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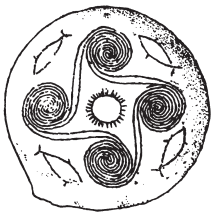

Circuits of Metal Value

Changing Roles of Metals in the Early Aegean and Nearby Lands

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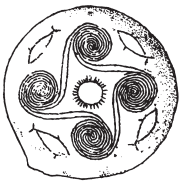

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Front cover: Background: Aegean and surrounding lands; credit: NASA's BlueMarble composite satellite image, reprojected using a Lambert Azimuthal Equal Area transformation with natural origin of 36.9263°N and 25.5098°E. Left: silver coin, reverse of an Athenian silver tetradrachm of the 5th century. credit: Numismati/Wikimedia (https://commons.wikimedia.org/wiki/File:Complete_strike_of_Athenian_tetradrachm..jpg). Middle: gold pendant from Mallia. credit: B. Legarra Herrero. Right: silver vessel from Gonur Depe; credit: V. Sarianidi.

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Circuits of metal value: Introduction

Toby Wilkinson and Susan Sherratt

It is now over 20 years since the publication of *Metals Make the World Go Round* (Pare 2000) provided a seminal overview of the role of metals and metal circulation in Bronze Age Europe, with important implications for the Aegean before 700 BC and Afro-Eurasia more widely, as well as for other periods. The contributors to that volume outlined a set of diverse frameworks for understanding metals in the ancient world. For the prehistoric Aegean, research effort on ancient metals has often been directed toward the arrangement of objects into typologies, questions of the chronology of 'first use', scientific analyses (trace elements and provenance studies) devoted to composition of artefacts and sourcing of ores, and more recently the circumstances and contexts of various aspects of metal production and metalworking (several of these topics are covered in Day and Doonan 2007). However, much of this has been dominated by questions surrounding copper and copper alloys, with less consideration given to other metals, such as gold, silver, lead and iron, which in the Bronze Age at least generally play a smaller part in the archaeological record, or to the relationships between different metals and non-metallic materials.

The Round Table (held in Sheffield, 1–3 April 2016) from which this volume derives, aimed to open discussion on the cultural part played by a fuller spectrum of metals in use from the 4th millennium BC to the Early Iron Age, not only in the Aegean but also in the wider Old World context, on the divergent uses and roles of different metals, the interrelationships of these roles and the changing economic, social, cultural and symbolic values that may have been accorded to them at different times and in different places by producers and consumers. Metals are not simply materials for making artefacts, but agents that did indeed 'make the world go round' in various ways: their use in display and circulation as 'prestige' materials and artefacts; their role in the accumulation of wealth and capital, and in the development of metrology; their relative economic, social, cultural or symbolic values in different societies at different times; the part they played in the spread of wider economic systems and the economic and cultural integration of increasingly wide areas of the Old World.

The Round Table aimed to contemplate the particular properties of different metals and the various issues concerning their frequent under-representation in the archaeological (but not necessarily textual) record, and also to point out comparative and diachronic perspectives that may have the ability to offer insights into their important roles in wider cultural and historical changes over a period of several millennia.

The contributions here represent a subset of the papers presented at the Round Table workshop, reworked and edited for this volume. In a wide-ranging contribution Wilkinson (Ch. 1) discusses some of the parameters involved in the term 'precious' as applied to metals, including their symbolisms and aesthetics, functions and properties, regimes of metal consumption, and incorporating a discussion of the potential for exploring the presence and circulation of metals, otherwise poorly represented or invisible in the archaeological record, by means of ceramic skeuomorphs. It ends by emphasising the dominant, almost personified, role of metal vessels in creating and maintaining value within all these parameters. Two papers (Legarra Herrero, Ch. 2 and Sherratt, Ch. 3) concentrate mainly on the Aegean in the Middle Bronze Age and Iron Age respectively, while another (Borgna, Ch. 4) tackles the economic and social exchange networks that link the Aegean with Italy in the Late Bronze Age. Another two (Palermo, Ch. 5, Pare, Ch. 6) focus respectively on Cyprus and the Near East more generally at the transition from Bronze Age to Iron Age, while another (Massimino, Ch. 7) is centred in south-east Anatolia and the Caucasus in the Early Bronze Age. Two (Palermo, Ch. 5 and Pare, Ch. 6) are concerned particularly with the beginnings of regular iron metallurgy, two (Legarra Herrero, Ch. 2 and Sherratt, Ch. 3) with gold and silver, and another two (Borgna, Ch. 4 and Massimino, Ch. 7) with bronze, other copper-based alloys and metals more generally. The links between these contributions will be discussed in more detail below, broadly by metal type.

