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Miniature objects as representations of realia

Philip Kiernan

Abstract

Miniature objects are usually considered first as ritual objects, as substitutes for larger items, or as signifiers of abstract concepts. Too little attention is paid to their value as representations, and as a source for ancient day-to-day objects, or realia. But before we can use them as evidence for larger objects, we must first understand the manner in which any group of miniature objects depicts reality. Examples of miniature objects from Iron Age and Roman Western Europe are considered here using the art-historical concept of a continuum of representation, on which miniatures range from realistic to abstract modes of representation. Some miniatures offer direct and accurate evidence about realia, others are schematic or semi-abstract. While the latter modes of representation offer little direct evidence for the appearance of ancient realia, they nonetheless may indicate how realia were perceived.

Keywords

Miniatures; realia; material culture; artefacts; religion; *Mithras* symbol; representation; symbolism; continuum of representation; realism; abstraction; schematization; votive offerings; grave goods; Salisbury Hoard; Western Europe; Iron Age; Roman Empire; Cologne; Corent; Karden; Mouzon; Rodenkirchen; Brühl; coins; weapons; farming equipment; ploughing.

Introduction

When confronted with miniature artefacts, archaeologists often rush to answer the most obvious and compelling question about them: what were they for? Their response is usually something to do with religion and ritual, though a small number of finds are identified as children's toys. Indeed, far more ink has been spilled on the ritual significance of miniature objects than on an equally important and more obvious aspect of these finds – that they are reproductions of day-to-day objects that were both understood and recognized by their users and makers, but which are sometimes entirely unknown to the modern world in any other part of the archaeological record.

If we consider miniatures as signs, then they convey meaning on two distinct levels. The one that interests us the most is a religious meaning, with miniatures signifying a substitution for an expensive votive offering or conveying a sense of abstract desires or fears. But to achieve such meanings, miniatures must first signify a larger object that was understood and recognized by viewers as an actual object from their daily lives. The recognition of this primary signified object was essential to reach the ultimate intent of the miniature. As such, miniatures are a fantastically valuable source of information about ancient technology and material culture, and how ancient people viewed objects, quite apart from whatever other ritual significance they may or may not have had.

Art historians sometimes classify art on a continuum of representation, on which art works range from realistic representational art at one end, and proceed by degrees to non-representational abstract art at the other. Though the nature of representation is the topic of intensive debate (Gombrich 2000, 359–91, Gilmour 1986; Goldman 2005), the basic concept of a continuum of representation is helpful if applied to the miniature objects in archaeology. By their very nature, all miniatures are representational objects, but there are distinct variations in how they reflect reality. While some miniature objects reflect life-sized objects extremely accurately, others take representational short-cuts, eliminating some details and emphasizing others, resulting in more schematic or stylized representations. Further along the spectrum still are more abstract miniatures where the identity of the object they represent is difficult to recognize because it is depicted in a manner that is improbable or unlikely in reality. Understanding the position of a miniature on this continuum is essential to understanding its value as a source for larger objects.

To some extent, we can recognize degrees of abstraction and realism in miniature objects on the basis of a priori knowledge alone, but by their very nature such judgements are bound to be somewhat subjective. The best practice, however, is to strengthen our position by considering all of the available information about a miniature object, including find circumstances, a miniature's quality of manufacture, the relationship of miniatures in the same group to other known objects and artistic depictions, as well as the supposed purpose of the miniature. In some instances, we may find miniatures that are so convincingly realistic that they can arguably be used to reconstruct life-sized objects that have otherwise not survived. In other cases, miniatures are more schematic, but even from these we may still take away a sense of which parts of an object were considered important by their manufacturers and users.

Miniature objects and realia in the Iron Age and Roman west

To illustrate the varied nature of representation in miniature objects, we may consider some examples from Roman and Celtic sites in Western Europe. Here, as elsewhere, there is a tendency to identify a single homogeneous category of archaeological objects as 'miniatures', which are broadly perceived of as the product of a common process of miniaturization (Bradley 1990, 184–9; Green 1986, 220–2; Henig 1984, 148–9; Müller 2002, 124–6 Webster 1986; Fauduet 2010, 245–7). Most of these finds are categorized as votive offerings or grave goods, and are indeed most commonly found in temples and burials. In reality, the category of artefact is entirely artificial, and a variety of explanations are plausible for individual types of miniature object, as I have tried to demonstrate in a study of miniature votive offerings from the north-west provinces of the Roman Empire (Kiernan 2009). For the moment, however, we will set aside the ritual nature and function of the miniatures and concentrate on their relationship to real objects.

