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The Coroplast and the Potter: Considerations on Cross-Craft Specialists

Abstract

Coroplastic studies is a vibrant area of research among material culture specialists dealing with the ancient world. With terracotta sculpture ranging in size from miniature to over lifesize, various techniques were employed in the crafting of distinctive products. Use of clay demanded facility with the hands as well as the employment of other technical devices. It is clear from the study of how terracotta sculpture was made that many of the techniques used for fashioning objects were similar to those employed by potters. The votive terracotta sculpture discovered at ancient Marion, one of the city kingdoms of Cyprus during the Iron Age, will form the basis of the discussion. With a corpus of over 30,000 fragments, the material represents the largest cache of sculpture in clay from a single site on the island. Local production is assumed from the volume of the material as well as the presence of nearby clay sources. Detailed assessment of manufacturing strategies reveals production affinities with various stages of clay procurement methods, techniques for material preparation and the utilisation of various formation practices including hand building, coil and slab construction, and use of the wheel – all schema shared by both coroplasts and potters.

Keywords: potter, clay, terracotta, coroplast, Cyprus, Marion, mould, handmade, coil, wheel

Introduction

Although artisans produced some of the most splendid works that reflected the creative genius of the ancient world, quite little is known of the makers of works of art across a geographic and chronological spread. This is especially true in the ancient Mediterranean, where the status of most artisans was relegated to that of a craftsman, whose low social standing belied the skill that often resulted in the production of objects that reflected expert workmanship.[1] Mention of renowned artists in ancient texts, such as by Pausanias in *Ἑλλάδος Περιήγησις* and Pliny in *Naturalis Historia*, resulted in later scholarship that privileged artistic genius, obviating the contributions made by lesser-famed individuals whose works were acquired by a clientele to satisfy religious, funerary and domestic needs.[2] How such artisans practised their craft has been eclipsed by the *lacunae* of technical manuals, save for references to the now-lost treatises credited to masters such as Apelles (composition and painting), Agatharchos (perspective), Euphranor (symmetry and colour), and, of course, Polykleitos (sculptural proportion).[3]

The presence of small-scale establishments focusing on particular media has been the accepted reality of artistic production in the ancient Mediterranean, with the existence of more sizeable operations assumed for eminent artists whose reputation and success garnered lucrative commissions and generated product demand.[4] Archaeological investigation has increasingly made possible the identification of workshops devoted to pottery and coroplastic production, and the expansive crafting and export of ceramic wares and terracottas, especially

[1] Bourriot 2015; *contra* Seaman 2017b, for elite and renowned artists; also Loomis 1993, 83–91.
[2] Seaman 2017a.
[3] Hasaki 2012, 172; Seaman 2017b, 19 n. 70.
[4] Ling 2000.

from Athens and Corinth, have added to what is known about pottery and terracotta production.[5] Other sites in the Greek world have also contributed to the discussion of pottery and coroplastic operations.[6]

In addition to documented artisan facilities, recent scholarship has focused on the investigation of craft process whose reconstruction has been facilitated by multidisciplinary approaches that include the examination of archaeological remains, use of textual sources, representations of craft activities, epigraphic evidence, archaeometric analysis, social network theory, ethnographic study and experimental archaeology. Some of those methodologies are exemplified by contributions in this volume, and the massive scholarly bibliography that is now available reflects critical literature for an evolving credible reconstruction of the reality of craft production in antiquity.[7]

The discussion that follows represents a consideration of two different craft industries practised widely in the ancient world: pottery and clay sculpture. The commonality of the raw material – clay – warrants investigation of a relationship that might have existed between potter and coroplast and whether the processing of materials, implementation of specific technical strategies, execution of manufacturing procedures, indeed, the distinct *chaîne opératoire* requisite in ceramic production and the fashioning of clay sculpture suggest a correspondence in workshop practices and personnel for two different craft industries.[8]

Evidence for the physical presence of coroplast workshops is less extensive than for pottery establishments; nevertheless, sites of coroplastic activity have been posited for diverse regions throughout the wider Mediterranean on the basis of specialised equipment (moulds, levigation basins) and materials (pigments, clay supplies, figurine deposits).[9] Workshop activity often is surmised by the number of figurines, both intact and broken, discovered at a site, with local production suggested by the quantity of excavated artefacts and the relative consistency of fabric. That is the case with two ancient cities in Cyprus, Marion and Arsinoe, where an extraordinary corpus of terracotta sculpture has been recovered. The extensive study of that material provides new insights into how coroplasts practised their craft and implemented technical strategies shared with potters – in essence, how craft symbiosis may have effectively functioned.

Background

The ancient sites of Marion and Arsinoe are located on the north-west coast of Cyprus (Fig. 1:A-B), and both were well-established cities beginning in the Iron Age and continuing into the medieval period.[10] Marion, the earlier of the two, was one of the ten city kingdoms of the island during the Cypro-Archaic and Cypro-Classical Periods and flourished until 312 BC when it was destroyed by Ptolemy I Soter in the wars of the Diadochi after the death of Alexander.[11] Arsinoe was the successor city, founded in 270 BC by Ptolemy II Philadelphos and named after his sister/wife; the city's fortunes varied, and it was ultimately superseded by the modern town of Polis Chrysochous.[12] Both sites have been the focus of archaeological excavation, but a long-term programme of coordinated work by Princeton University was begun in 1983 and continues to the present.[13]

During the course of excavation, an enormous quantity of terracotta sculpture was discovered – over 30,000 fragments, with material associated with both cities. The majority of the sculpture derives from two Iron Age sanctuaries that had functioned while Marion was thriving before its destruction.[14] The earlier of the two, the Peristeries sanctuary (Fig. 1:C), known by its toponym, is a multi-phased, rural sanctuary dedicated to a female divinity with fertility associations dating to the Cypro-Archaic Period and destroyed in the early 5th century BC. Within the complex and the adjacent *bothros*, over 25,000 fragments of terracotta votives were recovered, with the majority having stylistic and typological parallels with the Levant and Egypt. The second Marion sanctuary, the Maratheri sanctuary (Fig. 1:D), was also multi-phased, dated to the Cypro-Archaic and Cypro-Classical Periods, and was destroyed in 312 BC by the soldiers of Ptolemy I. Within the temple, the forecourt and the intervening space next to the city wall, among the votive offerings

[5] Stillwell 1948; 1952; Young 1951; Stillwell, Benson 1984; Jones 1986, 175–189 (Corinth), 153, tab. 10.2 (Athens); Arafat, Morgan 1989, 314, 317–319; Merker 2000; 2003; Monaco 2000; Papadopoulos 2003; Acton 2014, 72–115; Hasaki 2021, 227–278; Rotroff 2021; also Heilmeyer 2004 for precautions in site identification.