Regrettably, due to the hectic pace and ever-increasing demands of current academic life, not all who participated in the Round Table were able, in the end, to find the time to contribute a chapter to this volume. For the record, it is worth briefly summarising the subject of their talks. Vasiliki Kassianidou traced changes in the economic and symbolic values of metals, including lead, bronze, gold, silver and tin, on Cyprus from the Bronze Age through to the Iron Age (see *e.g.* Kassianidou 2009; 2012; 2013; Charalambous, Kassianidou and Papasavvas 2014). Gojko Barjamovic, in considering developments in the metal trade in western Asia, focussed particularly on the Old Assyrian trade network of the earlier 19th century BC in Anatolia, which formed part of an interlocking network of widespread commercial circuits (see *e.g.* Barjamovic 2008; 2011; 2018). Joseph Lehner addressed the emergence of the Hittite territorial state in central Anatolia from the late 17th century BC onwards, and the intimate role that metals and metallurgy (particularly silver, gold and copper alloys) played within a centralised tribute and levy system (see *e.g.* Lehner 2017; Lehner and Schachner 2017). Emanuela Alberti discussed the history of precision weighing in the Aegean and the combination of local regional traditions with long-distance influences, suggesting that trade in precious metals played a key part in the development

of weighing systems from the Early Bronze Age onwards (see Alberti 2016). Lorenz Rahmstorf also discussed the relationship between the extensive use of precious metals from the early 3rd millennium BC and the development and transmission of weight metrology (see *e.g.* Rahmstorf 2014; 2015: 164–6).

Iron

Iron objects, generally of an ornamental or prestige nature, appear in the Near East as early as the 3rd millennium BC and iron evidently remains a highly prized and precious material throughout most of the 2nd millennium, as various Near Eastern texts appear to confirm. This was not because of the rarity of various types of iron ore, which tend in one form or another to be relatively ubiquitous, but because of the difficulties in working iron (*e.g.* unlike copper it could not be cast) and various terminological manipulations that ensured it remained, whether of meteoritic origin or not, in the sphere of gods and theocratic rulers. How, where and why iron made the transition to becoming a base metal, used by many over a wide area of the Near East and the Mediterranean for utilitarian objects including cutting blades, and thus leading into a full 'iron age', is still much debated. Christopher Pare (Ch. 6) sets out to provide a full survey of the changing patterns of iron use in the Near East in the 13th–12th centuries BC, when iron ring jewellery along with iron arrowheads began to appear in large quantities in Israel, Jordan and Mesopotamia as a result, Pare speculates, of the southward and eastward relocation of some central Anatolian metalworkers, in the course of the decline of the Hittite centres in that region as the Hittite empire fell into decline. These objects are examples of what Pare and others have called 'special purpose metal' which, because of their relative simplicity and low technological requirements, were able to reach quite a wide popular consumership. They also, in some ways, bridge part of the value transition between iron as a precious and prestigious material and iron as a relatively accessible metal with increasingly practical applications.

