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WHY DID THE GREEK *POLIS* ORIGINALLY NEED COINS?

Why did the ancient Greek *polis* originally need coins? This question, so simple to pose and so difficult to answer, leads to more specific queries such as what practical purposes coins served in the *polis* and what messages they communicated either explicitly through their types and legends or implicitly by their very creation as products of the political community of the *polis*. In previous work in a related area of the intersection of Greek history and numismatics I concluded that assertions of a direct link between an abstract notion of sovereignty and what is sometimes today called the “right of coinage” are anachronistic when applied to classical Greece.¹ This earlier work concerned primarily the interruption or complete cessation of coining by classical-period Greek city-states that had traditionally minted their own coinages. Its conclusions were that the evidence did not support the idea that powers such as Philip II of Macedon in the fourth century B.C. or Athens in the fifth compelled their subjects or allies to cease minting coins as a demonstration of the latter’s lack of sovereignty compared to the former’s assertion of it and as a suppression of local coinage seen as a self-conscious symbol of a state’s political identity. Rather, I argued, financial pressures best explained interruptions and cessations in minting, as, for example, when a *polis* was too impoverished to secure a supply of silver or when the need for locally-minted coinage was obviated by the appearance in circulation of widely-accepted coinages produced by another mint.

This argument thus produced negative conclusions concerning what coinage was not for the *polis*, what it did not signify or symbolize in a political sense. In his stimulating re-examination of the consequences that the reign of Philip II of Macedon had on the coinage of Greek city-states, Olivier Picard points out the need to go further than I did originally and to think about the complementary side of the question: what did coinage represent in and for the *polis*, or, to put the question more abstractly, what was the political significance of Greek coinage?² He rightly emphasizes that coinage has “juridical aspects”

1 *Sovereignty and Coinage in Classical Greece* (Princeton 1985). For arguments from the perspective of a modern political scientist also rejecting the idea that the classical Greeks had a conception of sovereignty corresponding to modern notions, see F. H. Hinsley, *Sovereignty* (2nd ed. Cambridge 1986) 1-44.

2 “Philippe II et le monnayage des cités grecques,” *REG* 103 (1990) 1-15, who replies to

and is linked to *nomos* and therefore to civic autonomy (in the Greek sense of a *polis* as a political community that makes its own laws).³ That is, he postulates a strong connection between coinage and the political nature of the community. What, then, might this connection be? In what ways did coinage have a political significance in the Greek *polis*?

It is possible to offer one approach to this complex question by investigating the connection between coinage and the *polis* as an internal affair, as a matter interior to a single *polis*, rather than as a matter of economic or power or diplomacy between states, as in my previous work. Furthermore, it seems reasonable to hold as a premise of the investigation that this connection had its roots in the earliest history of coinage in the *polis*, which of course does not mean that the original reasons for the adoption of coinage by city-states necessarily remained the only reasons that they continued to mint coins over the succeeding centuries. Coinage, like other technological innovations, surely had unintended consequences over the long run. In any case, speculation (and that is all our evidence allows) about the perhaps diverse reasons why Greeks living in city-states originally adopted the use of coinage seems an appropriate way to begin thinking about the multi-faceted issue of the significance of archaic and classical Greek coinage in and for the *polis* as a political community. Why, then, did the Greek *polis* originally need coins?

The current consensus among ancient historians and numismatists seems to be that the state's need for a convenient medium of exchange to pay for official expenditures motivated the initial adoption of coinage in the Greek *polis*. That is, the earliest coinages in Greece were intended to serve the fiscal needs of the state. In the words of Chester Starr, early issues of coins were "occasioned by public needs of the *polis*, which were varied."⁴ On this view, providing a

Sovereignty and Coinage (as in n. 1) in so far as it pertains to Philip of Macedon and Greece. He argues that the disappearance of coinages with local types reflects "une meilleure connaissance des techniques financières" (p. 15) on the part of the cities rather than poverty or an interdiction by a more powerful entity. For further discussion of the effect of Philip's reign on Greek coinage, see Catharine C. Lorber, *Amphipolis. The Civic Coinage in Silver and Gold* (Los Angeles 1990) 57-76.

- 3 "Philippe II" (as in n. 2) 7-9. Pace Picard, I am not persuaded that the connection between *nomisma* and *nomos* vitiates my financial interpretation of the Athenian Coinage Decree in *Sovereignty and Coinage* (as in n. 1) 196-207, in favor of one that sees Athens as purposely limiting the autonomy of its allies. For one thing, the decree on "weights, measures, and decrees" in Ar. Av. 1040-1041 that Picard cites as a parallel to Athens' instructions to its allies in the Coinage Decree does not evoke a similar context. The new laws (1037) that the "decree seller" pitches to the birds are being offered to a community devoid of laws, not as a replacement for or suppression of existing laws in an "autonomous" community. The parallel does not hold because the allies of Athens already had their own laws.
- 4 *The Economic and Social Growth of Early Greece 800-500 B.C* (New York 1977) 112-117 ("Purposes and Significance of Coinage"), with references to earlier scholarship.

medium of exchange for commerce and trade *per se* was not an important motive for the original adoption of coinage by the Greeks.⁵ A concern for revenue may have been a motive, however, because recent research suggests that some city-states in Magna Graecia adopted the use of coinage as a way to increase their revenues by creating a closed system with a lighter weight standard so that they could profit by the exchange of heavier foreign coins for those of their system, just as the Ptolemies did much later.⁶

"Public needs" of a practical kind, however, are not seen as the whole story behind the adoption of coins by Greek city-states. Civic pride is also prominently adduced as a fundamental motive for their having begun to mint coins. The strongest statement of this position came two decades ago from M. I. Finley, who ascribed to the ancient Greeks a "passion" for coins that "was essentially a political phenomenon, a piece of local vanity, patriotism or advertisement with no far-reaching importance" (the Near Eastern world got along perfectly well for millennia, even in its extensive trade, with metallic currency exchanged by weight, without coining the metal).⁷ The basic tenet of Finley's influential

- 5 Even Oswyn Murray, *Early Greece* (2nd ed. Cambridge, Mass. 1993) 237-240, who thinks that the importance of trade in the early uses of coinage is underestimated, seems to regard the connection as an indirect one stemming from coinage's advantages for accounting. His view that Greek cities in particular appreciated this advantage of coinage when they first adopted its use lends general support to the interpretation presented later in this paper.

Modern economic historians seem inclined to maintain the view that coinage did come into existence to serve trade and commerce, postulating that coinage evolved, "without government intervention, to facilitate the process of exchange" (apparently meaning commercial transactions rather than exchange in an anthropological sense). See, for example, Angela Redish, "Coinage, development of," in *New Palgrave Dictionary of Money and Finance* I (London 1992) 377.

Ancient authors offer mixed opinions on this topic. Hdt. 1.94.1 implies that he saw money as an invention to be used in commercial exchange. (Cf. Martin, *Sovereignty and Coinage* [as in n. 1] 214-215.) Aristotle does not, I think, say the same thing in his most famous discussion of coinage (*Pol.* 1257a10-b19), although he is usually cited to this effect. His comments on the relationship between exchange and justice in *Eth. Nic.* 1133a6-b18 (cf. [*Mag. Mor.*] 1194a) must be taken into account in understanding what he says in the *Politics*. More complex still is what to make of what Plato says at *Resp.* 368e-372e on exchange as the origin of the city and the impetus for coinage to be used in trade. I discuss these passages in "Coins, Mints, and the *Polis*," in M. H. Hansen (ed.), *Sources for the Ancient Greek City-State* (Copenhagen 1995) 257-291.

- 6 Georges Le Rider, "À propos d'un passage des *Poroi* de Xénophon: la question du change et les monnaies incusées d'Italie du Sud," in Georges Le Rider *et al.* (eds.), *Kraay-Mørkholm Essays* (Louvain-La-Neuve 1989) 159-172. On Ptolemaic Egypt, see Martin, *Sovereignty and Coinage* (as in n. 1) 225-226 and the references there.
- 7 *The Ancient Economy* (2nd ed. Berkeley and Los Angeles 1973) 166. Finley is here quoting J. M. Keynes, *A Treatise on Money*. Vol. I. *The Pure Theory of Money* (New York

view continues to be restated in more recent scholarship. In the revised version of the *Cambridge Ancient History*, for example, Chester Starr provides a summation of what has usually been the standard view on this point: one of the reasons that Greek cities began to mint coins was "no doubt to advertise the growing pride and power of the minting *poleis*."⁸ The notion that coinage functioned as a symbol of autonomy is an analog to this view, for example, as expressed by Helmut Engelmann. In his view, coinage in the Greek world was from its first appearance "ein politisches Phänomen Die Autonomie einer Stadt war greifbar und sichtbar in ihrem Geld."⁹ Similarly, M. M. Austin stresses pride as a motive for archaic Greek states beginning to issue coins by asserting that "coinage was a symbol of statehood and political identity Coinage was in general a matter of considerable pride, and this may help to explain its rapid spread among the majority of Greek cities from the sixth century onward."¹⁰ Philip Brook Manville carries the argument a step further by relating coinage to a concern on the part of the *polis* to create a symbol to represent a "self-conscious image."¹¹ This last statement attributes an extremely powerful symbolic significance to Greek coinage in a political context, implying that Greek city-states minted coins for the same reason that modern states produce, for example, national flags, namely, to function as symbols of sovereign identity and serve in political rituals.¹²

1930) 12. To gain an idea of the level of the intellectual and cultural presuppositions of Keynes' theorizing, which he bases on his "Illustrations from History," one must quote the context of the words extracted by Finley: "When the kings of Lydia first struck coins, it may have been as a convenient certificate of fineness and weight, or a mere act of ostentation appropriate to the offspring of Croesus and the neighbors of Midas. The stamping of pieces of metal with a trade-mark was just a piece of local vanity, patriotism or advertisement with no far-reaching importance. It is a practice which has never caught on in some important commercial areas The Semitic races, whose instincts are keenest for the essential qualities of Money, have never paid much attention to the deceptive signatures of Mints, which content the financial amateurs of the North, and have cared only for the touch and weight of the metal."