The term ‘realia’ signifies concrete physical objects, quite literally ‘things’ as opposed to abstractions. Adopted from the late Latin noun *realis* (pl. *realia*), it is directly comparable to the German word *Realien*. In English, ‘realia’ is commonly used in translation theory, in pedagogy, to refer to daily objects used in teaching, and in library sciences, to refer to non-book objects (Hoffmann 1981). For archaeological purposes, the term should be used to refer to definite physical items, such as the life-sized objects that were signified by the miniatures.

There are essentially two main sources for realia in the Roman world – the objects themselves as they have survived as artefacts and representations of objects in works of art, mostly sculptural reliefs and wall paintings. The first category is problematic in that the organic elements of day-to-day objects are preserved only in the most exceptional circumstances. For example, while we possess superb typologies and chronologies of Roman iron tools (e.g. Pietsch 1983; Pohanka 1986; Duvauchelle 2005), these studies are based purely on the surviving iron parts of tools, and we know almost nothing about the length and shape of the wooden handles to which they were attached to render them functional.

Artistic representations can and do depict organic elements of daily objects, and remain one of the prime sources for reconstructing Roman realia, especially for tools (e.g. Gummerus 1913) and military equipment (Bishop and Coulston 2006, 1–20). The problem is that the depictions can be somewhat limited in scope, and the monuments that depict realia are often restricted to particular regions. Artists can also make mistakes about the use and form of equipment or choose to illustrate particular realia to make a point. For example, the relationship between the military equipment depicted in the spiral frieze of Trajan’s column, constructed in Rome in 113, and the equipment actually used by Trajan’s troops in the Dacian campaigns is the subject of extensive debate (Coulston 1989).

The Salisbury Hoard and the so-called Mithrassymbole: realistic representation in miniatures

In a few instances, miniature objects are so detailed that they have allowed life-sized artefacts to be identified or explained. The twenty-four miniature bronze shields from the Salisbury Hoard (Stead 1991, 1998) are a striking example of this. Ranging from 4.4 to 10.3cm in length, the shields were found along with a group of miniature cauldrons and Bronze Age artefacts by treasure hunters in 1984, and were recovered only as a result of police action. The edges of some of the shields were reinforced with a folded piece of metal, while others were framed by an incised line on the front face (Fig. 1). These features allowed hitherto unidentified metal strips found in Iron Age burials in Britain to be identified as the edge bindings of life-sized hide-shaped shields made of leather and wood (Stead 1991, 20–5).

Since the Salisbury miniature shields are sufficiently detailed to have allowed an unidentified artefact type to be confidently identified, their status as realistic depictions is well established. This credibility is reinforced by their careful manufacture and the fact that cracks and breaks in some of the shields had been carefully mended in antiquity with small strips of bronze, suggesting repeated use and handling over a long period of time. Evidently these objects were meant to be seen and handled up close. This being the case, it seems safe to assume that other aspects of the shields are equally trustworthy sources. The swirling patterns incised on some of them present an aspect of Celtic shields for which the only life-sized evidence is from two bronze shield covers from Battersea



Figure 1 Two of the hide-shaped Iron Age shields from the Salisbury Hoard. The example on the left depicts the iron edge binding as a separate piece of metal. The example on the right, which is incised with a pattern on the front, includes an incised line around the edge to represent the same thing (photos copyright the Trustees of the British Museum).

and Chertsey (Stead 1985, 1991, 1–10). The Salisbury miniatures suggest that leather and wooden shields were also adorned with similar decoration. The backs of the Salisbury miniatures also depict grips, mounted behind the bosses, another elusive detail, and also an indication that the miniatures were meant to be viewed from both sides.

Equally impressive instances of accuracy can be found among late Roman bronze miniatures that are found in wealthy female burials around Cologne. Erroneously connected with the god Mithras in the nineteenth century (Cumont 1896, 525–6), and still referred to as *Mithrassybole*, they represent a large variety of farming implements, as well as snakes, lizards and frogs. More than 300 examples are known from more than fifty graves from the late third to mid-fourth centuries AD (Kiernan 2009, 195–210). They have been associated with the god Jupiter Sabazius (Manning 1966; Steures 2004), interpreted as symbols of fertility and wealth (Haberey 1949, 104), as weights (Röttlander 1974, 1989), as ancient collectors' items (Gottschalk 2012) and even as amulets (Beilke-Voigt 1994, 1998). The truth is that we really have no convincing explanation as to what these miniature grave goods meant, how they were used or why they were placed in burials. Amazingly, the quest to uncover their ritual significance has totally overshadowed their immense value as representations of Roman tools and farming equipment.

