REVIEW ARTICLE

The origins of money in Ancient Greece: the political economy of coinage and exchange

Mark S. Peacock*


Recent work on Ancient Greece sheds light on the origins of money and its effects on economy and society. This review essay analyses such work and relates it to themes familiar to economists. It examines monetary functions in the heroic world and the effects of introducing coinage in Classical Athens. It attends to the role of the state in the development of money and to the form which money took. It also considers the role of money in the administration of justice. In conclusion, the author asks whether money in the Near East pre-dates Greek money.

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He who thus considers things in their first growth and origin ... will obtain the clearest view of them. (Aristotle, Politics, 1252a24–25)

In this essay, I bring to the attention of economists recent work by classical scholars on the origins, uses and influence of money in Ancient Greece.¹ When one examines societies, like those of the Ancient world, whose self-understanding is not mirrored in the conceptual categories with which we think, hermeneutic problems abound. These have been discussed at length under the heading ‘primitivist versus modernist approaches’. The authors whose...
works I discuss do not become unduly entangled in such debates, yet each is careful, when applying concepts, to do so reflectively and with an eye to the interpretative horizons which come into contact when we study Ancient Greece. An ‘encounter’ with such a society and the conceptual friction which this causes brings our own conceptual categories and their specificity into focus. An encounter with Ancient Greece is always an exercise in self-understanding and an occasion for self-reflection on the part of those who conduct the study.

The work under discussion here contrasts with an approach to the origins of money which I call the ‘orthodox view’. According to this approach, money develops from barter, and it functions primarily as a medium of exchange. In Section 1, I expound Carl Menger’s version of the orthodox view and contrast it with concepts of money found in discussions of Ancient Greece. Regarding the latter, I argue for the importance of including debt, the state and ‘fiduciarity’ in a concept of money. In Section 2, I examine monetary functions in Homeric epic. The period which forms the backdrop to the epics is without coinage. This contrasts with the Classical Period in which coinage was introduced to Greece and which I examine in Section 3. I detail the state’s role in the development of coinage in the Classical Period and the economic implications which it had. In Section 4, I look more closely at the state–money relationship and describe the role of money in the state’s administration of justice. I close by examining pre-Greek money in the Near East and ask whether the Near East developed money prior to the Greeks.

1. Definitions and preliminaries

When writing on the origins of money, one is obliged to say what one means by the term. This task is typically carried out by economists with the help of a list of four functions: unit of account, means of payment, store of value and medium of exchange. These functions are accounted for in Carl Menger’s (1909) theory of the origins of money, the most eloquent exposition of the orthodox view. For Menger, money emerges in the process of commodity exchange or barter. Commodities have varying currency in market trade (Marktgängigkeit). A trader selling a commodity of great currency finds it easier to acquire another commodity via barter than a trader selling a commodity of lesser currency. Consequently, those possessing commodities of low currency for sale sell these for commodities of higher currency even if they do not desire to own the latter commodities as objects of consumption. The reason for this is that possession of commodities of higher currency increases the likelihood that one will be able to acquire goods for final consumption; thus, through a series of exchange steps, a trader can sell commodities of less, and buy those of more, currency until he/she possesses the commodity of highest currency which allows him/her, with relative ease, to acquire commodities he/she wishes to consume (Menger, 1909, pp. 8–9). In this process, one commodity (that of highest currency) becomes the prevailing medium of exchange or ‘money’. Money is first and foremost a medium of exchange, and it develops in the exchange process. Other functions of money derive from its function as a medium of exchange. Here, I look at Menger’s treatment of two: means of payment and unit of account.

Menger adverts to ‘one-sided’, that is, non-exchange, payments, e.g., gift giving and tribute or tax payments, which, in pre-monetary societies, are discharged through payments in kind. This is inconvenient when the payer does not possess the good, e.g., grain, desired by the payee who imposes the obligation to pay. Consequently, alternative means of payment were specified by the payee to ease payment. With the development of
monetary exchange conducted by a single medium, payment is further eased: the payee
prefers to receive payment in money (for it gives him command over a range of
commodities on the market) and the payer, too, prefers to pay in money because he/she
will already hold his/her ‘circulating capital’ in money and hence be able to use money to
pay his/her obligations without first having to convert it into a different means of payment.
So as soon as money (that is, a universal medium of exchange) exists, it will automatically
be used as a means of making one-sided payment. Consequently, it is superfluous to
ascribe to money the function of a means of payment in addition to its function as
a medium of exchange; the latter function subsumes the former (Menger, 1909, pp. 47–9,
52–3). The second monetary function of relevance is a unit of account. Menger’s starting
point for analysing this function is again the one-sided (non-exchange) payments just
mentioned. Prior to the universality of money prices, Menger argues, certain goods were
valued in terms of others so that those people making obligatory payments in kind could
choose between certain means of payment. If a payment was specified as 100 pounds of
grain, but the payer did not have grain to discharge the payment, he/she could pay using
a different means of payment, e.g., wax, and ascertain the wax equivalent of 100 pounds of
grain by consulting the given value relation between the two. Menger does not ask how
such value relations arise (see Section 5 below) but avers that such relations exist only for
a very narrow range of goods and hence have little significance for the development of
money. Once again, the development of monetary exchange changes the situation: once
money prices exist, valuation becomes a simple matter, for everything which is regularly
bought and sold can be valued according to its money price. Thus the universal medium of
exchange serves as the basis of the unit of account (Menger, 1909, pp. 67–9). As we shall
see below, historical evidence does not always confirm Menger’s opinion. Perhaps for this
reason, the authors whose work I discuss here develop a concept of money different from
Menger’s.

