

ECONOMIC INTEGRATION
AND MONETARY CONSOLIDATION IN THE ATHENIAN *ARKHĒ*

THOMAS FIGUEIRA

In this paper, I should like to discuss monetary consolidation during the Greek classical period, chiefly in order to present a historical snapshot of the moment at which a relatively high level of monetary integration for the ancient Greeks was achieved. For the Aegean basin, this moment occurred in the late 430s, on the eve of the Peloponnesian War. Then it will be incumbent upon us to explore the factors favoring this consolidation. Finally, an examination of the forces contributing to the eventual disarticulation of this monetary integration is helpful, not only for the light it sheds directly on the periodization of social factors, but also for the illumination it casts back on the consolidating influences of the mid-fifth century.

Early Polis Monetary Regimes

In a culture divided among small polities with mainly agrarian economies, the early history of Greek money was inevitably marked by two qualities, pragmatic experimentation and compartmentalization. Two factors accentuated this pattern. First, the iconography of early issues, the achievement of administrative control over minting, and the promulgation of rules defining legal tender served the process of state building in the early *polis*. Therefore, archaic elites employed coinage to enhance community building and to reinforce the identification of ordinary citizens with their city. Second, *poleis* utilized local coinages to create more efficient systems of taxation, thus sustaining more complex programs of expenditure for secular and religious building programs, for fortifications, and for the construction of fleets of triremes¹.

Nonetheless, providing an adequate money supply for the internal economy was always challenging. Minting authorities had to provide enough indigenous local coins to monetize local markets so that monetary transac-

¹ This phenomenon is clearly illustrated for the Aeginetans, the earliest of the *polis* minters. See T.J. FIGUEIRA, *Aegina* (New York 1981) especially 107-25.

tions would replace barter and pre- or quasi-monetary interchanges, and so that foreign coins would not usurp a disproportionate role in the economy. Such efforts required a sufficient flow of silver through official channels to supply the mint. Moreover, there was always a danger that coins in separate denominations would be demonetized for their silver content unless a stable supply of those individual denominations was achieved. Factors of scale tended to work against the attainment of the goal of monetary self-sufficiency, let alone exclusivity, for most states². The narrow boundaries of many *poleis* could never be so impervious that dealings with people from neighboring communities in their own coins were not ubiquitous.

Hence, our hoard evidence indicates regional monetary zones, where coins from neighboring mints circulated together³. To an extent, regionalism even overrode legal stipulations that reserved for local coins a privileged status, especially in dealings between citizens and their government⁴. I would emphasize, however, that monetary regionalism does not demonstrate a low level of overseas commerce nor prove such trade was mainly non-monetary. Rather, the mechanisms for circulating foreign coins homeward were efficient and separate for the most part from the pathways that led to coins being hoarded⁵, where future utilization in extreme eventualities played a major role. Such regionalism characterizes the coin hoards found in Italy, Sicily, and the coastlands where *poleis* fronted non-Greek hinterlands (such as the northern littoral of the Aegean, the northern coast of the Propontis, and the hinterlands of the Black Sea).

The efflorescence of coinage lasted perhaps fifty years or at the most two generations, during which many *poleis* both expressed their civic pride and tested practical advantages by initiating the minting of coins. The output of many early mints was exiguous. And appreciably fewer cities (such as Aigi-

² In the absence of ancient administrative documentation, the evidence for «invasions» of foreign coins in medieval European states is suggestive; see T.J. SARGENT & F.R. VELDE, *The Big Problem of Small Change* (Princeton 2002) 31, 124-25, 132-37.

³ A fundamental study is C.M. KRAAY, «Hoards, Small Change and the Origin of Coinage», *JHS* 84 (1964) 76-91. More recently, note T.J. FIGUEIRA, *The Power of Money: Coinage and Politics in the Athenian Empire* (Philadelphia 1998) 23-48.

⁴ An early example of the expectation that payments to the state be made in local coins derives from Eretria (*IG* XII.9 1273/1274), for which see W.P. WALLACE, «The Early Coinages of Athens and Euboeia», *NC* 12 (1962) 23-42, esp. 37; E. VANDERPOOL & W.P. WALLACE, «The Sixth-Century Laws from Eretria», *Hesperia* 33 (1964) 381-91.

⁵ Two exceptional hoards demonstrate this process of recirculation at work: M. THOMPSON, O. MØRKHOLM, & C.M. KRAAY (eds.) *Inventory of Greek Coin Hoards (= IGCH) #1874*, «Taranto, 1911» (dating c. 508) and *Coin Hoards* 8.35, «Selinunte, 1985», for which see E. BABELON, «Trouville de Tarente», *RN*⁴16 (1912) 1-40; C. ARNOLD-BIUCCHI, L. BEER-TOBEY & N.M. WAGGONER, «A Greek Archaic Silver Hoard from Selinus», *ANSMusN* 33 (1988) 1-35 with FIGUEIRA, *Power of Money* 26-27 (n. 13).

na, Corinth, and Athens) graduated to the next stage in monetary history, in which the striking of smaller denomination coins reached a level sufficient to monetize retail transactions and in which the money supply received regular supplementation with new issues. Despite any desire to publicize political autonomy by minting coins, cessation of coining in the Aegean began even before the foundation of the Delian League in 478⁶.

