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THE POMPEII ARTIFACT LIFE HISTORY PROJECT
Conceptual background and first season's results

Introduction

This article presents a brief description of the conceptual background and first season's results of the Pompeii Artifact Life History Project (PALHIP), a research initiative launched at Pompeii during the summer of 2012 under the direction of the author.[1]

The exploration of the way in which objects work both to shape and to express individual and group identity has represented one of the central projects of the field of material culture studies over the three decades of its formal existence.[2] A very large portion of this work has taken place in a modern key, focusing on the important nexus between the consumption of material goods and the formation and expression of identity in industrial and post-industrial society.[3] Despite this modern orientation and its attendant limitations, Roman archaeologists have begun to draw inspiration from this work in recent years and have sought to take advantage of the insights that it provides in shaping their own research agendas.[4] The overwhelming dominance of pottery in the Roman archaeological record guarantees that this category of material culture will play a prominent role in Roman archaeologists' efforts to engage the topic of consumption and – to the extent that it is bound up with this in the Roman case – identity.

One important limitation in the conduct of work of this kind stems from the fact that the vast bulk of Roman portable material culture comes from definitive discard contexts that contain groups of objects very likely acquired, used, and discarded by multiple units of consumption (presumably households for the most part), and only a very minor portion from use-related or provisional discard contexts that can be related with any degree of confidence to individual (and specifiable) units of consumption. One consequence of this circumstance is the fact that we possess only a limited understanding of those stages of artifact life history that lay between manufacture and definitive discard – including acquisition, use, curation (subsuming maintenance, repair, and storage), reuse, and provisional discard – in the Roman case.[5] These stages of artifact life history are not only of interest in and of themselves for any effort to understand patterns of consumption in the Roman world, but also presumably played a significant role in determining the specific makeup of the sets of objects that made their way into the definitive discard contexts that are the focus of so much archaeological attention. One way forward is to perform detailed studies of sets of artifacts from those rare use-related and provisional discard contexts that are available to us with a view to elucidating aspects of artifact life history.

Project overview

PALHIP was conceived in accordance with the logic of this set of observations.The overall thrust of the project is straightforward – It involves the analysis of groups of artifacts recovered in excavations previously conducted at Pompeii in use-related and provisional discard contexts dating to the terminal period of the town's life with the aims of elucidating the specific life histories of these objects and improving our general understanding of the various stages of artifact life history. The project is envisaged as a five-year initiative involving a small research team that will study materials from two residences inside the town – one affluent, the other

[1] The author would like to acknowledge the various individuals and institutions whose assistance and support have made it possible to conduct the research reported in this article. The two research assistants for the PALHIP 2012 study season were C. Cheung and E. Niespolo. The project-related work being undertaken at the University of California, Berkeley during the 2012–2013 academic year is being carried out by C. Gaynor and M. Amador-Iñiguez through the Undergraduate Research Apprentice Program (URAP). Crucial support and encouragement were provided by several individuals at the Soprintendenza Archeologica Speciale per Napoli e Pompei, including A. Varone, G. Stefani, M. Borgongino, L. Pagano, D. Busiello, and the late L. Petraccone, as well as by R. Berg of the Institutum Romanum Finlandiae and S. Ellis of the University of Cincinnati. Financial support for the 2012 study season was provided by various entities at the University of California, Berkeley, including the Mellon Research Grant Program, the Archaeological Research Facility through the Stahl Fund and Braun Endowment, and the Department of Classics through the Heller Fund. This article is dedicated to the memory of Luigi Petraccone, whose exceptional generosity and hospitality will be forever remembered and treasured by the members of the 2012 PALHIP team.

[2] For an overview of the development of the field of material culture studies see D. Hicks, The material cultural turn. In: Hicks/Beaudry 2010, 25–98.

[3] For consumption studies within the larger field of material culture studies see M. Dietler, Consumption. In: Hicks/Beaudry 2010, 209–228.

[4] See, for example, K. Greene, Learning to consume: consumption and consumerism in the Roman Empire. Journal Roman Arch. 21, 2008, 64–82.

[5] For the stages of artifact life history as these relate to Roman pottery see J. T. Peña, Roman Pottery in the Archaeological Record (Cambridge 2007) 6–16.

modest - and one rural residence. The expectation is that by evaluating materials from this suite of loci of consumption we will be able to obtain some representative overview of the range of behaviors current in the town and its immediate environs during the period in question.