Richard Seaford offers a conceptual analysis of money of which three elements are
particularly noteworthy. First, money has ‘the power to meet social obligation’ (be it in
exchange or other payment, e.g., in compensation or reward) (Seaford, Money and the
Early Greek Mind (MEGM), pp. 16–17). Money is thus immediately related to debt
(obligation) (cf., Innes, 1914). Second, Seaford includes ‘fiduciarity’ in his definition
(MEGM, pp. 7, 19): money is fiduciary if its conventional value is greater than its intrinsic
value (as is familiar from modern paper money). This cleft between conventional and
intrinsic value is something we take so much for granted that it appears trivial; that it was
not so for the Greeks is something I make clear in Section 4. Finally, Seaford includes
explicit reference to the state in his concept of money. Whether the state be the issuer or
guarantor of money, or the enforcer of its acceptability, it is never far from discussions of
money in Ancient Greece. These three elements of the concept of money (debt, fiduciarity,
state) can be related as follows. A central authority (state) can impose debts (taxes, tribute)
on the subjects over whom it rules. The state denominates these debts using a unit of
account (e.g., ounces of silver) so that tax obligations are quantitatively specified. It
further specifies the thing(s) to be used by subjects making tax payments; this might be the
substance which forms the basis of the unit of account (silver), in which case, the thing
performing the functions of unit of account and means of payment is the same; the means
of payment can, however, be something different (e.g., wheat, paper money tokens). By
naming the means of paying taxes, the state endows it with value. When the means of
payment is a commodity with intrinsic worth, e.g., silver or wheat, its value as a means of
paying taxes can exceed its value as a commodity. This is the root of fiduciarity, a condition
for which is that the means of payment is not merely a commodity. The means of payment need not, however, be a commodity at all; if it is not a commodity (either because market trade and hence commodity prices are scarcely developed or because the means of payment has no intrinsic value but is a mere token of debt), it will acquire value as a result of its role in payment: taxpayers must acquire the means of payment, and its issuer (the state) dictates the terms on which people may do so. Once again, it is fiduciary in nature. In both cases (both where the means of payment is a commodity prior to its being declared the means of payment and where it is not), the thing nominated as the means of payment becomes monetised.

The sketch in the previous paragraph is no more than that, but it provides a framework for understanding monetary development in Ancient Greece. It concords with what is known as the ‘chartalist theory of money’ (see Wray, 1998, ch. 3; 2004) and is also consistent with the historical evidence; yet, as we shall see, Ancient Greece provides us with many peculiarities which are not captured by a broad sketch like that of the foregoing paragraph.

2. Money and exchange in Homeric epic

The *Iliad* and the *Odyssey* are the most important literary sources from the Archaic Period (approximately 800–500 BC). That the text is not a conventional historical source raises questions about its suitability as a document. Classicists are partly forced to use Homer’s epics, for there is no other source that combines their length and provenance. Yet using Homer is more than a mere embarrassment of necessity; by attending to elements of the texts which are not at the forefront of the narrative, one gains an appreciation of those factors which Homer took for granted. Monetary functions and exchange are cases in point; they are not remarkable enough to be subject to undue poetic licence and are unlikely to be mere inventions of the poet to provide background embellishment. The poems ‘describe more or less clear social institutions and values’ and contain nothing to have been contradicted by archaeological evidence (Tandy, 1997, pp. 8, 72). Many institutions and practices are consistent with anthropological evidence from other societies (Finley, 1978, p. 145). Finley (1978) reconstructed the Homeric world, although he warned against a simple ‘historicisation’ of the texts. Recent work continues that endeavour. Opinion is divided as to dating the world of Homer: the battle of Troy (if such took place at all) may have been around 1200 BC; Homer himself (or ‘themselves’, for there was possibly more than one author of the epics) probably wrote in the eighth century, perhaps later; the social institutions that form the backdrop of the epics fall between these dates (Tandy, 1997, p. 9).