[6] Miller 1991; Blondé, Perreault 1992; Cuomo di Caprio 1992; Preka-Alexandri 1992; Doulgeri-Intzesiloglou 1997; Kourkoumélis, Domesticha 1997; Pisani 2008; 2012a; 2012b; Esposito, Sanidas 2012; Murphy, Poblome 2016; Bentz 2019. I am deeply grateful to the anonymous reviewer of this article for these sources.

[7] Uhlenbrock 1993; Rebay-Salisbury *et al.* 2014; Muller 2017.

[8] Merker 2003; Koukouvou 2017.

[9] Higgins 1967, 137; Uhlenbrock 1990; Sanidas 2017.

[10] Nicolaou 1976a; 1976b; Childs *et al.* 2012.

[11] Childs 1997; 2012.

[12] Childs 1988; Najbjerg 2012; Papalexandrou, Caraher 2012; Serwint et al. in press.

[13] Smith 2012.

[14] Smith *et al.* 2012.

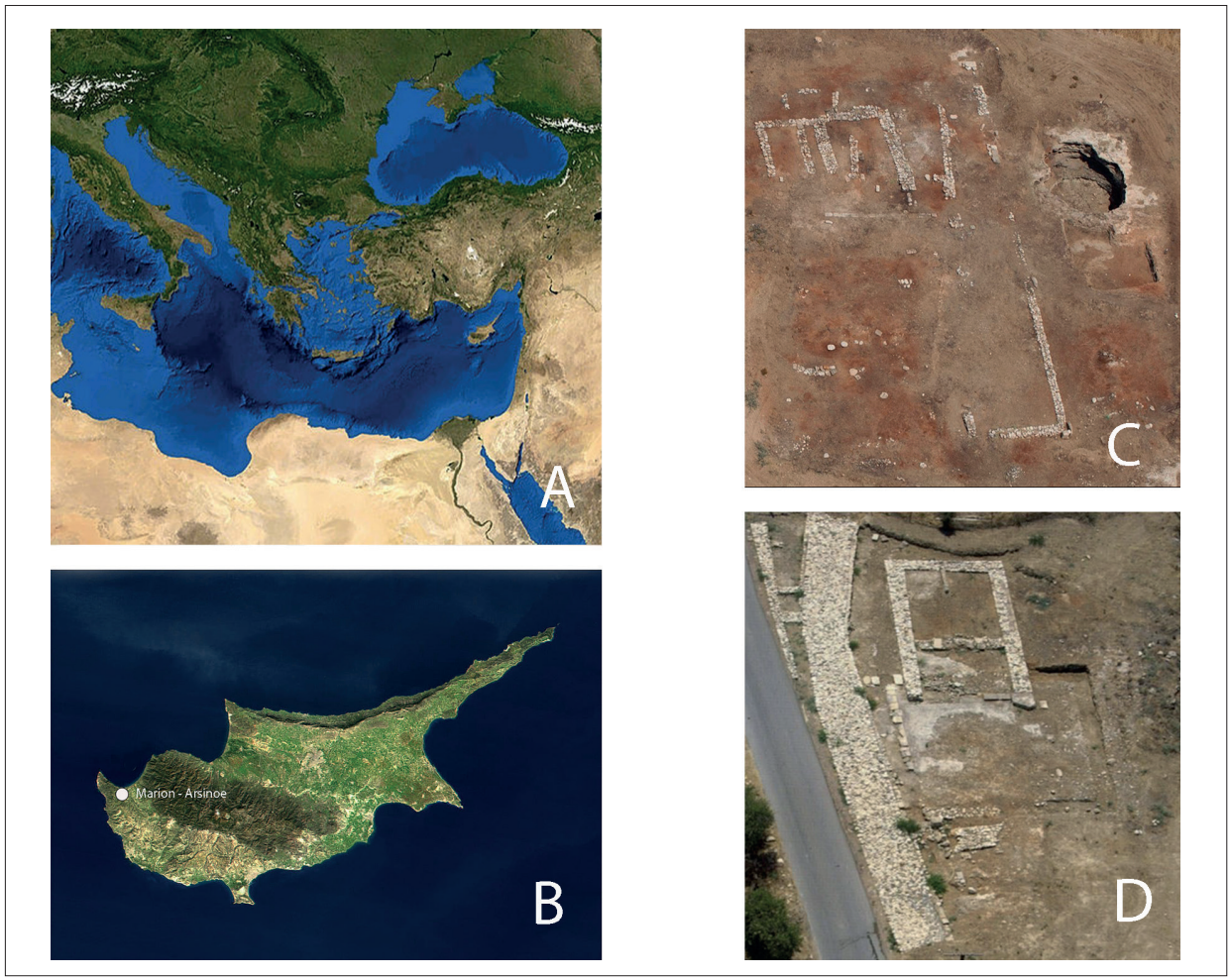

Fig. 1. Cyprus (Marion-Arsinoe) and Marion sanctuaries: A – satellite view, Mediterranean Sea (https://commons.wikimedia.org/wiki/File:Mediterranean_Sea_16.61811E_38.99124N.jpg); B – satellite view of Cyprus, Marion and Arsinoe, NASA Earth Observatory (https://eoimages.gsfc.nasa.gov/images/imagerecords/1000/1343/modis_cyprus_lrg.jpg); C – Marion, Peristeries Sanctuary (photo courtesy of Princeton Cyprus Expedition); D – Marion, Maratheri Sanctuary (photo courtesy of Princeton Cyprus Expedition).

