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Artefact typology as media ecology. Perspectives from Aegean Bronze Age art*

Introduction

My aim in this paper is to treat artefact typologies as systems, that is, akin to the image and text systems that other contributions in this volume examine – in the hope of arriving at a fuller understanding of how non-textual media take part in ‘the making of social worlds’. To reach this goal I develop a perspective that recognises material culture’s capacity to structure knowledge and meaning. However, one significant barrier to this objective is the persistent idea that an artefact typology is a classificatory scheme that exists only in the mind of the analyst, with little relationship to how those same artefacts would have been conceptualised by ancient individuals and societies. This distinction is often described in terms of ‘etic’ vs ‘emic’ – with the former referring to our own classifications as analysts, and the latter as the original meaning inside the ancient person’s mind. The ‘Typological Debate’ in archaeology of the mid 20th century revolved in part around the possibility and desirability of identifying ‘emic types’, that might reflect the intent of their makers, as opposed to ‘etic types’, “which are designated purely for the heuristic convenience of the typologist”.¹

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1 Adams – Adams 1991, 282.

Yet, the emic/etic distinction places typology in an impossible position. If, on the one hand, a typology is a mental construct of the analyst, then it has little to do with ancient society and becomes a very dry and dusty archival record. If, on the other, we believe it does exist in the ancient mind, then we place it somewhere that is very hard to access. The problem is one of a Cartesian split between mind and matter, or what has been described as hylomorphism – the predominant Western notion that form is created first in a mental space before being externalised in matter. Within anthropology and archaeology this tendency has been critiqued from a number of directions,² taking inspiration from such sources as Actor-Network Theory,³ ecological psychology,⁴ and extended cognition.⁵ As van Oyen has argued, addressing the question of artefact types in the context of such literature, the emic/etic distinction loses its sense, if outside becomes inside and vice versa.⁶ If artefact space is also mental space, and if mental space is constituted as much by practical as ideal types, then the ancient classificatory mind does not reside in a place that is difficult of access – it is out there as part of the ecology that types help create. We might gradually begin to see, within such a perspective, how the study of types and typologies as ancient phenomena could be an exercise that has the potential to be placed alongside the study of image and text systems.⁷

At this point, though, we have another obstacle to surmount. It comes in the form of research over the last two to three decades that has done a great deal to ‘animate’ material culture, but on rather different terms to what I have in mind here. This quite successful approach has essentially sidestepped the entire question of the mental by focussing firmly on practice. Though perhaps not explicitly focussed on types/typologies, what it has done, beyond doubt, is bring artefacts to life. First, there was the biographical approach;⁸ and this has been extremely productive, though recently critiqued for promulgating a humanist perspective on artefacts – i.e. they can only have social lives like ours.⁹ There have since been various additions to this line of thinking, e.g. object itineraries.¹⁰ These ways of bringing objects to life form part of a move towards agentic perspectives, in many though not all cases

2 E.g. Ingold 2000; Knappett 2005; Malafouris 2013.

3 Latour 2005.

4 Gibson 1979.

5 Clark 1997.

6 Van Oyen 2015, 65–66.

7 Adams and Adams stress that a typology is a system of types; they go on to enumerate various features of typologies, among which boundedness, comprehensiveness, and mutual exclusiveness: Adams – Adams 1991, 76–77.

8 Appadurai 1986.

9 Holbraad 2011; Holbraad – Pedersen 2016.

10 Hahn – Weiss 2013.

drawing on phenomenology; what they do is create an orientation towards reception, whether framed as the ‘consumer’ in the more anthropological accounts, or the ‘viewer’ in art historical narratives. We can further recognise these tendencies in other means for animating artefacts that have become popular, such as the narratives created around *feasting* in both anthropology and archaeology,¹¹ in which the consumer is very much the key. From a more art-oriented perspective, we might also here evoke the highly influential book *Art and Agency* by anthropologist Alfred Gell, in which the interaction between artwork and viewer is key in agentic rather than aesthetic terms.¹² While certainly effective they have, like all approaches, their shortcomings. Of particular relevance for my argument here, they take typological study further away rather than closer to image and text systems. By focusing on action, they instrumentalise artefacts, whose effects become only immediate and proximate. The iconographic systems that Gell discounts (at least in the first part of his book) are those that serve to draw links across time and space;¹³ typology does this too, in its systemic qualities. These features make artefacts more like image and text systems; yet they are minimized in a flattening perspective in which practice is all and the cognitive (because of its presumed dualisms) is excluded.

