

CHAPTER 1

Hands

The Human Body and Clay

The Japanese potter Yagi Kazuo was once asked to name the essence of ceramics. Was it the wheel, the traditional tool of the potter? ‘No, it’s not the wheel’, Yagi replied. ‘It’s that feeling you get when you take soft clay and squish it between your fingers’ (Adamson 2007: 57–58). The plasticity of clay and the way that it is directly formed by the body set clay apart from other materials. This relationship between the physical qualities of clay and the corporeal nature of potting has often become lost among traditional archaeological concerns with ceramics such as typology, style and function. Yet given that in the European Bronze Age the vast majority of ceramics throughout the continent were handmade, the interrelationship between the particular qualities of clay and the ways in which clay could be worked by potters is critical to understanding the potential of clay for creativity in material culture.

In this essay, I want to explore the dialogue between hands and clay in the making of objects. I want to look at creativity in terms of the role of the body in the forming of things – as a literal act of creation. This necessitates an understanding of craft – the process of making by hand – and its outcome, the handmade object (Adamson 2007). It also requires an understanding of creativity as an embodied process in which thinking takes place through the whole body, not only in the mind. In other words, thinking takes place through doing. Such a process is particularly important in potting because of the way the creation of objects takes place through the relationship between the body and materials; creativity is a matter of the ‘thinking hand’ (Pallasmaa 2009). My case study focuses upon Early and Middle Bronze Age miniatures and figurines created through a diverse range of techniques for modelling in clay from throughout the Carpathian Basin.

Creativity, Craft and the Hands

Making things demands actions of the body, in particular of the hands. It is by taking hold of materials and manipulating them with the hands that they are turned into something new. Craftsmanship thus arises from the hands (Sennett 2009). In pre-industrial societies, including the Bronze Age, the entire material world was ‘handmade’. Indeed, it has been argued that the centrality of the body to making things is the defining element of craft (Cardoso 2008). Hands, therefore, are critical to creativity in the production of objects.

The hands are not, however, simply mechanical appendages that form part of a doing body distinct from a thinking mind. Hands create knowledge (Benjamin 1968; Ingold 2013). They tell us if something is hot or cold, sharp or blunt, wet or dry. They form a point of contact that connects a person with the world such that the whole body is a knowing entity (Merleau-Ponty 1992). It is such an embodied understanding of the world that lends us the phrases ‘to get a grip’, ‘hold on’, ‘to grasp the truth’, ‘seize the future’, and ‘place the matter in your hands’; the hand is a political organ (Leslie 1998). In other words, we think through our bodies. As the philosopher Martin Heidegger put it:

Perhaps thinking, too, is something like building a cabinet. At any rate, it is a craft, a ‘handicraft’, and therefore has a special relationship to the hand. In the common view, the hand is part of our bodily organism. But the hand’s essence can never be determined, or explained, by its being an organ which can grasp . . . The hand is infinitely different from all the grasping organs . . . different by an abyss of essence. Only a being who can speak, that is, think, can have hands and can handily achieve works of handicraft. . . . Every motion of the hand in every one of its works carries itself through the element of thinking, every bearing of the hand bears itself in that element. All the work of the hand is rooted in thinking.

(Heidegger 1977: 357)

If we think through our hands, then the hands also provide the link between knowledge, thought, and creativity since it is only by way of a haptic understanding of the world that it becomes possible to imagine something new. The way that the hands seek out materials is critical to understanding the nature of substances. It is only through direct physical experience that it is possible to understand materials. The feel of materials is vital to the ways that craftspeople work with them and explore their innate properties. The Finnish designer Tapio Wirkkala called this process ‘eyes at the fingertips’ (in Pallasmaa 2009), or as the wheelwright George Sturt put

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it, '[M]y eyes know because my hands have felt' (Sturt 1923: 24). In discussions of modern design, such close communication with materials at every stage of the making process has been seen as an advantage of craft as opposed to the use of machines (Pallasmaa 2000). The philosopher Gaston Bachelard wrote, 'Even the hand has its dreams and assumptions. It helps us understand the innermost essence of matter. That is why it also helps us imagine [forms of] matter' (Bachelard 1982: 107). Creativity calls for imagination and, as anyone who has doodled his or her way through a meeting knows, creativity does not reside in our brains alone, but in our entire bodily constitution (Pallasmaa 2009).