8 CAH III, 3. *The Expansion of the Greek World, Eighth to Sixth Centuries B.C.* (2nd ed. Cambridge 1982) 431. Similarly, in his earlier book, *Economic and Social Growth* (as in n. 4) 114, he had cited "pride" as a motive for Greek states commencing to coin (citing Duby on the practices of early medieval kings as a parallel). In his more recent discussion of the emergence of Greek coinage in *Individual and Community. The Rise of the Polis 800-500 B.C.* (New York 1986) 72-73, this motive does not appear.

9 "Wege griechischer Geldpolitik," *ZPE* 60 (1985) 165.

10 "Greek Trade, Industry, and Labor," in Michael Grant and Rachel Kitzinger (eds.), *Civilization of the Ancient Mediterranean. Greece and Rome II* (New York 1988) 734.

11 *The Origins of Citizenship in Ancient Athens* (Princeton 1990) 171.

12 For a discussion of symbolism and rituals in politics of the kind that flags can serve, see David I. Kertzer, *Ritual, Politics, and Power* (New Haven, Conn. 1988) 2-8.

These opinions correspond to what I would call the “politics as pride” interpretation of the political significance of the coinage minted by Greek city-states from the beginning.¹³ Should we accept this interpretation as a supplement to the idea that archaic Greek city-states adopted the use of coinage to serve their “public needs?” In the remainder of this paper I want to explain why I think the evidence suggests a negative answer to this question and what I think the evidence does suggest concerning the synergistic relationship that developed between the use of coinage and the “public needs” of the *polis* as it increased in scale, became increasingly urbanized, and developed a physical, social, and political infrastructure that occasioned increasingly impersonal transactions among citizens.

No direct numismatic evidence exists to support the “politics as pride” interpretation because no ancient coinage explicitly proclaims that its existence

- 13 Analogous assumptions underlie, for example, the view that Alexander the Great minted his coinage to assert his sovereignty. See A. B. Bosworth, *Conquest and Empire. The Reign of Alexander the Great* (Cambridge 1988) 244: “Undoubtedly Alexander’s primary intentions [with his coinage] were political, to produce an empire-wide coinage declaring his universal monarchy. Expressions of local autonomy were discouraged, but as usual there is no set pattern Alexander’s coinage ... was predominant, a universal currency that was uniquely and explicitly his.” Otto Mørkholm, by contrast, *Early Hellenistic Coinage. From the Accession of Alexander to the Peace of Apamea (336-188 B.C.)* (Cambridge 1991, Philip Grierson and Ulla Westermark (eds.)) 23, while rejecting the idea that Alexander had any “far-sighted economic policy” in mind, explained Alexander’s huge production of coins as a response to his military and civil expenses.

Naturally, a Macedonian monarch may have attributed quite different political significance to his coinage than did a *polis*, but in my opinion the case remains unproved that Alexander “discouraged” Greek coinages as “expressions of local autonomy;” see *Sovereignty and Coinage* (as in n. 1) 122-131. The situation in the Hellenistic period becomes much more complicated. It is commonly held that Hellenistic kings restricted or suppressed the “right of coinage” of less powerful entities as a manifestation of superior sovereignty. This interpretation is usually buttressed by reference to *Maccabees* I, 15.6, in which Antiochus VII is quoted as granting Simon Maccabeus permission “to mint coins for your own country.” Antiochus gives no explicit justification for his power to control coinage; it presumably stems from his power as a king to control everything that happens in his realm, if he wishes. It seems to me much more likely that considerations of profit rather than sovereignty *per se* induced Hellenistic monarchs to restrict the production of non-royal coinages when they saw an advantage in doing so. (See Martin, *Sovereignty and Coinage* [as in n. 1] 242-243.) As Barclay Head observed many years ago, *Historia Numorum. A Manual of Greek Numismatics* (New York 1911) lvii, the “right of coining money” was monopolized because such a “useful invention” was “recognized as a source of considerable profit.” J. K. Davies, *CAH VII*, 1. *The Hellenistic World* (2nd ed. Cambridge 1984) 280, concludes that the profitability of coinage led to monopolies, which in turn led to coinage becoming associated with sovereignty: “... since minting was profitable, all kings followed the Athenian fifth-century example and attempted to control coining within their own territories, to the point where the issue of tetradrachms was a symbol of sovereignty maintained ... or autonomy conceded ...”

is meant to express pride in the identity of the *polis* or to assert sovereignty or autonomy.¹⁴ Perhaps, however, it is asking too much to require that a symbol overtly label itself as such and unfair to expect explicit testimony from Greek coins that they were intended to serve as symbols of pride. Perhaps all we should expect is that the fact of their existence offers implicit testimony to their status as markers of civic pride. Even on this latter condition, however, the argument seems difficult to maintain as currently stated because, if an important motive inducing a *polis* to start minting coins was pride or the assertion of identity, it is extremely remarkable that, on Chester Starr's estimate, more than half the known Greek city-states appear never to have minted any coins at all.¹⁵ It seems impossible to believe that more than fifty percent of all Greek city-states had such poor self-images or severe identity crises that they forbore minting coins.

In fact, only one piece of ancient evidence is usually cited as supporting the "politics as pride" interpretation of the significance of coinage in the archaic and classical *polis*, and this evidence is Hellenistic: a late second-century B.C. inscription from Sestos in the Thracian Chersonese.¹⁶ The inscription bestows honors from the *demos* on a rich and prominent citizen by the name of Menas. One of the actions for which Sestos honored Menas was his official service when the city decided to create its own bronze coinage.¹⁷ M. M. Austin

14 Mørkholm, *Early Hellenistic Coinage* (as in n. 13) 24, for example, must argue that very small city coinages in the Hellenistic period were "most probably produced on some occasion when it was found opportune to propagate the fact of the independence and freedom of the city" because these exiguous coinages "can have had very little economic significance." But the fiscal needs of small ancient cities, whose populations could be tiny, may have been quite exiguous by our standards – but not by theirs – on particular occasions when coinage was needed or desired. If, for example, mercenaries whom a city-state needed to hire for protection demanded their pay in fresh coin and the city-state had no easy access to other supplies of coinage, it might on this pressing occasion resort to temporary production of its own coinage minted from worn coins of other states found in local circulation and then melted down for reminting. Or, short runs of coins may have represented failed attempts to profit from minting by creating a new coinage. Whatever the plausibility of these particular examples, many Greek cities issued coinages that were of no "economic significance" on an international scale but did have such significance on the local level. And the decision to mint coins was based on local financial reasons in the vast majority of Greek states that ever coined, in my view.

15 *Individual and Community* (as in n. 8) 46–47. I discuss this phenomenon further in my paper "Coins, Mints, and the *Polis*" (as in n. 5).

16 *OGIS* I, no. 339.

17 *OGIS* I, no. 339, lines 43–51: ... τοῦ τε δήμου προελομένου νομίματι χαλκίνωι χρῆσθαι ἰδίωι, χάριν τοῦ νομειτεύεσθαι μὲν τὸν τῆς πόλεως χαρακτῆρα, τὸ δὲ λυσιτελὲς τὸ περιγινόμενον ἐκ τῆς τοιαύτης προσόδου λαμβάνειν τὸν δῆμον, καὶ προχειρισμένου τοὺς τὴν πίστιν εὐσεβῶς τε καὶ δικαίως τηρήσαντας, Μηνᾶς αἰρεθεῖς μετὰ τοῦ συναποδειχθέντος τὴν καθήκουσαν εἰσηνέγκато ἐπιμέλειαν, ἐξ ὧν ὁ

translates the section concerning Menas and coinage as follows: “... and when the people decided to use its own bronze coinage (*idion chalkinon nomisma*), so that the city’s coin type (*character*) should be used as a current type (*nomei-teuesthai*), and the people should receive the profit (*to lusiteles*) resulting from this source of revenue, and appointed men who would safeguard this position of trust (*pistis*) piously and justly, Menas was appointed and together with his colleague in office showed suitable care (*epimeleia*), as a result of which the people, thanks to the justice (*dikaiosyne*) and emulation (*philotimia*) of these men, has the use of its own coinage, and in the other magistracies and liturgies to which the people had appointed him, he has shown himself impartial (*isos*) and just (*dikaios*)....”¹⁸