The Rise of Attic Money during the Pentekontaeteia

Let us turn now to consider the Pentekontaeteia, the fifty-year period that classical Greeks envisaged as stretching from the retreat of the Persians from homeland Greece in 480-79 and the foundation of the Delian League in 478 down to the outbreak of the Peloponnesian War in 431. Athens began this period in possession of one of the important civic coinages of mainland Greece, significantly one available in a full hierarchy of denominations and minted in considerable numbers. Monetary conditions were necessarily a concomitant of economic conditions. The most active three mints belonged to the three large and differentiated economies of Aigina, Corinth, and Attica⁷, which stood out against the background of mainly agrarian states in mainland Greece⁸. In contrast, east Greek states with their large economies and histories of active coining (like Chios, Samos, Mytilene, and Phokaia) had been considerably damaged by conquest by the Persians, hegemony by Medizing tyrants, their resistance to Persian control, and the emigration consequent to alien domination. Attic coinage also had a special status in the early fifth century, because the production of silver itself was the most important non-agricultural productive activity in Attica. Attic tetradrachms were an important mechanism (alongside bullion and jewelry) for the conveyance of this silver from the mining district of Laurion to overseas consumers, not only within Greece but also in Egypt and the Levant. The markedly increased silver production during the 480s and its allocation

⁶ See *Power of Money* 63-66, 88 for class IIIA.

⁷ Only Aigina, however, exhibited thorough adaptation to commercial and industrial activities. Corinth was typified by an older style economy in which colonial trade and *entrepôt* commerce were grafted onto a traditional Peloponnesian agrarian economy. See FIGUEIRA *Aegina* 264-80; FIGUEIRA, «Typology in Archaic Greek Maritime States», *Ancient West & East* 1 (2002) 24-27. Athens was the least commercial of the three, but the Attic economy was characterized by important craft and extractive industries, and an agricultural sector that had shifted from cereal production to the production of olive oil. See FIGUEIRA *Power of Money* 22-25.

⁸ The largest of these economies was that of the Spartans, whose barter economy was only symbolically affected by an iron currency. See FIGUEIRA, «Iron Money and the Ideology of Consumption in Laconia», in *Sparta: Beyond the Mirage*, S. HODKINSON & A. POWELL, eds. (Swansea 2002) 137-70.

to the building and equipping of warships (mainly through the naval legislation of Themistokles) injected a huge amount of Athenian money into circulation⁹. Consequently, the new silver strike at Laurion and its utilization for military expenditures were in conjunction as significant for Greek monetary history as for political and military history, and they mark an important threshold for the fifth-century monetary environment of the Aegean.

We do not have much direct literary evidence for the use of Attic money by Athenian allies after 478. Helpful is the retrospective lament of Aristophanes from his *Frogs*, where he contrasts the emergency bronze coins (and even the recent issues in gold) of the late Peloponnesian War with the earlier owls that were accepted universally (718-37)¹⁰. We have also strong epigraphic evidence from the tribute lists showing the allies in the Delian League paying large annual sums in Attic coins that they had presumably amassed through taxation from local economic activity (*IG I³ 259-90*)¹¹. As warships built, equipped, maintained, and manned from Athens itself provided the main striking force of the alliance, the treasury of the alliance operated in Attic coinage. In comparison, the hoard evidence is difficult to interpret, inasmuch as it shows both the prominence of Attic money in allied circulation and the absence of a demonetization of allied coins¹².

There is no evidence for a complete termination of allied coining, but rather the data speak for a gradual closing of allied mints and an attenuation of their activities¹³. Nor does there seem to have been one juncture at which a significant number of mint closings took place simultaneously. Nevertheless, indirect evidence from coining patterns overwhelmingly supports personal and official acceptance of Attic coins by the allies. This retreat of most allied coinages before Athenian money not only overrode previous localism and regionalism in the usage of money. It also constituted a new over-arching «regionalism», in which the frame for the use of coins became a super-

⁹ The Attic expenditures were magnified in their impact because they were balanced by Aiginetan military initiatives and responses, including a new, «state-of-the-art» military harbor (Paus. 2.29.10-11). See FIGUEIRA *Aegina* 113-14, 189-90.