The innate potentials and resistances of different kinds of materials lead inevitably to different kinds of interactions with them and thus to different potentials for creativity through different kinds of manipulations. Take, for example, the folding over and creasing hand actions of Japanese origami work, which are enacted on paper but cannot be easily transferred to the making of a wooden bowl. What the hand, arm and body movement can do in relation to flat surfaces is different to what they can do in relation to objects in three dimensions (Morris 1970). In the making of ceramics, the plasticity of clay allows the hands to knead, roll, smooth, pat, bend, push, prod and squeeze. In the particular case of clay, forming takes place through the actions of the hand in a particularly spontaneous manner since the degree of pre-planning for form is much less than that required for some other crafts such as bronze casting or weaving, where the preparation of a mould or loom defines the parameters of the finished object. Although there may be substantial investment in the preparation of clays with anticipation of the kind of object to be made, during the making of ceramic objects there is a search for form with the fingers. The potential range and variation of hand actions may also be greater than in some other crafts as the plasticity of clay means that there are endless potential possibilities of form. For instance, the various actions in making a pot are potentially much greater and less repetitive than those required in weaving. The actions of the hands, therefore, differ in the ways that they probe the limits and possibilities of interaction between maker and materials (Morris 1970).

Thus, the creativity embedded in objects is not just a matter of surface finish or decoration; it also lies within the forming of the object itself and in the responses of the craftsperson to the challenges that the materials pose (Hahn 2012). Objects articulate the boundary between their maker and the world such that the bodily and mental constitution of the maker becomes the site of the work (Pallasmaa 2009), as different creative possibilities arise through different hand and body movements. Within archaeology attempts

have been made to capture the dynamics of body movement in woodworking using dance notation, revealing the potential complexity and sophistication of body interactions with materials during crafting in terms of rhythm, speed, force and technique (Høgseth 2013).

The movements involved in making objects entail the hands as both tools and tool-using. The ethnologist and sociologist Marcel Mauss advanced the concept of the *homme total*, where man is himself a tool, a notion re-explored in anthropology and archaeology (Ingold 1998, 2013; Gamble 2007; Budden and Sofaer 2009). As Mauss himself put it, '[T]he body is man's first and natural instrument. Or more accurately . . . man's first and most natural technical object, and at the same time technical means, is his body' (Mauss 1935: 83). Influenced by human physical anthropology, recent discussions in the theory of craft have explored the implications of the particular structural anatomy of human hands in the development of craft technique, in particular the distinctive physical experience of grip (Pallasmaa 2009; Sennett 2009). Unlike the blinking of eyelids, grip and the release of grip are voluntary actions (Sennett 2009). Three different basic types of grip have been identified (Marzke 1992, 1997). First is the pinching of small objects between the tip of the thumb and the side of the index finger. Second is the cradling of an object in the palm of the hand and its movement around with pushing and massaging actions between the thumb and fingers. Third is a cupping grip in which a larger object is held, with the thumb and index finger placed at opposite sides of the object, as in holding a ball or a mug of coffee. The cupping grip allows an object to be held securely while it is being worked on by the other hand (Marzke 1992, 1997; Sennett 2009).

Tools can be used to amplify or extend the actions of the hand as, for example, in the use of a hammer. They can distance the hand from the site of action, as in the use of tongs to hold a crucible or to turn meat on a barbeque, or to do things that the hand cannot do, such as using a can opener or using a hide scraper. Some tools require particular kinds of grips or gestures in order to be used. For instance, effective use of a pen to write requires a pinching grip. Other tools are multi-purpose and therefore have several potential holds. The straight-edge screwdriver, for example, can be used to loosen or tighten a screw, in which case a pinching grip along with rotation of the wrist is required. It can also be used as a gouge, awl, cutter or lever, which may require grip and movement of the hands and arms in other ways (Sennett 2009). Using a tool, whether it is a found item such as a stick or a purpose-made object such as an axe, generates additional creative possibilities to using the hands alone. Tools offer particular possibilities for action, and as such

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they organise imaginative experience with productive results; they guide people in the process of making things (Sennett 2009: 213).

Importantly, what, when and how to execute hand actions – with and without tools – need to be learnt. The saying ‘A bad workman always blames his tools’ implies that skill lies at the heart of craft. Creativity demands technical ability as well as imagination and understanding of materials. Such technical ability or manual dexterity requires the development of embodied or non-discursive knowledge (Budden and Sofaer 2009; Sofaer and Budden 2013; Sørensen and Rebay-Salisbury 2013). In other words, the learning of practices becomes embedded within the body as motor skills and ways of doing things become ‘second nature’ (Sofaer 2006; Budden and Sofaer 2009). The classic example of this is riding a bicycle (Knappett 2005). It is possible to understand the principles of how to ride a bike without actually being able to perform the task. Only with repeated practice can one cycle without constant reference back to the articulation of those principles. Similarly, learning to play a musical instrument or a sport requires the constant repetition of actions such that they become engrained in the body. Watching a young child struggle to learn to write is a salient reminder of the complexity of the mechanics of holding a pencil and letter formation, and of the training required by the hands in order to accomplish actions that I take for granted.