When the Sestos text is cited in support of the “politics as pride” interpretation of coinage, the reference is customarily confined to the two clauses “so that the city’s coin type should be used as a current type, and the people should receive the profit resulting from this source of revenue.” The conclusion is then drawn that production of a bronze coinage for the city had two *separate* aims expressed by the two clauses. For example, Ian Carradice and Martin Price have recently explained the clauses as saying that Sestos meant “to boost its self-esteem [i.e., the first clause] as well as to provide a fair profit to the treasury [i.e., the second clause].”¹⁹ I have previously argued against this sort of interpretation on the grounds that the two clauses are in fact linked in thought not as two antithetical points separate from one another but rather with the second point (garnering revenue) implicitly deriving from the first (putting a local coinage into circulation).²⁰ I remain persuaded that the text says nothing about the introduction of coinage providing civic “self-esteem” and therefore does not support the idea that the political nature of Greek coinage was a matter of “politics as pride.” Rather, this inscription only tells us that Sestos desired its own bronze coinage because the coinage produced income for the city (assuming that Sestos was going to impose a currency monopoly in its territory of the

δῆμος διὰ τὴν τῶν ἀνδρῶν δικαιοσύνην τε καὶ φιλοτιμίαν χρήται τῷ ἰδίῳ νομίσματι, ἔν τε ταῖς ἄλλαις ἀρχαῖς καὶ λειτουργίαις, εἰς ἃς ὁ δῆμος αὐτὸν προκεχειρίσται, ἴσον ἑαυτὸν καὶ δίκαιον παρείσχηται ...

- 18 *The Hellenistic World from Alexander to the Roman Conquest. A Selection of Ancient Sources in Translation* (Cambridge 1981) no. 215, lines 43-51.
- 19 *Coinage in the Greek World* (London 1988) 122. Cf. Christopher J. Howgego, “Why did ancient states strike coins?,” *NC* 150 (1990) 20, citing the Sestos inscription as proof that pride was a factor in a city-state’s decision to create a new coinage.
- 20 Martin, *Sovereignty and Coinage* (as in n. 1) 238-241 (with references to earlier scholarship on the decree). Clauses linked by *men* and *de*, as these two are, do not have to express a strong antithesis. In the words of J. D. Denniston, *The Greek Particles* (2nd ed. Oxford 1966) 370, “[s]ometimes μὲν ... δέ conveys little more than τε ... καί.”

kind attested elsewhere).²¹ This profit was simply one of the “useful things” (*ta chresima*) that the inscription praises Menas for accomplishing with his own resources on behalf of the city in his support of “the things common to all in the city” (*ta koina*).²² In other words, Menas shared his resources with the entire city to support its “public needs.”

The contribution that this Hellenistic inscription makes to understanding the political significance of archaic and classical Greek coins comes precisely from this wider context of its mention of coinage. So far as coinage is concerned, the *demot* of Sestos praises Menas for his pious and just service, which has allowed the city to profit. As the inscription reveals, Menas demonstrates his *eusebeia*, his *dikaio*syne, and his *philotimia* by “safeguarding his position of trust (*pistis*)” concerning coinage. The piety presumably refers to the placing of images of divinities on the city’s coinage, while the justice Menas displayed probably refers to his making sure that fraud did not eat away the city’s profits from minting.²³ His self-esteem is the quality that induces him to serve his community as zealously, virtuously, and generously as possible. The context, in other words, is that of a wealthy and virtuous citizen performing *leitourgiai* for the benefit of the entire civic community.²⁴ Coinage thus is located squarely in the liturgical tradition of the Greek city-state as a source of revenue in support of *ta koina*. This context was certainly a political one in various senses because it fell within the nexus of social and moral relationships between richer and poorer citizens in a *polis*, in which wealthier citizens were expected, indeed socially and morally obliged, to expend their wealth and their personal efforts to benefit their fellow citizens. That spending and that service were supposed to demonstrate piety and justice on the part of the individual benefactor, as the text

21 As at Olbia, Pergamum, and (presumably) Gortyna, for instance; see Martin, *Sovereignty and Coinage* (as in n. 1) 208-214, 240; *Inscriptiones Creticae* IV, no. 162. None of the evidence from these places explicitly expresses any concern other than making a profit.

22 *OGIS* I, no. 339, lines 7-8, 88, 91.

23 The bronze coinage of Sestos to which the inscription refers bore images of several deities, especially Demeter and Hermes. See Head, *Historia Numorum* (as in n. 13) 261. For the argument that Greeks in the archaic period felt a strong association between the types of their coins and the power of the gods, see Jean Bayet, “Idéologie et plastique (I): l’expression des énergies divines dans le monnayage des grecs,” in *Idéologie et plastique* (Rome 1974) 499-544.

24 For a brief summary of the types of formal liturgies in Greece and Rome, see the article “Liturgy” by A.H.M. Jones in the *Oxford Classical Dictionary* (2nd ed. Oxford 1970) 613. His emphasis on liturgies being “compulsorily conferred” applies far more to the later Roman empire than to the Greek city-states and should not be construed to mean that citizens of the latter were usually reluctant to perform liturgies. For more extended discussion, see art. “Leiturgie” by J. Oehler in *RE* XII (1925), cols. 1871-1879. For more recent discussion, see also Josiah Ober, *Mass and Elite in Democratic Athens: Rhetoric, Ideology, and the Power of the People* (Princeton 1989) 128, 195 with n. 5, and 199-202.

says, while providing concrete and common benefits to the community as a whole.

The return or profit, as it were, to the individual on pious and just expenditure of this kind would be, first of all, a reputation as a proper and contributing citizen, the kind of reputation that was necessary above all in defending oneself in court. In some cases, if his benefactions were sufficiently splendid and his service excellent, a rich man's contributions would also earn him fame as a great man (*doxa* and *euphemia*) and election to high public office.²⁵ But even the "rich quietists," who wished to stay out of the limelight and shunned the public visibility to be gained through office-holding and speechmaking, also had to make some benefactions and fulfill the occasional liturgy, if only to provide themselves with a defense in law suits tried before juries of their fellow citizens.²⁶

Except insofar as it helped him resist any temptation to profit fraudulently from his position as a mint official, Menas' wealth was not in fact directly relevant to his particular service regarding coinage because the production of coinage was a source of income to the city rather than an expenditure, as the inscription makes plain. But coinage in general does lie at the heart of the context outlined by this inscription because the text describes numerous other benefactions to the city that Menas personally financed.²⁷ Coinage, in other words, facilitated his proper participation in the *polis*, his fulfillment of the role he played in his civic community, because he used coins to provide benefactions to his city in keeping with the Greek tradition of the wealthy supporting "public needs."²⁸

Although he is not directly concerned with this tradition, Robin Osborne's recent discussion of exchange in fourth-century Athens makes an important related point by demonstrating how wealthy citizens needed coinage to live the lives required of them by the social and political norms of the classical *polis*. He

25 For the fame that Menas garnered, see *OGIS* I, no. 339, lines 8-10, 31.

26 See L. B. Carter, *The Quiet Athenian* (Oxford 1986) 99-130.

27 Carradice and Price, *Coinage* (as in n. 19) 122, are mistaken in saying that one of Menas' benefactions was "to pay for the production of the city's bronze coinage." The text clearly says that he is being praised for overseeing the minting with justice and piety and that the production of coinage was a source of profit, not an expense needing to be paid by a benefactor. At most, I suspect, Menas may have provided funds to get the mint started, for example, by hiring a public slave and acquiring the necessary tools, but the inscription does not say this. When Menas paid for a benefaction, the text says so, as in the immediately preceding lines (42-43), which indicate that he himself paid for a dedication (of weapons) that the city had voted in his honor.

28 For a useful brief summary of the background and operation of the liturgical tradition in this context, see Vincent Gabrielsen, *Financing the Athenian Fleet. Public Taxation and Social Relations* (Baltimore and London 1994) 7-8 with the references to earlier scholarship in n. 13 on p. 230.

rejects Finley's model of the economic relationship between town and country as one in which the consumer town demands food from the producer countryside.²⁹ Studying the case of Phainippus, the landowner who features in Ps.-Demosthenes 42, Osborne concludes that "the social and political obligations of the wealthy created a need for cash [i.e., coinage] which demanded that they enter the market. The goods which they supplied to the market may have made possible and indeed encouraged the growth of the town as a population centre, but it was occasioned by the existence of the town as a political centre, something which is, conceptually at least, quite a different thing. The public spending of the polis, and particularly of the democratic polis, can be seen to have stimulated both town and country. Wealthy landowners became dependent on selling in town markets in order to preserve their wealth *and* their political status"³⁰

This phenomenon existed earlier than the fourth century as well. In the fifth century B.C., Plutarch reports, Pericles every year sold all the produce from his lands for cash at a single sale and then used the proceeds, which would have been in coinage, to pay expenses throughout the year. This procedure irritated his family, who preferred to keep stores of surplus food on hand for big splurges.³¹ Philip Stadter argues that Pericles' way of handling his income reflects "the increasing monetization of Athenian agriculture in the fifth and fourth centuries Either Pericles had made a radical shift to raising crops solely for market, or he was a poor businessman: the practice as described would result in selling cheap, at the height of the harvest, and buying dear.... Apparently he was trying to put his relatively unpredictable domestic income on the same regulated basis he was using for the polis"³²

I would interpret the story differently, however, as showing Pericles to be the ultimate political being in an increasingly monetized Athenian *polis*. He needed stores of ready cash to fulfill the expectations for benefactions created by his role as a foremost citizen in the city-state, especially because he had to try to emulate, as far as his income allowed, the financial generosity to the city as a whole and to individual poorer citizens displayed by richer political rivals such as Cimon.³³ Pericles was so completely political that he put the desires of his family second behind his own need for a store of cash to support his political goals. Coinage was basic to the political existence of Pericles and other land-owning citizens like him, for whom the city had become the environment in

29 "Pride and prejudice, sense and subsistence: exchange and society in the Greek city," in John Rich and Andrew Wallace-Hadrill (eds.), *City and Country in the Ancient World* (London 1991) 119-145.