Certain functions of money are present in Homeric society, e.g., cattle function as a standard of value (e.g., *Il.*, VI.236; *Od.*, I.429–32). Why do cattle assume this role? Seaford draws on Bernard Laum’s (still influential) argument that sacrificial practices using cattle already involved quantitative precision (in the number of animals to be sacrificed) and qualitative standardisation of the animals; hence the familiarity with cattle in this domain was transferred to that of valuation in general (Laum, 1924, pp. 14–19; MEGM, pp. 60–1; cf., Schaps, *The Invention of Coinage (IC)*, pp. 9–10). However, cattle are not used in payment, and they are used to value things in contexts which suggest neither payment nor exchange, e.g., when each gold tassel of Athena’s aegis is said to be worth 100 oxen (*Il.*, II.448–9; *IC*, p. 28). Menger mentions the role of cattle in Homer. He avers that trade (Tauschhandel) was well developed in Homeric Greece and that cattle must have been

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1 I use the abbreviations *Il.* for Homer’s *Iliad* and *Od.* for *The Odyssey.*
the preferred objects of acquisition in exchange for ‘substantial (or beauteous) objects of wealth’ (ansehnliche Vermögensstücke). To assess Menger’s interpretation, we must examine ‘exchange’ in Homer and distinguish two types: gift exchange and trade.

Gifts are given for various reasons, e.g., as a sign of hospitality and as rewards. The point of giving gifts is not to receive a gift of equal (or more) value in return, but to create or express lasting reciprocal relations of obligation (MEGM, p. 196). Gifts are ‘prestige goods’ which are often uniquely associated with the giver. As Schaps says of the list of gifts that Agamemnon offers to Achilles in return for taking the latter’s bride-to-be, the array of gifts is dissimilar to a very large quantity of money because the ‘dollars with which we pay each other for insults and damages are interchangeable: one dollar is like another’ (IC, pp. 65–7; cf., MEGM, p. 92). Not only is one dollar like another; it can circulate in exchange with an (almost) unlimited number of objects (commodities). Gifts are different: their ‘sphere of exchange’ is particular; they do not mingle with non-prestige objects in exchange, for this would involve them in another type of exchange, namely trade, which served other purposes.

One undertakes trade in order to acquire useful objects that are otherwise not procurable. An example is the goddess Athena who, disguised as Mentes, tells Telemachus that she is sailing to foreign lands to acquire bronze in exchange for iron (Od., I.182–4). When trade occurs, it is presumably barter, for no generalised medium of exchange is mentioned. Cattle serve as a medium of exchange in one passage, but they do so alongside other exchange objects (bronze, iron, hides, slaves) and Homer ascribes cattle no special significance vis-à-vis these other goods in their use in trade (Il., VII. 473–5). Trade is strictly separate from the sphere of gifts that are neither traded nor converted into useful objects of consumption. Gifts seem to remain stored until their possessor has occasion to make them circulate again as gifts (MEGM, p. 196). A number of authors theorise the distinction between gift-giving and trade with the help of Bloch and Parry’s (1989) concept of ‘transactional orders’ (MEGM, pp. 13–14; von Reden, Exchange in Ancient Greece (EAG), pp. 3–4; cf., Kurke, 1999, pp. 14–15). Gift-giving belongs to the sphere of long-term transactions in which the social or cosmic order is reproduced, while trade belongs to the sphere of short-term transactions in which people pursue their own gain. Schaps (IC, pp. 74–5) distinguishes trade from ‘commerce’, the goal of which is profit. Homer makes it clear that commerce is an unworthy activity and that seeking profit is demeaning for a hero; Odysseus, for example, takes umbrage at being taken for a trader by the Phaeacian Euryalus (Od., VIII.159–65). Homer’s antipathy to trade for profit is part of a heroic Weltanschauung, which holds that an increase in the value of one’s goods, if effected through trade, implies unequal exchange and hence fraud; the trader accomplishes the deceit by attending pedantically to his profit margins; such a niggardly attitude is unworthy of a hero (IC, pp. 75, 177).

Let us return to Menger. He seems to hold that ‘trade’ was well developed in Homeric Greece and that cattle were the preferred object of acquisition in exchange for ‘ansehnliche Vermögensstücke’ in order to explain the use of cattle as a means of valuation. He is led by the thought that money’s use in exchange leads to its use as a measure of value (see Section 1 above). The evidence for this statement is thin, as I indicated in the previous paragraph. Independently of this, we must ask what Menger means by ‘ansehnliche Vermögensstücke’. If he is referring to prestige objects, his observation is false, for they circulated in their own sphere of exchange as gifts and were not exchanged for cattle. If, on the other hand, ansehnliche Vermögensstücke refers to non-gift objects of use (a less plausible interpretation of the term), Menger wrongly ascribes cattle a significance in trade which they did not
have. But if trade did not involve cattle on a regular basis, Menger’s presupposition for the use of cattle as a standard of value is lacking.