were nearly 5,000 fragments of terracotta sculpture. The sanctuary was dedicated to Aphrodite and, possibly, Zeus, and in style and type, the sculpture had affinities with East Greece and the Greek mainland.[15]

The terracotta sculpture from ancient Marion and Arsinoe provides an ample corpus that allows for a study of coroplastic material from diverse perspectives. The massive quantity is exceptional as the largest cache of clay sculpture yet discovered in Cyprus. The secure context affirms the votive nature of the objects, while the corpus reflects robust typologies. Dating is confirmed by historical corroboration as well as dated parallels with pottery and other diagnostic sculpture from outside the island. The range of object size includes miniature to over-lifesize,[16] while the duration of production extends over the span of several centuries from the late 7th century BC into the Roman period, permitting an evaluation of how style and morphology changed over time. Assessment of the clay and the volume of the corpus suggest local production. Close examination of the sculpture has revealed different production strategies that included various procedures that served the skill of the coroplast, the availability of materials and the demands of the market. What is significant is that many of the techniques used to fashion clay sculpture were the same as those employed by potters in the manufacture of ceramic wares.

[15] Serwint 1991; 1992; 1993; 2000b; 2008; 2020; Smith *et al.* 2012.

[16] Serwint 2000a.

Technical Strategies

The Marion-Arsinoe terracotta corpus reflects the most widely used technical strategies employed by coroplasts: handformed, mouldmade and wheelmade approaches. Often multiple methods were used in the crafting of a single object, and study of a finished object might reflect diverse ways as to how the clay was handled. Objects similar in size and sharing a common typology sometimes reveal different crafting strategies, which may suggest the work of different artisans, although a coroplast was always free to adopt different ways of making the same type of object. Close visual examination of an object allows for understanding of how a coroplast worked: oftentimes traces of finger pressmarks are visible on the surface; the remains of coil seams might be apparent; and wheelmarks might remain. Critical is the examination of both the exterior and the interior of an object, and a skilled coroplast would be far more careful to remove traces of his work on that part of an object that would be readily seen, so the back and the interior of a clay sculpture can reveal much about process. Visual examination can be enhanced by using a magnifying glass or handheld microscope, as not all traces of an artisan's work are apparent to the naked eye. It is equally important to handle an object in order to determine how a coroplast worked. Particularly with handbuilt objects, it is essential to remember that a coroplast was touching and holding his work at various stages of the construction process while the clay was still moist. Pressure from the fingers will leave subtle furrows in the clay, and noting where they occur allows a researcher to establish how an ancient artisan held the object and how it was positioned in his hands. Often it is possible to determine whether the object had been held in the right or left hand while being crafted, indicating which hand of the artisan was the dominant one.

In addition to careful study of the object, experimentation in replicating how an object was created by using clay or plasticine is an invaluable activity to aid in understanding various coroplastic procedures. Replication allows one to intuit the logical steps of the process, and by trial and error, one learns how a coroplast worked most effectively. Study of traditional crafts, especially pottery making, is essential for understanding coroplastic processes because of the close correspondences between methods employed by potters and coroplasts, and critical reading still remains the analysis of methods used in ancient vase construction.[17]

Handbuilding

The most basic tool used by both coroplasts and potters were the hands, and hand construction was the primary and most expedient way to craft terracotta sculpture and pottery before the introduction of the wheel. Handcrafting was accomplished in different ways, and basic approaches were hand assembly, coiling and slab construction. Various sizes of objects could be constructed, and all methods were detected in the Marion corpus.

Hand Assembly

As a technical process, hand assembly could be the sole method of creating a terracotta object or it could be used with other manufacturing procedures (Fig. 2). The most simple way to craft a figurine was by an additive process of combining separately made component parts to create the whole. Known as the "snowman technique", body parts and headgear were fashioned individually and then added to complete the figurine (Fig. 2:A, B). Beginning with a clay roll that served for the body and head, the neck was configured by simply pressing the side of the forefinger into the roll, forming an indentation. Separate clay rolls were affixed to fashion the arms and variously positioned depending on the required pose. Additional clay was used to form eyes, nose, breasts, headgear and accoutrements. The technique of hand assembly was the earliest and most simple method of crafting a terracotta figurine, and at Marion, it was the method of choice for the production of the earliest figurines dating to the late 7th century BC and continued to be useful for coroplasts even when the mould was introduced at the site in the 6th century BC. There is an interesting correspondence between figure and pottery especially during the Early Bronze Age in Cyprus. The scenic compositions that decorated Red Polished Ware vessels reflect a fluid merger of figure and vessel,[18] and since both were constructed by hand, a single artisan might well be responsible. When a coroplast worked on a larger scale, simple finger manipulation of the clay and basic handforming were no longer practical, so different

[17] Numerous publications that document processes used in pottery formation and sculpting clay are available. Most informative are: Peterson 1992; Piepenberg 1998; Midgley 1999; Taylor 2011; Serwint 2022. For discussion of ancient pottery construction, see Noble 1988; Schreiber 1999. Significant resources on ceramic technology are Shepard 1985; Rye 2002; Rice 2005. Essential ethnographic studies are numerous, but for Cyprus see London *et al.* 1989; Ionas 2000.

[18] Morris 1985, 264–290.