30 "Pride and prejudice" (as in n. 29) 140.

31 *Per.* 16.

32 *A Commentary on Plutarch's Pericles* (Chapel Hill, North Carolina 1989) 198-199.

33 *Plut. Per.* 10, 16.

which they pursued their political ambitions in the council and assembly and defended their property and status in the courts, while the country was the source of their income. By turning their income from the country into cash, they could conveniently make the benefactions and perform the liturgies that gave them political capital, capital that they could spend both on offense, as it were – to secure the votes of their fellow citizens for high office and for support of proposals to the assembly – and on defense – to secure the votes of fellow citizens when their enemies or sycophants attacked them with law suits.

To be sure, it was not necessary, strictly speaking, for coinage to exist in order for this sort of social-political system to exist, which imposed both formal and informal financial obligations on citizens. Ambitious politicians such as Pericles could theoretically have operated in similar ways in a community that had money only in other forms, such as bullion or objects of barter. But in Greece, I am postulating, the adoption of coinage had a direct connection to the evolution of the tradition that obligated wealthier citizens to contribute to the well-being of the entire city-state (a tradition that would eventuate in, among other results, the liturgical system enforced by law). Thus, coinage functioned as an essential mechanism in the evolving political structures of the Greek *polis* at this early stage of development.

The connection between coinage and what might for present purposes be called a proto-liturgical tradition arose in the sixth century B.C. when fundamental changes affected the basic conditions of life in the *polis*. One signal change was increasing urbanization. A relationship between urbanization and the use of coinage has long been noticed.³⁴ For one thing, the specialization of labor that cities promoted meant that day-to-day commercial exchange was more convenient with coinage as a medium.³⁵ But urbanization as a spur to the

34 See, for example, Starr, *Economic and Social Growth* (as in n. 4), ch. V ("Cities and coinage"), and *Individual and Community* (as in n. 8) p. 70.

35 On Greek urbanization before the Persian wars, see Roland Martin, *L'urbanisme dans la Grèce antique* (2nd ed. Paris 1974) 75-96. Developments obviously took place at a different pace in different places, and our archaeological knowledge is insufficient to permit strict generalizations in any case. But the sixth century, especially its latter half, was a period when, as at Athens, the pace of urbanization seems to have markedly increased. Exchange using coinage in the early Greek city-state, it should be added, was probably significantly different from exchange based on currency in most of the contemporary Western world. For one thing, it is usually assumed that early Greek coinages tended to lack the small denominations that modern currencies offer. (This assumption may be faulty; the apparent lack of small coins may be a result of their being more likely to have been lost in antiquity and less likely to be found today. And some early coinages did have small denominations, as Carmen Arnold-Biucchi of the American Numismatic Society has shown in her work in progress on the early coins of Selinus: "The Beginnings of Coinage in the West: Archaic Selinus," in *Florilegium Numismaticum. Studia in honorem U. Westermark edita* [Stockholm 1992] 13-19.) Greeks without small denomi-

specialization of labor is by itself an insufficient cause for the adoption of coinage in the Greek *polis* because cities had existed for millennia without coinage in the Near East.³⁶ Rather, urbanization accompanied by a new form of communal organization and the resultant new expectations for the behavior of wealthier individuals in the community provided a favorable context for the emergence of coinage in the world of the Greek *polis*.

Compared to the ancient Near East, the early Greek *polis* constituted a new form of organization lacking a central authority like a king to compel by force the payment of revenues by the members of the community but nevertheless including an emerging public infrastructure that demanded large-scale financial support. The monarchs of the ancient Near East were accustomed to compelling agricultural producers, workers of all kinds, and the upper class to provide goods, services, and capital to the state as needed or desired. These kings could therefore simply order their subjects to provide the resources, whether as capital or labor or both, needed to support the public infrastructure of their communities.

The developing Greek city-state had an analogous need for resources to support a growing public infrastructure, both physical and social. The creation of cities in Greece reconfigured physical space by creating common areas and buildings which no single individual owned or was responsible for and also by creating an essential and extensive infrastructure on which all depended for survival in common, above all the urban water supply. The need to provide the public infrastructure necessary to bring sufficient water to urban areas called for construction of aqueducts, systems of pipes, and fountains in central locations. These particular public properties also required on-going maintenance –

nations – or even with them – most likely would have customarily “run a tab” with local merchants that they would settle from time to time with coinage as payment, in much the same way that people in our world, especially in smaller communities, frequently did until relatively recently, when new forms of payment and credit became commonplace.

- 36 Furthermore, *pace* Finley, *The Ancient Economy* (as in n. 7) 107, coinage had a place in the economy of the country as well as the city, or, perhaps one should say, a place in the relations between country and city. Ar. *Ach.* 33-36, could give the impression that country folk did not need or use coinage, but that situation could apply only to self-sufficient farmers in isolation from others, who by the classical period probably existed only in idealizing fantasies. In real life the situation was more complex. Aristotle, for instance, tells the story of city people going to the country to buy things, fresh fish in this case (fr. 517 Rose = Ath. 8.348a-c, from the *Politeia of the Naxians*). On merchant-middlemen buying produce from peasants in the country and then bringing it to the city for resale, see Thomas W. Gallant, *Risk and Survival in Ancient Greece. Reconstructing the Rural Domestic Economy* (Stanford, Calif. 1991) 100. Christopher Howgego, “The Supply and Use of Money in the Roman World,” *JRS* 72 (1992) 20, remarks on the considerable quantity of coin found in rural areas.

cleaning out of sediments and repairing of leaks – on an unprecedented scale.³⁷ Analogously, the development of a civic center went hand-in-hand with the increasing development of large-scale, community-wide events to take place in public space, especially sacrifices and festivals, that went beyond the customary local celebrations serving the needs of restricted groups. This reconfiguration of physical space and of the calendar of public events entailed a reconfiguration of social and financial relations in the city-state by creating *shared* responsibilities among citizens for expensive public needs. These responsibilities could only be met by devising mechanisms on which citizens agreed because the city-state lacked a central authority such as the monarchies of the ancient Near East, where the king or property-owning priesthoods were the owners of “public buildings” and “public spaces” and directly controlled and directed the expenditure of the resources of goods and labor that were called for to build and maintain these properties and hold celebrations in and around them. The increasingly urbanized city-states of Greece had no such central mechanism of coercion, except perhaps occasionally in some tyrannies, other than decisions of the citizen-body backed by legislation. Tyrants who ruled by force could perhaps use coercion to order buildings to be built and civic property to be maintained and festivals to be paid for by citizen contributions. By contrast, cities ruled by tyrants like Pisistratus, who tried to rule without changing the laws, as Thucydides put it,³⁸ and cities governed by oligarchies and democracies had no such power of overt coercion to force citizens to pay financial contributions or provide labor for civic projects. They had to rely on consensus among the citizens.

37 On the crucial importance of securing a supply of water in the process of Greek urbanization and the needs that it imposed on the *polis*, see Dora P. Crouch, *Water Management in Ancient Greek Cities* (Oxford 1993) and Martin, *L'Urbanisme* (as in n. 35) 63–66. For Athens, see J. McK. Camp, *The Water Supply of Ancient Athens* (Diss., Princeton University 1977); R. Tölle-Kastenbein, *Das archaische Wasserleitungsnetz für Athen* (Mainz am Rhein 1994); Michael Stahl, *Aristokraten und Tyrannen im archaischen Athen: Untersuchungen zur Überlieferung, zur Sozialstruktur und zur Entstehung des Staates* (Stuttgart 1987) 241. The growing importance of public water supplies in the later archaic period is apparently reflected in art: black figure painters in the later sixth century began to produce many, many pictures of fountains. See T. Leslie Shear, “Tyrants and Buildings in Archaic Athens,” in *Athens Comes of Age: From Solon to Salamis* (Princeton 1978) 11.

On the development of the concept and reality of public property in the *polis*, see David Lewis, “Public Property in the City,” in Oswyn Murray and Simon Price (eds.), *The Greek City from Homer to Alexander* (Oxford 1990) 245–263. As he points out, the earliest relevant use of the adjective *demosion* in this meaning comes in Solon fr. 4. H. A. Shapiro, “From Athena’s Owl to the Owl of Athens,” in Ralph M. Rosen and Joseph Farrell (eds.), *Nomodeiktēs. Greek Studies in Honor of Martin Ostwald* (Ann Arbor, Mich. 1993) 213–224, discusses the meaning of the inscription *demosios* on a late archaic amphora.

38 6.54.

