrhenian coast, and show the patterns of a local production.[8] The closeness of style and motifs between the works of both painters suggests that they were collaborators sharing a workshop in Paestum, and that Python was the colleague and successor of Asteas.[9]

The specialty of the Paestan workshop of Asteas and Python are not only signed vases with elaborate paintings, but also a huge number of smaller pots showing one, two, or three figures.[10] The design of these vases is highly homogenous, and it made John Beazley assume "well-drilled associates"[11] within the workshop. Trendall identified "stock figures"[12] which may indicate a serial production.

A close examination of Paestan vases reveals that the figures show around 20 different poses,[13] but only a few of them appear regularly. The most common ones are a standing figure in three-quarter view, sometimes leaning on a staff or *stela*, and a sitting figure with the legs seen in profile and the torso in three-quarters (fig. 1).[14] Figures standing in profile, walking in three-quarter view (fig. 3),[15] and putting one leg on a rock or volute and leaning forward (fig. 2),[16] are less common, but still appear rather often.

Published in: Arne Reinhardt (Ed.), Strictly Economic? Ancient Serial Production and its Premises, Panel 3.18, Archaeology and Economy in the Ancient World 20 (Heidelberg, Propylaeum 2021) 61–73. DOI: *https://doi.org/10.11588/propylaeum.704*

Fig. 1: New York, MET 1976.11.5, back; Paestan bell-krater, 30.7cm.

The painters preferred some of these poses for certain figures: standing and walking poses in almost profile view are usually used for youths and satyrs (fig. 3).[17] Dionysus and young women mostly sit on rocks or volutes (fig. 1).[18] Nonetheless, the use of poses is flexible. For example, the pose of a figure that puts one leg on a rock, leaning forward and resting one of its arms on the bent knee is applied to a satyr, offering something to Dionysus (fig. 2); it can also be used for a woman holding an egg or a cake towards a young man, or to Dionysus himself. While only satyrs, *pappositenoi* and *erotes* rest their hands on Dionysus' lap, and are thereby slightly bowing forward,[19] Python uses the same pose for a woman leaning against a *louterion*.[20]

Regarding the position of the arms, the painters chose between approximately 30 different movements with both arms moving independently, nearly doubling the number of variations. However, there are still preferred combinations. The most popular ones are: (1) both arms bent with palms turned upwards (figs. 1 and 3) and (2) one arm bent with palms upwards and one arm kept close to the body. The painters additionally

Fig. 2: New York, MET 1976.11.5, front; Paestan bell-krater, 30.7cm.

varied the arm movement with the object they added in white color: a hand with palms turned up may be empty, may hold an egg/cake (fig. 1), a bowl, or a bracelet. A hand close to the body may hold a *thyrsus*, *situla* or *kantharos*, or simply be empty.

If we move from the category the figure belongs to – Dionysus, satyr, woman, *eros*, etc. – to the pose and consequently to the movement of arms, the number of possible variations grows. A close look at the vase-paintings shows that this is rooted in the production process: the figures were made in several steps. First, there is a blurry sketch to prepare the rough outline of the figures, choosing the group and the pose. These lines are only visible on the original pots and should be studied further. Second, the painter added black glaze, defining the outlines, the hair and the borders of the drapery. Third, fingers, muscles, and the details of face and body were drawn with relief lines. Fourth, small objects and jewelry were added in white and often red color. This color is mostly lost, but its shadows are still visible on the original vases.

Fig. 3: New York, MET 62.11.3, back; Paestan bell-krater, 37.1cm.

The uniformity of the decoration does not result from a loss of creativity but is rather a strategy of the painters to guarantee both an economical production and an attractive as well as aesthetic product.[21] Even if we find vases that are nearly identical in terms of figures and ornaments, as is the case with two cups in the Louvre,[22] there is still variation. The vases appear uniform, but not monotonous.

A youthful Dionysus regularly appears in the imagery, and thus scholars proposed a connection between these vase-paintings, the use of such vases as grave goods, and a chthonic character of Dionysus in South Italy.[23] However, the figures are well-mannered, young, and they wear jewelry and elegant drapery. Women are only rarely depicted as maenads, but usually as well-clothed women, often additionally wrapped in a cloak. *Erotes* and birds, sometimes in windows, and naked women at the *louterion* refer to the erotic sphere.[24] It is obvious that beauty and youth are the key-concepts behind the imagery, not the wild nature of the Dionysian sphere.