The project began during the summer of 2012 with a five-week pilot season extending from June 11 through July 14. The project team consisted of three persons, the author and two assistants. Our work focused on the analysis of the assemblage from the *villa rustica in località Villa Regina a Boscoreale* (henceforth the Villa Regina) as the example of a rural residence. This structure, a modest villa located 1.4 km to the northwest of Pompeii's Herculaneum Gate, was excavated in its entirety down to its AD 79 phase during the period 1979–1983 by the then Soprintendenza Archeologica di Napoli under the direction of St. de Caro, who published the results in a 1994 monograph.[6] The villa was under restoration in AD 79, this work presumably involving the repair of damage caused by the AD 62 earthquake and its aftershocks, and it was apparently only partially occupied at that time. The main advantage in beginning with the Villa Regina lay in the fact that the basic documentation of the artifact assemblage had already been carried out by De Caro, leaving the PALHIP team free to focus on operations specific to the project agenda. For this first season the team had three main objectives:

1. Produce a database recording basic information about each of the artifacts in the Villa Regina assemblage;
2. Complete a detailed description of as many as possible of these objects that appeared to be of interest from the point of view of artifact life history; and
3. Develop the set of methods to be employed by the project over the longer term.

The finds from the Villa Regina are stored at both the Antiquarium di Boscoreale and the Casa di Bacco facility at Pompeii, and the team carried out its work at both of these locations.

PALHIP is a paperless project, and we employed a MacBook Pro and two third-generation iPads networked via a wireless router for all data recording and management tasks. The database software employed, Filemaker Pro 12, has a remote sharing capability that allowed the three team members to update the database simultaneously, each using a different device. Over the course of the season the database grew to include records for 411 objects.

The detailed description of selected objects was aimed at recovering information regarding the methods employed for the object's manufacture and any alterations likely related to its use, including damage in the form of abrasion, cutting, chipping, denting, or breakage, residues in the form of stains, incrustations, or carbon deposits, and deliberate physical modification.[7] The bulk of the work in this area involved nothing more than the careful visual inspection of the object. The team utilized a Dino-Lite AD413T digital microscope with visible, ultraviolet, and infrared light capabilities to produce photomicrographs of ceramic fabrics and to examine residues. We also examined residues under an ultraviolet flashlight. In all, the team completed detailed descriptions for 72 objects, including 61 pots, 4 terracotta lamps, 3 glass vessels, 2 bronze items, one composite bronze and iron object, and 1 stone object.

It is too early to draw any general conclusions regarding artifact life history on the basis of the work that the team carried out during the 2012 study season. Worth noting, however, is the fact that nearly all of the objects that we examined displayed substantial evidence for the manner in which they had beenused, as well as in some cases evidence for their repair and/or modification. Of particular interest was the fact that the set of items from use-related contexts showed a strikingly high degree of wear and damage, with many of the pots apparently being retained in use after undergoing significant breakage. The lack of comparable information for other sets of artifacts from use-related contexts at Pompeii or elsewhere in the Roman world renders it difficult to know what to make of this circumstance.

Some representative vessels

In order to provide some idea of the nature of the observations that the team was able to make this section considers three pairs of objects – all pots – for which we produced a detailed description. We begin with two examples of the Gasperetti Form 1252a, a pitcher in a medium-grained calcareous fabric that is the most common type of pot in AD 79 contexts at Pompeii.[8] The first of these two vessels (**fig. 1,1**) displays a cluster of shallow, circular chips on the middle wall from the 8 to 11 o'clock position (from the point of view of an observer looking down on the vessel from above, with the handle in the 12 o'clock position and moving in a clockwise direction) (**fig. 1,2**).[9] These chips, which occur in this area and nowhere else on the vessel, apparently represent damage caused when the vessel was repeatedly struck against some other object during the course of an operation to which it was subjected on one or more occasions that saw it oriented in a particular position – presumably due to the presence of the handle. It is unclear whether the operation that produced these chips was that of emptying, or perhaps something else, such as washing, with the vessel held on its side for scrubbing. This vessel also bears a complex layering of residues on the upper part of its exterior surface (**fig. 1,3**). Most readily interpretable is a large drip-shaped stain that extends from the base of the neck downward to the middle wall in the 6 to 7 o'clock position. This presumably represents residue of the vessel's content that was deposited on the exterior when some or all of this was poured out in the ca. 6o'clock direction by a person grasping the handle.

6 De Caro 1994.

7 PALHIP includes manufacture among the stages of artifact life history that it considers since this stage has received only irregular attention in research carried out in the past and evidence for it can often be observed and interpreted more easily in the case of complete objects (particularly pots) of the kind commonly recovered in use-related contexts at Pompeii, but only rarely elsewhere.

