

WARIFICATION AND MINOANISATION

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Abstract

Though distant in space and time, there are certain similarities between the processes of Warification and Minoanisation, the latter describing the uptake of Cretan (Minoan) materials and technologies across the Bronze Age southern Aegean. In both cases, recent scholarship challenges the assumption of an active core and passive periphery. Crucial to this challenge in the Minoan case is the recognition of the considerable variability concealed within the single term 'Minoanisation', with many regional and temporal differences in the degree of influence. In the Wari case, it appears that more work is needed to establish exactly if and how Warification was a complex, multi-stranded set of processes rather than a single, monolithic radiating influence. I argue that in both cases, regardless of the state of the evidence, we badly need new ways of tackling regional interaction and cultural transmission, and suggest that networks, learning, and communities of practice represent promising ways forward.

Keywords: core, periphery, network, learning, Wari, Minoan, Knossos, Thera, Crete.

Resumen

WARIFICACIÓN Y MINOANIZACIÓN

A pesar de estar distante en tiempo y espacio, existen ciertas similitudes entre los procesos de warificación y de minoanización, el último describe el consumo de material y tecnología cretense a través de la Edad de Bronce del sur del Egeo. En ambos casos, recientes investigaciones desafían la suposición de un núcleo activo y una periferia pasiva. Crucial para este desafío en el caso de Minoa, es el reconocimiento de una considerable variabilidad oculta dentro del único término «minoanización», con muchas diferencias regionales y temporales en el grado de influencia. En el caso de los wari, parece que es necesario más exploración para establecer exactamente, si y como, la warificación fue un conjunto de procesos complicados y aislados en vez de una única influencia monolítica irradiada. Sostengo que en ambos casos, independiente del estado de la evidencia, es necesario nuevas maneras de abordar la interacción regional y la transmisión cultural. Sugiero también que redes de trabajo, aprendizaje y comunidades de prácticas representan auspiciosas maneras de seguir avanzando.

Palabras clave: núcleo, periferia, redes, aprendizaje, Wari, minoico, Cnosos, Thera, Creta.

1. Introduction

As a specialist in the archaeology of Bronze Age ('Minoan') Crete, I come to the world of Wari archaeology very much as an outsider. Certainly, some scholars in my field do take a cross-cultural, anthropological approach to questions of state formation and political organisation (e.g. Parkinson and Galaty 2007), but the prevailing tendency is to look closer to home for comparisons, whether the early states of the Near East or the later Greek city-states of the Archaic and Classical periods. So for me to turn to Andean archaeology is quite daunting, and my lack of knowledge will no doubt be quite apparent. Given the very different geographical, temporal and cultural contexts of the Wari and Minoan civilisations,

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it would be logical to assume that any meaningful comparisons will be few and far between. However, I have found myself surprised by the striking similarities in the debate over the nature of Wari and Minoan regional influence; some of these similarities surely derive from the conceptual assumptions that we as archaeologists bring to the table.

2. Empire, thalassocracy, core and periphery

One such assumption concerns the way we conceive of interregional interactions using a radial core-periphery model (Jennings 2006). Jennings argues that this model “often fails to capture many of the realities of inter-regional exchange and local political development in outlying areas” (Jennings 2006: 347). While developed principally with the Wari in mind, this critique applies equally well to the Minoan context. Here too the implicit dominance of a radial model severely constrains our ability to understand regional exchange and local geopolitics. It is for this reason that I would now like to explore some of the similarities and differences between approaches to ‘Warification’ and ‘Minoanisation’.