But why were these simple, Dionysiac compositions so successful? I assume it was the high degree of polyvalence offered by the images: the slight eroticism of the scenes

and the happiness and joy Dionysus symbolized, no matter whether in the underworld or in life, are aspects one may associate with the images.

Thus, the homogeneous vase-paintings do not stand in contrast to the heterogeneous character of Paestan society.[25] The potters created vases which offered different readings to the viewers (and customers), depending on their background knowledge and expectations. In doing so, they sparked an interest within different groups of Paestan society and created attractive products.

Etruscan *ceramica sovraddipinta*

Another good example for a possible serial production in Italic Hellenistic pottery is the Etruscan *ceramica sovraddipinta*, also known as "vases with decoration in superposed colour",[26] or "overpainted ware".[27] This technique emerged in Etruria around 490/480 BC[28] as an adoption of the Attic so-called Six's technique,[29] which was one of the several different innovations in vase painting of around 530 BC.[30] While its production was relatively small in numbers and short-lived in Athens, it became popular in Etruria and only fell out of use at about 270 BC.[31]

For the 5th century, only a relatively small production volume can be observed. Usually assigned to two main groups (the Praxias and Vagnonville Group),[32] these vases are mostly individual pieces that show a broad variety of topics and designs. During the 4th century, however, different groups of vases came up that, although differing from each other, are fairly homogeneous. Examples are the so-called Sokra Group,[33] the Phantom Group,[34] *skyphoi* of the group Ferrara T585,[35] Etruscan *glaukes*,[36] and the so-called *pocola*.[37]

These vases were manufactured in a chain-like production process with the same or different craftsman working on the different stages:[38] first the formed and dried vases were completely covered in black glaze, then dried again before the actual picture was painted onto the glaze. This picture could either be elaborate or fairly simple. Details were incised so that the glaze or the clay ground emerged, or they were added in additional colours, though vases without extra details exist as well. The vase was then fired in the well-known three-phase firing process.

This paper will focus on the Sokra and Phantom Groups as they are good examples for the incremental changes towards a serialized production of pottery.

The Sokra Group is named after a *kylix* from a tomb of Falerii Veteres that bears the letters ΣOKPA under its foot, presumably a signature and short for Sokrates.[39] In 1978, Giampiero Pianu attributed more than 124 pieces to the group, 105 of which were *kylikes*.[40] Today, a significantly larger number is known, and it is believed that vases of this group were produced in more than one centre and at various workshops.[41] Still, most of them follow a specific schematic design that could be varied, for example by changing the number of figures in the tondo, by attributes or

by painting a horse, *hippokampus*, centaur, or Pegasus instead of the human figures. The dating for these vases is controversial: I suggest they range from approximately 380 to at least 330 BC.[42]

These vases show clear evidence for the beginning of a serial production: they mostly have the same shape and show decorations from a pre-selected set of patterns that changed little over time (e.g. three → one figures).[43] While a large range of different motifs for the tondo is preserved, we also know of vases with pictures that differ only in detail.[44] Similar to the Paestan workshop of Asteas and Python, the painters had a repertoire of motifs they chose from.

The Phantom Group was named after the ghost-like figures on the bellies of the *oinochoai* of form VII, the shape most frequently used.[45] Pianu ascribed 316 pieces to the group, 307 of which were *oinochoai* of form VII.[46] 141 of them have a draped figure as their main painted decoration, and 22 show leaves or other floral ornaments.[47] Findings of production sites prove that they were produced in various places in Etruria and Latium.[48] Due to their reduced decoration, dating them is difficult but is usually set in the 2nd half of the 4th, sometimes early 3rd century, thus a little later than the Sokra Group. Phantom Vases like those of the Sokra Group were not only found all over Etruria, but also in Latium, Corsica (Aléria), and along the Mediterranean coasts of modern France and Spain.[49]