The so-called *Mithrassybole* depict a number of purely organic tools, such as ladders, pitchforks, baskets, yokes and corn-tossers, as well as tools made of both metal and wood, including scales, ploughs, rakes, spades, harrows, saws, axes, hammers and other comparable

implements. In some instances, faint traces of silvering are still visible on the metal parts of the tools, as is the case with the blade of the *dolabrum* illustrated below. Many of the *Mithrassymbole* were incised with lines after casting to illustrate where metal stops and wood begins, as well as cords and other details. Apart from the *Mithrassymbole*, our evidence for these Roman tools is limited to surviving metal parts as well as depictions in wall painting and sculptural relief.

One of the most common types of *Mithrassymbole* was described in nineteenth- and early twentieth-century literature as the ‘kammartiges Gerät’ – the ‘comb-like object’, and was at one point thought to be part of the mechanism of a Roman lock (Fig. 2, top two objects.). In 1939, Behrens proposed that these miniatures actually represented wooden yokes, based on comparisons with sculptural reliefs on funerary monuments at Igel, Arlon and Neumagen that showed ploughing and carting scenes (Behrens 1939). This interpretation would be confirmed ten years



Figure 2 Examples of the so-called *Mithrassymbole*. Two yokes, hay fork, ladder, axe, key, saw, hammer, dolabrum and rake, all from burials in Cologne and now in the Römisch-Germanisches Museum, Cologne, except the yoke on the top right, which is supposedly from a tumulus in Sussex and is now in the British Museum (photos by the author, drawing from Manning 1966).

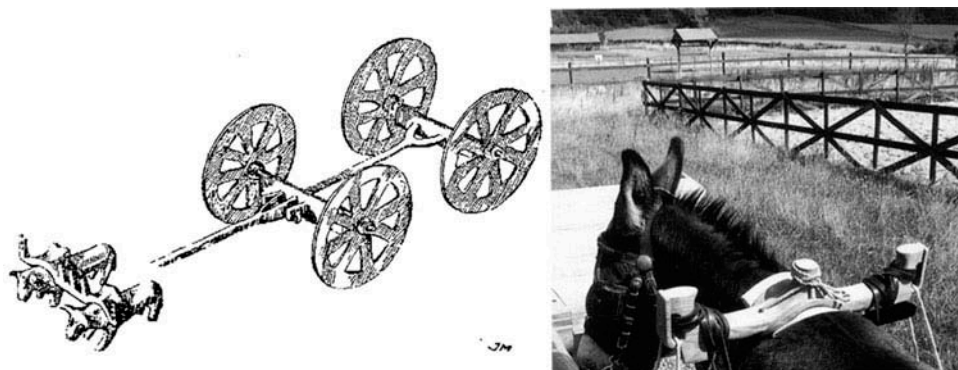


Figure 3 Left: the Rodenkirchen wagon with oxen and double yoke (Haberey 1949). Right: a reconstruction of the Pforzheim yoke in use (after Raepsaet 2002, fig. 140).

later with the discovery of a large group of *Mithrassymbole* at Rodenkirchen that included a double yoke, a pair of oxen, a four-wheeled cart, a plough and a harrow (Haberey 1949). The double yoke of the group fits nicely on the backs of the two oxen, and the pair could presumably be conjoined with the cart, plough or harrow (Fig. 3). Later still, a real wooden yoke of a comparable format, albeit for a single animal, was found in a water-logged context at Pforzheim (Raepsaet 1982, 247–9, figs 137–8). If this were not enough, a life-sized wooden double-yoke was uncovered in the excavation of a sanctuary site at Magny-Cours in 2012, and follows the same pattern as the *Mithrassymbole* (Tisserand and Nouvel 2013).