The acquisition of embodied knowledge is culturally contingent. Thus, as Marcel Mauss pointed out in his famous essay on the techniques of the body (1935), the capacity to walk is universal, yet people in different cultures are brought up to walk in very different ways. Similarly, in the making of a pot, different suites of actions are required in order to produce different kinds of vessels (Sofaer and Budden 2013), but only some of these may actually be deployed in any given cultural setting. How to do things is culturally situated and socially defined. The possibilities for learning particular kinds of actions (and therefore skills) are held within communities of practice (Lave and Wenger 1991; Lave and Chalkin 1993; Wendrich 2012). These bring people together through shared structures of knowledge and ways of doing which shape the material world (Wendrich 2012; Kohring 2013). Communities of practice are also repositories of cultural interests. For instance, one of the best-selling books in Japan in recent years teaches the reader how to make the 12 animals of the zodiac while peeling citrus fruits (Okada and Kamiya 2010). The success of this volume lies in its cultural resonance. It links to a tradition of paper cutting, or *kamikiri*, and more widely to a persistent cultural value of making ephemeral things by hand. It is difficult to imagine the wild success

of such a volume in twenty-first century Britain! What and how to make things, therefore, are expressions of cultural values. Communities of practice both create and circumscribe creative possibilities.

Actions are also given meaning within cultural contexts. The elaborate hand gestures, or *mudra*, of Indian classical dance are used to narrate a story and to refer to objects, weather, nature and emotion (Carroll and Carroll 2012). Likewise, meanings can be sought in the creative act of making an object, not just in the finished object itself. In a recent study of spinning in Bronze Age Europe it has been argued that functionally equivalent regionally specific preferences in the direction of twist in yarn – clockwise (z-twist) and anti-clockwise (s-twist) – may have been related to cosmological notions that led to ‘right’ and ‘wrong’ ways of doing things in particular places (Bender Jørgensen 2013). In this case there is no division between the sacred and the profane. The knowledge of making is bound up with knowledge and understanding of the world embedded within the actions of the hands (Lakoff and Johnson 1999; Slepian and Ambady 2012). Furthermore, movements of the hands, especially when in sequence, assist and hold memory (Shusterman 2012; Bender Jørgensen 2013). This is something that we all employ in our everyday life through the establishment of routines such as laying the breakfast table or packing a suitcase (Bender Jørgensen 2013). The work of the hands, therefore, has the power not just to make but to evoke.

Since the crafting of things is not separate from life but is part of it, meaning can exist within the act of making. While the transformative nature of craft has often been understood as magical (Budd and Taylor 1995), the form-giving actions of craftspeople might be understood in terms of a literal making sense of the world. In other words, an embodied means of self-understanding in which imagination does not run riot but is put to a specific disciplined use (cf Adorno 1979). In this perspective, things are not made by chance or in a spirit of fantasy (Bâ 1976). Acts of creation have meaningful reasons and intent that go beyond the need for skilled technical solutions. Furthermore, not only do they involve transformations from raw materials to finished object, but they are intrinsically powerful acts. This is reflected, for example, in the persistent description of God as a potter in Judaic thought or the deliberate imperfections woven into Persian carpets since only Allah is perfect. Ethnographic accounts of craft frequently describe a relationship between the work of craftspeople and religious or other forms of social significance, such that ceramics, metalworking, wood working, leather working and weaving are more than utilitarian, domestic, economic or recreational occupations (Bâ 1976; Wade 1989; David 1990).

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In his description of craft in West Africa, the intellectual and politician Amadou Hampâté Bâ (1976) describes how making objects can be simultaneously the expression of cosmic forces and a means of making contact with these forces. Here creativity is a matter of navigating the world with the hands.

In the following section I want to explore these arguments by examining the role of hands in the practice of Bronze Age craft, in particular, the modelling of clay that resulted in miniatures and figurines. My focus is on the processes involved in the forming and shaping of objects rather than on their decoration.