The decoration of the Phantom Group's vases is obviously standardized as well. With the draped figure as the chosen pictorial decoration, there was no need for pattern-book-like models. This explains the slight variations in their appearance that should not be over-interpreted.[50] Whereas earlier *sovraddipinta*-vases could show mythological scenes or give at least a hint for the precise identification of the figures by showing attributes (as in the case of the Sokra Group), the draped figures of the Phantom Group keep only their semantic content, which could be enriched by the imagination of the viewers.[51]

The question is, how to rate this development? Is it the result of standardization? Serialization? Of an impoverishment? Or of innovations? When seen through the lens of innovation theory rather than of art history, this development does not seem to be the result of poorer craftsmanship, but rather of an economization within the production process. This was rendered possible because of the structured workflow within the workshops. The organization of the production process with sequenced stages of production was accommodated to manufacture relatively large series of vases with similar characteristics.[52] As an additional advantage it allowed for enough flexibility to meet special requests.

A late group of *sovraddipinta*-vases, the so-called *pocola deorum*, shows this phenomenon quite well. They exhibit very diverse images and inscriptions that were addressed directly and specifically to deities like Fortuna or Volcanus, saying "I am the vase – *pocolom* – of/for Fortuna/Volcanus/…".[53] This proves that they were, if not commissioned, at least produced for a special use, occasion, or audience.[54]

Conclusion

The Paestan vases of Asteas and Python and the Etruscan *ceramica sovraddipinta* are not serial products in a strict sense, since exact copies do not exist. However, we understand them as serial products in a wider sense, because they were produced in a standardized production chain with several steps.

The Paestan workshop chose a limited range of motifs and figures, but the production process still allowed for a high variation in minor details. We interpret this as an innovative optimization: the vases might have become affordable to a broader audience, but still excelled in terms of quality and aesthetics.

With the *sovraddipinta*-technique, the potters could decide to paint the vase at a very late stage in the production process. All production stages were identical for the simple black glazed pottery, the stamped *petites estampilles*, and even the *sovraddipinta*-vases except for the last step, the decoration. Only shortly before firing it was necessary to decide which vases should receive the "special treatment" of stamping and/or painting in a very basic or in a more complex mode. This allowed for a facile coexisting production of very different vases and guaranteed a flexible and up-to-date planning in order to adapt the products to the current market.

In the case of Asteas and Python, the uniformity of the images arguably roots in a thematic focus on the Dionysian circle, which limits the choice of motifs and figures but guarantees a high polyvalence. The iconographic range of the vases in *sovraddipinta*-technique is even more reduced. However, this should not be understood as a gradual iconographic impoverishment. On the contrary, the motifs on these vases were open to different interpretations, also beyond Etruria.[55] From a technical point of view, the production process is much more sophisticated than in Paestum. One benefit of this chain-like production process was in fact that it allowed for both: series of vases with repeating design, and pieces for certain occasions that looked different (i.e. pieces of high individuality and "mass market products").

The change in the overall design of the vases through a production of standardized forms with more or less standardized painted decoration did not necessarily mean a loss of interest in more sophisticated decoration. Instead, it seems that the way viewers perceived the vases changed, probably as a consequence of the cultural changes during the 4th century BC,[56] at least in Etruria and Paestum.

Notes

[1] The material presented here is part of the PhD-projects of the authors at the Freie Universität, Berlin: "Komische Bilder. Bezugsrahmen und narratives Potenzial unteritalischer Komödienvasen" (Elisabeth Günther; defended in 2019, to appear in 2021 in Philippika series by Harrassowitz publishing house), "Verwendungskontexte und Entwicklung etruskischer *ceramica sovraddipinta* des 4. und 3. Jhs. v. Chr." (Sabine Patzke).