8 Gasperetti1996, 39.

9 This vessel is PALHIP 0027/Pompeii Inventory 24104 = De Caro 1994, 172 n. 135.

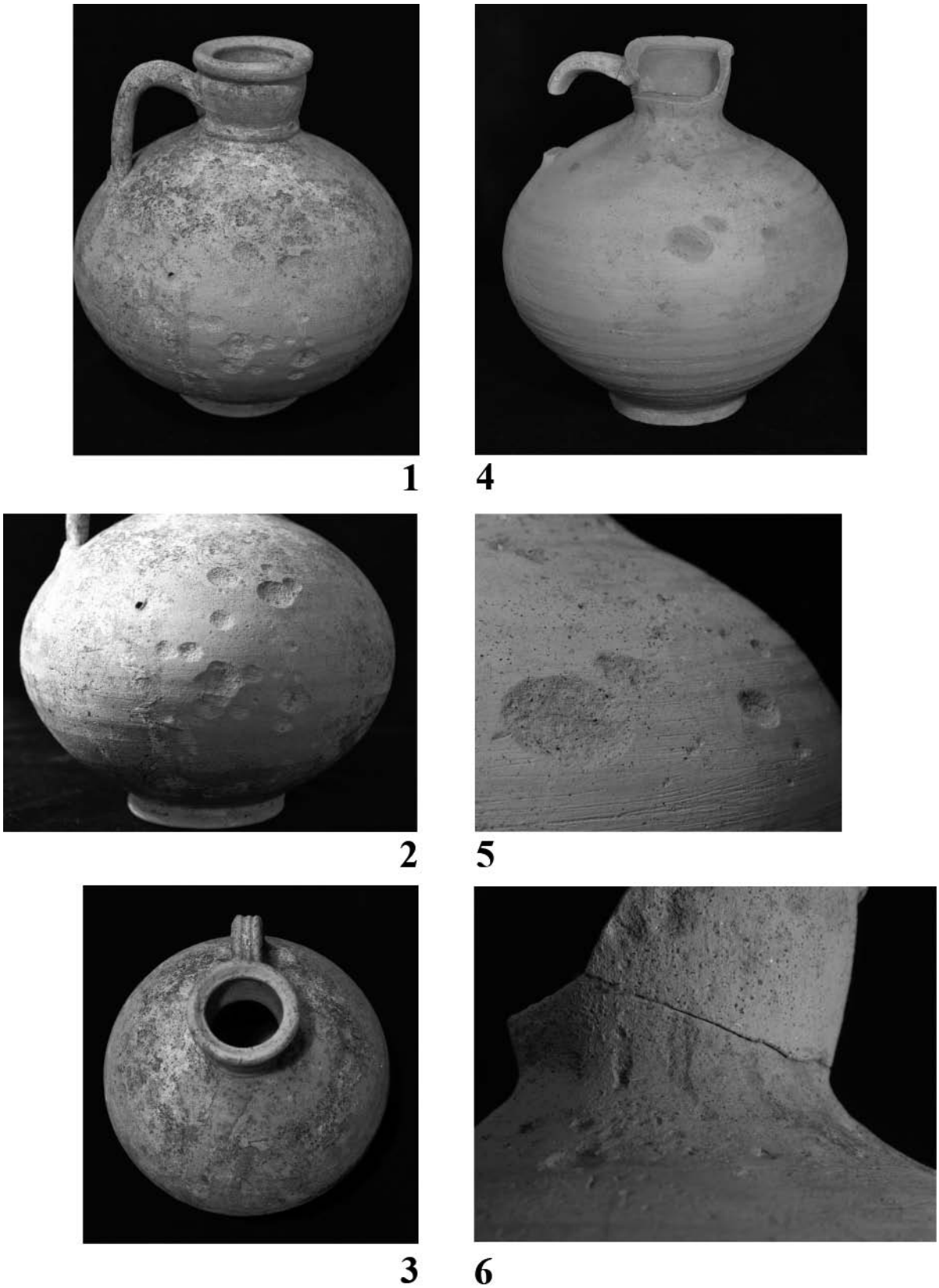

Fig. 1. **1** PALHIP 0027 general view; **2** PALHIP 0027 detail of wall showing chipping; **3** PALHIP 0027 detail of shoulder showing residues; **4** PALHIP 0023 general view; **5** PALHIP 0023 detail of wall showing chipping; **6** PALHIP 0023 detail of neck showing cuts.