I need, then, to develop this notion of typology as system – and in ways that foreground its essential cognitive and communicative characteristics. This means, in the art context, recognising aesthetics as well as agency;¹⁴ and can also benefit from input from a novel direction (at least in archaeology) in the form of media theory. This lead was provided in the conference itself and is reflected in this volume, with the participation of leading practitioners such as Sybille Krämer and Erhard Schüttpelz. Media theory has a Canadian lineage, traced back to the work of Marshall McLuhan, but has also been invigorated by the significant input of German scholarship led by Friedrich Kittler. Here I will draw especially on the work of John Durham Peters, because of his emphasis on ‘elemental media’, which is particularly germane to my needs in this paper.¹⁵ While media theory may often be taken to have an exclusive focus on ‘new media’, this is not the original intention, a point that Peters underlines. Furthermore, Peters stresses that media are about more than providing means for communication; they “provide conditions for existence”.¹⁶ He goes on: “media are our infrastructures of being, the habitats and materials through which we act and are”.¹⁷ In this way Peters creates an understanding of ‘elemental media’

11 Dietler – Hayden 2001; Wright 2004.

12 Gell 1998.

13 Cf. Stewart 2007, on Roman iconography.

14 Contra Gell 1998; but see Layton 2001; Osborne – Tanner 2007.

15 Peters 2015.

16 Peters 2015, 14.

17 Peters 2015, 15.

(e.g. sea, sky, fire) that is environmental in a sense that suits the broadly ecological approach to typology that I wish to pursue here.

However, before we plunge further into this ‘infrastructural’ understanding of ancient media, a fuller discussion of the agentic approach we have briefly outlined will be useful, with specific types and typologies used to illustrate the issues at hand.

The agentic approach to animating types

In typologies that are typo-functional, our comprehension of the type is immediately guided by assumptions about what consumers should do with it. Here I refer to pottery typologies from the Aegean Bronze Age, and specifically the Middle Minoan pottery from the site of Malia on Crete.¹⁸ I should emphasise that pottery types in this case could largely be defined due to the very large quantity of finds and their level of completeness, with many whole vessels and restorable profiles. Within such conditions, it was possible to use functional criteria, distinguishing vessels for storage, pouring, drinking, etc. In this typology, when we perform an action as simple as naming a given kind of object a ‘jug’ (**Fig. 1**), and more specifically a beaked jug, we are making a functional attribution such that pouring is its primary identity. ‘Jug’ immediately implies handle, and handle implies hand – so it is at once bodily, experiential, ergonomic, and phenomenological.¹⁹ We identify other vessels in this ‘assemblage’ that have similar affordances, and the jug is placed closer in a typology to such vessels, rather than on the basis of other features, such as its profile (e.g. piriform, convex-concave, ovoid). Some thorny problems can quite rapidly arise, because if pouring is the key feature, then some vessels apparently adapted to pouring may share a spout but otherwise differ in shape or handle arrangement. Take the ‘bridge-spouted jar’, for example – also seemingly designed for pouring, but quite different in many regards.²⁰ In English this difference is signaled by the distinction between ‘jug’, used for the vessel with the single vertical handle, and ‘jar’, for the two-handled vessel. This logic is quite subjective, however, as rapidly becomes apparent when we look at how other national archaeological traditions deal with this same artefactual variability. As published in French, these two forms are actually both called *cruche* – thus linking them more closely than in the English.²¹

Questions of size and volume can also enter into typological ordering. If a ‘jug’ is very small or very large then that gives us pause – in **Fig. 2** we see some jug types

18 Poursat and Knappett 2005

19 In a Classical context, cf. Gaifman 2018

20 MacGillivray 1998

21 Poursat and Knappett 2005, 64-8



Fig. 1: Beaked jugs from Quartier Mu, Malia, Crete (Courtesy of Ecole Française d'Athènes).