How to understand the nature of Wari influence beyond the Wari heartland is the major issue at stake throughout this volume. Current understandings appear polarised between a top-down ‘empire’ perspective on the one hand, and a bottom-up ‘acculturation’ approach on the other. The former sees the imposition of Wari control through administrative centres set up at a distance, as for example at the site of El Palacio in the Cajamarca region (Watanabe, this volume). The latter considers that distant communities chose to ‘opt in’ to Wari’s bundled web of cultural ideas and products (Lau, this volume). The choice of one of these perspectives over the other does not seem to correlate with distance from Huari; so Jennings, working relatively close to Huari, in the Arequipa region, has a bottom-up perspective that is compatible with viewpoints of those working at quite some distance to the north, such as Lau (Recuay region) and Swenson (Jequetepeque Valley). Yet Watanabe, working at a similar remove, favours ‘empire’ explanation for Wari presence in the Cajamarca region. For those who follow, implicitly or explicitly, the radial core-periphery model, distance does not appear to be a factor. For those such as Jennings, Lau and Swenson who find the empire model less compelling, we do see signs of another conception of space emerging, with Lau for example thinking about interregional exchange in terms of networks. I will come back to the potential for network thinking to move us beyond prescriptive core-periphery models.

This polarisation of approaches such that Wari scholars find themselves following either empire or acculturation perspectives mirrors what we see in the Aegean Bronze Age, though of course the latter’s ‘inside-out’ maritime geography on the face of it may seem quite alien (Knappett and Nikolakopoulou *i.p.*). If we focus on the Aegean region (Figure 1), the first possible empire emerges in the Minoan civilisation, based on Crete, spanning c. 3200-1100 BC. Around 1900 BC we see the appearance of some very large sites on Crete, the so-called palaces. A couple of centuries later, one in particular comes to the fore – Knossos (Figure 2). Knossos is by far the largest site in the region, in all likelihood covering one square km in the Neopalatial period (Whitelaw *et al.* 2010). It has the most varied and elaborate architecture, and appears to hold some kind of hold over most of Crete, for a short time at least. And at the same time as Knossos is at its largest and most complex, we also see a spread of influence beyond the island. When we encounter ‘Minoan’ finds off-island, in the Cyclades, Dodecanese and Asia Minor, it is with Knossos and central Crete that connections can be made, rather than the east or the west of the island. These finds thus could be taken to indicate, on the face of it, some kind of Knossos-based ‘empire’ stretching far and wide. To many observers, this would correspond to the ‘thalassocracy’ of King Minos, described over a millennium later by Thucydides (Niemeier 2005). A ‘thalassocracy’ is a maritime empire sustained by naval power and off-island colonies; the candidates for the latter occur on Cycladic islands such as Melos, Thera and Kea; the Dodecanesian islands of Kos and Rhodes; and on the Anatolian mainland, at Miletus and Iasos. We find large quantities of material culture seemingly in support of such an idea, from everyday items such as loomweights, cooking pots, grill stands, and conical cups, to prestige material culture such as elaborate vessels in pottery, metal and stone, to architectural