The *Mithrassymbole* also provide some of our best evidence for Roman ploughing. Though some hundreds of iron ploughshares have been identified in the fields of the Roman Empire, the wooden machines to which they were once attached are otherwise unknown save for a few artistic representations (Ferdrière 1988, 23–40). As far as I am aware, the miniature harrows found among the *Mithrassymbole* (Fig. 4) are the only known representations of this device. They suggest a simple system of wooden planks forming a divided square, with iron nails passing through overlapping points to form the teeth of the harrow. One example from Cologne was incised with overlapping lines on its upper side, which are either intended to give a sense that one plank of wood passes over another at this point or else depict lashings that strengthened the positions of the teeth against the pressure of the ground.

Some of the *Mithrassymbole* represent rakes that were of a similar design to the harrows, with iron teeth passing through a wooden support mounted on the end of a long handle. But a few (Fig. 2, bottom) present a tool created by carving teeth into a single wooden block on the end of a haft. Given the reliability of the *Mithrassymbole* as a whole, it seems entirely feasible that such a tool existed, even if it is otherwise archaeologically unattested.

The Salisbury shields and *Mithrassymbole* seem to have been made to be handled and experienced on a personal level, with their small size being a key part of their attraction and attention paid to the detail of their design. Waddington has explored in detail the nature of prehistoric miniatures from the perspective of contemporary anthropological and artistic theory, arguing that archaeological miniatures functioned as objects of wonder, with their ‘subversion of scale’ compelling viewers to examine them more closely and in more detail, and thus enhancing the miniature’s ability to convey information (Waddington 2007). This sort of miniature needed



Figure 4 Miniature Roman ploughing equipment. Above: miniature harrows from Cologne (Römisch-Germanische Museum, Cologne) and Brühl (Rheinlandmuseum, Bonn). Photographs by the author. Below: miniature plough supposedly from Sussex in the British Museum (photo copyright the Trustees of the British Museum).

to be physically held and handled to be fully understood, and by nature cannot be observed from a distance (Bailey 2005, 38). Although we have no clue as to what either group of miniatures signified exactly as ritual objects, useful information about realia can still be extracted from them with great confidence.

Miniature weapons from Mouzon and model coins from Karden and Corent: semi-abstract or schematic representation

Other miniatures are not accurate or detailed reproductions of reality, but move along the continuum of representation in the direction of abstraction, employing short-cuts and simplifying details to represent realia. Unlike the examples discussed above, the semi-abstract or schematic mode of representation of these miniatures means that they are of relatively low value for the direct reconstruction of ancient objects. Indications of such a manner of representation may include a speed of production and a lack of details. Inevitably, this form of representation is often the by-product of a miniature's function.

The 800 plus miniature weapons, mostly swords and shields, found in an early Roman context at the temple site of Mouzon are good examples (Fig. 5; Caumont 2011; Kiernan 2009, 47–63). In my opinion, these miniatures were meant as substitutes for a large-scale votive deposit of real weapons of the kind that was often made in La Tène period sanctuaries. Olivier Caumont (Caumont 2011, 405–26), however, has interpreted them as an accumulation of offerings made by individual Roman auxiliaries who dedicated representations of their equipment in the temple. Either way, these miniatures convey very little information beyond the most



Figure 5 Left: miniature shields and swords from the Romano-Celtic temple at Mouzon. The largest shield is 17cm long (photo by the author). Right: lead coin models from Karden (Nickel 1999, pl. 22).

basic shapes of the equipment they represent. The goal in this case seems to have been to create the idea of a shield or sword with an absolute minimum of effort. Though painted details may have been lost, the amount of smithing involved to create these objects was so minimal and haphazard that it seems unlikely. Some of the swords even seem to have been formed by quite literally ‘hammering out’ nails into roughly sword-like shapes. Most of the miniature shields at Mouzon do not include handles and probably only their faces were meant to be seen. Unlike the so-called *Mithrassymbole*, which depict particular tool types highly consistently, there is great variation in the form of individual weapon types at Mouzon. Attempts to compare them with known weapons of Roman legionaries or auxiliaries are doomed to failure since the miniatures convey far too little detail.