Joanna Palermo (Ch. 5) is also concerned with the development of an iron industry from around 1200 BC, but in her case interest focuses on Cyprus, where effectively no iron objects are found before Late Cypriot IIC/IIIA (late 13th/early 12th centuries BC). Here, too, we seem to have a 'special purpose metal' horizon in the form, particularly, of iron knives almost certainly produced on the island, which arguably also have the ability, like Pare's iron ring jewellery and arrowheads, to straddle the beginnings of a value transition between prestige and practicality that leads to attitudes characteristic of an 'Iron Age'. In the case of Cyprus, this develops more rapidly than in the Levant into a diversified industry that includes bronze types with origins elsewhere in the Mediterranean translated or adapted into iron, thus nesting Cypriot ironworking within the context of new status items among the local population and concomitant changes in its longstanding copper and bronze industry. Palermo argues, due to their production on an evidently large scale, their standardisation and the variety of their

find contexts, that these knives were designed first and foremost to appeal to the aspirations of local Cypriot consumers.

Gold and silver

Both gold and silver, which rapidly climbed to the upper echelons of the value scale in the early Near East and remain there in the modern globalised world to this day, have the appeal of being unusually visually attractive and considerably rarer than either copper or iron in the ground. Gold was already being exploited by the 5th millennium BC (*e.g.* in Egypt and the Balkans), but it took a further millennium before silver, cupellated from silver-rich lead ores probably first in parts of Iran, came on the scene, even though very occasional uses of rare native silver are known before this. While gold tends to survive deposition in the ground quite well (whether by deliberate action or accidental preservation), silver, on the other hand, like iron, corrodes more readily and is sometimes more difficult to recognise. The archaeological visibility of both, however, depends on the social and cultural conditions which determine their deliberate deposition and the extent to which they are deposited in intentionally non-retrievable contexts, for example in graves. Once their main value consists in their role in the local or regional accumulation of wealth, it requires either special circumstances or other sorts of values for them to be deposited in significant quantities at all.

Borja Legarra Herrero (Ch. 2) examines the consumption patterns of gold and their meaning in the East Mediterranean and the Aegean in the early 2nd millennium BC, a period which coincides with intensifying connections between these regions and the appearance of the First Palaces on Crete. In Egypt, where gold had a role as a mark of power and prestige associated closely with the pharaoh and with pharaonic and other elite patronage, significant amounts of gold, the largest part probably obtained from Nubia, were apparent in the form of elaborately worked jewellery associated with the burials in early Middle Kingdom tombs. At contemporary Byblos, with its close Egyptian political and cultural influence, the picture is broadly similar, with tombs in the Royal Cemetery containing some of the most elaborate gold items found outside Egypt. On Crete gold jewellery items, often quite highly decorated but generally flimsier and lacking in structural strength, are particularly prominent in the tombs at Mochlos, a site that shows evidence of maritime trade both with other parts of the Aegean and with the East Mediterranean at the end of the 3rd millennium or very early in the 2nd. Here in these communal tombs, however, gold items are less closely associated with individuals than in Egypt or at Byblos and the tombs themselves, which appear to contain most of the community, suggest that there is little internal social differentiation. There seems to be a broadly similar picture from other Cretan sites, where, however, there is evidence of increasingly specialised and elaborate production techniques as the early 2nd millennium progresses. Legarra Herrero concludes that on Crete in the very early 2nd millennium, unlike in Egypt and at Byblos, gold seems to have been part of the open, competitive negotiation of power that existed among all social levels and

possibly all communities on the island. However, there are some signs that this may also have evolved, and by the 18th century BC the palaces had begun to produce a stronger hierarchical dynamic in which the production and use of gold shifted accordingly.