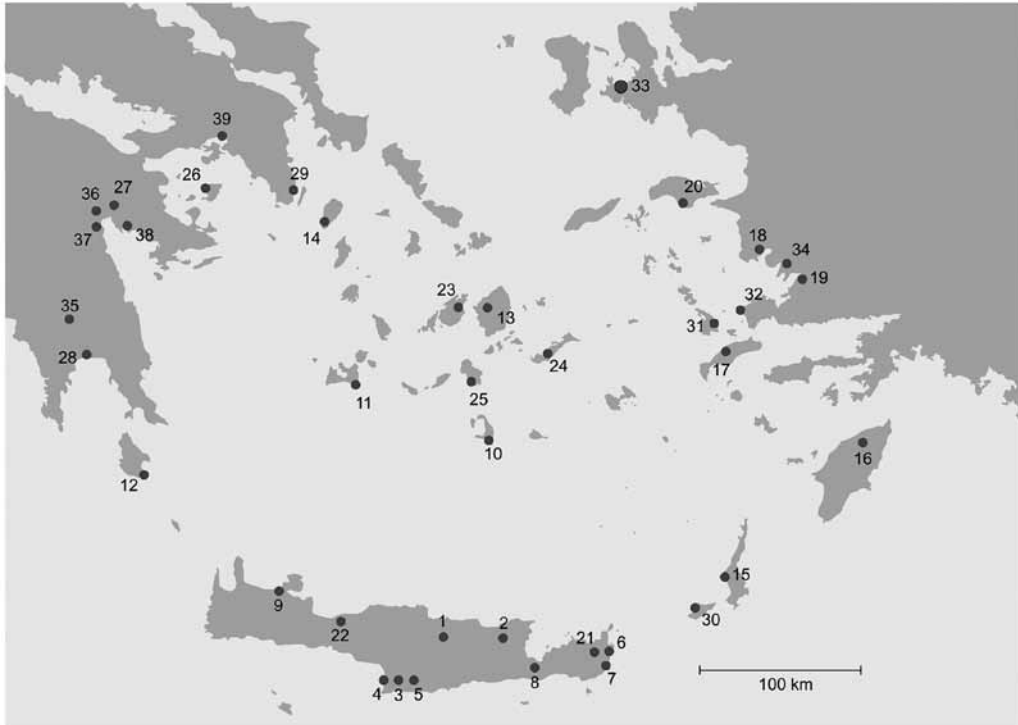


Figure 1. Map of the Aegean. 1) Knossos; 2) Malia; 3) Phaistos; 4) Kommos; 5) Ayia Triadha; 6) Palaikastro; 7) Zakros; 8) Gournia; 9) Chania; 10) Thera; 11) Phylakopi; 12) Kastri; 13) Naxos; 14) Kea; 15) Karpathos; 16) Rhodes; 17) Kos; 18) Miletus; 19) Iasos; 20) Samos; 21) Petras; 22) Rethymnon; 23) Paroikia; 24) Amorgos; 25) Ios; 26) Aegina; 27) Mycenae; 28) Ayios Stephanos; 29) Lavrion; 30) Kasos; 31) Kalymnos; 32) Myndus; 33) Cesme; 34) Akbuk; 35) Menelaion; 36) Argos; 37) Lerna; 38) Asine; 39) Eleusis.

types and even materials (gypsum), wall paintings, and administrative documents (e.g. bull-leaping seals, Linear A documents).

It is not only those who work in the central Cretan ‘core’ who hold this view. Some scholars working in the ‘periphery’ also concur (e.g. Niemeier, working at Miletus). This does to some extent repeat the Wari case then, when distance from the core does not predict a scholar’s viewpoint. Yet many archaeologists working in the ‘periphery’ do not quite see Minoan influence in ‘empire’ terms. Instead they see a lot of local choice, with communities controlling their own destiny, deciding to opt in to new trends coming out of Crete (Momigliano 2009; Nikolakopoulou 2009). The idea is that this alignment would have better enabled these communities to participate in interregional exchange networks. Personally, although I am primarily an archaeologist of Bronze Age Crete, I have also been working on publications for ‘peripheral’ sites too, like Akrotiri, Iasos and Miletus. Hence I get to sit in both positions, and I have to say that as a result I find myself pushed and pulled in different directions. It is indeed quite difficult when working on ‘Minoanisation’ not to get drawn into the either/or polarity of empire on the one hand or acculturation on the other.

We should comment here on not only the similarities, but also some of the differences, between the Wari and Minoan cases. It seems a bit odd to an Aegeanist that there is a single word often used —Wari— to denote the core site, the core region, the culture – Wari pottery, Wari architecture, etc. This would be equivalent to us in the Aegean calling everything after our largest site, Knossos. To call the whole of Crete ‘Knossos’ or ‘Knossian’, and then also all the cultural traits across the southern Aegean ‘Knossos style’ or Knossian would be highly confusing, not to mention inflexible and homogenising.