(such as 1b, or 2d) that are much smaller than type 1a (cf. **Fig. 1**) – because with ‘jug’ we are imagining a pouring function, which then implies interaction with another vessel, that other vessel being a cup. When we look at the cups found alongside these jugs, and their typical size, then we think that jugs should be of an order of magnitude greater in their capacity. Cups that are for individual drinking, and of a certain capacity (and crucially with a single handle pointing to what we think of as an affordance for drinking), are to be filled by jugs that hold more than any individual cup. But what fills the jug? Here we imagine the oval-mouthed amphora might be fulfilling this function (**Fig. 3**).²² It can take significantly more liquid than a jug; and it could be used to pour, given its shape, though it seems slightly more suited to stoppering and portage. So, we have another functional typology. And on from the amphora, we might then consider in turn the pithoid jar, and the pithos.²³

If we join up our typologies in this way, then it should be apparent how this sits within a broadly phenomenological outlook, one that allows us to activate these typologies so that they are far from being static. If we take ‘feasting’ as an animating force for these typologies, then we can quickly see how cups, jugs, and amphoras

²² Poursat – Knappett 2005, 39–43.

²³ Poursat – Knappett 2005, 43–49; see also Christakis 2005.

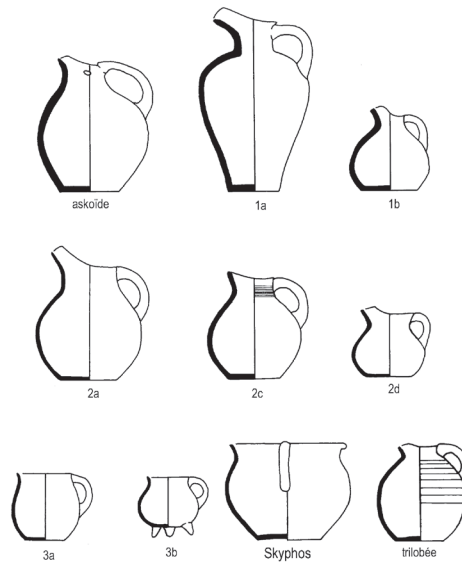


Fig. 2: Different types and sizes of jug from Quartier Mu, Malia, Crete. (Courtesy of Jean-Claude Poursat, and Ecole Française d'Athènes).

‘make sense’ actively. Actually, through the amphora we can extend out in other directions, to consider its likely function not only in feasting but also as a ‘maritime transport container’, or ‘MTC’ for short.²⁴ These examples from Malia c. 1800 BC (**Fig. 3**) are likely some of the earliest. Still, it seems quite likely with their easily stoppered closed mouths that they were for the transport of a liquid such as wine. Why wine? Well, it is a value-added liquid, what Catherine Pratt calls a cultural commodity, and not unlike another long-lived Aegean commodity, olive oil.²⁵ So, the ‘feasting’ that animates cups and jugs also animates not only amphoras but also the networks that made the movement of MTCs possible. This raises various questions about what in turn drives conspicuous consumption, and whether such commensality was inclusive or exclusive. But what might be more simply stressed here is that we are still dealing with a phenomenological recognition of what can be done with vessels – what their openings and handles allow.

It is this kind of understanding of what typological information provides that underscores a recent study that takes an ‘ultralongitudinal’ perspective on the amphora as a type.²⁶ Bevan traces a fascinating ‘process’ typology, so to speak, of the Mediterranean amphora, and other containers, like the barrel, in a way that one can

²⁴ Demesticha – Knapp 2016.

²⁵ Pratt 2021.

²⁶ Bevan 2014.



Fig. 3: Oval-mouthed amphoras from Quartier Mu, Malia, Crete (Courtesy of Ecole Française d'Athènes).

see some of the animating forces and processes. It is significantly based on a sense of how the amphora, as a transport vessel for liquid commodities, can be handled by the human body as it is loaded on and unloaded from ships. So, we can see how a phenomenological or even ergonomic approach to types can animate typologies diachronically too as we think about how and why they changed or did not change over time. The narrative or the forces at play can be complicated further still – one might include the use of terraces for agricultural production, or the kinds of shipping technology in play – until one sees a complex set of *entanglements* in which the amphora (or jug) is dynamically situated. However, it remains in many ways phenomenological and ergonomic in outlook.