In sum, the Homeric world has no money-thing, that is, an object which answers to the description of money. Certain things perform certain functions, e.g., cattle (standard of value) and prestige objects (store of value) but neither performs the role of means of exchange or payment. Only in the Classical Period does a money-thing, coinage, come into existence. Let us turn to this development.

3. Coinage: the Classical Period

There are many hypotheses about the use of early coinage in the Ancient world. Kraay (1964) observed that the earliest issues of coinage tended to remain in their place of issue, indicating that they were not used in external trade. Furthermore, denominations were not small enough to be of use in everyday transactions. Rather than being issued for trade, coins, Kraay (1964, pp. 89–90) argues, were issued by states for the making and receiving of payments. By stipulating that payments be made in its coin within its jurisdiction, the state could (a) be sure about the quality of the coins it received in payment and (b) reap the profits of seigniorage. Recent numismatic evidence urges reconsideration of Kraay’s thesis, for coins of small denomination were more common than Kraay thought, small enough to be used in day-to-day trade (Kim, 2001, pp. 12–13; 2002).¹ On the other hand, Kraay’s findings remain confirmed in some cases, e.g., for the coinage of Rhodes from the fourth to the second century BC (Ashton, 2001, p. 96). Whatever the original purpose of coin, the state’s role in the development of coinage is undisputed (e.g., Osborne, 1996, p. 256; Wallace, 1987). Coinage was not an endogenous development of the economic sphere, as Menger held, nor was it created merely in order to facilitate trade which had existed thousands of years before money and was in no need of facilitation.

Seaford presents the use of coin in circulation in the form of a conundrum (MEGM, p. 7): once coin circulates, its continued validity can be sustained by the confidence its users have that it will maintain its validity. But how does this confidence arise? The question is particularly pressing in the light of one characteristic of Greek coinage which it shares with ‘modern money’, namely its ‘fiduciarity’ (MEGM, p. 126). How did the Greeks come to use as money a medium which had a conventional value higher than its intrinsic value? Economists are aware of the problem of explaining the transition to a monetised economy. Ostroy (1989, p. 189) notes that the properties of money often listed by economists (portability, divisibility, durability, etc.) are properties of objects which have already become media of exchange but go no way to explaining why something has been adopted as a medium of exchange. Tullock (1975, p. 491) states Seaford’s conundrum thus: ‘The reason I want money is because I realize that many other people want it, and hence it is readily exchangeable for other things I want. Its wide acceptability, paradoxically, depends upon its wide acceptability.’ Both Tullock and Ostroy betray their economic heritage by focusing on money’s medium of exchange function. As I suggest below, this function may have been taken on by a medium which initially performed other monetary functions. Nevertheless, they advert to an important question which historical research can help answer. Consider how the authors whose work is under consideration tackle the issue.

¹ Sufficiently small in denomination but perhaps too small in dimension to be practical for trade (JC, p. 97)—the smallest weighing 0.1 g (compared with 2.3 g for a modern one Eurocent). Most small denominations were, however, larger—between 0.25 g and 1 g (Kim, 2001, p. 12).
Schaps, like Seaford, addresses the issue of confidence. He challenges Kraay’s thesis by asking why those providing services to the state would ‘be willing to be paid in a small piece of metal that would be useful to them only insofar as they could give it back to the government that gave it?’ (IC, p. 98). An answer is already contained in Kraay: if those paid in coin, in turn, had to make payments to the government, and if the latter demanded that it be paid in its own coin, then those small pieces of metal would acquire conventional value; by making coin legal tender, the state gives it value. As it stands, this explanation is too simplistic, but it offers a flavour of many theses concerning the development of money in the Ancient world.

Both theory and contemporary experience suggest that objects (coins and paper) can function as money even if they possess no intrinsic value. Alternatively, money-objects can be non-fiduciary if they are valued in accordance with their intrinsic value (although if money-objects circulate at their intrinsic value, we might be dealing with a form of barter rather than monetary intercourse—see Wray, 2004, p. 253). The Greeks used coins which had intrinsic (silver) value, but their conventional value was greater than their intrinsic value.1 Evidence of this ‘fiduciarity’ of Greek coin includes:

1. that it was rarely melted down to create bullion (such a change of form would have meant a loss in conventional value);
2. that it circulated at its bullion value only outside Greece, that is, outside the jurisdiction of the states whose authority conferred coin with fiduciary value (MEGM, pp. 145–6).