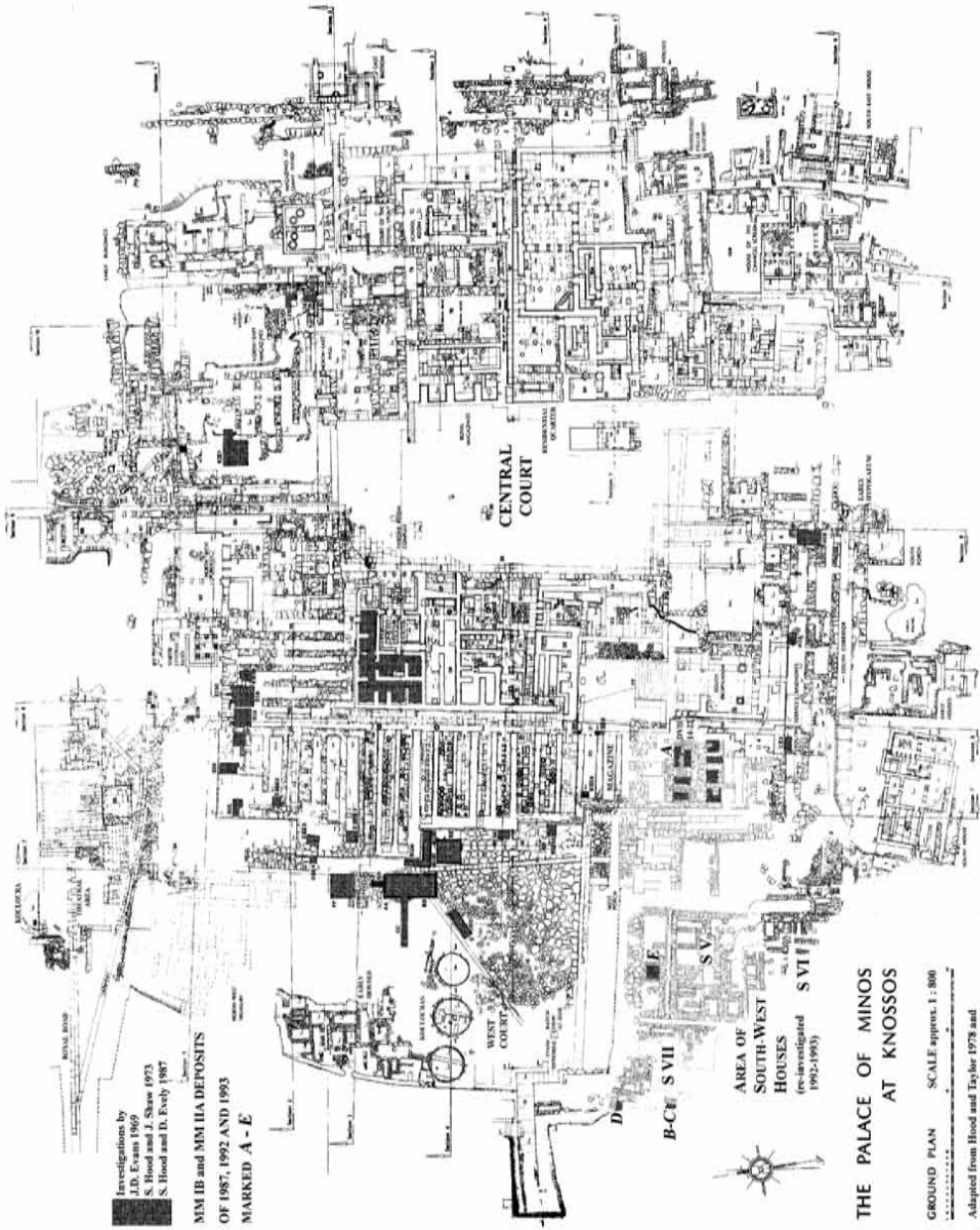


Figure 2. Plan of the palace at Knossos.

It also seems strange to an Aegean prehistorian that the Wari periphery seems better known than the core. This is certainly not the case for the Aegean. Admittedly, we do not know everything we would like to about Knossos, but it has seen many publications over the past century, from Evans's multi-volume *Palace of Minos* (Evans 1921-36), to the important work of Pendlebury (1939), to a whole host of publications of primary material in past decades (e.g. Hood and Smyth 1981; MacGillivray 1998; Cadogan *et al.* 2004; Hatzaki 2005; Mountjoy 2003; Macdonald 2005; Macdonald and Knappett 2007; Momigliano 2007). The off-island periphery is definitely less well known, though there is the stand-out case of Akrotiri which has much better preservation due to the volcanic eruption that buried the site, though many of the houses excavated remain incompletely published (Doulas 1983; Palyvou 2005).

Yet Aegean archaeologists are increasingly aware of complications and subtleties in the evidence. There exist three key dimensions of variability that upset this neat picture of an active core and a passive periphery.