Lacking a central authority to compel contributions or labor through the threat of force, the urbanizing Greek city-state had to find other ways to pay for and to maintain the common structures and services of its ever more complex physical and festal infrastructure. As the Menas inscription implies, one way lay in the development of a proto-liturgical tradition, by which the rich contributed personally to the financial needs of the city.³⁹ This tradition probably came about only gradually and after much strife between rich and poor, at least if the histories of Draco and Solon at Athens are any clue to general conditions in the archaic *polis* in this regard. Eventually, however, a political connection of the town to the country manifested itself in the obligation, eventually enforced by law, of wealthy landowners to distribute their wealth widely to their fellow citizens *via* benefactions and liturgies to pay for new "public needs" of the community. This process occurred when the degree of urbanization was reached at which it became necessary, if a community was to exist as a sizable *polis* rather than just a village, for the wealthy, who would increasingly have a residence in the city as well as lands and a home in the country, to extend their obligations beyond the boundaries of their neighbors in the country to the citizen-body as a whole.

Coinage would have proved especially helpful in satisfying the needs of this emerging tradition in several ways.⁴⁰ One was by making it easier for wealthier citizens to benefit a larger number of others than they could by "payments in kind." Out in the country where their lands lay, wealthy landowners certainly had obligatory benefactions to make to their local community, such as to the *deme* in the Athenian system, but because of the limited scale involved in most cases these rural obligations could have been fulfilled satisfac-

39 For discussion of the process by which the rich moved beyond largess to their local group (whether *deme* or tribe or whatever) to outlays potentially touching the entire citizen body, see Paul Veyne's analysis of what in his discussion of "pre-euergetism" he calls a tontine, in *Bread and Circuses. Historical Sociology and Political Pluralism*. Abridged with an introduction by Oswyn Murray. Translated Brian Pearce (London 1990) 71-101. Cf. Gabrielsen, *Financing* (as in n. 28) and Ober, *Mass and Elite* (as in n. 24). On "communal patronage," see Gallant, *Risk and Survival* (as in n. 36) 148.

40 Édouard Will, "De l'aspect éthique des origines de la monnaie," *RH* 212 (1954) 209-231, and "Réflexions et hypothèses sur les origines du monnayage," *RN* 7 (1955) 5-23, long ago pointed out that coinage emerged at the same time that the process began whereby patterns of behavior developed through which the community's resources were to some extent recirculated from rich to poor. Cf. his "Fonctions de la monnaie dans les cités grecques de l'époque classique," in J.-M. Dentzer *et al.* (eds.), *Numismatique antique. Problèmes et méthodes* (Nancy and Louvain 1975) 233-246. Building on Will's arguments, Thomas Figueira, *Aegina. Society and Politics* (Salem, New Hampshire 1986) 111, has pointed out in his treatment of the early coinage of Aegina how coinage, once it reached what he calls the stage of prevalence, facilitated, among other things, "certain patronage functions of the aristocracy."

torily and without undue trouble by means of produce, without coins being needed.⁴¹ A sacrifice and feast, for example, for one's fellow demesmen in a relatively small deme could come directly from the annual production of a single rich land owner's herds, gardens, orchards, and vineyards. The situation changed, however, once it became expected and, eventually, obligatory for wealthy men to make disbursements in the city beyond these "local liturgies" in the country. In a large *polis*, for example, there was no question of one man regularly sacrificing enough beasts and providing enough produce from his own holdings alone to feast the whole population as a function of his high status.⁴² But with the help of coinage he could, if he had stored up sufficient monetary assets, at least treat a large number of people by buying provisions from others, as apparently the Athenian general Chabrias did for a time in the fourth century. To celebrate his naval victory over the Spartans off Naxos in 376 B.C., he provided wine every year for participants in the celebration of the second day of the Great Mysteries.⁴³ More commonly, richer citizens would use wealth accumulated as coinage to pay for services or sacrifices or construction that benefited the community as a whole and thus win popular renown.⁴⁴

This process was surely at work in Athens during the tyranny of Pisistratus, who won his power over aristocratic opposition essentially by extending his patronage beyond theirs onto a *polis*-wide scale.⁴⁵ Coinage supported this process of seeking support among the mass of the population. That is, Pisistratus tried to assemble for himself from the citizens of the *polis* what amounted to a very large group of clients for whom the tyrant was the patron. Coinage would have served an essential role in this process because this patronage was on such a large scale. Scale is the issue. An aristocrat in the country had clients on a relatively small scale, drawn from the peasants and tenants in and around his estates. He would have known who they were and have been directly involved in their lives as a fellow participant in local festivals, as a host of communal feasts, as a source of a friendly loan of a tool or some seed or even some capital, an arbitrator for disputes, and so on in the matters of daily life. The scale of things was sufficiently small that the patron would have been known personally

41 For a discussion of how patron/client relations worked in the Greek countryside, see Gallant, *Risk and Survival in Ancient Greece* (as in n.36) 159-169.

42 In smaller communities this might be possible on occasion, though certainly not as a regular phenomenon. See *IG* 17.7.389 (Aigale on Amorgos); *SIG*³ 708 (Istropolis).

43 Plut. *Phoc.* 6.

44 See Xen. *Oec.* 2.5-6 for some of the obligations of a rich man at Athens.

45 On the Pisistratid tyranny in general, see, conveniently, Helmut Berve, *Die Tyrannis bei den Griechen* (Munich 1967) 41-77; A. Andrewes, *CAH* III.3² (1982) 392-416. For a thorough discussion of the competition between Pisistratus and other aristocrats for status and wide support among the citizen body *via* patronage of religious activities, art, and architecture, see Stahl, *Aristokraten und Tyrannen* (as in n. 37).

by the clients and *vice versa*. Coinage, though it certainly could have been useful to the interaction of the rural patron and his relatively small band of clients, was not a *sine qua non* for the exchanges required by this relationship.

When Pisistratus and then his sons ruled as tyrants in Athens, they were seeking clients on a far larger scale than that of rural aristocrats. Theoretically, the tyrants were attempting to make the entire *polis* their clients, but in practice they built their power among the non-aristocrats. They had many avenues of patronage, and we cannot quantify their relative importance. The Pisistratids financed great construction projects, but the usual assumption is that such building did not employ large numbers of workers. This may have been true of skilled workers for temple construction, but it would probably be mistaken to assume further that there were only limited opportunities for hired labor, especially for maintaining infrastructure such as the urban water supply of Athens that the Pisistratid regime did so much to create.⁴⁶ The Pisistratids could have assembled many clients from the city-dwellers and "near-the-city-dwellers" able to work every day on construction jobs, maintenance tasks on the water supply, and indeed on "make-work" jobs created to be filled by supporters of the regime.

The number of people who became Pisistratid clients far exceeded that in the clientships of rural aristocrats. As in physics, so in history is it true that changes in scale entail changes in actions and relationships. The significantly expanded scale of the Pisistratid clientele meant that the tyrant had too many clients to be able to relate to them in as personal a fashion as rural aristocrats traditionally related to their clients. The tyrant could not know all his clients personally, he could not show his support by regularly attending their parties

46 For Pisistratid construction, see R. E. Wycherley, *The Stones of Athens* (Princeton 1978) 155-158 and 248; T. Leslie Shear, "Tyrants and Buildings" (as in n. 37) 1-19; John McK. Camp, *The Athenian Agora* (London 1992) 39-48, who emphasizes that the Pisistratids built both the southeast fountain house of the agora and the Enneakrounos, the latter being "among the most famous of all Athenian buildings" (p. 43). On Pisistratid development of the agora, see also Stahl, *Aristokraten und Tyrannen* (as in n. 37) 233-243. On the numbers of workmen used in temple construction, see R. H. Randall, Jr., "The Erechtheum workmen," *AJA* 57 (1953) 199-210; Alison Burford, *The Greek Temple Builders at Epidauros* (Toronto 1969) 191-206, 246-251. On the use of hired free labor in agriculture, see Alison Burford, *Land and Labor in the Greek World* (Baltimore 1993) 186-193.

Ancient Greek sources rarely mention labor for wages, but how could the mass of poor people lacking capital and much, if any, land have survived, if they could not work for others? Surely our sources are so silent about hired labor because they are so contemptuous of the banausic population; on this attitude, see Alison Burford, *Craftsmen in Greek and Roman Society* (London 1972) 34, 185. Ellen Meiksens Wood, *Peasant-Citizen and Slave. The Foundations of Athenian Democracy* (London 1988) 70-80, argues that the influential work of de Ste. Croix on Xenophon has indeed led to an underestimation of the importance of work for hire in ancient Athens.

and festivals, he could not personally loan a hoe or an ox or a bag of seed to so many clients, and so on. The larger scale and greater impersonalization of Pisistratid patronage and clientship made coinage a very useful, perhaps almost necessary mechanism for maintaining the relationship between patron and client in a time of change, when people were more and more no longer dealing with each other on the same intimate scale of personal relationships as in earlier times. Coinage, in other words, permitted Pisistratus to develop his expanded implementation of patron/client relationships in a way that other, earlier, more personal forms of exchange could not so easily allow, at least not in a way that was practical under the new circumstances of growing urbanization in the mid-sixth century.