Creativity and the Hands: The Case of Early and Middle Bronze Age Miniatures and Figurines

Ceramic miniatures and figurines are found throughout much of the Carpathian Basin during the Early and Middle Bronze Age (2500–1400 BC). They include items such as wagons, wheels, chariots, boats, axes, chairs, houses, ovens, and miniature vessels. There are also anthropomorphic, aviform and zoomorphic objects including human figurines, human feet (either on their own or as part of other objects), bird rattles and animal figurines. Some of these are one-offs or very rare in the region, such as the house from Karaburma in Serbia (Todorović 1977), the clay axes from Ostrovu Mare in Romania (Chicideanu 1995) or the boat from Darda in Croatia (Kiss 2007). Others occur in numbers. For instance, eighty-nine clay wagons are currently known from the Carpathian Basin, of which more than sixty date to the Bronze Age (Bondár 2012). There are dozens of clay birds from throughout the region (Guba and Szeverényi 2007; Maričević and Sofaer 2012; Bulatovic 2013), while there are more than 100 human figurines from sites primarily along the River Danube (Jovanović 2011). Plastic modelling also sometimes formed an integral part of ceramic vessels in ways that literally turned the whole vessel into a human, bird or animal through the manner of vessel formation. These include, for example, vessels with human feet such as that from Ivánca in Hungary (Tompa 1935), a range of different kinds of bird-shaped vessels such as from Vatin in Serbia (Milleker 1905; Kovács 1972a) or Bökénymindszent in Hungary (Kovács 1977), *askoi* such as those from Zók-Várhegy (Tompa 1935) or Tiszafüred (Kovács 1977) in Hungary, as well as vessels that were turned into birds through the addition of bird head protomes, such as from Feudvar in Serbia (Reich 2005) or Žuto Brdo-Gârla Mare cups from Romania (Șandor-Chicideanu 2003). Clay modelling forms part of a

regional tradition that can be traced back to the Neolithic and Copper Age (Bailey 2005; Bondár and Székely 2011), and that also extended into the Late Bronze Age (Kalicz-Schreiber 2010). The diversity of three-dimensional modelling and thus the use of clay as a medium for creativity, however, is particularly striking in the Early and Middle Bronze Age.

Ceramic models have been found in both settlement and cemetery contexts, although there are trends linking particular types of models with specific kinds of setting. For example, the Early to Middle Bronze Age animal figures of the Hatvan and Mad'arovce cultures in the north of Hungary and south-west Slovakia have been found on settlement sites (Kovács 1977; Tárnoki 2003), whereas the Middle Bronze Age elaborately decorated human figurines of the Žuto Brdo-Gârla Mare culture in the lower Danube region have been found primarily (although by no means exclusively) in cemeteries (Șandor-Chicideanu and Chicideanu 1990). There may also be geographical distinctions in the deposition of models. For example, bird-shaped rattles have been found in settlements in the north and east of the Carpathian Basin and in graves in the west (Guba and Szeverényi 2007). In the south and south-east they are found in both (Vukmanović and Popović 1996). There are also several stray finds or objects that entered museum collections through the work of antiquarians or private collectors for which context is uncertain.

Given their relative rarity compared to ceramic vessels, often visually striking appearance, and potential to lend insights into Bronze Age life because of their representational nature, clay models have been the focus of substantial archaeological attention. By far the most common understanding of ceramic models is that they had a ritual or cultic role, in the sense that they materialised belief systems or assisted in practices connected with these (Harding 2000). Perhaps some of the clearest possibilities for ritual use can be identified in models of birds, not least because bird symbolism was widespread in the European Late Bronze Age (Jockenhövel 1997; Wirth 2006; Guba and Szeverényi 2007). On the basis of their broad bills, many of the clay models appear to be of water birds, the only animal able to move between air, land and water (Vasić and Vasić 2000). Human-bird figures such as on the large and small clay chariots from Dupljaja, Serbia, bird-shaped representations standing on human feet such as the rattle from Királyszentistvan, Hungary, or the human face on the bird-shaped *askos* from Tizafüred, as well as rarer bird-animal combinations expressed as birds with horns or human-animal combinations, have been suggested to express mythical creatures (Kovács 1977, 1981; Reich 2005; Guba and Szeverényi 2007; Neagoe 2011; Palinceș 2012). A specific group of bird-shaped clay objects are rattles.

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Their use to make noise has been considered part of shamanic or magical practices (Krstić 1985, 2003; Guba and Szeverényi 2007). More recently, analysis of an *askos* from Alsóvadász-Várdomb, Hungary, revealed the presence of animal proteins and high iron levels suggestive of blood, and it has been proposed that the vessel was used in some form of libation ceremony (Szathmári 2003a; Guba and Szeverényi 2007).