The second example of this form (**fig. 1,4**) displays a set of circular chips similar to, if less extensive than that of the first (**fig. 1,5**).[10] This demonstrates that the operation that produced the chipping on the first example was not particular to that vessel, but was applied to at least one other example of this form. This vessel also displays a set of sub-parallel gouges at the lower end of the neck that runs around the vessel from the 4 to the 11 o'clock position, growing progressively longer and deeper in the counterclockwise direction (**fig. 1,6**). The second to last of these is a double gouge and the final two are both the longest and the only ones that extend high enough to intersect the break where the rim split away from the rest of the vessel. These gouges, which appear to be deliberate cuts, may represent the result of an effort to detach the vessel's neck, with the person undertaking the operation working around the vessel from the handle, progressively increasing the force employed until they achieved the desired result.

The second pair of vessels to be considered consists of two non-local cookware lids. The first is an example of the Hayes Form 196 in African Cookware (**fig. 2,1**).[11] It was recovered intact, though has since split into two pieces along what was a pre-existing line of weakness. The most striking aspect of this vessel is the horizontal fissure in the wall immediately below the combination grip/ring foot (**fig. 2,2**). This defect – a large split that passes completely through the wall, admitting daylight – formed on account of uneven shrinkage that occurred during the drying and/or firing phases of manufacture. While there is some debate as to whether African Cookware lids also functioned as bowls, it is clear that this example could not have held a liquid content.[12] It is interesting to note that when this vessel did break the crack departed from the ends of this fissure running down to the rim. Elsewhere on the wall is a slight depression caused by the potter's fingers when they lifted the vessel before it was leather hard. A micro-crack formed inside this irregularity, creating another point of weakness from which a break might have initiated. On the interior is a zone of dark residue in the area of the vessel's apex, with several distinct drips running downwards from this area towards the rim (**fig. 2,3**). This appears to represent remains of a substance being heated inside a vessel for which this vessel was employed as a lid, some of which precipitated on its interior.

The second lid is an example of the Di Giovanni Form 2421a in Campanian Cookware (**fig. 2,4**).[13] The interior surface preserves two concentric bands of paste residue (**fig. 2,5**). These apparently mark the inner and outer edges of a ring-shaped chuck on which the vessel was mounted for the turning of its exterior surface during manufacture. There is a hole 0.5 cm in diameter bored through the center of the vessel's floor, apparently after firing. Sixteen of the 63 examples of this form and the related Form 2421b that Di Giovanni documented at Pompeii displayed a hole of this kind, some apparently executed before firing, some after firing, with the latter apparently representing the widening of a hole made prior to firing.[14] The high incidence of examples with this hole and the fact that some of these were produced prior to firing suggests that this form was in many cases not expected to function as a bowl. Most likely it served as a lid for the cooking pan forms also belonging to this class, with the hole intended to allow gas to escape or – considering the miniscule height of the combination grip/ring foot – to permit the insertion of a wire hook or some other device for lifting. Whatever the case, the surface of this vessel's grip/ring foot displays substantial abrasion, indicating that it did do significant service in some role that required it to rest on this element (**fig. 2,6**).

The third and final pair of vessels to be considered consists of two handle-less cookpots in a local cookware fabric that provide evidence for some of the specifics of cooking operations. The first of these, an example of the Di Giovanni Form 2311c, displays continuous dark gray to black sooting on the exterior over the middle and upper portion of the wall (**fig. 3,1**).[15] The underside of the base and the lower portion of the wall, however, are coated with a distinctive powdery, light gray residue, with an irregular band immediately above the lower wall that is free of both soot and this residue (**fig. 3,2**). Experimental work has demonstrated that soot is deposited on cooking vessels where these are contacted by the tip of a flame.[16] In light of this observation, it appears likely that this vessel was set directly into cooking embers, which produced the light gray residue, presumably ash, with the area immediately above this remaining free of any residue and the remainder of the exterior of the vessel sooted from contact with the tips of flames.[17]

The second vessel in this pair is an example of the Di Giovanni Form 2311a (**fig. 3,3**).[18] This displays notably heavy sooting over most of its exterior, including both the wall and rim. The underside of the base, however, has a striking pattern, with one half heavily sooted and the other half only lightly sooted, with the boundarybetween the two zones in the form of a notably straight line (**fig. 3,4**). Adhering to the base on the lightly sooted side is a small patch of oxidized iron. This evidence appears to indicate that this vessel was set on an iron cooking support that ended with a straight edge, with the side resting on the support shielded from soot deposition and that beyond its edge subjected to heavy sooting. The cooking stand must have been heavily corroded, as a portion of it adhered to the vessel and broke away when the vessel was removed from it. The fact that the sooting on

10 This vessel is PALHIP 0023/Pompeii Inventory 24084 = De Caro 1994, 172 n. 136; Stefani 2010, 88 n. 24104 (rather than 24084).