Typologies can be effectively enlivened through this agentic activation. Feasting and commodity exchange make processes of jugs and amphoras. But they do not sufficiently bring into play the cognitive and aesthetic dimensions of types and typologies. It is as if they are mostly focused on proximate effects and less on the communicative power of types and typologies. This bias, I would suggest, results quite naturally when the singularity of the type receives insufficient recognition, and it lacks strong differentiation from ‘artefact’. Let us look briefly at what a distinction between artefact and type might mean here, before then turning to media theory for the stronger emphasis on communication that seems necessary.

From artefacts to typologies, and media ecologies

Even before we talk of a *type*, there is the matter of what an *artefact* does that is communicative. An artefact communicates what might be done with it – its affordances – in its very form and substance. Its solidity or fragility, its graspability or its stability, are *qualities* that can, arguably, be perceived directly.²⁷ If we at this point limit ourselves to certain kinds of artefacts, such as the vast category of containers – though we can limit our scope a little by thinking, as above, only of jugs – then one simple way of delimiting what they afford is in terms of the openness of their shape. One of the first distinctions an archaeologist might make is between an open and closed vessel. These two kinds – one can hardly call them types – offer or communicate different possibilities in terms of consumption, transport, etc. They embody different kinds of action potential; and dare one say, implicate various forms of skill and knowledge. In the agentic approach outlined above, the artefact itself, through its handle, or its spout, ‘communicates’ directly what might be done with it. And if we think too of the material in conjunction with the shape, then the container material I largely have in mind here is clay. Its malleability when mixed with water and then its hardness, reversible as it dries, and then irreversible when it is fired, are important qualities in the fashioning of form. It is a medium that has various affordances, though they are somewhat contingent on the cultural techniques that may be available.

Whereas an *artefact* encountered as a one-off may cue certain kinds of action just from its intrinsic properties, a *type* embodies repetition and hence a more structured understanding of what might be done with the object. A closed vessel, for example, might consistently have a flat and relatively narrow base, with a globular body, a tall narrow neck and a long spout. This combination of features when repeated then constitutes a type that might not only more regularly and predictably cue certain kinds of pouring actions, but also constitute a more standardised set of expectations around the artefact. The object is perceived not only directly in terms of its affordances, but also indirectly in terms of its associations.²⁸ In other words, the type is communicative, within this particular medium (of clay, of containers). Furthermore, while it is possible that there might exist just one type, more commonly it will exist alongside other types. So, within closed vessel shapes, and returning to the jugs with which we began, the beaked jug ‘type’ exists in relationship with the bridge-spouted jar ‘type’ (Fig. 4), as well as with a range of other types. Together these different types constitute a typology, an ensemble of forms. What is important

²⁷ Gibson 1979; on qualities, see Ingold 2007, 14.

²⁸ Knappett 2005.

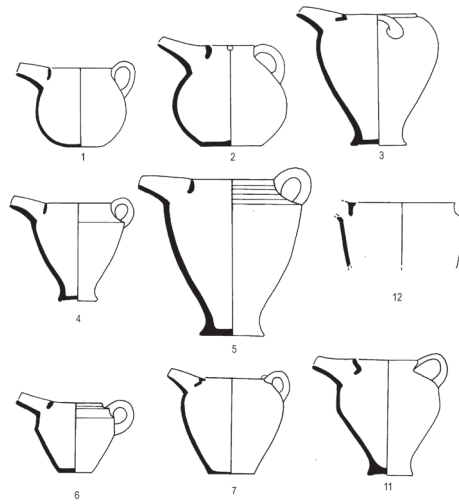


Fig. 4: Bridge-spouted jar and jug types from Quartier Mu, Malia, Crete (Courtesy of Jean-Claude Poursat, and Ecole Française d'Athènes).

about this communicatively is that within such a system one type may be understood to offer distinct affordances in relation to others; and the very typology itself may embody the various kinds of pouring that are possible. The set of types embodies practical knowledge.