Equally schematic are the coin replicas found at a few late Iron Age and early Roman temple sites (Kiernan 2009, 153–7). Hundreds of ceramic discs were found at the late Iron Age sanctuary at Corent (Poux 2002, 76–91; Demierre and Poux 2012), and many thousands of lead discs, probably deposited in the first century AD, were recovered at the early Roman sanctuary of Karden. Some are roughly the same diameter as Roman denarii (Nickel 1999, 153–7). Such coin-shaped objects should perhaps be called ‘models’ rather than ‘miniatures’, though the basic idea is the same. In a few instances, the lead tokens from Karden had been decorated with crude designs, while others had been ritually mutilated, just like real coin offerings from late Iron Age and early Roman periods (Wigg-Wolf 2005; de Jersey 2005; Kiernan 2001; Aubin and Meisssonier 1992). Like the weapons at Mouzon, these models were probably meant as substitutes for real coin offerings, and were deposited in large numbers. As such, each token did not need to be very detailed. The most basic aspects of real coins, their size and roundness, were sufficient to convey their primary meaning. These schematic models were not meant to be handled at arm’s length and admired for their

subversion of scale. Their design was minimalist, with the miniatures perhaps being displayed in stacks and offered in piles rather than individually.

The weapons of Mouzon or the model coins of Karden and Corent might be compared to the silver and tin anatomical votive plaques found at numerous Roman healing sanctuaries. The plaques depicted the ailing parts of the human body for which divine attention was sought. Eyes, feet, breasts and pregnant bellies are particularly common. These votive offerings were manufactured *en masse* by stamping sheet metal with punches of a fixed design, and were probably bought at the sanctuary sites themselves. Thus the plaques were made not to depict part of any specific person's anatomy, but were generic products, often semi-abstract in their representation rather than naturalistic. Yet the worshippers who purchased and dedicated them doubtless understood them, and expected the gods to understand them as representing part of their own bodies. In spite of their schematism, they were and are recognizable as anatomical representations.

The stacks of model coins and piles of miniature weapons were equally not specific weapons or coins, but rather invoked the rough idea of them in a schematic way. They functioned as signifiers in a group as much as individually, such that detail and accuracy in their forms were neither needed nor desired. Though their value as a source for reconstructing realia is minimal, semi-abstract miniatures nonetheless convey some information about the way in which realia were perceived in the ancient mind. They reveal what parts of ancient objects were considered as essential to express their basic function and identity. For example, it is perhaps significant that all of the Mouzon shields have a boss. Since shield bosses can deliver blows as well as deflect them, perhaps their presence on the miniatures was necessary for them to be recognised or appreciated as proper military equipment. Those who made and viewed the Mouzon shields could presumably envisage a world in which both hexagonal, round and rectangular shields were normal and belonged to the same category of object.

Miniature swords with bone sheaths: realistic representation of imaginary objects

Miniatures that represent fictional or imaginary objects should still be classified as realistic representational art on the continuum of representation, as is the case with paintings of gods and goddesses or mythological scenes (Goldman 2005). Though no-one has seen, or indeed can see, the original subjects, the mode of representation is nonetheless realistic. Miniatures of this type represent an obvious pitfall for reconstructing realia.

This point is illustrated by a group of miniature swords with bone sheaths that were catalogued and studied by Béal and Feugère in 1987 (Fig. 6). The miniatures range from about 5 to 12cm in length, with examples known from graves, settlements and temples, with associated dates ranging from the late first to early third centuries AD. Though they could be interpreted as ritual miniatures, Béal and Feugère believed the swords to have been functional pocket knives. In my opinion, this interpretation is probably correct in most cases, since the knives are not far off the size of some smaller Roman pocket knives, and some examples come from non-ritual contexts.

As with the *Mithrassybole* or Salisbury shields, the quality of workmanship of the miniature swords is very high, and the sense of wonder generated by the tiny size of the pieces in relation to real swords must have been part of their attraction. But these miniatures in no way resemble