[2] See the introduction to this volume by Arne Reinhardt.
[3] See Mariachiara Franceschini in this volume.
[4] The signed pots are usually the more elaborate ones: Trendall 1987, 84–103. 139–143; Denoyelle 2011, 34–36.
[5] Todisco 2012, 384.
[6] Trendall 1987, 54. 84. 139–143; Todisco 2012, 386. A new signed vase was published in Simon 2002. The Paestan painters use the imperfect instead of the aorist, cf. Trendall 1987, 55.
[7] Trendall 1987, 84–172; Denoyelle – Iozzo 2009, 184–195; Denoyelle 2011, 31–41; Todisco 2012, 381–392.
[8] Denoyelle – Iozzo 2009, 184.
[9] Beazley 1944, 363 f.; Trendall 1987, 55. The chronology of both painters is problematic. I follow Angela Pontrandolfo and Agnès Rouveret, who date Asteas between ca. 380 and 350 BC, and Python between ca. 360 and 340 BC (Pontrandolfo 1977; Pontrandolfo – Rouveret 1992, 412; Denoyelle – Iozzo 2009, 183; Denoyelle 2011, 16–18). A. D. Trendall dated them 20 years later, based on stylistic evidence (Trendall 1987, 56). Too speculative: Simon 2004.
[10] Denoyelle 2011, 80. The reverses show draped youths, similar to Attic vases, cf. Franceschini in this volume. See also the newly published PhD thesis of Franceschini (M. Franceschini, Attische Mantelfiguren. Relevanz eines standardisierten Motivs der rotfigurigen Vasenmalerei (Rahden/Westf. 2018)) and the review of her book by Elisabeth Günther in Gymnasium 127, 2020, 198–201).
[11] Beazley 1944, 363 f.
[12] Trendall 1987, 55. 103.
[13] The data derive from Trendall 1987 and Pontrandolfo – Rouveret 1992.
[14] New York, MET 1976.11.5, back (Python).
[15] New York, MET 62.11.3, back (Python).
[16] New York, MET 1976.11.5, front (Python).
[17] New York, MET 62.11.3 (Asteas). Cf. Paestum, Museo Archaeologico Nazionale 21390, Pontrandolfo 1996, 257 no. 195; Paestum, Museo Archaeologico Nazionale 26632, Pontrandolfo 1996, 260 no. 205. A systematic study and typology of the figures in Paestan vase-paintings is still missing, but currently conducted by Elisabeth Günther. This paper thus does not present a comprehensive statistic analysis, but is a first attempt to draw the reader's attention to the homogeneous design of Paestan vases, explaining it as an economical strategy of the workshop.
[18] Cf. Louvre K 264, Denoyelle 2011, 69–98 no. 19; Paestum, Museo Archaeologico Nazionale no. 22449, Pontrandolfo 1996, 253 no. 183.
[19] E.g. Salerno, Museo Publico 1813 from Pontecagnano, Trendall 1987, 73 no. 2/50 pl. 28e–f.
[20] Madrid, Museo Arqueológico Nacional 14455, Trendall 1987, 128 no. 2/186 pl. 76.
[21] Similarities in decoration result from repetition in iconographic and technical terms: Heilmeyer 2008, 244.
[22] Paris, Louvre K 353 and 364, Denoyelle 2011, 116–119 no. 29–30.
[23] Todisco 2012, 305; Schwarzmaier 2011, 201–217. On the visualization of an *ideologia funeraria*, see Pontrandolfo 1982; Graepler 1997, 155–159.
[24] Schmidt – Slehoferova 1991 Nr. 98; Söldner 2007, 2018. For women in windows, see Schauenburg 1972; Schauenburg 1973.