Yet, this kind of reasoning is very much in line with the agentic perspective outlined earlier – it is still really about what might be done, instrumentally, with the vessels in question. A typology communicates more than this, however, when one realises that it is not just the agentic potential of the artefact that is being set in context but also its aesthetic qualities. The particular forms that artefacts take on relate them in diverse ways to other artefacts – and these very relations communicate values and ultimately something of the ontology or worldview of the community in question. Perhaps here we begin to approach the volume aims, such that we move closer to thought, image and social worlds – with types and images as means by which social knowledge is organised and structured. Another way of framing this active communicative potential of the ensemble of types is in terms of media, to return to John Durham Peters. If media are “the habitats and materials through which we act and are”,²⁹ then the ecology of material culture ensembles within which past and present peoples lived and live can surely be considered in these terms. They do form, to borrow another term from Peters, a kind of ‘infrastructure’. The everyday

²⁹ Peters 2015, 15.

material world of cups, jugs and amphoras, pervasive in the ancient world, may not appear to be a very promising domain for communication; but as Peters further comments on infrastructure, it consists of technologies that withdraw and are ‘demure’.³⁰ Many of the artefacts within the ancient container technologies I describe here are also demure – they are largely in the background, part of the everyday material world through which people lived. Nevertheless, they had rich communicative potential – and I will now explore the ways in which this might have been the case, through some particular examples, drawing again from the material worlds of the Aegean Bronze Age. Some of the material may seem more ‘aesthetic’ than one might imagine for the everyday – but in this material culture, as in many ancient societies, making hard and fast distinctions between ‘aesthetic’ and ‘everyday’ objects tends to be unproductive. What the material and visual culture to be discussed shows is a set of connections among ‘types’ that in themselves contribute to the formation of social worlds. I will focus on a couple of processes that I think can help us get into these aspects of typologies – one is a process I call ‘composition’, and another is ‘modelling’.

Communicative typologies: composition and modelling

Returning to the clay containers we mentioned above, then we may recall that cups, jugs and amphoras are animated by commensality practices. Such a perspective has its focus on consumption. By focusing now on *composition*, it may seem that I am proposing a switch of emphasis to production. While this may partly be the case, I really want the approach to fall somewhere ‘in between’, in the spirit of the in-betweenness that characterizes media.³¹ The ways in which types are made meaningful through processes of composition are dependent on both making and use. The way I use composition here is in relation to the composite – how types are generated as composite entities that draw from different media. The medium of metal is often considered to be one of the keys to understanding many of the ceramic types of the Aegean Bronze Age. If we look at this clay kantharos, for example, it looks like it must have been mimicking this silver kantharos, which we might then consider its *prototype* (**Fig. 5a–b**).³² While such cases have led many scholars to imagine a similar situation to that described for Classical pottery,³³ many of the examples of

30 Peters 2015, 34.

31 See Peters 2015, 46.

32 Weingarten 2016.

33 Vickers – Gill 1994.



Fig. 5a, b: Prototype silver kantharos (from Gournia, Crete), and ceramic kantharos (from Malia, Crete) (Courtesy of Heraklion Archaeological Museum, Hellenic Ministry of Culture & Sports, Archaeological Receipts Fund).



Fig. 6: White-dotted ware, Akrotiri, Thera (Nikolakopoulou 2019, Courtesy of the Akrotiri Excavations).

‘skeuomorphism’ are much less obviously based on a prototype.³⁴ Metals do seem to be cited in clay, certainly; but then so does stone, and other ‘media’ for that matter. We might consider ceramic cups that have the slender strap handle and thin walls of metal, but a surface treatment that looks like textile, as in the so-called Early Woven Style.³⁵ Then there are cups (and jugs) that have metal ribbing and yet white

³⁴ McCullough 2014.

³⁵ MacGillivray 1998.