Susan Sherratt (Ch. 3) attempts to address a long-standing debate over whether silver was used as a form of currency in Greece and the Aegean before the introduction of coinage in the 6th century BC. She argues that, although texts referring to the early 6th century seem to indicate that silver was indeed used by then at Athens as a medium of payment for state transactions, fines and for interest on loans, it was not used in a comparable manner to the *hacksilber* as 'small change' encountered in the Levant and Cyprus from around the 12th to 7th centuries. The shortage of silver in archaeological contexts, and, indeed, in the limited Linear B textual contexts, in the later Late Bronze Age (the Mycenaean 'palatial' period) and the Early Iron Age can be interpreted in different ways: either no use was made of silver during these periods, or it was used in ways that did not result in its deposition in graves or its appearance in palatial inventories. There are plenty of silver resources in the Aegean, which had been exploited since the end of the 4th millennium, and there is reason to believe that at least some of these continued to be exploited throughout the Bronze Age and in the Early Iron Age. Occasional archaeological glimpses (such as silver drinking vessels abandoned in the megaron at Pylos at the time of its destruction) also suggest that silver continued to be used as an item of personal wealth and kept in circulation above ground at a time when it is already virtually invisible in the later Late Bronze Age. A variety of circumstantial evidence leads Sherratt to argue that starting with the Early Bronze Age, over a period of some two millennia, silver originating in the Aegean found its way eastward, where from the 3rd millennium onwards silver in the Near East was used as a standard of exchange and, increasingly, a means of payment. This culminated in the final centuries of the 2nd millennium and the early centuries of the first, when *hacksilber* hoards in the east indicate its use as a currency for even the smallest payments (coinage *avant la lettre*), suggesting that by this time the demand for silver in the east was insatiable. Against this background, Phoenician interest in the western Aegean in the later 11th–9th centuries, particularly at sites like Lefkandi which lay midway between sources of silver in eastern Attica and the north-west Aegean, is most plausibly explained by the desire to acquire silver from Aegean sources and, increasingly also from sources in the central and western Mediterranean. Sherratt's conclusion is that, while silver could form a means of personal wealth accumulation (and therefore not normally consigned to the ground) for the pre-6th century inhabitants of the Aegean, it held a more important and perhaps primary economic value as a commodity for overseas exchange.

Bronze and other copper alloys and metals in general

Copper was in use for display and exchange purposes in the western Old World from at least the 6th millennium BC, and for at least some practical tools from the 5th

millennium. Experimentation with different copper alloys is already apparent in the early 4th millennium, mainly perhaps for the sake of colour variations and thus to enhance the potential for prestige and display in danger of being lost through the increasingly widespread use of the metal. Alloys of tin and copper (conventionally bronze) are first encountered in the Near East around 3000 BC, and during the later 3rd and 2nd millennia tin bronze became the standard work-horse metal for tools, weapons and other implements, the metal that 'made the world go round' and the equivalent (as some have argued – *e.g.* Sherratt 2016: 290) of petroleum oil in the 20th century. Though not described as a 'precious metal' today or even necessarily towards the end of the Bronze Age in the Near East and Mediterranean (see Borgna, Ch. 4), bronze was an extremely important and powerful material, and it became increasingly vital to elites during the course of the 2nd millennium to exercise close control over its bulk circulation or that of its constituent metals. This can be seen particularly graphically perhaps in the Uluburun wreck, which sank off the southern Turkish coast in the late 14th century BC, and on which 354 standardised copper oxhide ingots (the favoured shape for the transport of bulk copper since the early 2nd millennium) were accompanied by over 120 tin ingots, enough together to produce 300 helmets, 300 corselets, 3,000 spears and 3,000 swords (Bass 1987) and at a weight of copper to tin ratio of approximately 10:1 reflecting the most usual tin bronze recipe (Hauptmann, Maddin and Prange 2002: 2). It thus appears that it was deemed safer, from an elite point of view, to keep the ingredients of bronze separate until they could be handed over to officially endorsed craftsmen to be turned into weapons or other objects.