[25] For this contradiction, cf. Denoyelle – Iozzo 2009, 184 f.; on the "hybrid culture" in Paestum, see Zuchtriegel 2017.
[26] Beazley 1947, 195.
[27] E.g. Ambrosini 2013, 956; Green 2001.
[28] Scarrone 2015, 100.
[29] Cf. Scarrone 2015, 61 f. for the reasons behind this adoption.
[30] Cf. Cohen 2006.
[31] Cf. Ferrandes 2006.
[32] A large part of this work was done by J. Beazley in "Etruscan Vase Painting" (1947), who could resort to older studies. The most recent and comprehensive study on 5th century *sovraddipinta* is Scarrone 2015.
[33] Most recently Ambrosini – Pellegrini 2015.
[34] Puritani 2009, 202 f.; Ferrandes 2006, 141–148; Knops 1987.
[35] Ferrandes 2006, 145; Bruni 1992, 64–67 and footnotes; Jolivet 1980, 713–716.
[36] Ferrandes 2006, 137.
[37] Most recently Ambrosini 2012/2013.
[38] Cf. Patzke 2016 for a more detailed description.
[39] Rome, Museo Nazionale Etrusco di Villa Giulia, inv. 3676; Beazley Archive number 9002179; CVA Rom, Villa Giulia (3) IV B q pl. 2, 1. 2. 6. – The group was assembled by Beazley 1947, 201–205.
[40] Pianu 1978, 162–168.
[41] Ambrosini – Pellegrini 2015, 77–91.
[42] Cf. with similar dating Ambrosini – Pellegrini, 91–99.
[43] Ambrosini – Pellegrini, 94.
[44] E.g. the two *kylikes* showing Pegasus with a bearded head between its legs in the Antikenmuseum der Universität Leipzig (Bubenheimer-Erhart 2014, 120) and in the British Museum, London, inv. 1842,0407.19 (CVA London, British Museum (7) IV. E. b pl. 3, 5).
[45] Beazley 1947, 205 f.
[46] Pianu 1978, 173–183.
[47] For 144 *oinochoai*, the main motif on the belly is not given.
[48] E.g. Stanco 2009, 164; Ferrandes 2006, 123. 161. Cf. Serra Ridgway 1996, 233.
[49] Cf. Jolivet 1980; Pianu 1978.
[50] E.g. as indications for different workshops or for dating the vases. Pianu 1978, 173–183; Pianu 1982, 22–53 classifies by the execution of the draped figures.
[51] See Franceschini in this volume. This content is not necessarily the same for different audiences or even for the same viewer but different contexts. Cf. Knops 1987, 57 who collected examples of Phantom Group phantoms where he thought the sex of the draped figure could be determined. Apart from exceptions such as the ones in Ricci 1955, 923 fig. 214 that differ clearly from other Phantom-oinochoai and maybe 1012 no. 34 (without photograph), I do not consider this possible, though Knops' argument shows the ambiguity of the depictions.
[52] Patzke 2016.

[53] Ambrosini 2012/2013. See Green 2001, 68 f. for the theory that the (Roman?) workshop was led by the Gnathian Volcani painter.
[54] Cf. Michetti 2016, 334; Pianu 1985, 81 f. Pianu 1989, 1096 believes commissioned vases existed but only for large orders.
[55] Cf. Franceschini in this volume.
[56] For the visual language in the Hellenistic period, cf. Hesberg 1988.

Image Credits

Fig. 1: <https://images.metmuseum.org/CRDImages/gr/original/DP114783.jpg> (04.06.2019). CC0 1.0 (Universal) – Fig. 2: <https://images.metmuseum.org/CRDImages/gr/original/DP114784.jpg> (04.06.2019). CC0 1.0 (Universal) – Fig. 3: <https://images.metmuseum.org/CRDImages/gr/original/DP111864.jpg> (04.06.2019). CC0 1.0 (Universal)

References

Ambrosini 2013
L. Ambrosini, The Etruscan Painted Pottery, in: J. MacIntosh Turfa (ed.), The Etruscan World (London 2013) 943–973.

Ambrosini 2012/2013
L. Ambrosini, Le divinità dei Pocola Deorum. Un nuovo Pocolom di Voluptas del Volcani Group, RendPontAc 85, 2012/2013, 337–363.

Ambrosini – Pellegrini 2015
L. Ambrosini – E. Pellegrini, La Tomba della Colonna di San Lorenzo Nuovo (VT). Un contributo alla conoscenza del Gruppo Sokra (San Lorenzo Nuovo 2015).

Beazley 1944
J. D. Beazley, A Paestan Vase, AJA 48, 1944, 357– 366.

Beazley 1947
J. D. Beazley, Etruscan Vase Painting (Oxford 1947).

Bruni 1992
S. Bruni, Le ceramiche con decorazione sovradipinta, in: A. Romualdi (ed.), Populonia in età ellenistica. I materiali dalle necropoli. Atti del seminario, Firenze 30 giugno 1986 (Florence 1992) 58–109.

Bubenheimer-Erhart 2014
F. Bubenheimer-Erhart, Die Etrusker (Darmstadt 2014).

Cohen 2006
B. Cohen (ed.), The Colors of Clay. Special Techniques in Athenian Vases. Exhibition Catalogue Malibu (Los Angeles 2006).

Denoyelle 2011
M. Denoyelle, La céramique grecque de Paestum. La collection du Musée du Louvre (Paris 2011).