Fig. 7: Tortoiseshell ripple decoration, Akrotiri, Thera (Nikolakopoulou 2019, Courtesy of the Akrotiri Excavations).

dots that evoke Yiali obsidian, as in some examples from Akrotiri (**Fig. 6**).³⁶ With some effects, such as the so-called tortoiseshell ripple, it is not clear what material is being evoked – metal, wood grain (**Fig. 7**) – perhaps the very ambiguity itself is compelling.³⁷ There are rhyta in a range of shapes and with details of form that suggest metal, ceramic and stone were fluidly interconnected.³⁸ What all these examples suggest is that rather than ceramic simply citing and mimicking the apparently more valuable medium of metal, there is rather a process of *composition* at work, whereby something new and innovative is being assembled through the bringing together of the medium of clay with metallic form.

Though this compositional logic might seem to be largely between inorganic media – clay, stone and metal – we have already hinted above at the involvement of the organic too, with textile, wood and basketry all implicated. We can extend this reach into natural forms such as triton shells, with not only ‘originals’ used in Minoan cult but also various copies from stone, faience and clay (**Fig. 8a–b**).³⁹ Such is the fineness of some of the tritons in other media that it makes you wonder whether the ‘real’ shell remains the prototype. Indeed, the sense of some originary form which is

36 Nikolakopoulou 2019.

37 Hatzaki 2013; Knappett 2020.

38 Koehl 2006.

39 Sanavia – Weingarten 2016.

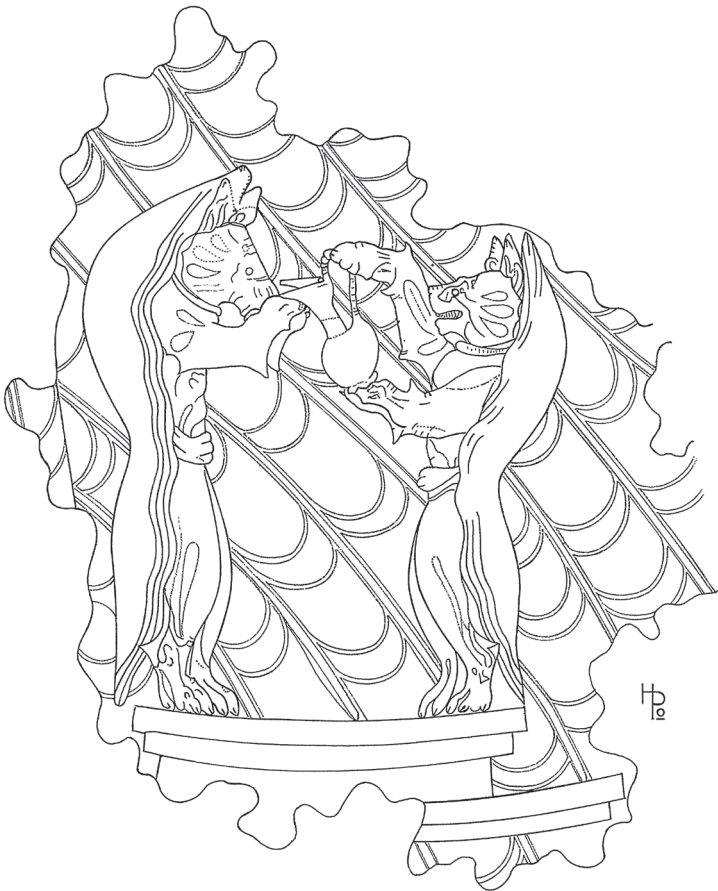


Fig. 8a, b:
A stone triton
shell with Minoan
genii (Courtesy
Ecole Française
d'Athènes).

then mimicked does not seem at all satisfactory in this context.⁴⁰ Form and material are being juxtaposed to create something original, a new ‘composition’. The compositional choices that are made communicate in some way, and create particular relationships that incorporate knowledge. A final thought on this compositional logic concerns the creation of composite creatures in iconography, which runs alongside these typological composites. This process has recently been the subject of an interesting commentary by David Wengrow,⁴¹ and some of the ‘monsters’ he discusses, such as sphinxes and griffins, feature prominently in the Aegean Bronze Age. Another Aegean monster with Near Eastern origins is the Minoan genius, derived from Taweret. One such compositional scene of Minoan genii is carved on a triton shell-stone composite (**Fig. 8a–b**), making it a composite that is doubly chimerical.⁴²