Fiduciarity meant that, within its own jurisdiction, coins were not weighed, they were counted (MEGM, pp. 126, 144). Was there anything particular about coin which engendered the confidence necessary for fiduciary coinage? What distinguishes Greek coinage from bullion is that, like today’s money, its issuer, the state, stamped it. A stamp may originally have been nothing more than a mark of ownership on the part of the issuer (EAG, p. 178; IC, p. 91); yet the state’s stamp served as a sign of coin’s ‘redeemability’ (MEGM, p. 136): the state would accept coin in payments to itself. Acceptability became enshrined in law, not merely conditionally but mandatorily: not only would the state accept payment in coin; such payments had to be made in coin, as testified, for example, in an Athenian currency decree of the late fourth-century BC (MEGM, pp. 140–2). This ‘politically conferred’ acceptability, argues Seaford, set a ‘self-generating dynamic’ into motion:

because something reaches a degree of acceptability as payment it becomes more and more generally acceptable. The dynamic is likely to require the authoritative guarantee of value and redeemability that only a state is able to provide; and indeed coinage was almost always issued by a state. (MEGM, pp. 134–5)

So who was making payments in coin and why?

Of the payments to the state, Kraay (1964, p. 89) mentions harbour dues, fines and taxes. The state, of course, also made payments—on public infrastructure, public festivals and sacrifices (Martin, 1996) and also on the Athenian fleet (Osborne, 1991, pp. 130–1).

1 The earliest (known) electrum coins of the sixth and seventh centuries (struck in Lydia) were also fiduciary (Price, 1983, p. 5; Wallace, 1987, p. 393). Kurke (1999, p. 300) seemingly contests that Greek coin was fiduciary when she writes that the Greeks only ‘occasionally resorted to fiduciary coinage’. Yet by ‘fiduciary’, she obviously means money with no intrinsic worth rather than that which has greater conventional than intrinsic value. Her use of ‘fiduciary’ is thus distinct from Seaford’s.
Military service and jury pay also accounted for the state’s outgoings (Trevett, 2001, p. 24). Other payments by citizens included benefactions to the community (liturgies) expected of wealthy citizens (Littman, 1988, pp. 800–2; Martin, 1996, pp. 264–7). These were not paid to the state, yet those making them had to do so in coin. How did they acquire this coin? There were two sources:

1. the issuer of coin, the state (in return for services rendered to it, e.g., magisterial or jury service), or
2. other individuals who possessed excess coinage.

Wealthy citizens who owned land around the polis made use of the second source. That is, they sold agricultural produce from their land in order to raise the money to make payments to the state: ‘if the cash demands of the Athenian rich were met largely from agriculture then it seems inevitable that they were committed very heavily indeed to market transactions’ (Osborne, 1991, p. 134; cf., IC, pp. 172–3).

Coin thus circulated in the true sense of the word: it emanated from the state, its issuer, flowed to citizens, soldiers and public employees through payments made by the state, whereupon it flowed back to the state in the form of fines and taxes. But coin also circulated among citizens, from those in possession of coin but without an obligation to pay it to the state, to those with such obligations but without enough coin to fulfil them. This circulation among individuals stimulated (indeed necessitated) market exchange. This way of putting the matter is reminiscent of the ‘Hopkins model’ of taxation posited in the context of the Roman Empire (Hopkins, 1978, 1995/6): if taxes were to be paid in coin, taxpayers had to acquire the coin with which to pay and they did so by selling goods and services; having paid their taxes, they had to sell yet more goods and services to buy back the coin with which to pay taxes the next time they were due (Hopkins, 1995/6, p. 209). Imposing money taxes, then, was a means by which the state monetised the economy. Similar processes of monetisation have been described in the Middle Ages and in colonised territories of the Modern Period: when states or colonial powers insisted that the peasantry pay its taxes in money, they forced the peasantry out of self-sufficiency and into the market to sell crops to acquire the money to pay the taxes (see Forstater, 2005; Goodhart, 1998, p. 8; Peacock, 2003/4, p. 210). In Athens, it was not peasants but wealthy landowners who bore the burden of liturgies to be paid in coin, and hence it was they who were forced into monetised market exchange. One cannot conclude that the state made and demanded payment in coin in order to monetise the economy, for the goals of those who first stamped coin are unclear, and the consequences of coin may well have run far beyond the intentions of its issuers. Yet, whether or not it was intended, the effect of fiscal policy on the ‘economy’ was decisive.

4. Money and the development of the polis

As becomes clear from the foregoing, one cannot comprehend the development of money in Ancient Greece without considering the state. Yet, to aver that money be a ‘creature of the state’ (Knapp, 1905, p. 1; Lerner, 1947) would mislead, for this would imply that an already existing body, the state, created a new phenomenon, money. But the period we are considering saw the development not only of money, but also of political institutions, which subsequently became ‘the state’ (EAG, p. 177). The Homeric world was a stateless world: ‘leadership in Homer tends to remain largely personal rather than institutional.
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There is no royal officialdom, taxation, judicial function, or legitimate monopoly of coercion or power (Seaford, 1994, p. 22). The history of the path from the Homeric world to that of Classical Athens can be told as the history of the development of the city-state (polis) and its political institutions; and just as the developing state had an important role in the development of money, so did the development of money play a part in the development of the state.