Denoyelle – Iozzo 2009
M. Denoyelle – M. Iozzo, La céramique grecque d'Italie méridionale et de Sicile. Productions coloniales et apparentées du VIIIe au IIIe siècle av. J.-C. (Paris 2009).

Ferrandes 2006
A. F. Ferrandes, Produzioni stampigliate e figurate in area etrusco-laziale tra fine IV e III secolo a.C. Nuove riflessioni alla luce di vecchi contesti, ArchCl 57, 2006, 115–174.

Graepler 1997
D. Graepler, Tonfiguren im Grab. Fundkontexte hellenistischer Terrakotten aus der Nekropole von Tarent (Munich 1997).

Green 2001
J. R. Green, Gnathia and Other Overpainted Wares of Italy and Sicily. A Survey, in: P. Lévêque – J.-P. Morel – É. Geny (eds.), Céramiques hellénistiques et romaines III (Besançon 2001) 57–103.

Heilmeyer 2008
W.-D. Heilmeyer, Kunst und Serie, in: K. Junker – A. Stähli (eds.), Original und Kopie. Formen und Konzepte der Nachahmung in der antiken Kunst. Akten des Kolloquiums in Berlin, 17.–19.02.2005 (Wiesbaden 2008) 243–251.

Hesberg 1988
H. von Hesberg, Bildsyntax und Erzählweise in der hellenistischen Flächenkunst, JdI 103, 1988, 309–365.

Jolivet 1980
V. Jolivet, Exportations étrusques tardives, IVe – IIIe siècles, en Méditerranée occidentale, MEFRA 92, 1980, 681–717.

Knops 1987
G. Knops, Fünf Vasen der Phantomgruppe aus niederländischem Besitz, MededRom 47, 1987, 51–78.

Michetti 2016
L. M. Michetti, Artigianato artistico e committenza privata in ambiente etrusco-italico nell'età della „romanizzazione" tra integrazione e sopravvivenza, in: M. Aberson – M. Cristina Biella – M. Di Fazio – P. Sánchez – M. Wullschleger (eds.), L'Italia centrale e la creazione di una koiné culturale? I percorsi della ‚romanizzazione'. E pluribus unum? L'Italie, de la diversité préromaine à l'unité augustéenne, Vol. 2, Etudes genevoises sur l'Antiquité 3 (Bern 2016) 329–364.

Patzke 2016
S. Patzke, The Etruscan ceramica sovraddipinta. Innovation in the Lifetime of a Pottery Type, in: S. Japp – P. Kögler (eds.), Traditions and Innovations. Tracking the Development of Pottery from the Late Classical to the Early Imperial Periods. Proceedings of the 1st Conference of IARPotHP, Berlin, November 2013, 7th–10th, IARPotHP (International Association for Research on Pottery of the Hellenistic Period) 1 (Vienna 2016) 99–109.

Pianu 1978
G. Pianu, Due fabbriche etrusche di vasi sovradipinti. Il gruppo Sokra ed il gruppo del Fantasma, MEFRA 90, 1978, 161–187.

Pianu 1985
G. Pianu, La diffusione della tarda ceramica a figure rosse. Un problema storico-commerciale, in: Contributi alla ceramica etrusca tardo-classica. Atti del Seminario 11 maggio 1984 (Rome 1985) 67–82.

Pianu 1989
G. Pianu, La standardizzazione, in: Secondo congresso internazionale etrusco, Firenze 26 maggio – 2 giugno 1985. Atti, StEtr Suppl (Rome 1989) 1095–1099.

Pontrandolfo 1977
A. Pontrandolfo, Su alcune tombe pestane, MEFRA 89, 1977, 31–69.

Pontrandolfo 1982
A. Pontrandolfo, Ideologia funeraria e società a Poseidonia nel IV secolo a.C., in: G. Gnoli – J.-P. Vernant (eds.), La mort, les morts dans les sociétés anciennes (Cambridge 1982) 299– 317.

Pontrandolfo 1996
A. Pontrandolfo, La ceramica, in: M. Cipriani – F. Longo (eds.), I Greci in occidente. Poseidonia e i Lucani (Naples 1996) 248–271.

Pontrandolfo – Rouveret 1992
A. Pontrandolfo – A. Rouveret, Le tombe dipinte di Paestum (Modena 1992).