A century later, however, in the later part of the 13th century, there are signs of a greater and probably more socially widespread circulation of ready alloyed bronze: in the bronze ingots on the Gelidonya wreck (Bass 1967: 78, 81f.), in a proliferation of bronze scrap on the wreck and in hoards in the eastern Mediterranean, in an increase also in the eastern Mediterranean in bronze objects of types that originated around the Alps, and (in the succeeding centuries) in the appearance of East Mediterranean (particularly Cypriot) bronzework in the central and west Mediterranean (Lo Schiavo, Macnamara and Vagnetti 1985; Vagnetti 1986; Sherratt 2012). This seems to indicate something of a transformation in the nature and extent of bronze circulation, which was now characterised by long-distance flows of alloyed material (often in the form of objects from a number of different regions) that seem to have moved in different directions in a largely decentralised manner.

Near the beginning of this long chronological sequence in the Near East, Martina Massimino (Ch. 7) investigates some of the elite funerary strategies involving metal in the kurgans of the later Maikop-Novosvobodnaya culture to the immediate north-west of the Caucasus and at sites such as Arslantepe and Başur Höyük in south-east Anatolia, where richly furnished monumental tombs occur in the short period immediately following the end of the domination of the Late Uruk system at these sites in the centuries around 3000 BC, and finds some striking similarities between them. The numerous metal objects found in graves in both regions provide particularly close

resemblances in terms of typology, technology and the materials employed, and seem to have been deliberately selected to reflect the qualities that distinguished members of elite groups. Some of the objects (*e.g.* tripartite spearheads, daggers with cast handles, gouges, ribbon-shaped diadems with embossed decoration, coil-headed pins and animal figurines), all characterised by sophisticated metalworking techniques such as lost wax casting and silver inlay decoration, are clearly of north Caucasian origin, while intentional copper alloys found at Arslantepe are the same as those found in north Caucasian tombs. In the opposite direction this is balanced by elements in the north Caucasian kurgans that point to the northern Mesopotamian world as well as to Anatolia, Iran and central Asia. In south-east Anatolia, sites such as Arslantepe and Başur Höyük lie on the borders of different cultural areas. Arslantepe's grave goods reflect the site's location between the Caucasus and north-central Anatolia; Başur Höyük's reflect contacts with northern Mesopotamian sites to the south, the Euphrates to the west and the Caucasus to the north. Despite suggestions in the past of associations with the Kura-Araxes culture of Transcaucasia, Massimino argues that these two south-east Anatolia sites were, rather, the beneficiaries of a circuit that developed in the second half of the 4th millennium involving the north-western Caucasus, the northern Pontic region, north-central Anatolia and south-east Anatolia in the half millennium or so before the Kura-Araxes cultural package spread further south. Her reasons for this are not only that none of the distinctive markers of the Kura-Araxes cultural package are found in grave goods at these sites, but also that individualistic elite burials and conspicuous consumption of the type found in graves at both Arslantepe and Başur Höyük are alien to Kura-Araxes, which appears to have been more egalitarian in its ideology, not least in the funerary sphere. Indeed, she suggests, this earlier circuit, which she further suggests was in the hands of mobile northern pastoralists may have been affected by the need to circumvent the southern Caucasus in a desire to ensure a flow of metals from north to south, which had started before the end of the Uruk period. Strengthening of the links with the agents of this northern circuit after the withdrawal of Late Uruk involvement from sites such as Arslantepe and Başur Höyük was also accompanied by the transmission southward of ideas and conceptions of social order, leading to radical changes in forms of power and strategies of legitimation, particularly the conspicuous consumption of metals that is apparent for a brief period in the funerary record of these sites.

Elisabetta Borgna (Ch. 4) likewise discusses the effects of far-flung connections in metal, particularly bronze, movements, this time in the Mediterranean world towards the end of the Late Bronze Age. She suggests that an increase in involvement with East Mediterranean market economies from the 13th century BC onwards led to changes in the social and ideological values accorded to bronze products in the central Mediterranean, leading to their commoditisation as above all repositories of metal, particularly tin bronze, which independent eastern Mediterranean bronze-workers prized particularly for the tin they contained, some of it possibly originating ultimately in the Atlantic regions or in central Europe. This resulted in the formation

of an international metal *koine* of types that came to span the entire Mediterranean. In the course of this process, the high mobility of a range of craftsmen, traders and 'adventurers' of different international origins also led to the sharing of value systems. In Chapter 4 Borgna pays special attention to certain objects, such as swords and winged axes, which seem to have represented particular symbols of value in different interlocking spheres of metal circulation, with swords related particularly to Aegean and Mediterranean circuits and axes to those of the Alpine regions. Yet both are found together in hoard contexts in both Italy and Greece, suggesting the intermingling of once separate systems of values that were now reaching wider regions as a result of the increasing activities of an entrepreneurial band of interacting mobile actors.