One function the polis, like subsequent states, came to assume was the administration and execution of justice. In Homer, justice is a familial matter: felonies are relicted either with revenge by the aggrieved party/family (and its allies) or with compensation paid by the tortfeasor. Justice is therefore a ‘private’ resolution of conflict between individuals, not between individuals and ‘the law’; indeed, there is no notion in Homer that a felony could be an offence against ‘the public’ or a transgression of ‘criminal law’ (Finley, 1978, p. 77). Solon’s laws of the early sixth century BC are a clear testimony to the development of the ‘public’: for each offence, they specify both compensation to injured parties and fines to be paid to the representative of the ‘public’, ‘the state’. Compensation is specified numerically (expressed in drachmas which are likely to refer to weights of silver rather than numbers of coin (IC, p. 238; MEGM, pp. 90–3; Kroll, 1998, pp. 225–6)). The amount specified does not vary according to the status of the injured party or the victim, something which marks an idea of equality absent from Homer. Conflict is thus ‘depersonalised’ (MEGM, p. 195).

It is in such ‘rationalisation’ of law that Grierson (1977) finds the origins of money; he holds that the primary function of money is a standard of value and the origins of such a standard are found in early penal law in which compensation payments for various felonies are quantitatively set. Unlike Seaford, Grierson looks not to Solonic law but to the archaic institution of wergeld for such compensation schedules. Unlike Grierson, Seaford suggests that the use of silver bullion in commodity exchange was perhaps a prerequisite of the use of silver to denominate legal payments. Seaford mentions Solon’s public treasury which listed incomings and outgoings (for things like fines, rewards, expenditure on sacrificial animals) in amounts of silver, and ‘the notion of precise monetary equivalences in silver for various offences was made possible, or at least encouraged, by the widespread existence of precise monetary equivalents (in silver) for commodities’ (MEGM, pp. 195–6). This would imply that silver was used as a standard of value in commodity exchange prior to its use in denominating payment in legal contexts and would support Menger’s account of the development of a monetary standard of value. This is the opposite temporal order to that suggested by Grierson in his analysis of wergeld: for Grierson, a unit of account arises first as a legal category for denominating compensation payments.

Monetary equivalents in compensation payments were important for assuring peace in the polis; for only if the punishments set down in law were deemed fair would individuals cede familial retribution (the self-administration of justice) to political authorities (MEGM, pp. 91, 195). The development of both money and political institutions in Ancient Greece marks a shift in the regulation of reciprocal interactions between individuals: the two pillars of Homeric reciprocity—gift-exchange and private revenge/retaliation/compensation for felonies committed against one or one’s family—are superseded, respectively, by market exchange mediated by the state’s coin and judicial decision (put into force through the payment of fines in the state’s coin) (Seaford, 1994, p. 204). Seaford expresses this transition in terms of the polis wresting power from the family as the unit for administering justice (ibid., p. 210). If the polis was to regulate interactions between its citizens in a just manner, it needed a medium through which to effect this regulation. The medium was coinage.
To understand the role of coin in the development of the polis, it is interesting to consider the etymology of the Greek *nomisma* (money/currency). The word is related to *nomos* (custom/law/convention), to *nemo* (to distribute) and to *nomisdein* (‘to acknowledge’ (by belief or practice)) (*MEGM*, pp. 142–3; *EAG*, p. 177). Etymologically, *nomisma* is ‘the process or the result of lawful distribution’ (Kurke, 1999, p. 14). In the *Nicomachean Ethics* (fourth century bc), Aristotle draws attention to this etymology: ‘currency has become a sort of pledge of need, by convention; in fact it has its name (*nomisma*) because it is not of nature, but by the current law (*nomos*)’ (*NE*, 1133a29–33). Being ‘by the current law’, *nomisma* was the legally sanctioned means of distribution, but being only a ‘convention’, i.e., humanly created (*nomos*), it could be seen as not only changeable but also arbitrary (cf., Kurke, 1999, pp. 45–6, 333). Indeed, Aristotle continues the passage just quoted thus: ‘it is within our power to alter it and to make it useless’; and he notes the opinion that coined money be a ‘mere sham, a thing not natural, but conventional only’ (*Politics*, 1257b11–12). Despite its dubious status, *nomisma* is necessary, Aristotle argues, because it makes things commensurate ‘in relation to our needs’, and need is the bond which holds the community together (*NE*, 1133b). In short, without *nomisma*, one cannot ensure equality in exchange and, without the latter, the resulting distribution cannot be just.