Coinage naturally also suited Pisistratus's new strategy for meeting the fiscal needs of the city – his system of taxation – and his personal need for defense, which he met by hiring mercenaries. As H. W. Parke said long ago, echoing Herodotus, Pisistratus “rooted his tyranny with many mercenaries and much revenue.”⁴⁷ The increasing importance of trade through the port of the city of Athens also made coinage a welcome innovation in Pisistratid Athens, although obviously not because coinage was absolutely necessary to carry on sea-borne commerce. Rather, like patronage on a community-wide scale, trade on an international scale was also part of the growing *impersonalization* of life in the archaic *polis*.⁴⁸ Foreign trade conducted with coinage suited a more impersonal world far better than did transactions employing goods for barter. Barter required the determination of the value of the goods being exchanged by a process of face-to-face negotiation that would frequently have been filled with doubt, tension, and even fear.⁴⁹ For the confidence that made exchange by

47 *Greek Mercenary Soldiers. From the Earliest Times to the Battle of Ipsus* (Oxford 1933) 8-9. See the numerous references to Pisistratus and *chremata* in Hdt. 1.59-64. For Pisistratus's creation of a system of direct taxes, see Thuc. 6.54.5 and Arist. *Ath. Pol.* 16.4 with the comments of P. J. Rhodes, *A Commentary on the Aristotelian Athenaion Politeia* (Oxford 1981) 215. On taxation and coinage in general, see Robert J. Littman, “Greek Taxation,” in Grant and Kitzinger (eds.), *Civilization* (as in n. 10) II, 797. In the context of raising revenue, fines were analogous to taxes, and coinage suited this context perfectly. See, for example, the Eretrian inscription from the third quarter of the sixth century that specifies the payment of fines in *chremata dokima*: L. H. Jeffery, *The Local Scripts of Archaic Greece* (Oxford 1961) 84, no. 9A1.

48 Cf. the remarks of Arist. *Pol.* 1257a31-33.

49 For provocative remarks on the “climate of fear” that probably surrounded much ancient trade, see David Braund, *Georgia in Antiquity. A History of Colchis and Transcaucasian Iberia 550 B.C. – A.D. 562* (Oxford 1994) 78, and J.-P. Morel, “Greek Colonization in Italy and the West (Problems of Evidence and Interpretation),” in T. Hackens, N. D. Holloway, and R. R. Holloway (eds.), *Crossroads of the Mediterranean: A Conference at Brown University, 1981* (Louvain and Providence, Rhode Island 1983) 149-150. For the suggestion that the uncertainty inherent in commercial trading had a powerful effect in

barter work well, some knowledge of the other party was highly desirable, especially knowledge concerning the trustworthiness of the person. This personal knowledge helped establish the value of the goods being exchanged. Coinage shifted responsibility for the guarantee of value in exchanges away from the immediate parties to transactions, at least for the party accepting coinage in an exchange, and thus made it easier for strangers to do business. In the country, as opposed to the city and its port, there were comparatively few strangers, and exchanges could be primarily face-to-face encounters among people who knew of each other and could have some reliable estimate of the value of the goods the other party offered as money in exchanges. The more impersonal transactions of the city and port were aided by coinage. Above all, from the point of view of the tyrant, coinage made it easy to collect import/export dues in the harbor.

Another practical way in which coinage probably facilitated the "public needs" of an increasingly urbanized and impersonal *polis* was in the pooling of resources to pay for projects that were beyond the ability of individuals to bear, such as, to use a later example, the common sacrifice for which the Athenian statesman Phocion claimed he could not pay his contribution (*epidosis*) because of his indebtedness. He advised asking for contributions from the rich, presumably in analogous fashion to the way Greek city-states raised voluntary contributions from citizens for a variety of needs and then recorded these virtuous donations in public view.⁵⁰ Under this sort of cooperative system, if the entire cost of a public service or a construction project could not be paid by a single individual, contributions from different citizens could be pooled with each other to make up the necessary total of funds. The use of coinage made it much easier to do this sharing of financial burdens in a way that ensured fairness and ease of accounting. And ensuring fairness and preventing cheating or underpayment would have been on contributors' minds at such times, as Plato implies

transforming traditional social values in European history, see Donald McCloskey, "Bourgeois Virtue," *The American Scholar* (Spring 1994) 187.

Edward E. Cohen, "The Athenian Economy," in Ralph M. Rosen and Joseph Farrell (eds.), *Nomodeiktēs* (as in n. 37) 198, describes the fourth-century Athenian economy as one "in which unrelated individuals, often in the city only transiently, sometimes even operating from abroad, sought monetary profit through commercial exchange." *Mutatis mutandis*, this unsettling context for exchange arose much earlier in the history of larger city-states such as Athens, at the time when financial transactions began to take place more and more among citizens who did not know each other as neighbors.

- 50 Plut. *Phoc.* 9. On sorts of projects supported by voluntary contributions, see Léopold Migeotte, *Les souscriptions dans les cités grecques* (Geneva and Québec 1992) 327-345. Cf. Ober, *Mass and Elite* (as in n. 24) 199-202 on *epidoseis* in this context. For the financing of walls, see also F. G. Maier, *Griechische Mauerbauinschriften II* (Heidelberg 1961) 18-21, 55-68.

when he has Thrasymachus say that in the relations of the just man and the unjust man with the *polis* in matters such as *epidoseis*, the unjust man finds a way to pay less from an equal basis than does the just man.⁵¹ As units of established and guaranteed value, coins made it much simpler to be certain that a man was paying his allotted portion of the shared costs of a project than if the value of each share had to be calculated in kind, which would certainly have meant agreeing on values among different kinds of produce and so on. Doing such calculations concerning payments in kind would have been extremely complicated. A decree from the sanctuary of Oropos gives a glimpse of how cumbersome procedures could be under these conditions. The officials are obligated to record all donations that the sanctuary receives, they have to weigh everything that is not in the form of coin, and they have to put up an inscription for public inspection that specifies the amounts that each donor gave by weight (and by the *plethos* of coins). Payments made entirely in coin would have greatly lessened the sort of onerous accounting to which this decree testifies.⁵²

One can also imagine that relying on payments in kind for pooled contributions or shared financial responsibilities would have provoked bitter disagreements among citizens as they made their payments, especially in as disputatious a community as the average Greek *polis* (if one can extrapolate from the peevish personality types frequently depicted by Aristophanes, or by Theophrastus in the *Characters*). If contributors paid their allotted share by bringing in beasts, for example, arguments would surely have broken out concerning the relative worth of animals. How would it be fair, someone would complain, if that man over there was allowed to contribute a sick old animal while he himself had fulfilled his responsibility by contributing a healthy young one worth far more? Arguments of this sort would have been inevitable and, one guesses, constant, whether the issue was the value of animals or different qualities of produce such as grain or olives or wine. It might seem culturally limited to think that the *polis* necessarily needed or wanted to adopt innovations to lessen these sorts of disputes, except that such disputes involved considerations of justice and equity in the relations among citizens, and these were certainly fundamental concerns of the new form of social and political organization of the *polis* (regardless of how well these concerns were actually implemented in practice). The use of coins as payments obviated much of the problem of ensuring fairness in contributions. By counting and recording coins one could know precisely the value of each man's payment and be sure that he had made the appropriate and equitable contribution.

Moreover, the use of coinage made it much easier to pay workers (whether

51 *Resp.* 343d.

52 *IG VII*, no. 303.

citizens, metics, or public slaves) over the long term as they constructed and maintained public infrastructure, the “things common to all in the city” (*ta koina*) of the sort referred to in the Menas inscription.⁵³ Using coins, the *polis* could, for example, arrange to pay laborers in small amounts over time as the work proceeded in a satisfactory fashion on a long-term construction project. Furthermore, the *polis* could accumulate ahead of time the money needed to give the workers their pay and keep it securely on hand until payday because, unlike animals or produce, coins did not die or spoil and were easy to store. (The corollary, of course, was that they were easier to steal than bulky food-stuffs used as money and consequently required additional security measures.) Coins also offered convenience compared to weighed bullion because there was no need to argue about their value or the amount that they represented, as there would have been with raw metal cut into pieces or other goods. The building inscriptions from Athens and Epidauros demonstrate that Greek city-states did a great deal of complicated and public accounting of payments.⁵⁴ This sort of financial transaction could theoretically of course have been done in kind indefinitely, as they were in the ancient Near East.⁵⁵ But, in the absence of an undisputed central authority like a Near Eastern monarchy to keep disputes to a minimum, the increasingly urbanized and impersonal Greek *polis* could ill afford the burden imposed by taking in revenues only through payment in kind, which had the same disadvantages as barter: “le troc primitif suppose une discussion parfois fort longue sur la valeur des biens échangés”⁵⁶

By improving the process of making payments and receiving revenue and by making accounting and recording far more efficient and (potentially, at least) more accurate, coinage in a practical way promoted the goal of securing justice through exchange in transactions among citizens and foreigners that Plato and Aristotle insisted was necessary if a *polis* was to be a *polis*.⁵⁷ Coinage was thus, like the alphabet, “an enabling innovation.”⁵⁸ The benefits that coinage brought to an expanding *polis*, which was largely administered by non-specialist citizens rotating in and out of office, made the use of coins virtually a necessity once political, social, and financial life achieved a certain (unfortunately unquantifiable) level of complex interaction.