The changing social, economic, cultural and symbolic values of metals

The chapters in this volume cover a variety of aspects of the roles of different metals over a long period (from the 4th to early 1st millennium BC) and ranging over a wide area including Anatolia, the Levant, Cyprus, the Aegean and the central Mediterranean. They touch on the parts played by different metals – iron, gold, silver, and copper and various copper alloys – in cultural, social, economic and symbolic contexts in different societies, and the ways in which these contexts and the roles of individual metals may have changed over time. Different metals and metal alloys have different physical properties, including visual appearance (most often colour), hardness, methods of working and degrees of rarity in the ground, which in various ways probably help to explain the order in which they were taken up and given prominence through a variety of different and often changing uses in the western Old World as a whole. They were implicated in different, but often overlapping, routes of procurement and spheres of circulation, some of them over surprisingly long distances and sometimes involving different types of society with different attitudes to metals. Mesopotamians from the 4th millennium onwards were willing to go as far as north-central Anatolia and even the north Caucasus in search of various metals, including silver, copper and copper alloys (Massimino, Ch. 7); Old Assyrian merchants from Assur set up a *karum* network based in central Anatolia in the early 2nd millennium in order to obtain silver and other metals (Dercksen 1996; Veenhof 1997); and by the 9th century BC Phoenicians were travelling as far as south-west Spain to acquire silver (González de Canales, Serrano and Llompart 2006). In such cases, it seems likely that, despite the distances involved, disparities in the economic values placed on the various metals between the inhabitants of such far-flung regions and those who sought to acquire them meant effectively lower exchange costs for the latter.

Despite their frequent low visibility in the purely archaeological record, for reasons suggested below and because of the corrosive effects that some of them were subject to in the ground, it is clear from other perspectives that, from the end of the Neolithic, metals really did 'make the world go round', as their procurement and circulation amongst different individuals and groups generated large-scale systems

of movement and interaction. Texts, from the Uruk period onwards in the Near East, Egypt and Anatolia are full of them, and metals such as copper (or bronze) and gold also make an appearance in the Aegean Linear B texts of the Late Bronze Age. Furthermore, it is clear that there are plentiful surrogates in the form of revealing skeuomorphs found in various ceramic wares in different regions at different times (see *e.g.* Wilkinson 2012; 2014: 201–22; this volume, Ch. 1; Philip and Rehren 1996; Nakou 2007), which testify to how large they loomed in the visual aesthetic and social backdrop of some societies.

The economic, cultural and symbolic values of different metals in different societies over time were all closely intertwined, determined partly by relative degrees of accessibility or rarity, partly by their individual properties and elite choices and sometimes even symbolic manipulation. In general, metal objects started off as a means of individual display, for example in the form of jewellery, and as prestige items for exchange, which is perhaps why, as copper became more commonplace, other metals, such as gold and silver and a variety of experimental copper alloys, came on the scene to provide some visibly striking colour variations in the available repertoire. Some metals (like copper and iron) found more utilitarian uses in the form of functional artefacts like weapons and tools, eventually becoming the successive 'base' metals of the ancient world. Others, like gold and silver, less obviously useful for transforming the physical world, found other uses as vehicles for social signalling, differentiation and wealth accumulation, either personal or institutional and, in Egypt and the Near East particularly, as standards of exchange and means of payment of tribute, loan interest, fines and for relatively large transactions. The extension of this, especially in the case of *hacksilber*, to payments of a smaller, more everyday nature (though copper was also used for these) foreshadowed the introduction of coinage, for a complex variety of reasons, in the western Anatolian/Aegean region at the end of the 7th and in the 6th century BC.