Puritani 2009
L. Puritani, Die Oinochoe des Typus VII. Produktion und Rezeption im Spannungsfeld zwischen Attika und Etrurien, Europäische Hochschulschriften Reihe 38, Archäologie 77 (Frankfurt am Main 2009).

Ricci 1955
G. Ricci, Caere. Necropoli della Banditaccia. Zona A „del Recinto“, MonAnt 42, 1955, 202–1048.

Scarrone 2015
M. Scarrone, La pittura vascolare etrusca del V secolo, Archaeologica 174 (Rome 2015).

Schauenburg 1972
K. Schauenburg, Frauen im Fenster, RM 79, 1972, 1–15.

Schauenburg 1973
K. Schauenburg, Frauen im Fenster (Nachtrag zu RM. 79, 1972, 1 ff.), RM 80, 1973, 271–273.

Schmidt – Slehoferova 1991
M. Schmidt – V. Slehoferova, Der zerbrochene Krug. Vasenfragmente klassischer Zeit aus Athen und Großgriechenland. Sammlung H. A. Cahn. Exhibition Catalogue Basel (Basel 1991).

Schwarzmaier 2011
A. Schwarzmaier, Die Masken aus der Nekropole von Lipari, Palilia 21 (Wiesbaden 2011).

Serra Ridgway 1996
F. R. Serra Ridgway, I corredi del fondo Scataglini a Tarquinia. Scavi della Fondazione Ing. Carlo M. Lerici del Politecnico di Milano per la Soprintendenza archeologica dell'Etruria meridionale (Milan 1996).

Simon 2002
E. Simon, Ein neuer signierter Kelchkrater des Asteas, NumAntCl 31, 2002, 115–127.
Simon 2004
E. Simon, The Paestan Painter Asteas, in: C. Marconi (ed.), Greek Vases. Images, Contexts and Controversies. Proceedings of the Conference Sponsored by The Centre for the Ancient Mediterranean at Columbia University, 23.–24.03.2002 (Leiden 2004) 113–122.
Söldner 2007
M. Söldner, Bios eudaimon. Zur Ikonographie des Menschen in der rotfigurigen Vasenmalerei Unteritaliens. Die Bilder aus Lukanien (Möhnesee 2007).
Stanco 2009
E. A. Stanco, La seriazione cronologica della ceramica a vernice nera etrusco-laziale nell'ambito del III secolo A.C., in: V. Jolivet – C. Pavolini – M. Antonietta Tomei – R. Volpe (eds.), Suburbium II. Il suburbio di Roma dalla fine dell'età monarchica alla nascita del sistema delle ville (V–II secolo A.C.), CEFR 419 (Rome 2009) 157–193.
Todisco 2012
L. Todisco (ed.), La ceramica a figure rosse della Magna Grecia e della Sicilia I–III (Rome 2012).
Trendall 1987
A. D. Trendall, The Red-Figured Vases of Paestum (Rome 1987).
Zuchtriegel 2017
G. Zuchtriegel, Il rito come messa in scena dell'indicibile. Per una escatologia lucana, in: M. Nicola – G. Zuchtriegel (eds.), Action Painting. Rito & arte nelle tombe di Paestum. Exhibition Catalogue Paestum (Paestum 2017) 99–123.

The complex subject of production and consumption in antiquity has been attracting growing interest in Classical Archaeology for some time. Research with an economic perspective, such as the investigation of the dynamics of the production of objects or ornaments in antiquity, has opened up new insights into Greco-Roman culture. Against this background, the present volume focuses on a particular method of production: serial production. On the basis of close-up observations of the finds, the authors of the volume illuminate the broad spectrum of ancient serial production in Greece and Rome in exemplary fashion; the examples deal with a range from (late) Classical ceramics with painted decoration to mechanically reproduced coins and relief tableware to luxurious marble urns. The aim is first describing individual series and defining them and subsequently using this information to interpret the respective conditions that led to the series. This process demonstrates that the phenomenon of serial production (and seriality more generally) consistently transcends economic aspects and seamlessly leads over into other areas of ancient cultural history and its research.

ISBN 978-3-948465-68-1

Associazione Internazionale di Archeologia Classica
International Association *for* Classical Archaeology