¹⁰ Note Arist. *Frogs* 721-25: οὔτε γὰρ τούτοισιν οὔσιν οὐ κεκιβδηλευμένοις, | ἀλλὰ καλλίστοις ἀπάντων, ὡς δοκεῖ, νομισμάτων | καὶ μόνοις ὀρθῶς κοπεῖσι καὶ κεκωδωνισμένοις | ἔν τε τοῖς Ἑλλησι καὶ τοῖς βαρβάροισι πανταχοῦ | χρώμεθ' οὐδέν ... for which see FIGUEIRA *Power of Money* 500-503.

¹¹ One exception to the monopoly of Attic money on the tribute lists and their predominance in the dealings of the Hellenotamiai is the reception of Cyzicene electrum staters attested in the *aparcbē* in the first list of 454/3 (*IG I 259.VI.Postscript.6-12*; see *Power of Money* 274-75). This year may represent the transition from a less rigorous attitude against the payment in electrum to one of greater stringency.

¹² See FIGUEIRA *Power of Money* 39-48.

¹³ See FIGUEIRA *Power of Money* 62-91.

region constructed out of the Aegean basin, where the majority of allied states were concentrated, and adjacent areas like the Propontis. These statements are factual whatever we are to make of a «Coinage Decree» or decrees, the controversial restored provisions, and the chronology of Attic monetary legislation, since the remaining evidence must be given its autonomous standing and deserves priority over any declaration of policy or mere intent that modern scholars may interpret from the fragmentary inscriptions.

What do these patterns of actual minting tell us? By 431, nearly 200 tributary states or over two-thirds of the allies had never minted in precious metals¹⁴. That these were mainly small communities leads to an important conclusion. The ability to support a local coinage was proportionate to the size of a *polis* economy. The notable exception, Byzantion, is also noteworthy for minting iron coins. Its ability to impose locally a base metal coinage was derived from its unique, irreplaceable geographical situation¹⁵. Except for a few partially monetized economies, non-minting states had always used foreign coins. An absence of minting would seem to tell us nothing about the monetary affairs of the Attic alliance, as their disinclination to mint both precedes and follows 478. Yet twelve or so of these states began producing coins in the last decades of the fifth century and another fifty would eventually mint¹⁶. Thus, in these cases the dominance of Athens, whether political or economic, probably dampened any allied inclination toward minting. Moreover, the late fifth-century initiators of coinage share two other noteworthy qualities: a low output and a minting of lighter coins. It is likely then that their decision to initiate coining was caused by economic factors.

Also striking is the progression of the allied cessation of minting, even though not all these mint closings occurred after the Delian League's foundation. Thirty-nine allies had ceased minting by 446/5 (the Thirty Years Peace)¹⁷. Often, closing a mint occurred in stages. Allied officials terminated heavier issues first and then later stopped striking drachmal and fractional coins. The continuance of this pattern is discernible even after 445. Nine mints of lighter coins closed from 445 to 420¹⁸. Under fifth-century conditions, a preponderance of production by weight of metal for each mint lay in its heavier issues. When striking coins heavier than a drachma ended, the amount of silver cycling through the local mint diminished markedly. Such

¹⁴ All allied states: c. 282; non-minting allies: c. 189. See FIGUEIRA *Power of Money* 52-58, 563-76.

¹⁵ FIGUEIRA *Power of Money* 58-59, 62-63, 576. Cf. E. SCHÖNERT-GEISS, *Griechisches Münzwerk: Die Münzprägung von Byzantion* (Berlin 1970) 35-51.

¹⁶ FIGUEIRA *Power of Money* 60-61, 88, 576-77.

¹⁷ FIGUEIRA *Power of Money* 62-69, 88-89, 577-84.

¹⁸ FIGUEIRA *Power of Money* 71-75, 90, 585-86.

curtailment of minting by top-down cessation also indicates that other coins were occupying the former monetary role of heavier local specie. This replacement component of the money supply is likely to have been Attic tetradrachms, especially since no other mint is known to have accelerated its production during the period of fifth-century Attic hegemony.

Our period is generally typified by allied restriction of minting to coins of drachmal weight or smaller. An emphasis on lighter coins was not only a stage toward final mint closing; some allies only ever coined lighter coins, like the twelve states that began minting late in the Athenian hegemony. Another six allies seem to have minted lighter coins continuously, and still another eight allies may have intermittently struck issues of such coins¹⁹. And a reduction in the total scale of production often paralleled this emphasis on lighter coins.