Turning now from composition to modelling, we can see a comparable set of processes whereby connections are made across scales that establish the aesthetic connections that make an ensemble of types communicative. The scalar transformation of modelling is typically one of reduction – and we can observe this in Aegean Bronze Age material culture in house or shrine models, figurines, and miniatures. In terms of house or shrine models from the Aegean Bronze Age, there are some interesting cases from Minoan Crete. An example from Archanes (**Fig. 9**) is probably the only example of a ‘true’ house model. This reduced-scale clay model of a Minoan house can be seen as an icon, or even a diagram – and in representing the ‘real’ house in this way it changes it. The same might be said for the ‘shrine’ models, like these from the Loomweight Basement at Knossos and from the sites of Monastiraki and Piskokephalo (**Fig. 10**).⁴³ We might also recognize that such models are also much more widely distributed across the Near East.⁴⁴ By using such models, worshippers change their relationship to those at full scale by being able to comprehend them all at once,⁴⁵ and by enabling their manipulation and even reimagination.

Such architectural models are not the only models though. We might also think of figurines and miniature vessels as models – and both are quite abundant in the material culture of the Aegean Bronze Age. It is possible that many of these were arranged together with shrine models at cult locations to form microcosmic scenes (perhaps resembling the pre-made microcosm from Kamilari). Whether figurines, miniatures, or shrine models, all are ‘unreal’, in being mere icons or diagrams of

40 Another interesting example is the use of deer teeth and their skeuomorphs in various materials as beads in Neolithic Eurasia; for this phenomenon at Çatalhöyük in Anatolia, see Vasić et al. in press; for Late Neolithic Hungary and Europe generally, see Choyke 2001.

41 Wengrow 2014.

42 Knappett 2020.

43 Poursat 2008, fig. 134.

44 Muller 2016.

45 Lévi-Strauss 1962; Bachelard 1964.



Fig. 9: House model from Archanes, Crete (Courtesy of Heraklion Archaeological Museum, Hellenic Ministry of Culture & Sports, Archaeological Receipts Fund).

‘real’ scale phenomena. But this iconic or diagrammatic relationship puts the real in a new light and makes existing types meaningful in particular ways. That there exist miniature forms of beaked jugs is quite significant, because it means that this type was recognized to have an iconic quality, a sense that was reinforced through the miniature itself.

Further extending the ‘ecology’ of forms of the beaked jug, we might observe that it exists in reduced scale in another medium. It is a sign within the writing system Cretan Hieroglyphic (**Fig. 11**).⁴⁶ Vase shapes are also signs in the undeciphered Linear A script. This gives another imagistic (and syllabic) dimension through which the form is animated, deepening the ecology across media. What is of further interest with Cretan Hieroglyphic is that its signs were not only incised in clay ad-

46 Olivier – Godart 1996.



Fig. 10: House model from Monastiraki, Crete (Courtesy A. Tzigounaki, A. Kanta, L. Godart © Ephorate of Antiquities of Rethymnon, Ministry of Culture and Sports).

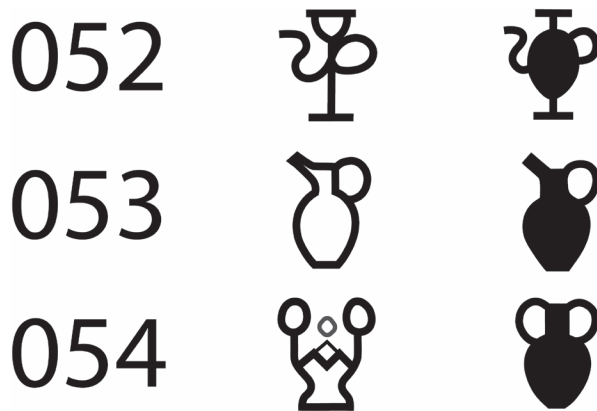


Fig. 11: Beaked jug as Cretan Hieroglyphic sign (after Godart and Olivier 1996, table 16).

ministrative documents but were also carved into stone seals: we have ‘Hieroglyphic seals’ with sign groups.⁴⁷ The imagistic quality of the form is here further developed, not only in terms of the very small scale of the seals bearing such signs, but also their materials (e.g. soft stone in MM II), and their capacity for then impressing their

⁴⁷ Flouda 2013; Karnava 2015.

signs into clay to form sealings (with the signs then appearing in relief, not intaglio). The multiplication of signs that could then follow is another factor in the communicativeness of types (even though we may doubt ‘mechanical’ reproduction).