3. Material culture variability

The first is material culture variability: a checklist of the presence or absence of traits is not enough. For example, we cannot just say that there is Minoan pottery imported to Akrotiri, Thera in great quantities, though this is true. First, it actually only makes up about 15% of the total assemblage, and there are also many imports from other areas too. Secondly, it is not just that Minoan pottery is imported; it is also very closely imitated by local potters; or rather some styles are, such as tortoiseshell ripple (Knappett and Nikolakopoulou 2008). It can be very hard telling local from imported (Figure 3). Thirdly, in some cases local pottery does not so much imitate a Minoan pot, as take certain features, such as white dotted decoration, and adapt them into the local repertoire (Knappett and Nikolakopoulou 2008). Fourthly, there is a whole swathe of local production that takes no account of Minoan culture whatsoever, and continues in its own vein. This is not just apparent in styles and shapes but also technologies: the potter's wheel is taken up from Crete, but only to a very limited extent (Knappett and Nikolakopoulou 2008). And this is just the pottery evidence at one site (admittedly a site with incredible preservation and more than 11,000 catalogued whole vessels). There are similar complications if one looks at the wall paintings, the architecture, and other material categories, such that it becomes almost impossible to say 'this is' or 'this is not' a colony or part of an empire. The processes at work are simply much more complex than this.

When this emerging picture is compared with the status quo in Wari scholarship, I am struck by how this kind of discussion seems to be lacking. In the preceding papers, one often simply reads that 'the pottery is Wari', without any dissection of what this actually means. Imported? Locally replicated? Locally imitated? And what is the proportion of Wari to local? In what forms and wares? What are the choices being made? Though there has been some recent analytical work on Wari ceramics, the emphasis thus far appears to have fallen on characterisation in order to shed light on provenance, rather than the investigation of technological dimensions (Montoya *et al.* 2003, 2009; Dussubieux *et al.* 2007).

4. Regional variability

A second dimension is regional variability. Let's just take the above case of pottery as described for Akrotiri, Thera. All kinds of Minoan shapes are very closely mimicked locally, from fine decorated wares, to mass-produced 'conical cups', to cooking pots. However, at Miletus and Iasos in Asia Minor, we see imported fine wares from Crete, but no local imitations of fine wares. What we do see locally produced are Minoan-type conical cups, cooking pots, 'souvlaki' stands and loomweights, though such 'domestic' types never occur as imports from Crete. So, a rather different picture emerges according to the site under study.

And if we were to turn to the other side of the Aegean, to the west, where we have the island of Kythera (Figure 1), there the site of Kastri is almost entirely Minoan in its material culture, such that you would not actually know from the material culture that you were not on Crete itself (Coldstream



Figure 3. An imitation ripple jar from Akrotiri, Thera.

and Huxley 1972). Again, this is simply from the pottery; the regional mosaic gets more complex still if you add wall paintings, architecture, and other categories to the mix. Not only is it too simple to think in terms of either colonisation or acculturation; there is not even a single axis of variation from colonisation to acculturation.

Returning to Wari, evidently there is recognition of regional variation (see Schreiber, this volume). Yet the details of this variation do not seem particularly clearly expressed. I would imagine that detailed study of exactly how the production and use of Wari ceramic and architectural features vary from region to region would be an invaluable comparative exercise. Perhaps 'Wari' in Recuay is not actually all that similar to 'Wari' in Arequipa; and if this were the case, then it would suggest interregional interaction as a strategic, two-way process.