11 J. Hayes, Late Roman Pottery (London 1972) 208-209. This vessel is PALHIP 0009/Pompeii Inventory 24159 = De Caro 1994, 179 n. 151; Stefani 2010, 88 n. 24159.

12 J. Ikäheimo, Late Roman African Cookware of the Palatine East Excavations, Rome: a Holistic Approach. BAR Internat. Ser. 1143 (Oxford 2003) 75–79.

13 Di Giovanni 1996, 97–98. This vessel is PALHIP 0044/Pompeii Inventory 25802 = De Caro 1994, 179–180 n. 152.

14 Di Giovanni 1996, 97.

15 Ibid. 92–93. This vessel is PALHIP 0032/Pompeii Inventory 24180 = De Caro 1994, 163 n. 110; Stefani 2010, 87 n. 24180.

16 J. Skibo, Pottery function: a use-alteration perspective (New York/London 1992) 145–173.

17 An example of the Di Giovanni Form 2311a (Di Giovanni 1994, 93), a one-handled cookpot, that was subject to detailed description shows a similar pattern of sooting on the middle and upper wall and a powdery, light gray residue on the lower wall and underside of the base. This vessel is PALHIP 0056/Pompeii Inventory 24171 = De Caro 1994, 166–168 n. 124.

18 Di Giovanni 1996, 92. This vessel is PALHIP 0040/Pompeii Inventory 24170 = De Caro 1994, 163 n. 112.

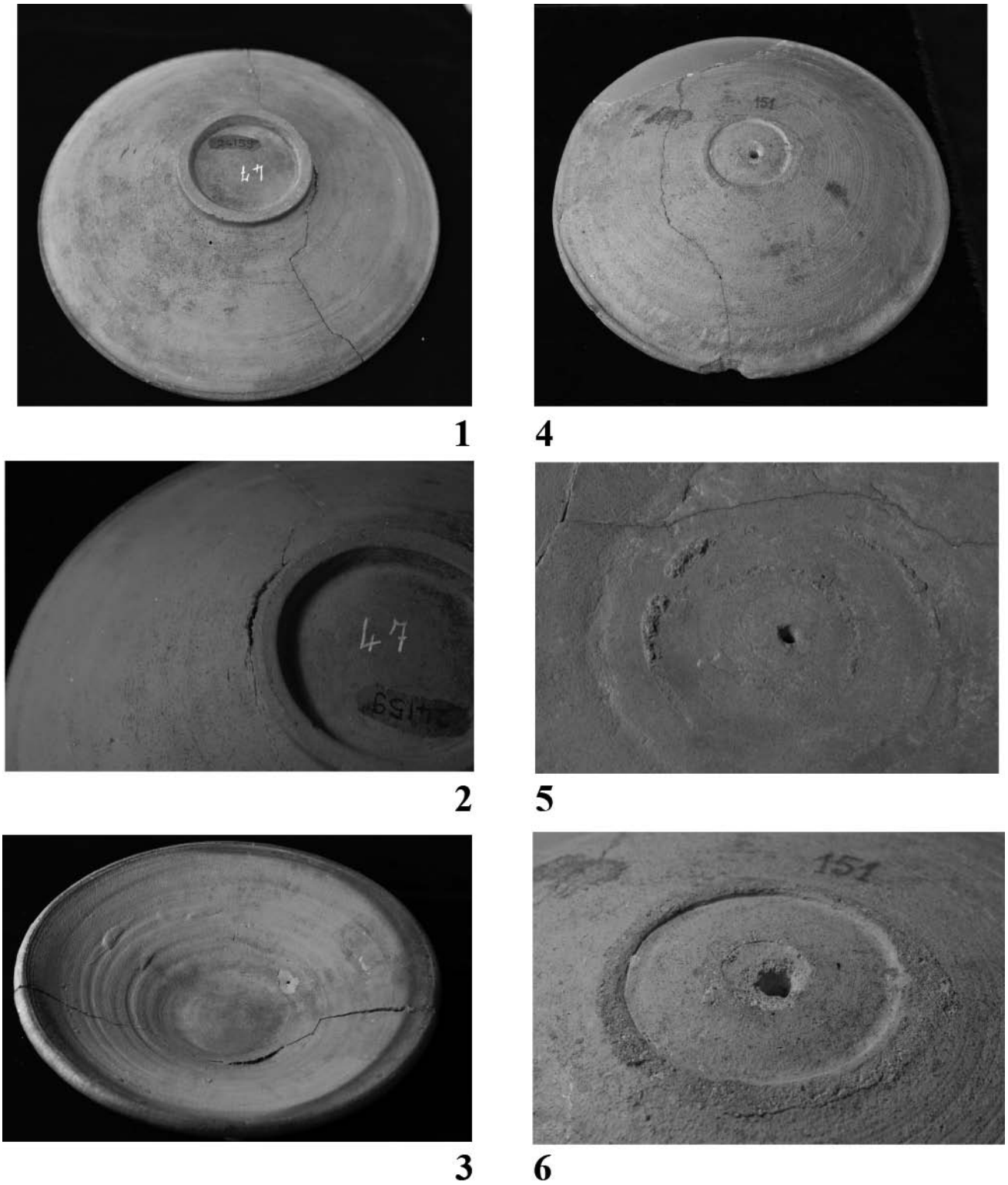

Fig. 2. **1** PALHIP 0009 general view; **2** PALHIP 0009 detail of exterior showing crack formed during manufacture; **3** PALHIP 0009 view of interior showing residue in central area and drips running towards rim; **4** PALHIP 0044 general view; **5** PALHIP 0044 detail of central area of interior showing rings of clay residue and hole at center; **6** PALHIP 0044 detail of central area of exterior showing abrasion on grip/ring foot and hole at center.