With the use of scaled-down types in this way as images and signs, it becomes more apparent how one might see the type as an image which has a communicative function of some kind. This may become clearer with the types that appear in a script, but it perhaps also pertains to types that do not have such an existence. Even if only some types are made images of so explicitly, one can argue that all types have that potential and are always already signs to some extent. This position allows us, perhaps, to view typologies (assuming they are not just of our own making and that there were roughly equivalent ancient categories too) as image systems (Severi, this volume; Houston, this volume) that can scaffold knowledge and communicate. This seems quite consistent with positions within media ecologies (see Sybille Kramer, Friedrich Kittler).

Typologies as being and becoming

The above focus on supposedly static types and fixed typologies might seem at odds with ideas from extended cognition and Actor-Network Theory, as invoked earlier. These modes of thinking have been used to stimulate approaches that undermine the type as fixity to create an emphasis on becoming. For Gosden and Malafouris, for example, categories and entities reinforce hylomorphism, a mode of thinking that places the mental before the material.⁴⁸ With categories as conceptual phenomena enforced in matter, there is little scope for the flow in materials to be recognized. In creating a hylonoetic emphasis, these authors seek to develop theory and method (through a series of postulates and propositions) towards a ‘process ontology’. To do this they draw on Whitehead’s process philosophy, as well as Bergson, Peirce, and Bateson. They also recognize a series of other attempts to take process seriously, in a range of related fields, from Bruno Latour to Tim Ingold to Jane Bennett. Within archaeology, one could also cite Ian Hodder’s entanglement theory, and Fowler and Harris’ efforts to interpret West Kennet as both wave and particle.⁴⁹

A focus on things as eddies within currents, or waves, from a radically relational standpoint, has been very stimulating for archaeological thinking. It forces us to question what a ‘jug’ or ‘amphora’ even is – and how beginning with these categories may stymy our creativity and blind us to the very real forces of change that

48 Gosden – Malafouris 2015.

49 Hodder 2012; Fowler – Harris 2015.

make materiality paradoxically dynamic.⁵⁰ At the same time, flux is the flipside of stability;⁵¹ becoming is in relation, perhaps tense relation, with being – as shown in the recent debate between Ingold and Descola on ontogeny vs ontology.⁵² Of course, sets of types are not static. Some types within the typology will fade away and become obsolescent, and others will appear. In the moments of its appearance, a new type may be ambivalent and flexible in its function and meaning – this is where we might usefully talk of ‘prototypes’. In this phase before the type is stabilised, the prototype may attract more explicit and conscious knowledge discourse. The extensive literature on innovation targets these very moments of what Bijker has called ‘interpretative flexibility’.⁵³ However, the overpowering emphasis on ‘newness’ that such studies bring can be problematic: technology becomes synonymous with the new, while ‘old’ technologies (that were once new) are off the radar – as they become ‘infrastructural’, they withdraw.⁵⁴ By losing sight of such technologies – by allowing them to fall off our analytical as well as experiential radar – we lose the capacity to understand the dynamic between old and new, between stability and change, between being and becoming.

Conclusions

If we can think in terms of systems or ecologies of types, images, and scripts then we can rectify this problem whereby types are seen as static. With a more fully ecological approach towards types, in which we recognise their communicative as well as agentic qualities, we may then ask more effectively how and why it is at particular moments that change might occur. Explaining change may appear a tall order to some, requiring a mode of *Naturwissenschaften* reasoning that is barely compatible with the kinds of evidence available; in which case, efforts to enrich our understanding (*Verstehen*, rather than *Erklären*) of how typological systems operate might seem more palatable. Perhaps an intermediate position is feasible for archaeology, which does often appear to sit between these modes of reasoning.

50 See van Oyen 2015.

51 Knappett 2011.

52 Ingold 2016; Descola 2016.

53 Bijker 1995.

54 Peters 2015, 36.

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