53 OGIS I, no. 339, lines 88, 91.

54 For the records, see IG I², nos. 373-374 (= I³, nos. 475-476); Burford, *The Greek Temple Builders* (as in n. 46) 85-87.

55 See, for example, the way in which amounts in kind are specified by weight in a public inscription of around 500 B.C. from an unknown polis in Crete: L. H. Jeffery and A. Morpurgo Davies, “A new archaic inscription from Crete,” *Kadmos* 9 (1970) 118-154.

56 Will, *Fonctions* (as in n. 40) 234.

57 Resp. 368e-372e; *Eth. Nic.* 1133a6-b18.

58 Barry Cunliffe, “Cities, States, and the Transformation of Europe,” in Barry Cunliffe (ed.), *Origins. The Roots of European Civilization* (Chicago 1987) 83.

Coinage thus served as the ideal medium for gathering contributions, payments, taxes, and fines and then disbursing this revenue to pay for *ta koina* as the city-state developed a greater need for this level of financial transaction. It is a fitting juxtaposition of urbanization and coinage that Plutarch, presumably reflecting his earlier sources, mentions that Theseus minted a coinage for Athens immediately after he has reported how Theseus created an urban center for the new city that his synoecism had brought into existence.⁵⁹ The coinage and built-up urban center attributed to Theseus are fictions, of course, but the connection between the two phenomena is not.

Another development in the history of the late archaic *polis* that possibly promoted the adoption of coinage was the creation of Greek civic navies. The chronology and scope of early Greek navies remain extremely uncertain and controversial, but it seems possible that some Greek city-states began to build at least a limited number of warships that belonged to the state, rather than to individuals, at approximately the same time that they were developing the proto-liturgical tradition of contributions by citizens toward public expenses. Herodotus implies just such a chronological connection, for example, when he reports that the Aeginetans created an early liturgy (a *choregia* to honor the statues of divinities stolen from the Epidaurians) after they began to build ships.⁶⁰ It is usually argued that the ships constituting the earliest Greek navies, at least in large part, did not belong to the city-states, properly speaking, but came as loans from private owners.⁶¹ Even if it is plausible to think that private citizens actually built and maintained ships and crews suitable for war, owned them in sufficient numbers to be able to constitute a navy of any useful size for a *polis*, and were ready and able to loan these private vessels equipped with

59 *Thes.* 24-25.

60 5.83.1. The precise date, which in any case is not relevant to a possible connection between the emergence of a proto-liturgy and publicly-owned ships, is no earlier than the late seventh century. Cf. Figueira, *Aegina* (as in n. 40) 174.

61 See, for example, Starr, *Individual and Community* (as in n. 8) 56, and H. T. Wallinga, *Ships and Sea Power Before the Great Persian War. The Ancestry of the Ancient Trireme* (Leiden 1993) 8, who argues that civic navies hardly existed before the Persian Wars and that few city-states owned significant numbers of triremes before that date. Vincent Gabrielsen, *Financing* (as in n. 28) 24-26, emphasizes that the navies of Greek city-states in the late archaic age are to be understood with "a concept of 'navy' that is structurally and quantitatively quite different from the 'national' navy created later on" because early navies relied on privately-owned ships and not on "a formal, all-embracing network of obligations comparable to the later liturgical system ..." I agree with his argument (pp. 30-34) that the development of civic navies was a long, gradual process. I have elaborated an earlier version of my ideas on coinage and the development of Greek civic navies in a paper forthcoming in the proceedings of the Eleventh Naval History Symposium held in Annapolis, Maryland, in October, 1993.

crews to the state for naval campaigns and military emergencies, it does appear that by the late archaic period a competitive navy could no longer realistically be maintained by marshaling privately-owned ships. A first-class infantry force could still be constituted from hoplites providing their own equipment, but by this time a sufficiently sizable and technologically advanced navy could no longer be generated from the small supply of men rich enough to provide an entire warship solely from their own resources. Rather, constructing a good-sized navy in the later sixth century would presumably have required collecting taxes and also perhaps pooling contributions from citizens, just as in the mid-fifth-century Athenian empire small allied states that could not afford individually to provide an entire ship chipped in cash that was pooled by Athens to buy ships, or as in the later Athenian syntrierarchy system.⁶² It seems reasonable to think that one of the ways in which Greek city-states originally began to build up state-owned fleets was to have citizens pool contributions to pay for the construction of some of the city's ships. Very few city-states would have been as fortunate as Athens became once the strike at Laurion in the 480s paid for more ships out of public revenues obtained without levies on citizens.⁶³

A convenient medium for collecting taxes and for pooling revenues to finance naval construction costs would have been especially welcome as warships in the late archaic period became larger and more complex and thus more costly.⁶⁴ Although it is perhaps not impossible that this process could have taken place indefinitely without the presence of coinage, by the use, for exam-

62 On the syntrierarchy, see Gabrielsen, *Financing* (as in n. 28) 173-176.

63 For the strike being used to pay for ships, see Hdt. 7. 144; Arist. *Ath. Pol.* 22.7; Plut. *Them.* 4.

64 Rhodes, *Commentary* (as in n. 47) 151, suggests that the obscure institution of the naucreries was organized to gather citizen contributions for supplying and maintaining the city's warships. Cf. Manville, *Origins of Citizenship* (as in n. 11) 75, n. 23. V. Gabrielsen, "The naucrariai and the Athenian navy," *C & M* 36 (1985) 21-51, and *Financing* (as in n. 28) 20-24, argues that the sources do not show a connection between the naucreries and the fleet. For references to the copious previous literature, see Borimir Jordan, *The Athenian Navy in the Classical Period* (Berkeley and Los Angeles 1975) 5-16, to which can be added Thomas J. Figueira, "Xanthippos, Father of Pericles, and the Prutaneis of the Naukraroi," *Historia* 35 (1986) 257-279, and Wallinga, *Ships* (as in n. 61) 16-32. See J. S. Morrison and J. F. Coates, *The Athenian Trireme* (Cambridge 1986) 25-41, and Chester Starr, *The Influence of Sea Power on Ancient History* (New York 1989) 21-22, on the development of ships with rams, two-level warships, and triremes. See now Wallinga, *Ships* (as in n. 61) *passim* on the trireme. The Athenian fleet was not numerous at this point and consisted mainly of pentekonteres, according to Thuc. 1.14, but it was large enough for Athens to spare twenty warships to send to the aid of the Ionians in 498 despite the hostilities ongoing with Aegina (Hdt. 5.97.3, 97.1, 6.49-50, 85-93). Athens had at least fifty ships by the late 490s (Hdt. 6.89). See Gabrielsen, *Financing* (as in n. 28) 30-34, for a healthy corrective to excessive skepticism about the existence of any Athenian navy worthy of mention before the later 480s.

ple, of precious objects or bullion as media of exchange, the obvious utility of coinage in this endeavor would have been given an enormous boost by the complicated nature of the transactions required to gather materials and fittings for complex warships and to pay the number of craftsmen with the many different skills that would have been needed to build a fleet of such warships.⁶⁵ As naval technology evolved in the archaic period, first the two-level ship and then the trireme were developed, and any state wishing to compete in naval power had to be able to finance a fleet of scores of these complex and expensive vessels. In fact, the trireme, the most costly and complex of the classical-era warships, may just have been appearing in Greek navies by the third quarter of the sixth century, around the time when more and more Greek city-states were beginning to mint coins.⁶⁶

It would certainly be overly simplistic to claim that the development of navies or indeed any other single phenomenon in the sixth century “caused” the Greek city-states to adopt the use of coinage. Rather, the building of navies through citizen contributions and the collection of revenues *via* taxes might have been one part of the evolution of the patterns of liturgical-type behavior and financial organization that came to characterize the classical *polis* and that happened more or less at the same time as significant urbanization, which meant large-scale common facilities, services, and activities to be paid for and maintained with public funds. The point is that, for purposes of collecting, pooling, and distributing financial resources for shared responsibilities such as maintaining infrastructure or building civic navies or other goals of the developing *polis*, coinage was an essential device.

In sum, the process of the emergence of a tradition of patterns of public behavior, such as the one that later crystallized into the liturgical system of the classical *polis*, had a synergistic relationship to the process of adoption of coinage in the archaic *polis*. In a sense, this development achieved, among other things, a modification of the system of gift-exchange characteristic of aristocrats in the period before the emergence of the *polis* so that it could serve the needs of a new kind of political community – the *polis* – in which the poor were participants as well as the rich and in which the rich had obligations to the *entire* civic community, not just to their fellow demesmen or clansmen.⁶⁷ How sixth-

65 Large biremes with rams represented major projects in naval architecture, and triremes even more so. On the materials and construction of the trireme of the classical era, see Morrison and Coates, *The Athenian Trireme* (as in n. 64) 180–191. It is not known how many men it took to build a trireme. See Burford, *Craftsmen* (as in n. 46) 64. Surely it required a substantial crew.