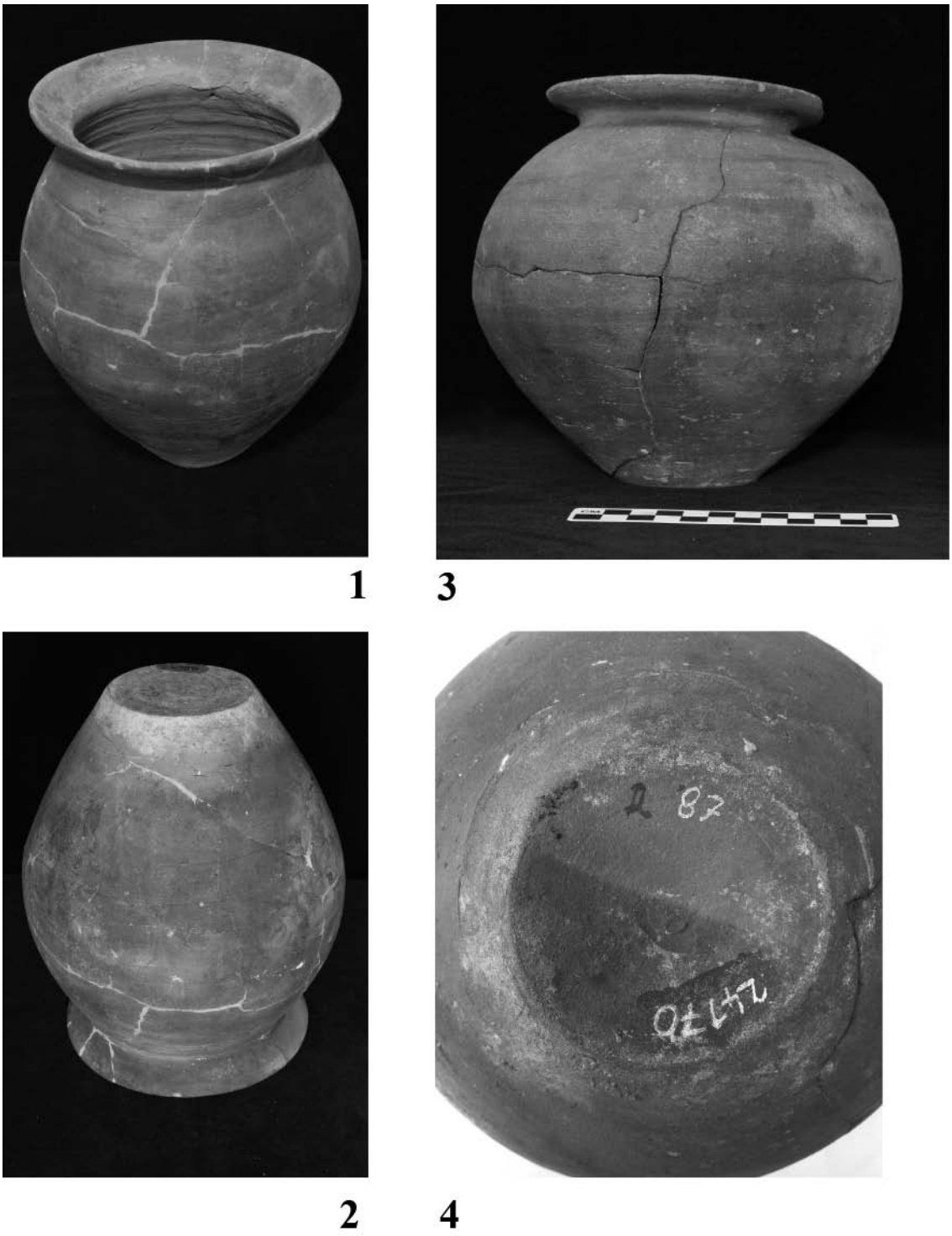

Fig. 3. **1** PALHIP 0032 general view; **2** PALHIP 0032 general view of vessel in inverted position showing light gray residue on lower wall and underside of base; **3** PALHIP 0040 general view; **4** PALHIP 0040 detail of underside of base showing sooting pattern and patch of adhering iron.