The context of Aristotle’s discussion of *nomisma* makes it clear that the concept ‘exchange’ is not limited to market exchange but encompasses all ‘social interaction’ between citizens in the polis (*EAG*, p. 185); it covers all spheres to which justice is to apply. These spheres include not only penal law (as in Solon’s laws) but also liturgical payments by wealthy citizens to the polis. As we saw at the end of Section 3, wealthy citizens had to sell agricultural produce in the market to acquire the coin with which to make liturgical payments. This was not a purely ‘economic’ transaction but was one through which the wealthy fulfilled their obligations to the polis; if they did not do so, they would have been acting unjustly (Osborne, 1991, p. 140). Yet *nomisma* was Janus-faced: it was necessary for justice in the polis, on the one hand, yet its unnaturalness allowed for developments which undermined the ethos of equality which underlay justice. To see why, we must return to Aristotle.

Of Aristotle’s two discussions on the origin of coinage, one (*Nicomachean Ethics*) focuses on exchange within one political community, while the other (*Politics*) considers money as a medium of exchange between states. The former discussion looks at money’s role in holding the community together, the latter in that of obtaining useful things from abroad. The latter discussion mentions money in the context of ‘household management’ which ‘must either find ready to hand, or itself provide, such things necessary, and useful for the community of the family or state’ (*Politics*, 1256b28–31). Wealth acquired in household management is naturally limited by the needs of the family or state. Exchange is legitimate if it is limited to the acquisition of necessities. Aristotle contrasts this mode of acquisition with another, unnatural, one—‘retail trade’—which has its origin in money. The goal of retail trade is not the provision of useful objects but the acquisition of money which, in principle, has no limit. The ‘most hated’ acquisition of money is through usury, because it not only serves the end of monetary enrichment but does so in its most direct form, without the intermediary of an object of exchange. The unlimited acquisition of coin could lead to large inequalities in wealth, something which put the justice of ‘exchange’ in the polis into question (*MEGM*, p. 197). This is why Aristotle warns against those who see wealth ‘to be only a quantity of coin’ (*Politics*, 1257b9); they ascribe coin a ‘value by nature’, whereas

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1 I use the abbreviation *NE* for Aristotle’s *Nicomachean Ethics*. 
what is valuable by nature is the life of the household and the polis, to which coin is of but instrumental value (EAG, 186).

It is in distrust of the unnaturalness of nomisma that we can locate the limits of fiduciability. I noted in Section 3 that Greek coinage was fiduciary—its intrinsic value was less than its conventional value. I remarked on the importance of the state’s stamp and guarantee of acceptability in sustaining this cleft between intrinsic and conventional value. Yet, fiduciability had limits: the silver content and purity of Greek coinage was crucial to its acceptability, for mere token money, even if it bore the state’s stamp, would have come too close to the ‘mere sham’ of convention which Aristotle describes for it to be acceptable. A sham could not have served as a means for the execution of justice and as the basis of exchange through which the political community was to cohere (IC, pp. 180–1; MEGM, pp. 144–6). Modern coinage is therefore distinct from its Ancient Greek counterpart, for it requires no precious metal content for its acceptability. Compare this with the chartalist theory outlined in Section 1, which holds that the state can nominate any object (even a token with no intrinsic value) to answer to the name of money. By so naming it, the state monetises that thing, and hence gives it value. Seaford argues that this was not the case for the Greeks (MEGM, p. 120). The substance of coinage (precious metal) was, like its form (its bearing a stamp), a necessary condition for its acceptability, but the stamp alone was not sufficient (cf., Kurke, 1999, pp. 300, 305).

5. Did the Greeks invent money?

In light of claims that money developed in the civilisations of the Near East (Mesopotamia, Egypt, Syria, Palestine) in the three millennia prior to the Greek Classical Period, I close this essay by asking: Did the Greeks invent money? Schaps and Seaford answer affirmatively, thus rejecting views that the Near East had money. One’s answer to the question depends on what one means by ‘money’.

Schaps works with a concept of money akin to our own (IC, p. 51): money, for him, must be a thing, a ‘physical object’, in which the four functions mentioned above (p. 638) ‘coalesce’ (IC, pp. 4, 15, 42). Seaford (MEGM, pp. 16–19) goes beyond these four functions and includes fiduciability in the concept of money; he also notes that money, to be money, must be both generally and exclusively acceptable in payment, exchange and valuation. Given Schaps’ and Seaford’s concepts of money, it is difficult to argue that money existed in the Near East. No coin was minted in the Near East and, although units of account and means of payment are well documented, often more than one thing performed a given monetary function. Silver was the main unit of account in Mesopotamia but cattle and barley also served the purpose of valuation; in Egypt, too, grain and copper served alongside silver as units of account (IC, p. 39; MEGM, pp. 324, 332). Silver thus fails to meet Seaford’s exclusivity criterion. Furthermore, payments denominated in a silver unit of account were not necessarily discharged in silver (IC, p. 45) and so Schaps’ requirement that a single object perform all monetary functions is not met. Lacking, too, in the Near East was money as an exclusive store of value. This is important for Schaps who sees no qualitative distinction between the silver which served monetary purposes and that which served as jewellery or utensils in the Near East. The Near East had not experienced a conceptual change apparent only later, in Classical Greece, namely that ‘money was wealth’ and indeed all there was to wealth (IC, pp. 16, 51, 54–6). In making his argument, Schaps attaches great importance to Aristotle’s observation that wealth is taken by many to be nothing but ‘a quantity of coin’ (Politics, 1257b8–9); no such statement from a Near
Eastern civilisation is known. Note, though, that a modern concept of money does not require that it be the sole store of wealth (Grierson, 1977, p. 15); it may be an important store of wealth, but so are real estate, jewellery and rare paintings. The question whether the latter count as wealth only to the extent that they can be converted into money or whether money is not wealth because it is only of instrumental value is today, as in Aristotle’s time, not a settled matter. Consequently, I would not ascribe the function of an exclusive store of wealth to money.