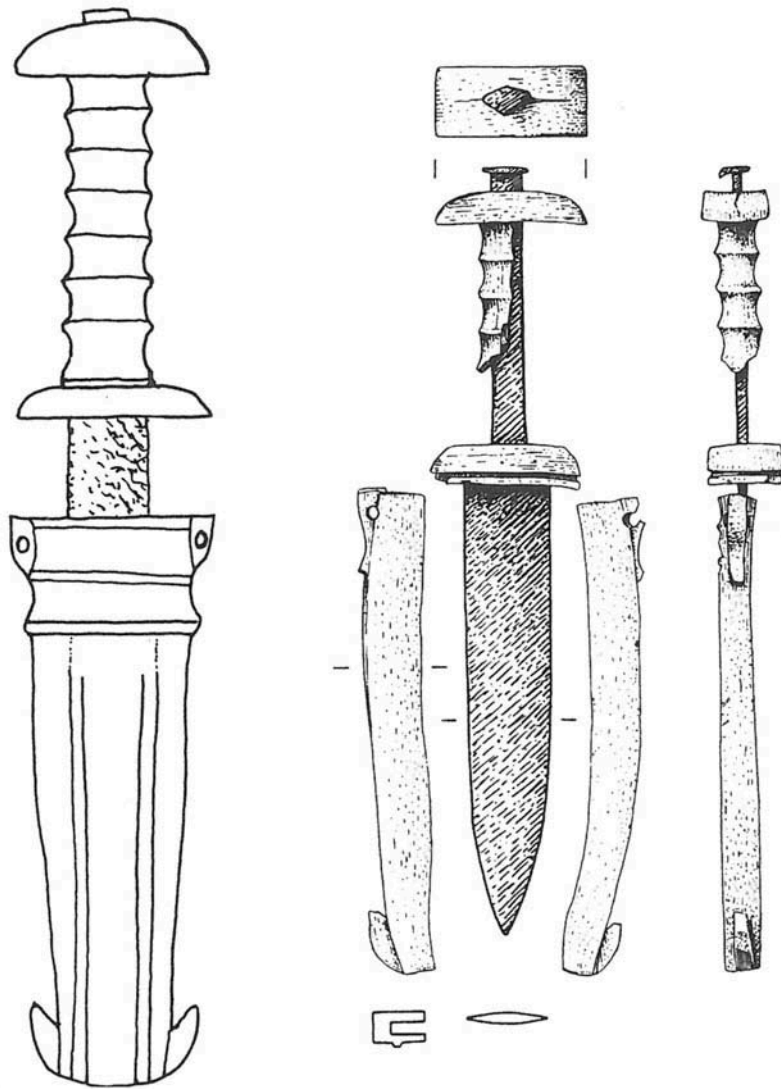


Figure 6 Miniature swords with bone sheaths. Left: from the Roman temple at Argentomagus. Right: from the vicus at Rheingönnheim (after Béal and Feugère 1987, figs 9d and 6.26a).

either Iron Age swords or those of Roman legionaries and auxiliaries. The mounting system of the sheaths is entirely different, as are the half-round pommels and wide hand guards of the swords. Béal and Feugère noted (1987, 96) that they are more comparable to the swords of Greek and Roman mythological heroes as they are represented in ancient art. In this sense, these miniatures are quite like the weapons used by Roman gladiators which were functional weapons, but that embodied elements of fantasy that the mundane service weapons of the Roman army did not (Junkelmann 2000, 91–2). As such, the miniature knives are

representations of a fanciful idea of a sword, rather than accurate reflections of realia. Presumably this too was part of the attraction of these miniatures.

Swiss miniature socketed axes: abstract representation or real objects?

True non-representational abstraction, in which there is no subject to which an artwork refers, is not possible in the sort of miniatures we are dealing with. By definition, a miniature must represent something. But it is possible that a degree of abstraction or stylization of an archaeological miniature is present to such an extent that that we recognize the subject only with difficulty or are even uncertain as to its identity.

This seems to be the case with some miniature votive axes from southern Germany and Switzerland. In 2007, some 217 miniature axes could be documented at 120 sites in Gaul, Germany and Britain, of which temple sites were by far the dominant category of find spot (Kiernan 2009, 114–64). Most of these miniatures date from the late Iron Age to the end of the second century AD. Their ritual nature can hardly be doubted. Quite apart from being mostly found in temples, several are known with inscribed dedications to gods and goddesses.

From Switzerland and southern Germany, a group of sixty-eight model axes stand out as quite different from the others (Forrer 1948, Kiernan 2009, type 5, 129–34). Unlike most miniature axes, which are bronze and depict known recognizable Roman shafted axe forms, these miniatures include iron examples, and represent axes with large triangular blades that are mounted on a curved shaft (Fig. 7). Seven miniature axes of this type were found in the