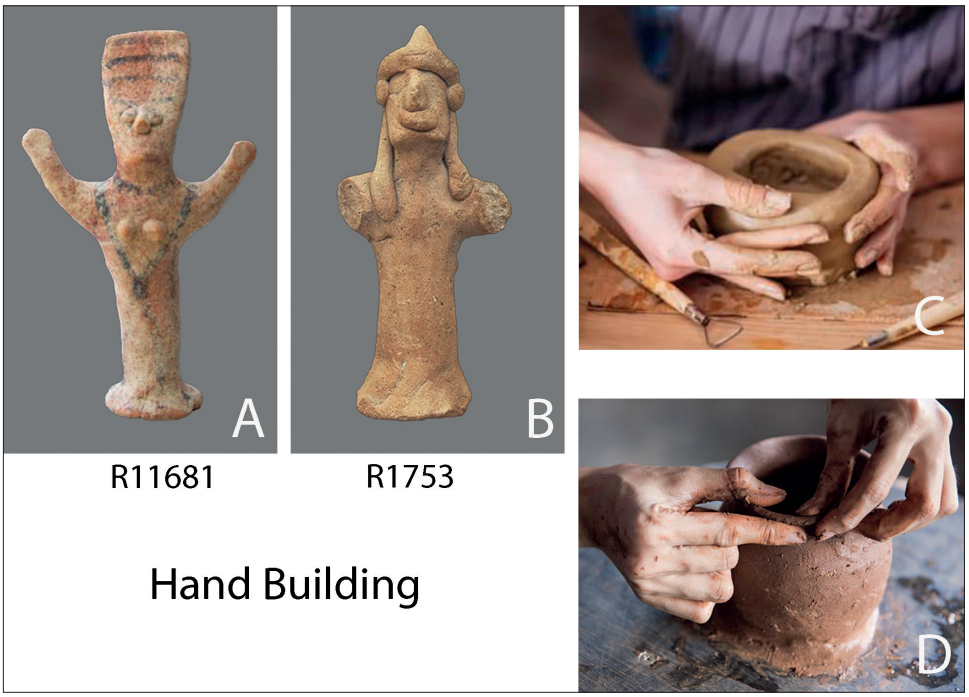

Fig. 2. Handbuilding strategies: A – female figurine, R11681, Peristeries Sanctuary (photo by N. Serwint); B – male figurine, R1753, Peristeries Sanctuary (photo by N. Serwint); C – handforming clay vessel (http://www.eastonmainstreet.org/events/working-clay-for-beginners-2019-08-23/); D – handforming clay vessel (https://liberty.armymwr.com/calendar/event/boss-hand-pottery-class/5644005/67193).

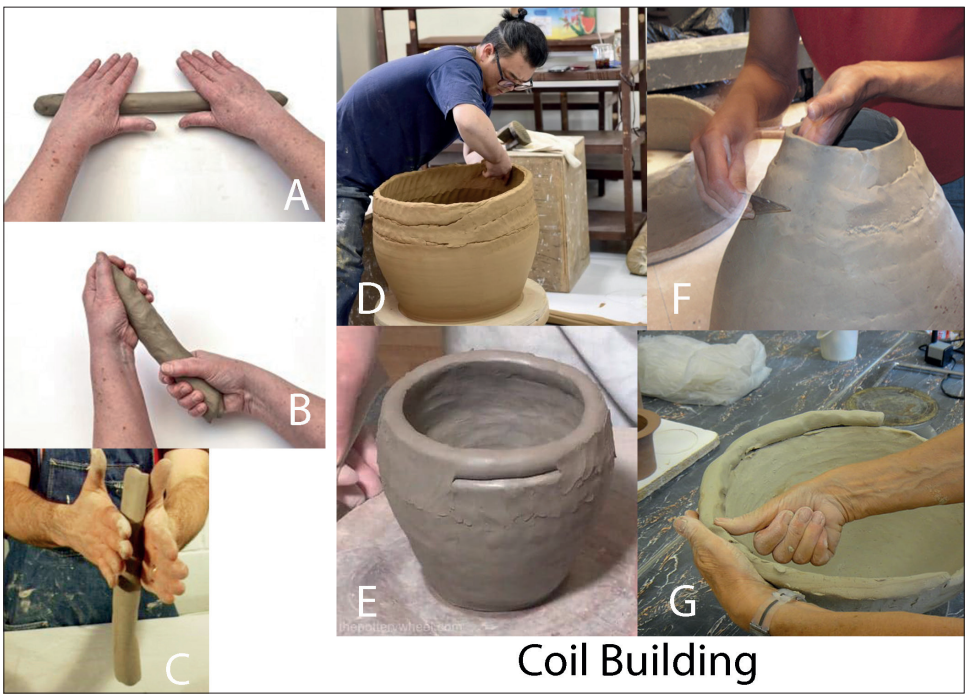

Fig. 3. Coil building: A – rolling a clay coil (https://www.jansonpottery.com/blog/how-to-make-a-coil-pot-for-beginners-2); B – pulling a clay coil (https://www.jansonpottery.com/blog/how-to-make-a-coil-pot-for-beginners-2); C – making a clay coil, vertical hang (https://www.open.edu/openlearncreate/mod/oucontent/view.php?id=162581&section=2.6); D – Korean Onggi pot made with coils (https://www.quora.com/What-is-the-basic-materials-for-a-beginner-in-pottery); E – masking coil seams (https://thepotterywheel.com/smooth-coil-pots/); F – making large jug with coils (https://ceramicartsnetwork.org/daily/article/How-to-Make-a-Coil-Pot-Using-Flat-Coils-to-Construct-Large-Jars); G – making large vessel with coils (https://en.wikipedia.org/wiki/Coiling_%28pottery%29#/media/File:Aufbaukeramik_Wulsttechnik_7.JPG).

strategies were developed that were more efficient and time-saving.

Coiling

A very common handbuilding technique is coiling (Fig. 3). It remains an effective method in pottery construction for the formation of large vessels, and a coroplast would have adopted the method for crafting large, hollow, circular or oval forms. After making coils (either on a flat surface, rolling clay in the hands, or rolling clay in the hands vertically with gravity pull (Fig. 3:A, B, C), a coroplast would position the coils end to end in a circular or oval configuration as required by the shape of the sculpture. The sequential addition of coils overlapping the top of the layer below proceeds until the desired height is achieved (Fig. 3:D, E, F, G).[19] It is critical to squeeze the juncture of coils on both the interior and exterior to guarantee the sturdiness of the form, and added clay helps secure the join and mask coil seams. Depending on the height of the form, it is common that after the construction of four or five layers of coils, the form is left to dry somewhat before the application of additional coils; this prevents the form from slumping and collapsing from added weight. Once completed and when the clay is relatively hard, the exterior surface is finished by scraping perpendicular to the coil seams, and often faint traces of vertical tooling or the striations left by the passing of a moistened cloth over the surface are visible.

Coiling is the most time-consuming process of handbuilt strategies and the one that requires great effort on the part of a coroplast, although if done correctly, it results in a sturdy form. Consequently, the method is preferred by both potters and coroplasts for the crafting of large, hollow objects.