Schaps’ and Seaford’s observations on the Near East contrast with those of Henry (2004) and Hudson (2003, 2004), who hold the evidence from the Near East to support the chartalist account of money sketched at the end of Section 1. Henry and Hudson argue that the Near East had money and did so on account of using a silver unit of account. In Mesopotamia, temples denominated debts owed to them in silver; these debts were not taxes but repayments of loans and advances made by temples to merchants and peasants. It was not necessary that silver function as a means of payment because transactions were documented as accounting entries denominated in silver shekels; other products could be used to pay debts, each being assigned a price relative to silver by the temple. The value of silver was then maintained by the temple’s guarantee to accept payments in goods at the decreed price (Hudson, 2003, pp. 41, 48–9; 2004, pp. 107–15; Renger, 1989, 1998). These silver prices of other goods are the value relations to which Menger (1909, p. 68) refers when he describes one-sided payments in ‘pre-monetary’ societies. Menger does not explain that these values were administratively decreed and upheld by the temple’s (or other authority’s) guarantee to accept payments at the relative value ratios.

Disputes on ‘money’ in the Near East are partly a matter of definitional preference: if one insists on money being a stamped object which performs all functions of money, the Near East did not have money; if, as Hudson (2004, p. 123) holds, the ‘essence’ of money lies in its providing ‘a common denominator to co-measure prices’, the opposite conclusion follows. One does not have to disagree on the evidence to come to different conclusions, and I do not pursue the definitional point here. One substantive point is, however, of note, and it concerns market trade. Seaford noted the need for a unit (or units) of account to administer the flow of goods in a redistributive temple economy like those of the Near East. Yet, nothing in such a redistributive system qualifies as money. If we are to have money, he argues, there must be something which functions as generally accepted means of payment, medium of exchange and standard of value. Although trade does not require that some object perform these functions, the answer to the question whether the Near East had money, writes Seaford, is nevertheless connected to ‘the extent and nature of market trade and private enterprise (as opposed to administered trade and redistribution)’ (MEGM, p. 318). Seaford does not make the nature of this connection clear, but even if we accept a connection between trade and the need for a generally accepted means of exchange and payment as well as a standard of value, the extent of market trade in the Near East does not seem to have been large enough to have had an effect on monetisation. The two main economic forms of organisation in Mesopotamia were redistributive temple economies and small village communities based on subsistence farming. Transactions of the former were administered and undertaken in kind and, hence, like subsistence agriculture (though for different reasons), left little room or need for market exchange. To the extent that silver was used as a medium of exchange, its sphere of exchange was limited to ‘entrepreneurs’ who, from the beginning of the second millennium BC, entered into contractual business relations with the palace or temple (Renger, 1998, 295, 301). Subsistence farmers were more likely to have used barley as a means of acquiring goods.
they did not produce themselves, but such transactions might have been occasional and would not have involved the circulation of barley as a generally accepted medium of exchange (Renger, 1989, 1993, 1998, pp. 278–81, 294, 312–16). I can do no more justice to this material here but hope that adverting to it thus will make us guard against a tendency noted by Renger (1989, p. 242) when he surveys evidence on market trade in Mesopotamia: ‘All claims about the existence of market trade as a dominating factor in economic life are at present mere assumptions which are by their proponents raised to the rank of axioms.’ The study of Ancient history will not abolish this practice, but it might make us more wary in applying them to epochs and societies different from our own.

6. Conclusion: history matters

Innes (1914, p. 57) writes: ‘there is only one test to which monetary theories can be subjected, and which they must pass, and that is the test of history’. The books under review tell us much about what we can expect if we take the test of history seriously and give up forcing an a priori account of money onto our explanations of its nature and origin. This means that we must relinquish entrenched prejudices about money, particularly that it is an ‘economic’ phenomenon which arises spontaneously in the exchange process as a medium of exchange.

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