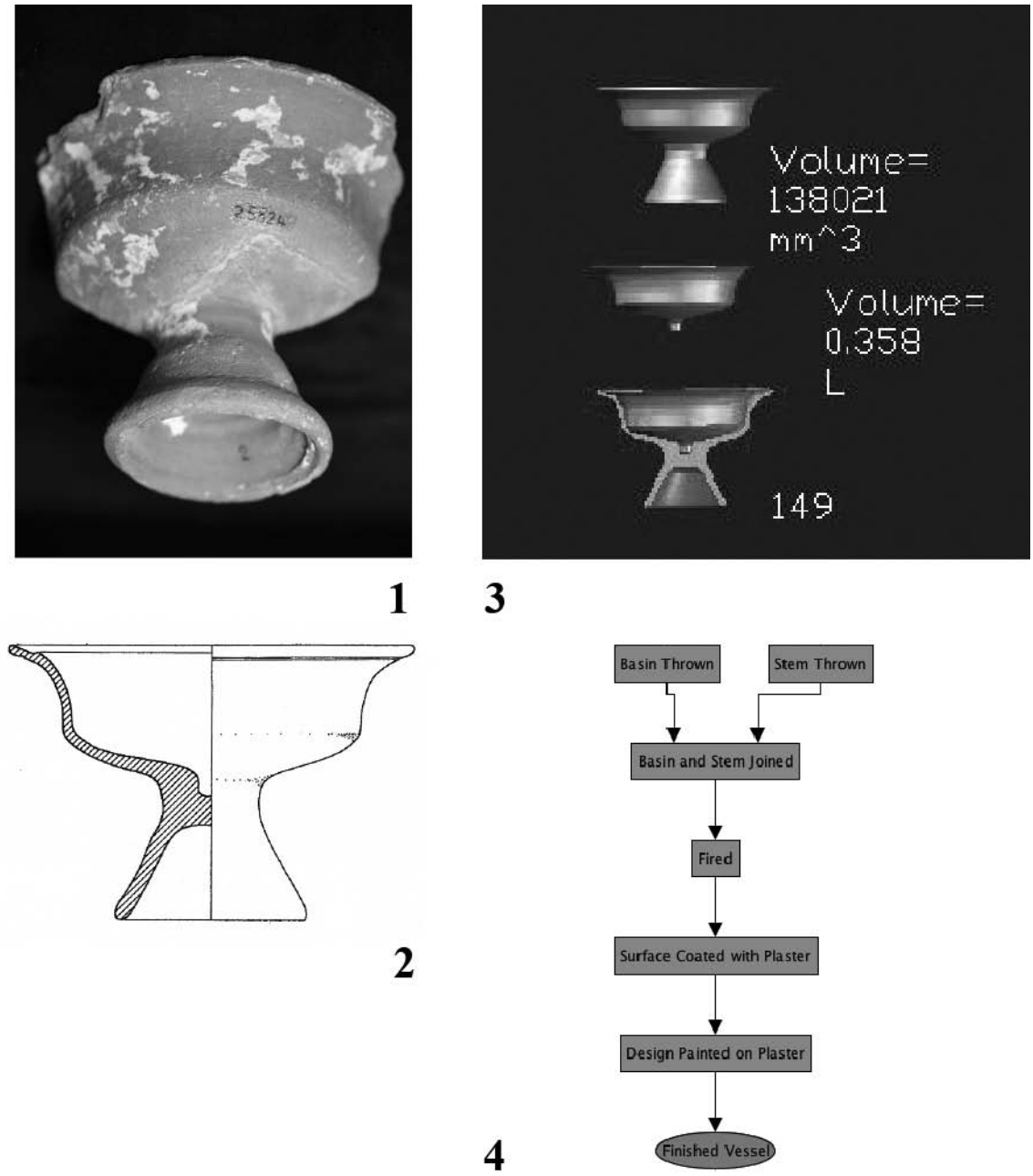

Fig. 4. **1** PALHIP 0015 general view; **2** PALHIP 0015 published drawing (De Caro 1994, 177 fig. 45,149); **3** PALHIP 0015 output of AutoCAD routine for producing three-dimensional model from published drawing – top: exterior view; middle: maximum content; bottom: cutaway of vessel and maximum content; **4** PALHIP 0015 diagram of steps in manufacture of vessel produced using Harris Matrix Composer.

the vessel bottom occurs in such a clear pattern is somewhat unexpected. One would assume that a vessel without handles would be placed on a cooking stand without any effort to orient it in one particular position. Multiple episodes of use would thus result in a fairly uniform deposition of soot over the whole of the underside. The soot pattern on the bottom of this vessel, together with the fact that a portion of the cooking stand wound up adhering to its underside, suggests that it was once – most likely at the time of its final use - placed on the cooking stand and left there for an extraordinarily long period of time.[19] The fact that the vessel contained what De Caro characterized as unidentified carbonized material is compatible with this inference.[20]

[19] Interesting in this regard is an example of the Gasperetti Form1212b (Gasperetti 1996, 28–30), a one-handled jar, in a carbonate fabric not suitable for the manufacture cooking vessels that was subject to detailed description. This vessel displayed very light sooting on the medium and lower wall and on one-half of the underside of the base ending in a straight line over an area that ran from the 4 to the 9 o'clock position, that is, opposite the handle. This pattern suggests that this pot, though not manufactured or presumably acquired as a cooking vessel, was set on a cooking support with a straight edge in a way similar to that suggested for PALHIP 0040, with the handle oriented away from the heat source, quite probably for only a single episode of use. This vessel is PALHIP 0046/Pompeii Inventory 24081 = De Caro 1994, 166 n. 121.

[20] De Caro 1994, 163.

Ongoing and future work