On the basis that some objects are scaled down or miniature versions of larger originals, ceramic models, in particular those of ‘everyday’ objects such as boats, ovens or carts, have also been regarded as toys (Šimić 2000; Kiss 2003, 2011; Medović 2006; Bondár and Székely 2011; Balen and Rendić Miočević 2012). A relatively small number of mortuary studies in which associations have been identified between ceramic models and young individuals have augmented this interpretation. For example, in burials of the north Transdanubian Encrusted Pottery group at the sites of Mosonszentmiklós in Hungary and Malá nad Hronom in Slovakia, young children were in some cases buried together with miniature objects and distinct grave goods (Kiss 2007). At the Žuto Brdo-Gârla Mare cemetery of Cârna in Romania, female figurines were found in some of the most well-furnished graves which were also those of children, leading to suggestions of inherited status as well as the idea that the figurines were placed there in order to protect the young and vulnerable deceased (Dumitrescu 1961; Șandor-Chicideanu and Chicideanu 1990). Miniatures are, however, also found on settlement sites, such as a clay oven and miniature vessels from the Middle Bronze Age Vatyá tell settlement at Százhalombatta, Hungary. In these settings no such associations can be derived, and miniatures may have been made and used by a range of different people. Recent work on ceramic models in Neolithic and Bronze Age Aegean contexts has opened up other interpretative possibilities that might yet be considered in relation to the Early and Middle Bronze Age miniatures from the Carpathian Basin. These have theorised the extent to which scaled-down objects faithfully reproduce full-scale originals (Bailey 2005; Knappett 2012). A distinction has been drawn between those that retain the detail of the original and those that are less detailed, more abstract representations (Bailey 2005). The significance of this distinction, however, has been questioned on the grounds that by definition models or miniatures do not retain the function of the original object and that all models therefore represent an abstraction of sorts (Knappett 2012). It has been argued that miniatures form points in a semiotic network that exists within assemblages, and that miniatures have potential to intensify or distill meaning (Hagen 2002; Knappett 2012).

Some types of ceramic models, in particular those of bird-shaped vessels and human figurines, show striking patterns of distribution along major waterways, especially along the River Danube (Letica 1973; Majnarić-Pandžić 1982; Guba and Szeverényi 2007; Biehl 2008). The Danube has long been recognised as playing a significant role as artery for prehistoric communication and exchange (Childe 1929; Letica 1973; Szentmiklosi 2006; Biehl 2008; Kiss 2011). On this basis, and on the basis of geographical differences in style, the figurines in particular have been used to explore questions of inter- and intra-regional contact in the Bronze Age, although scholars sometimes seem to assume somewhat contradictory positions. Female figurines with a bell-shaped skirt have been divided into three geographical groups. These correspond to a western group, including sites from Baranja and Symia-Slavonia; the middle group, including sites from Eastern Slavonia, Bačka, and mid-Banat; and the east/south-east group, including the south-east Banat, the Serbian part of the Danube region, Romania, and Bulgaria (Letica 1973). Based on stylistic analysis these three groups are said to express chronological development from an older western, more naturalistically depicted group, with a gradual increase in abstraction over time, such that the south-eastern group has reduced highly stylised head and facial features (Letica 1973). By contrast, the same suite of objects have been used to describe systems of contact and communication between the lower Danube region and Mycenae in Greece (Biehl 2008). In this interpretation the figurines are local imitations of Mycenaean figural representations, albeit ones that did not follow the same manner of creation, meaning or function of the Mycenaean, either because they did not know them or did not wish to. Instead the figurines were part of a transfer of new symbols and ideas linked to the Mycenaean acquisition of raw materials, in particular copper ore, as a result of which the people of the lower Danube sought to ideationally and symbolically connect themselves to mighty Mycenae and to differentiate themselves from the neighbouring regions (Biehl 2008).

The figurines have also been used to reflect upon costume and gendered social identity (Kovács 1972b, 1977; Matthäus 1985; Blischke 2002; Palıncaş 2010, 2013; Bondár and Székely 2011; Grömer, Rösel-Mautendorfer and Schumacher-Jovanović 2011; Bender Jørgensen 2013). There are a variety of different kinds of figurines including simple highly stylised more plank-like objects such as the Early Bronze Age Zók figurine from Velemszentvid in Hungary (Kalicz 1968), solid figurines that seem to be wearing very clearly defined jewellery such as the Middle Bronze Age so-called Dalj idol from Croatia (Hoffiller 1928), highly elaborate and detailed figurines with bell-shaped skirts that are more sculptural in nature such as the famous