The coil technique was used for the construction of several large statues at Marion (Fig. 4). The over-lifesize, male Egyptianising statue (Fig. 4:A, B, C) is a composite of several separately made parts, and the torso is comprised of three stacked, elliptical drums (Fig. 4:A, B).[20] Each drum was constructed by coils, and peg holes with indented channels matched similar holes and channels at the same place on contiguous drums (Fig. 4:B, C). Once the drums were stacked on top of each other with the indented channels in alignment, the coroplast would have placed a leather cord – or perhaps a metal strip – into the indented channel, inserting the ends into the adjacent peg holes, and twisting or affixing the ends on the interior of the drum. A simple smear of clay would then be added to mask the channel cut. The technique provided extra stability to a heavy statue. Significant is that a very similar technique was used by potters to join fragments of a broken vessel together, and it is telling that the same method for joining was employed by both coroplasts and potters.

Coil construction was also used in the crafting of a lifesize female statue that was a votive offering in the Marion Maratheri sanctuary (Fig. 4:D, E, F, G). Only the front of the statue carried surface decoration, while the back did not, which will be discussed in the section below on slab construction. On the back, minimal surface smoothing is visible, although the back remains somewhat rough. Visible on the lower left back, coil seams are readily apparent, indicating the coroplast's failure to adequately join adjacent coils (Fig. 4:E, G).[21]

Slab Construction

Another handbuilding method that was useful for crafting large objects was slab construction. Formed by rolling or pressing clay on a flat surface (Fig. 5:A, B), a slab could be easily configured into the desired thickness required by a coroplast. Often crafted into rectangular shapes, slabs were joined together by pinching and squeezing the ends of adjoining slabs (Fig. 5:C).[22] Forms could be easily fashioned, and the technique was employed for sculpture of statuette or statue size and for body parts of some breadth, like torsos and backs. Although more versatile and quicker than coil construction, the sturdiness of the form was compromised by the use of a single clay slab as opposed to the durability achieved from joining multiple coils, and the thickness of a slab was much less than the wider girth of coils. After a slab was formed and allowed to harden slightly, it could be readily shaped into a cylindrical or semi-circular form, useful for the crafting of limbs.[23]

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[19] Sequential rows of coils might be positioned directly on top of each other, but this is far less stable than having the coil rows slightly overlap, thereby increasing the surface area of contact. Pressing the coil seams together with the application of added clay strengthens the join. This is the usual placement of coils in pottery manufacture, and likely coroplasts followed suit. See Shepard 1985, 57–59, 184–185; Rye 2002, 67–69; Blandino 2003; Rice 2005, 127–128; Taylor 2011, 62–65.

[20] The statue is calculated to have stood at 3.00 m in height; the variation in the colour of the drums is due to various conservation techniques by different conservators. On the interior of the drums, gentle, parallel horizontal undulations are visible that confirm the joining of coil seams; see Serwint 2000a.

[21] Measurements of the width of coils on the back of the statue ranged from 3.83 cm to 4.48 cm, indicating that coil widths were not consistent.

[22] Rye 2002, 71–72; Rice 2005, 124–125; Taylor 2011, 70–71.

[23] Slab construction is sometimes used by modern potters to form mugs, cups and vases, but whether ancient potters used the method for making pottery is uncertain.

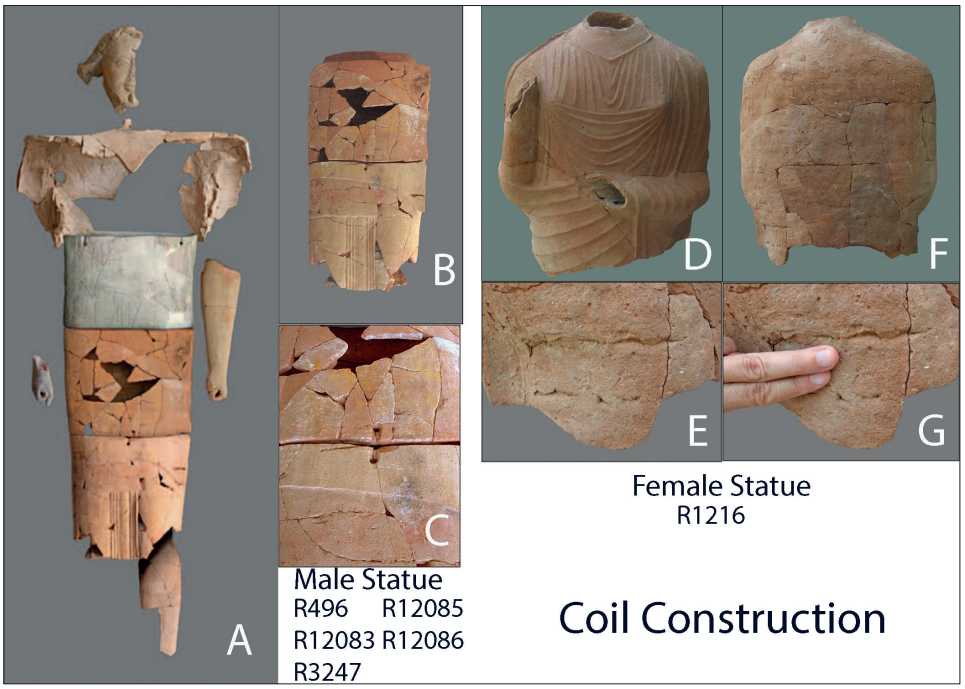

Fig. 4. Coil construction: A – colossal Egyptianising statue (photo courtesy of Princeton); B – torso drums, R12085, R12086 (photo by N. Serwint); C – torso drums with adjacent peg holes and channels, R12085, R12086 (photo by N. Serwint); D – lifesize female statue, front, R1216 (photo by N. Serwint); E – coil seams on statue back (photo by N. Serwint); F – lifesize female statue, back, R1216 (photo by N. Serwint); G – coil seams on back of statue (photo by N. Serwint).