5. Temporal variability

Now to our third dimension of variability: temporal. Increasingly, scholars of the Aegean Bronze Age are recognising that the political geography is very dynamic, changing significantly over time. Yet we still suffer from a tendency to homogenise and imagine that all palatial systems were the same. The most damaging assumption is probably that which projects the Mycenaean palatial systems back into the Minoan period. Thanks to the substantial archives from Knossos and Pylos from the 13th century BC, and the decipherment of Linear B, considerable headway has been made in understanding the details of the Mycenaean palatial economy. The palaces controlled certain economic activities very closely, with particular attention to textiles, bronze and perfumed oils. As Mycenaean culture does owe some debt to that of the earlier Minoan culture on Crete, researchers tend to project some of the features they see in the 13th c. BC back to the earlier palatial systems on Crete. Even though they are some three to four centuries earlier, they too used scripts for administrative purposes, notably Linear A; though this remains undeciphered, it does share many signs with the later Linear B script. But this does not mean that the earlier Minoan palatial systems were the same as the later Mycenaean ones. They inhabited quite different worlds, particularly in their relations to the powerhouses of the Near East such as the Egyptian and Hittite empires. The practice of projecting back from the Mycenaean to the Minoan perhaps finds its parallel in the Andes in the relationship that is often assumed between the Inca Empire and the Wari. For the Aegean, this kind of teleology has proven more harmful than beneficial.

First Palace Period	Protopalatial	MM IB	1900 BC
		MM IIA	
		MM IIB	
Second Palace Period	Neopalatial	MM IIIA	1700 BC
		MM IIIB	
		LM IA	
		LM IB	1450 BC

Table 1. Chronological chart for Minoan palatial periods.

When we look in greater detail, further problems of this kind present themselves. Even assuming Minoan palatial society as a single unit can be extremely misleading, as there are substantial changes within the period from 1900 to 1500 BC. We can break this down into the Protopalatial and Neopalatial periods, and they are really quite different from one another. Just to take as an example the nature of interregional exchange, in the Protopalatial period (Figure 4) there are really only weak connections between the different areas of the Aegean. Cretan imports at Akrotiri, Thera, for example, make up just 1-2% of the pottery there. But then at the start of the Neopalatial period, in the Middle Minoan IIIA phase (c. 1700 BC), the connections really seem to take off, and then develop apace through Middle Minoan IIIB and Late Minoan IA. Further evidence from these different phases would be really beneficial as I suspect there is even more change than we currently recognise. Anyway, come Late Minoan IB, the final phase of the Neopalatial period (c. 1500 BC), connections have again shifted immensely, in the wake of the Thera eruption. Though Minoan Crete still seems to be doing fine, other areas in the southern Aegean are already shifting the focus of their connections to the Greek mainland, a move that is cemented with the subsequent destruction of the Cretan palaces and the emergence of mainland Mycenaean palaces. So even if there was something approaching an ‘empire’, or at least substantial interregional influence, it didn’t last very long at all: perhaps just for the first part of the Neopalatial period, or about 150 years. We really miss out on some of the more fascinating geopolitical dynamics if we fail to pay attention to changes over time.

For the Wari case, there appears not to be the ceramic seriation that would allow for the kinds of divisions we can make in the Aegean between, for example, Middle Minoan IIIA and IIIB. Dorothy Menzel’s now classic stylistic sequence (1964) provides what might seem to be a similar temporal resolution — she divided the period of Wari influence into Middle Horizon 1-4 (along with the A and B subdivisions for the first two phases). Yet in practice the seriation has only helped make distinctions possible between the earlier and later parts of the Middle Horizon. While this is of course recognised by Wari scholars, I wonder if enough has been done to analyze ceramic variation over time in order to seek out more resolution within the Middle Horizon.

6. Network thinking

There has been a great deal of work in the southern Aegean of late. Certainly, there are still surprising gaps in our knowledge, but we now have some high-resolution data, acquired through innovative methodologies. It does seem to be important to get into the details of the ceramics and the architecture, as things are not always as they seem. What these details show us is that there are many different kinds