During the 2012–2013 academic year the PALHIP team is moving ahead with its work. We have substantially revised the database structure to permit the more effective recording of information relating to artifact life history and are developing protocols for the systematic characterization of abrasion, breakage, sooting, and content residues. We have developed an AutoCAD routine for converting a profile drawing of a vessel to a three-dimensional model. This easy-to-use routine permits the ready calculation of several values, including the volume occupied by the vessel, its maximum or any partial internal capacity, its interior, exterior, or total surface area, and, in combination with a weight value, a vessel's specific gravity. Data of this kind can be employed to evaluate artifact manufacturing costs, standardization, and intended function, and be applied to the quantification of artifact assemblages. We are also developing a set of procedures for employing Harris Matrix Composer software to produce diagrams that record the sequence of steps involved in the manufacture of an artifact. **Fig. 4,1–4** presents preliminary efforts to apply both of these tools to the documentation of an Olcese Form A.VI Type I incense burner from the Villa Regina that was subject to detailed description.[21]

The PALHIP team plans to return to Pompeii during the summer of 2013 for a second study season, during the course of which we intend to complete our work with the Villa Regina materials and then shift our attentionto sets of materials recovered in the Soprintendeza Archeologica Speciale di Napoli e Pompei excavations in *Regio*IX, *Insula* 12.[22]

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[21] G. Olcese, Ceramiche comuni a Roma e in area romana: produzione, circolazione e tecnología (tarda età republicana – prima età imperiale). Doc. Arch. 28 (Mantua 2003) 91–92. This form does not appear in either Di Giovanni 1996 or Gasperetti 1996. This vessel, manufactured in a local cookware fabric and coated with a layer of plaster that was painted with yellow and red vegetal motifs, is PALHIP 0015/Pompeii Inventory 25824 = De Caro 1994, 179 n. 149; Stefani 2010, 85 n. 25824.

[22] These excavations have recovered materials from use-related and provisional discard contexts associated with two residences, the Domus dei Casti Amanti and the Casa dei Pittori a Lavoro. For this work the PALHIP team will collaborate with R. Berg, who is responsible for the study and publication of these materials.

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