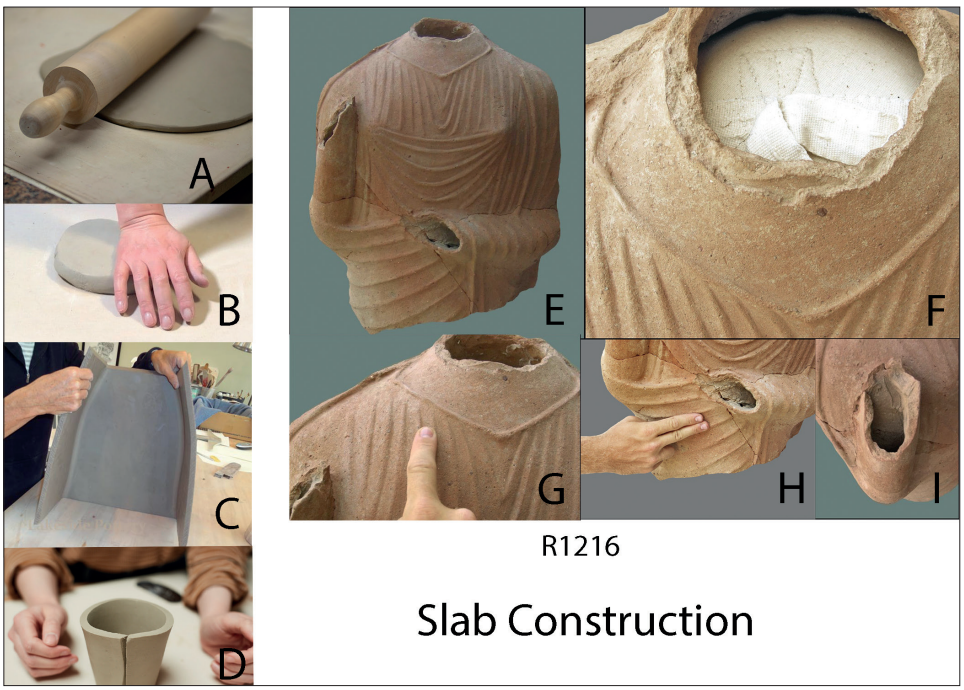

Fig. 5. Slab construction: A – rolling a slab (http://redandthepeanut.blogspot.com/2017/02/how-to-make-ceramic-pottery-lily-pad.html); B – pressing a slab (https://thepotterywheel.com/slab-plates/); C – large slab construction (https://www.lakesidepottery.com/Media/JPG_Images/custom-made-trophy/28-stand-up-side-down.jpg); D – bending a slab (https://www.handthrown.studio/studio-news/2020/4/27/handbuilding-from-home-how-to-make-a-mug); E – lifesize female statue, front, R1216 (photo by N. Serwint); F – front of statue, detail showing presence of slab (photo by N. Serwint); G – front of statue, detail showing drapery formation (photo by N. Serwint), H – front of statue, detail showing drapery formation (photo by N. Serwint); I – proper right arm, detail showing slab construction (photo by N. Serwint).

Various terracotta votives from Marion were made from slabs, and an excellent example is the lifesize female statue (R1216) previously discussed (Fig. 4:D, E, F, G; Fig. 5:E, F, G, H, I). The arms were fashioned from clay slabs that were configured into half cylinders and attached to the front of the torso (Fig. 5:H, I). An unusual use of a clay slab was a thin sheath of clay that was added to the front of the coil-made torso, which is seen clearly at the break at the neck (Fig. 5:F). The application of the outer clay slab, present on the front of the torso and not the back, allowed for the articulation of drapery folds and rills. Using the thumb and forefinger to pinch the clay to form drapery folds, the same fingers were drawn through the clay to create furrows between folds (Fig. 5:G, H). What is most interesting is that detailed measurement of all the folds revealed that the width of the furrows was always the same as the width of an adult finger or multiples of digits. In order to create a narrow furrow, the tip of the forefinger was used; in instances where the fold widened, the angle of the forefinger to clay was decreased to an acute angle, with the coroplast using the pad of the finger tip and part of the underside of the finger to draw through the clay. When wider folds were required, the thumb was used or multiple fingers in combination.

Wheel Construction

A coroplast did not always solely use handbuilding strategies to craft a clay sculpture but might rely on mechanical means as well; the use of a potter's wheel was a significant asset. There are numerous examples of terracotta figures and larger sculpture where evidence of wheel use can be readily identified, which again suggests a close relationship between coroplast and potter. Even though a coroplast might be proficient in using his hands to manipulate clay to craft an object, a different skillset is required to handle clay on a rotating wheel, even the slow-moving wheel employed by ancient potters. Although a necessary piece of equipment in a potter's workshop, a wheel need not be essential in the place where a coroplast worked. A coroplast might solicit the help of a potter when faced with the task of creating an object that required the use of a wheel or might be provided access to a wheel by an accommodating potter. Either scenario is possible and, indeed, feasible because of the documented close proximity of workshops of potters and coroplasts in antiquity.[24]

Throwing clay on the wheel required a different plasticity of the material than was necessary for handbuilding, and a coroplast, if, indeed, he was responsible for wheel construction, would have had to know his material well.[25] Different parts of the process, such as centring, opening, lifting, shaping and removal from the wheel demanded very specific ways of using one's hands, and any artisan who used the wheel would have to be skilled in the process in a way that an artisan who engaged only in handbuilding was not.

Wheel construction could be used for various sizes of objects that were cylindrical in shape, and it was particularly effective for larger forms (Fig. 6:C). Limbs, both arms and legs of statuettes and statues, were easily formed on the wheel.[26] Smaller objects, such as figurines or those of figure size, could be partially wheel-crafted if the form was hollow, as was the case for tubular lower bodies of humans, flaring skirts of female figures and some animal bodies.[27] Although wheel-thrown elements could be part of coroplastic production, it would be unusual for this to be the sole technique used in crafting an object, and handbuilding and wheel use were often used in tandem.