66 See Starr, *Influence of Sea Power* (as in n. 64) 22. Wallinga, *Ships* (as in n. 61) *passim*, agrees on the date but, as previously mentioned, argues that very few city-states had any publicly owned triremes this early.

century city-states secured revenues to pay for their "public needs" presumably varied. Those with harbors could exact duties on trade; those with lands to lease or mineral resources to exploit, such as Attica's Laurion mines, could claim the revenues as public, and those with tyrants like Pisistratus could institute direct taxes on the population.⁶⁸

In city-states such as Athens in which the expectation grew that rich citizens were obligated to benefit the civic community as a whole, the wealthy would have helped bear the cost of public expenditures. The formal system of liturgies seems not to have been in place at Athens before the end of the sixth century.⁶⁹ It seems likely, however, that obligations analogous to liturgies had commenced at an earlier date, perhaps in the Pisistratid period, and the practice of organizing voluntary contributions by groups of citizens to pay for "public needs" of the *polis* has been postulated to have begun in the archaic period.⁷⁰ It has even been suggested that Solon mandated sacrifices and feasts for the common benefit.⁷¹ As already mentioned, Herodotus assigns an Aeginetan liturgy to an early date.⁷² The costs of civic religion, which constituted activities that benefited the entire community materially as well as religiously, would have been a significant expense, perhaps the major one, in the early city-state and thus required the kind of financing that the proto-liturgical tradition was meant to provide.⁷³ The first celebration at Athens of the Panathenaic festival on a grand scale, the Great Panathenaia, is traditionally dated to 566 B.C., and the Great Dionysia is also usually assumed to have been organized in the mid-sixth century or somewhat later, perhaps by Pisistratus.⁷⁴ In the fourth century the expenses of the Panathenaia, such as cash prizes and sacrifices, were paid

67 For recent discussion of the ideology of gift exchange among aristocrats in archaic Greece, see Leslie Kurke, *The Traffic of Praise. Pindar and the Poetics of Social Economy* (Ithaca, New York 1991) 85-107. See Pierre Bourdieu, *Outline of a Theory of Practice*. Translated Richard Nice (Cambridge 1977) 4-15, for anthropological and theoretical perspectives on the practice.

68 Cf. A. French, *The Growth of the Athenian Economy* (London 1964) 50-52 (on Pisistratus); A. M. Andreades, *A History of Greek Public Finance*. Translated Carroll N. Brown, I (Cambridge, Mass. 1933) 121 (on tyrants).

69 J. Oehler, s.v. "Leiturgie," *RE* XII, cols. 1871-1879; J. K. Davies, *Athenian Propertied Families 600-300 B.C* (Oxford 1971) xxv.

70 For the possibility of an early dramatic *choregia*, see Max Treu, "Eine Art von Choregie in peisistratischer Zeit," *Historia* 7 (1958) 385-391. On the origins of voluntary contributions, see Migeotte, *Souscriptions* (as in n. 50) 307.

71 Manville, *Origins of Citizenship* (as in n. 11) 149.

72 5.83.3.

73 Andreades, *Greek Public Finance* I (as in n. 68) 228.

74 Jennifer Neils, *Goddess and Polis. The Panathenaic Festival in Ancient Athens* (Princeton 1992) 20-21; H. A. Shapiro, *Art and Cult under the Tyrants* (Mainz 1989) 18-21; H. W. Parke, *Festivals of the Athenians* (Ithaca, New York 1977) 33-50, 125-136; Arthur

from public revenues, in particular income received from leases on publicly-owned land.⁷⁵ How festival expenses were paid in the sixth century is unknown. To the extent that they may have been subsidized by contributions from wealthy citizens in this early period, the contributions need not have been made in cash in the earliest period of the celebration of large-scale public festivals. The enormous sacrifices of the Panathenaia, for example, could have been provisioned by wealthy landowners contributing animals from their herds, and the olive oil that filled the prize amphoras could similarly have come from their groves. The amphoras themselves presumably had to be purchased from craftsmen, who most likely did not figure among the rich. But eventually coinage would have been just as useful in facilitating the financing of cult as in the other areas of public interest already mentioned.

Coinage had a synergistic fit with emerging patterns of social and political activity in the late archaic city-state in numerous ways besides any possible utility for purely commercial transactions between individuals. Just as coinage facilitated, for example, Pisistratus's creation of a large number of clients and the imposition of a system of direct taxation, so, too, it supported the process through which wealthy citizens began to make benefactions to the *demos* and supply it with liturgical-type contributions and services. One might add that coinage also would have served the needs of the rich by making it easier for them to satisfy their desire for luxury goods, as Xenophon says,⁷⁶ to make loans to their friends as part of their social interactions, and to extend gifts to the poor in times of famine and other crises.⁷⁷

In these contexts the utility of coinage for the archaic Greek *polis* seems undeniable, but in fairness one must be careful to distinguish between utility and necessity. Neither the evolution in the archaic *polis* of a tradition obligating the rich to make contributions and perhaps collaborate with one another to perform or finance "proto-liturgies" for the benefit of the entire civic community, nor the development of systems of taxation, nor increases in trade absolutely

Pickard-Cambridge, *The Dramatic Festivals of Athens* (2nd ed. revised by John Gould and D. M. Lewis, Oxford 1968) 57-101. W. R. Connor, "City Dionysia and Athenian Democracy," *Classica et Mediaevalia* 40 (1989) 7-32, argues that the evidence is unreliable for dating the establishment of the Dionysia to the Pisistratid era; he thinks a later date is preferable.

N. Yalouris, "Athena als Herrin der Pferde," *MH* 7 (1950) 52-54, suggested that all the types of the earliest coins of Athens, the sixth-century *Wappenmünzen*, were associated with the Panathenaia.

⁷⁵ Parke, *Festivals* (as in n. 74) 35, 44, 47-48.

⁷⁶ *Vect.* 4.9.

⁷⁷ Austin, *Greek Trade* (as in n. 10) 742; Theophr. *Char.* 23.5-6; Antiphanes, *CAF* II, 111, no. 228. Aristotle, who rejected liturgies as dangerously destabilizing in a democracy, recommended that the rich give gifts of money to the poor to provide them with a start on a productive existence (*Pol.* 1304b-1305a, 1320a-b).

depended on the existence of coinage.⁷⁸ These trends could conceivably have continued to evolve even if the Greeks had never adopted coinage, as human ingenuity found ways to accommodate social and political needs with other media of exchange. Nevertheless, all these phenomena together reinforced the appropriateness of coinage in the development of the late archaic *polis* toward its classical form.⁷⁹ It is surely correct to say, therefore, that early coinage served the “public needs” of the “state,”⁸⁰ so long as one remembers that “state” in the archaic period did not mean what it means in today’s world of faceless and self-perpetuating governmental structures. In the early *polis*, the “state” was constituted by the decisions of citizens and the patterns of behavior that they were developing in an emerging and novel political system. As Christian Meier reminds us, there was no “state” divorced from society in this era, and the *polis* was identical to the civic community.⁸¹ Coinage served the needs of society in the civic community in what we call the early Greek *polis*. And since, to quote Meier again, “the strict sense of the word *political* (*politikos*) became ,appropriate to the polis’ ...,” coinage was certainly a political phenomenon. But it was not “political” in any simple way, and it was not produced to serve any single aim. I see no evidence that it was *originally* produced to demonstrate civic pride by standing as a symbol of sovereignty or independence.⁸² Coinage was rather part and parcel of the complex of institutions that contributed to making a Greek *polis* a *polis* by the classical period.⁸³ Coins – *nomismata* –

78 The extent to which Greek trade became monetized is disputed. Contrast the views of Murray, *Early Greece* (as in n. 5) with those of Austin, *Greek Trade* (as in n. 10) 739-740, who quotes ancient sources to show exchange in international trade could and did routinely take place without coins.

79 On this process of change, see Oswyn Murray, “Cities of Reason,” in Oswyn Murray and Simon Price (eds.), *The Greek City* (as in n. 37) 13.

80 See, for example, Starr, *Economic and Social Growth* (as in n. 4) 116, and Austin, *Greek Trade* (as in n. 10) 734.

81 *The Greek Discovery of Politics*. Translated David McLintock (Cambridge, Mass. 1990) 3-4, 21.

82 If one is looking for symbolic representation of concepts central to *polis* identity, it would be better to look elsewhere, for example to Roland Martin’s idea that the agora symbolized “l’indépendance et l’autonomie de la communauté politique” (*L’Urbanisme* [as in n. 35] 268) because the agora was used for rituals and behavior that reinforced the city’s sense of identity. Similar notions could be expressed by monumental architecture and art. On Athena’s owl as “the official emblem of city” in the context of the interpretation of the inscription *demosios* next to an owl painted on a late archaic amphora as “a self-conscious product of the young democratic state,” see H. A. Shapiro, “From Athena’s Owl” (as in n. 37) 213-224. Athens had an official public seal, which is attested as early as 397 B.C. See Arist. *Ath. Pol.* 44.1 with Rhodes, *Commentary* (as in n. 47) 532.

were indeed “things of *nomos*.” They were mechanisms for the application of *nomos* in constructing the life of the *polis*, in particular for central developments such as the emergence of the custom that rich citizens would contribute financially in shared responsibilities for the benefit of the entire community. This is one reason, and a central one, why the Greek *polis* originally needed coins.⁸⁴

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83 Cf. the comments of Howgego, *Supply* (as in n. 36) 19, on studies of coinage and social and political development in Gaul: “It looks as though the production of coinage and the subsequent introduction of small denominations are indicative of stages in the development of towns.”

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