of cultural dynamics in play, meaning that we need to show greater sensitivity to the various modes and mechanisms of cultural transmission. But this is where the real frustration comes in: our interpretations have not yet caught up with our data and methods (Broodbank 2004). Perhaps we do now see that neither thalassocracy nor local acculturation really cut the mustard. We need to escape from this either/or debate, whereby agency is assigned to either core or periphery; but we do not have the means to do so. We cannot find the means until we identify the obstacles before us, and the obstacles can be hard to see sometimes. One obstacle, I would argue, is our lack of explicit thinking about scales of analysis and how difficult but necessary it is to articulate different scales (Knappett 2011). A real part of the problem is that some of us are talking about one scale, the local, while others are pitching themselves at the interregional level; and we don't even realise it. Personally, I see network thinking as being one means of overcoming this obstacle, as it can allow for trans-scalar analysis. Networks can be nested the one in the other, from local to global, so that we don't have the problem of different methodologies for different scales. In this guise, networks can also help us around the problem of the deeply embedded core-periphery thinking that limits our interpretative horizons. For example, it is hard to think how we might conceive of the emergence of Minoanisation (or Warification) as anything but a set of processes that unfold from the inside out, from a core to a periphery. We perhaps need to ask how Crete came to be 'on the front foot' in the first place: through its long history of interactions with these other areas from which it was able to benefit, but before there was a core or a periphery as such? We do see a long build-up through the Protopalatial after all (something similar alluded to for Wari by Jennings, this volume and Lau, this volume). Networks allow for both the acknowledgement of some sites simply being bigger and more influential, at the same time as recognising that agency need not reside entirely in their hands (Knappett *et al.* 2008).

7. Cultural transmission: learning about learning

A second obstacle, though, is arguably even more problematic: archaeologists have not yet developed convincing models for explaining interregional cultural transmission. For example, if Wari architectural forms (e.g. orthogonal patio arrangements [Isbell 1991]) are found in far-flung areas, then how does the requisite knowledge and skill travel? Is it simply due to the movement of the skilled architects and masons themselves? If so, are they permanent or temporary: do they move as colonists, or as itinerant artisans? Perhaps forms 'move' instead through local artisans travelling to Huari, learning the necessary skills, and then returning to their communities in outlying areas. Do the new architectural forms even require much specialised technological skill, or can they simply be observed and then relatively easily imitated? Thinking about these processes in terms of different kinds of transmission can be helpful, differentiating between 'vertical' and 'horizontal' transmission (Shennan 2002). Vertical transmission refers to the kinds of knowledge transfer that occur from one generation to the next, for example as a mother teaches her daughter particular coil-building skills for making pottery. Horizontal transmission concerns those forms of knowledge that can be transferred from peer to peer; in terms of pottery again, this could simply be a potter observing a new kind of decorative pattern on a competitor's wares and deciding to use it too. This is just one simple distinction that can be of use, though there is much more one could do on the processes of learning and apprenticeship, as is the case in the very interesting literature on 'communities of practice' (Lave and Wenger 1991; Wenger 1998), now seeing some application in archaeological circles (Hendon 2010). Such learning dynamics are little enough grasped at the individual or community level, let alone at greater scales.

In the Aegean we have the same kinds of problems. One interesting example is the take-up of the potter's wheel in the Cycladic islands. This occurs at the beginning of the Neopalatial period under influence from Crete. And yet the Cyclades had been in contact with Crete for centuries already, where the wheel had long been used. What is it that changes at this particular moment that leads some potters to only now adopt this new technology? It is not something that can just be picked up overnight, but requires a long apprenticeship. How exactly were these skills transferred? It is something we are trying to think about in the Aegean using ideas from the communities of practice literature. Similar issues

arise when we try to think also about the transmission of other technologies, such as in architecture the adoption of ashlar masonry, and the use of lime plaster for wall paintings. These are transferred to the Cyclades at about the same time as the potter's wheel, and these processes leave us much to think about in terms of the mobility of artisans, their skills, and their technologies. Although we have made relatively little progress to date, this promises to be an area attracting innovative research in the future.

8. Conclusions

What I have learnt from this comparative process is not so much that there are actual similarities in ancient political organisation in the Wari and Minoan worlds, but rather that the history and theory of archaeology has dealt us all a similar set of assumptions with which we work often unknowingly and uncritically. I myself have been as guilty as any of seeking interpretations of ancient Minoan society that fall within a rather narrow range of parameters set in large part by prior expectations. My feeling, after this admittedly rather short excursion into Wari territory, is that re-examining how we think about some basic processes, such as interaction and learning, particularly where different scales are concerned, would ultimately be extremely beneficial to our broader understanding of complex historical phenomena, whether Warification or Minoanisation.

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