The literal as well as metaphorical liquidity of metals (with the exception, for the most part, of iron, which in the periods we are concerned with could not be melted and cast but had to be forged) is thus a very important property, particularly when it comes to economic and social values. It is endemic in the entire history of metal use and is indeed what distinguishes metals from other materials of restricted occurrence whose lack of convertibility means that they cannot cross cultural boundaries so easily. It is why they are ideal materials for long-term capital accumulation and rapid transfer, and therefore often perceived as powerful and even potentially dangerous. It is why the development of weight metrology took place from the end of the 4th millennium in Mesopotamia and Egypt in connection with metals, perhaps particularly silver and gold, and spread very widely during the 3rd millennium (Rahmstorf 2011: 67–79; 2015: 164–6). It also explains their frequent archaeological, as opposed to in some cases textual, low visibility unless deliberately deposited in the ground in circumstances in which it was more socially, politically or ideologically advantageous for their owners to deploy them in this way, for example in funerary assemblages

designed to impress (see Legarra Herrero, Ch. 2; Massimino, Ch. 7) or, later, in hoards which could act as repositories of re-usable metal (Borgna, Ch. 4). Otherwise, metal objects tended to be kept in circulation or recycled. In the 4th millennium, a trajectory towards the commoditisation of metal was confined to individual objects, sometimes in the form of what we might putatively recognise as mini-ingots, that could be exchanged as they were (as is the case with north Caucasian artefacts found in south-east Anatolian graves around 3000 BC: Massimino, Ch. 7), recycled or refashioned into other versions of the same or something smaller. During the 3rd and 2nd millennia it is possible to see the increasingly bulk exchange of metals, particularly silver, copper and tin, in the form of larger and more internationally standardised ingots designed primarily for transfer between elite centres. The increase in circulation, towards the end of the Bronze Age, of ready alloyed bronze in scrap form in a number of Mediterranean regions or of *hacksilber* in the East Mediterranean, as a result of a net increase of these metals entering the system at increasingly diverse social levels, marks an ultimate stage in the commoditisation of metals, still familiar today (Borgna, Ch. 4; Sherratt, Ch. 3).

Metals and metal objects also acquired various symbolic connotations. Gold in Egypt was particularly associated with the personal status and patronage of the pharaohs (Legarra Herrero, Ch. 2). At Ebla in Greater Mesopotamia silver was dedicated to gods in the form of silver heads for their statues (Archi 1996), and the beginning of a association between silver and vessels for elite wine drinking can already be seen in the Levant in the later 4th millennium (Philip and Rehren 1996). Bronze Age iron, whether of meteoritic origin or not, was characterised variously in Egyptian and Akkadian texts as 'iron of heaven' or 'precious metal of the sky', which may have helped not only to emphasise the idea of iron (whether of meteoritic origin or not) as a rare and exotic material but also to fence it firmly within the province of gods and theocratic rulers who were thus more able to claim a monopoly of its use and circulation until, towards the end of the 2nd millennium, its rising availability and popularity seems to have been able to bust through these symbolic inhibitions (Pare, Ch. 6; Palermo, Ch. 5).

This volume, as suggested above, does not dwell much on detailed scientific studies of trace element analysis or provenance determination of metals and metal objects, in the Aegean or elsewhere. Plenty of publications focus on such aspects, with some making a determined effort to integrate them with archaeological theory (*e.g.* recently Armada, Murillo-Barroso and Charlton 2018); while not entirely absent, these play a relatively small, though occasionally important, part in the chapters presented here. Instead, we have tried not only to give room to a wide range of metals and a diversity of metal-related questions, including changing patterns of circulation and use and the ability of these to interact with and alter the values and activities – interlocking economic, social and cultural – of early Aegean societies and their neighbours.

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