The telltale sign of wheel use is the presence of wheel marks, known as rills, which are the repetitive ridges and grooves that spiral around the exterior and interior of a wheel-made form during the process of lifting and raising the clay (Fig. 6:A, C).[28] Irregularities on the exterior of the form are usually removed while the object is still on the wheel, with the artisan applying the side of a sharp tool to the surface while the wheel remains turning, which smooths and evens the form (Fig. 6:B). It is quite common that the walls of a wheel-thrown form are thicker at the base and thin towards the top. Among the Marion votive corpus, there are many examples of wheel construction used for the production of clay sculpture and best seen on the interiors of arms and legs of several large statues, all of which are lifesize or larger (Fig. 6:D, E, F, G, H, I). R1640 (left arm and fist) clearly shows the repetitive sequence of wheelmarks on the interior (Fig. 6: D, E), while R12083 (Fig. 6:H, I), a lifesize lower leg, bears ample traces of the wheel on its interior surface. The nearly twice over-lifesize fist (R2087; Fig. 6:F, G) bears the remains of rills on what is left of the lower arm. In all cases, the coroplast was careful to remove wheelmarks on the exterior. Limbs such as these, made on the wheel, would have been added to body parts – torsos or thighs – that likely were fashioned from coils or slabs.

[24] See note 5 above.
[25] Shepard 1985, 50–54.
[26] Karageorghis 1993, 102–105.
[27] Higgins 1967, *passim*.
[28] Rye 2002, 74–80; Rice 2005. 129.

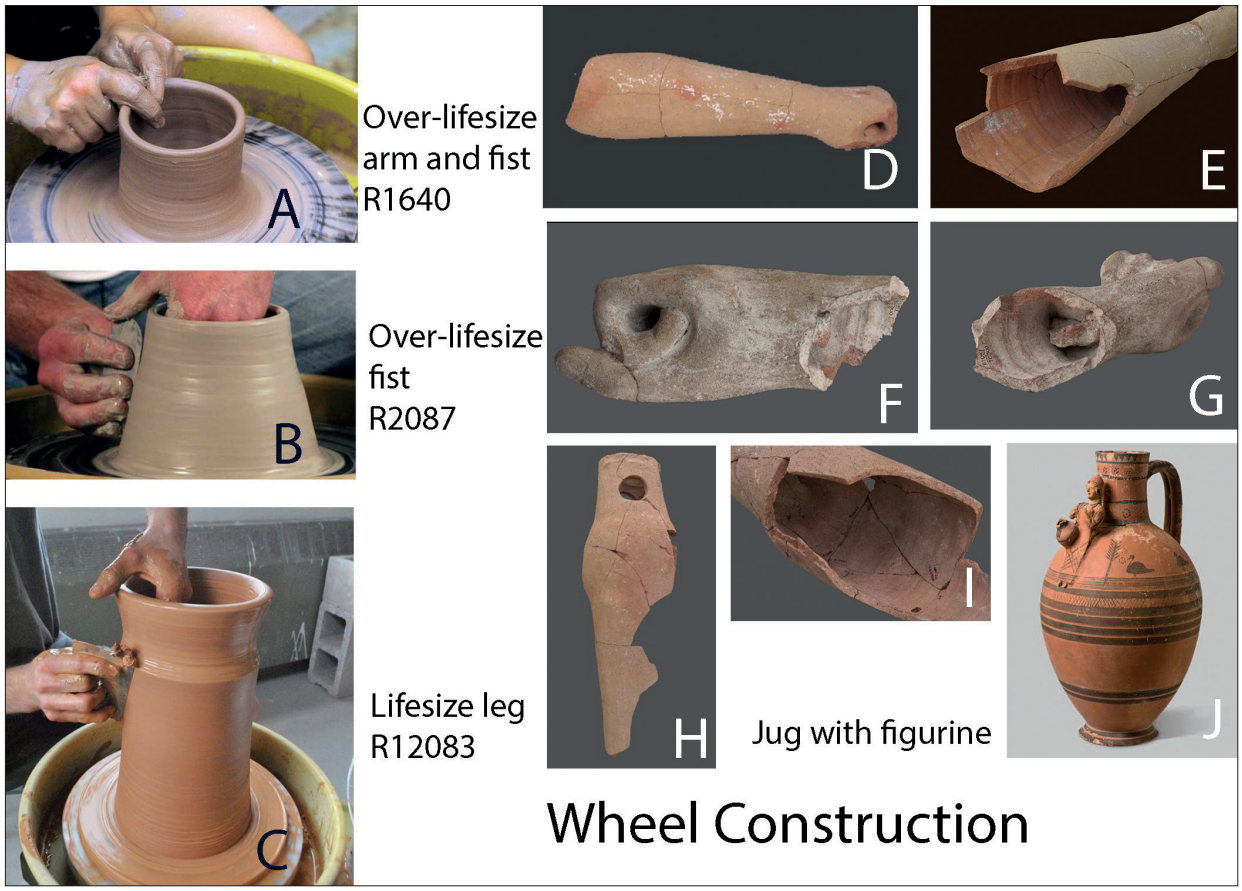

Fig. 6. Wheel construction: A – throwing on wheel (https://thepotterywheel.com/what-is-wheel-throwing/); B – smoothing exterior (https://ceramicartsnetwork.org/daily/article/Wheel-Throwing-in-Cross-Section); C – throwing large vase on wheel (https://ceramicartsnetwork.org/daily/article/Wheel-Throwing-Video-How-to-Throw-a-Large-Vase-on-the-Pottery-Wheel); D – over-lifesize arm and fist, exterior, R1640 (photo by N. Serwint); E – over-lifesize arm and fist, interior, R1640 (photo by N. Serwint); F – over-lifesize fist, exterior, R2087 (photo by N. Serwint); G – over-lifesize fist, interior, R2087 (photo by N. Serwint); H – lifesize leg, exterior, R12083 (photo by N. Serwint); I – lifesize leg, interior, R12083 (photo by N. Serwint); J – jug with figurine, MMA 121, Marion-Arsinoe Archaeological Museum, Polis (photo courtesy of Princeton Cyprus Expedition).

The wheel allowed an artisan to quickly create a cylindrical form that could be modified to shape a leg or arm. By applying finger pressure after formation on the wheel, the diameter of the clay cylinder could be easily altered to replicate the natural variation of the breadth of the limb. The girth of a lifesize statue torso precluded the effective use of the wheel, and coil construction was the norm for very large-diameter cylindrical or oval forms. Certainly, wheelmade forms could be more rapidly constructed than those made from coils; however, coil fabrication ensured a solidity of finished product that wheel construction could not guarantee.