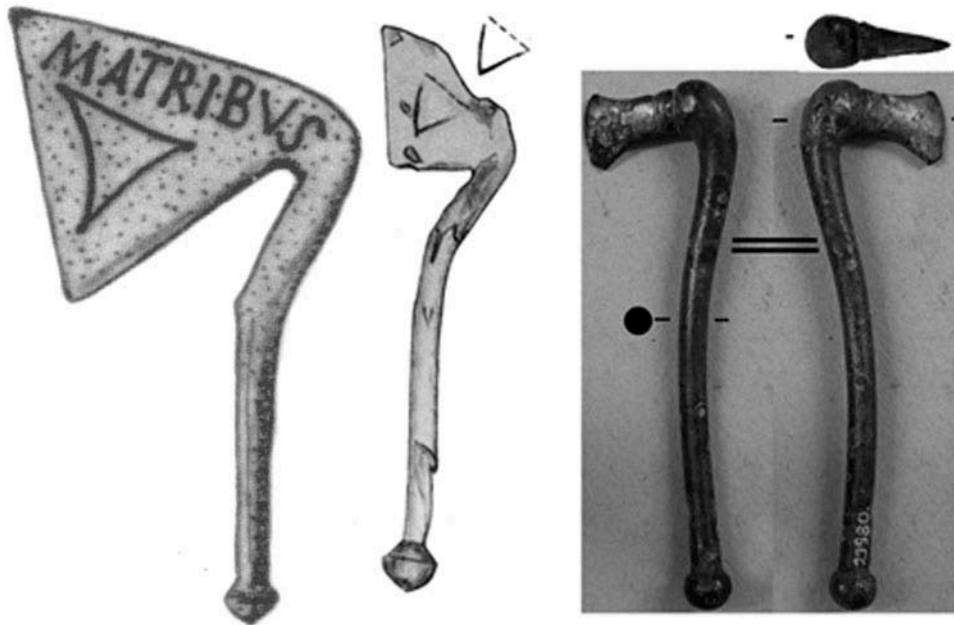


Figure 7 Miniature votive axes. Left: from the temple at Thun-Allmendingen, with votive inscription (after Forrer 1948, pl. 4). Middle: Bern, Engehalbinsel (after Forrer 1948, pl. 8.3). Right: Bern, Engehalbinsel (author). All are in the Historisches Museum Bern.

sanctuary complex at Thun-Allmendingen all inscribed with the names of divinities in the dative case (Balmer 2009; Kiernan 2009, 243–4, cat. no. SU2; Forrer 1948, 15–21 nos 1.1–6). Most of these miniature axes are decorated with a triangular marking on one side of the blade.

It seems most likely that these miniatures are representations of socketed axes, but if so, some are highly abstract representations, and the later examples must have been produced at a period when shafted axes had long since replaced socketed axes. Their blades are overly large and are often mounted at a bizarre angle or drooping off an exaggeratedly curved haft. Surely no functional tool looked like this in real life. The very identification of these miniatures as socketed axes might even be considered spurious, were it not for a single example from Bern (Fig. 7, right) that very clearly depicts a socketed axe (Kiernan 2009, cat. no. SU10.iv). Is it the case that these miniatures were in fact highly stylized or abstract representations of an already antiquated tool type? The triangles found on their blades may be skeuomorphic representations of the folds of metal that formed the sockets of late Iron Age socketed axes, and which are roughly triangular in shape. Why such a high degree of abstraction was employed by the makers of these miniatures must at present remain a mystery.

Conclusions and future directions

Miniatures such as the so-called *Mithrassymbole* have had their reliability confirmed by comparison to surviving life-sized objects, and are probably trustworthy in how they depict reality. The important question in such cases is how this evidence should be used. The reconstruction of iron tools from this particular group, along with their wooden parts would be a particularly valuable approach to this material. What was the ratio of the blade size to haft length? Did the length and manner of mounting the hafts affect a particular tool's efficiency? Miniatures such as the *Mithrassymbole* offer a fertile avenue of investigation for experimental archaeologists.

Though they are not reliable for the reconstruction of realia, schematic or semi-abstract miniatures, as well as possible abstract examples, offer potential insight into how ancient people perceived realia. In these modes of representation, elements of realia were consciously emphasized, abridged or ignored for specific reasons – to depict subjects as concisely as possible, for some functional purpose, or else to emphasize a particular part of an object. It is possible that the experimental archaeology conducted on the basis of miniature objects will illustrate why particular parts of tools and other objects were stressed.

Perhaps because they are such small artefacts, very little attention has been paid to the value of miniatures as representations. Though there are pitfalls in the use of miniatures as direct evidence for ancient realia, these can be avoided if we pay attention to the different modes of representation that they employ. The same continuum of representation will exist in the miniature objects of other regions and cultures far beyond the examples from Western Europe discussed here.

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