Use of a Mould

Although the use of a mould is not associated with pottery manufacture, in the production of terracotta sculpture it became the most common method of crafting figurines, and its relevance to this discussion will become apparent below. When the mould was introduced into the Mediterranean world sometime during the 7th century BC as a technical device, it totally revolutionised the coroplastic arts and how terracotta sculpture was made. Prior to that time, all forms would have been hand assembled.[29] However skilled a coroplast might be, it was

[29] Sporadic use of the mould prior to the 7th century BC has been documented for Crete: mouldmade Late Minoan IA bull *rhyta* were found on Pseira, and Late Minoan moulds were discovered at Gournia for the production of clay and faience objects; see Higgins 1967, 12.

a time-consuming process to form separate elements by hand that would comprise clay figural sculpture of any size. With the introduction of the mould, certain elements were not only quickly and efficiently made, but multiples could be formed with very little effort as long as a mould remained serviceable. The use of a mould ultimately caused an explosion in the coroplastic industry: increasing the popularity of small-scale figurines, expanding the repertoire of affordable products, developing a consumer appreciation for refined aesthetic forms and stimulating dissemination of *au courant* styles across a broad geographic area.[30]

At Marion, it is possible to trace the trajectory of mould use, which likely was consistent with the employment of the mould elsewhere in the ancient world. At first the mould was limited to the crafting of the front of the face, with the rest of the head and figure fashioned by hand.[31] Only later was the mould used for the front of figurines (first females, and a bit later, males), and it was only in the 4th century BC that double moulds were utilised for both the front and back of figurines. Thereafter, multiple moulds were used for different parts of a figurine: head, body and limbs. Mould use did not necessarily require a coroplast to be a sophisticated artisan because any refinements in style of drapery, coiffure and facial features were the result of the archetype or *patrix* that was derived from either an existing figurine or object crafted in some other medium over which a coroplast had no control. Filling a mould derived from an archetype required little skill, and it is only when coroplasts became more inventive with the use of multiple moulds for different body parts that creativity was expressed in various poses and gestures as opposed to the potential of a dull repetition of the same figurine.[32] Possibilities of variation were great, and at Marion the range was staggering, with 37 different moulded face types and 67 separate drapery variations for female figurines dating to the 5th and 4th centuries BC.

The issue of mouldmade figurines and the relationship between coroplasts and potters becomes significant because of a very special class of Cypriot pottery that has been associated first with Marion and then subsequently found at sites in the western part of the island.[33] The vessel type is a jug, primarily Bichrome red ware, decorated with a figure or figures holding a juglet on the shoulder of the vessel. The vessel type was popular from the end of the 6th century BC until the Hellenistic period (Fig. 6:J). Moulds were often used to craft the faces, and sometimes the torsos of the figurines, and what is interesting is that parts of many of the figurines on the vases were the same as moulded figurines in the Marion votive corpus, indicating that the same mould had been used for both objects. The question arises whether a coroplast and potter collaborated together to produce the Marion vase with figurine or did the potter have access to the same mould that a coroplast also used to fashion a votive figurine. In essence, was the vase made by one artisan or two?

Conclusion

Potters and coroplasts were craftsmen allied with each other because of material shared in common. In order to be successful in their work, each artisan had to possess knowledge of the properties of clay. The ultimate form of any object that was produced demanded that both potter and coroplast had expert familiarity with how a clay fabric responded to technical strategies, especially in terms of the plasticity of clay and how any given clay recipe would perform during firing. At Marion, a local coroplastic industry is likely because of the volume of votive sculpture in clay that has been recovered in excavation, and although not discussed in this paper, the amount of plain ware pottery found at the site indicates that many vessels were locally produced as well. In sum, both potters and coroplasts worked in the area, and this is corroborated by the discovery of a kiln, a settling basin associated with clay purification, numerous wasters, several figurine moulds and various lumps of mineral pigments that were suitable as colourants for both pottery and clay sculpture. There is not enough available information to suggest how many artisans might have been active at Marion, but the size of the terracotta corpus would certainly argue for an active industry that was comprised of coroplasts with a range of skills. Study of the material already has identified distinct ways in which different bases were crafted for figurines, preferences for solid versus hollow figurines, and unique ways that the interiors of various larger objects were marked and treated by their makers. This, of course, argues for the presence of different and distinct craftsmen. Literature on ceramic and coroplastic workshops posits that staffing was limited to five or six individuals, and a division of labour allowed for tasks to be assigned to workers of various skill levels. Since the mining of clay, preparation of workable fabrics, acquisition of fuel as well as kiln construction and firing were all requisite steps in the ceramic and coroplastic industries, the possibility of shared labourers would be a sensible economic strategy.

[30] Muller 2000.
[31] Serwint 2022.
[32] Uhlenbrock 1990.
[33] Vandenabeele 1998.

It is documented that potters in ancient Athens did not necessarily specialise in a single form but were adept at making a variety of wares, and that some named artists assumed the role of both potter and painter.[34] Studies that have been undertaken that posit networks and associations that existed among distinct potters indicate that linkages among those in the ceramics industry were numerous and far-ranging.[35] That such involvement would have existed for potters and coroplasts who worked in close proximity is certainly likely. Because of the dearth of named coroplasts, it is not feasible to construct professional networks among coroplasts; however, the burgeoning field of forensic studies that investigates finger impressions on ancient ceramic materials holds much promise.[36] Initial scanning of fingerprints left by coroplasts on the Marion votive corpus began in 2019 before the pandemic, and renewed study by this author will be extended to include finger impressions on pottery in the hope that the dataset will allow for confirmation whether potters worked on figurines and coroplasts on ceramics. That potters and coroplasts collaborated closely is quite certain at Marion, and certainly likely elsewhere in the ancient Mediterranean. Continued study promises to detail just how extensive those partnerships were.

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[34] Rotroff 1997, 72–77.

[35] Harris Cline, Hasaki 2019.

[36] Jägerbrand 2007; Muller 2017, 159; Lichtenberger, Moran 2018.

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