Traditionally, scholars have posited political causes for numismatic changes. However, we must balance our appreciation of the dynamic role of coining in state formation and even our conceding that minting could help exhibit *autonomia* by stressing that providing a sufficient money supply for the private sector was always a daunting challenge²⁰. Sustaining a monopoly for local money in all transactions was manifestly an achievement beyond the capacity of the average *polis*. Too many *ad hoc* «revolts» and constitutional changes have been conjured out of thin air by our scholarship in the absence of positive evidence. Without forgetting cases where coining was ended by political catastrophe, such as the expulsions by Athens of the Aiginetans and Poteidaiaans²¹, the straggling and protracted record of closure of allied mints hardly appears the result of intervention. The majority of these closings were not the result of a Coinage Decree, as traditionally understood, since a termination of coining by «imperial» legislation requires an aggregation of instances. It also strains credence beyond reason that dozens of separate unknown crises accounted for the closings of allied mints at various times. After all, even the Aiginetans, hated by the Athenians, were soon reopening their mint after subjection to Athens in 457²², and the pattern of fifth-century Thasian minting defies easy explanation in terms of Athenian intervention²³. As a general rule, local administrative or economic rationales

¹⁹ FIGUEIRA *Power of Money* 71-75, 90-91, 586-91.

²⁰ On *autonomia* and coining, see FIGUEIRA *Power of Money* 247-58 with FIGUEIRA, «AUTONOMOI KATA TAS SPONDAS (Thuc. 1.67.2)», *BICS* 37 (1990) 63-88; FIGUEIRA, *Excursions in Epicboric History* (Lanham, Md. 1993) 255-92.

²¹ Aigina: Thuc. 2.27.1, cf. 5.74.3, 7.57.2, 8.69.3; DS 12.44.1; Plut. *Per.* 34.2; Strabo 8.6.16 C375; Σ Arist. *Ach.* 654b. Poteidaia: Thuc. 2.70.4; DS 12.46.7.

²² See FIGUEIRA *Excursions* 288-92; *Power of Money* 118-21.

²³ FIGUEIRA *Power of Money* 78-80, 590-91; O. PICARD, «Monnaies et guerre en Grèce classique»,

should be sought for allied monetary decisions. In addition, decisions to restart minting should not be overplayed. Unless followed by massive coin production – and there is no evidence for this eventuality anywhere – their significance was limited to administrative control of public expenditures and the payment of local or allied military forces. Mere resumption of minting did not encompass a transformation of the monetary media by which daily business was conducted.

At least 92% of the allies were not minting in the late 430s²⁴. Thus their citizens used coins from other states in the local economy. Exploring this phenomenon from the perspective of scale yields further insights. Levels of assessment were proportionate to allied revenues and wealth, as substantiated by anecdotal evidence for the wealthier tributaries²⁵. Also corroborative are analyses of the dissolution of larger tributary units, which was called *apotaxis*²⁶, and examinations of modifications of assessment following the establishment of Attic colonies²⁷. Accordingly, there is a high correlation between the operation of a mint and the size of the local economy²⁸. Reconsidering monetary consolidation in the 430s relative to economic output yields the following conclusions. About 60% of the output of the tributary economies was associated with states that were not minting their own coins. Another 13% of output came from states minting only light coins. Therefore only 28% of the economic output of the tributaries was undertaken in settings serviced by a local civic mint. Furthermore, this 28% is an outside limit, one reached by a conservative methodology that includes coinages about which spotty or contradictory evidence exists.

Which were then the states that minted on the eve of the Peloponnesian War? They fall into a few discrete categories²⁹. The largest Aegean economy

Pallas 51 (1999) 205-21, esp. 207-8; cf. PICARD, «Problèmes de numismatique thasienne», *RA*⁵ 1 (1982) 169-74; PICARD, «Monnayage thasien du V^e siècle av. Jésus-Christ», *CRAI* (1982) 412-24.

²⁴ Allied Coining, 434/3-431/30: Attested Tributaries: 164; Attested Tribute: 354T, 5650 dr.; Non-minting tributaries: 147; their attested tribute: 214T, 1650 dr. See *Power of Money*, Table 2.1, pp. 54-55.

²⁵ T.J. FIGUEIRA, *Athens and Aigina in the Age of Imperial Colonization* (Baltimore 1991) 170-71, 251-53; *Power of Money* 481-82.

²⁶ For *apotaxis*, note Antiphon XV, fr. 50-57 (on Samothrace).

²⁷ See B.D. MERITT, H.T. WADE-GERY, & M.F. MCGREGOR, *The Athenian Tribute Lists* (Princeton 1950) 284-93; R. MEIGGS, *The Athenian Empire* (Oxford 1972) 121-23; FIGUEIRA *Colonization* 67-68, 168 (n. 19).

²⁸ Allied Cities ranked by size of economy in 434/3-431/0 (active minters in CAPITALS): CHIOS, SAMOS, MYTILENE, METHYMNA, Byzantion, THASOS, ABDERA, POTEIDAIA, Lampsakos?, Erythrai?, LINDOS, MARONEIA, Perinthos. See *Power of Money* Table 18.2, p. 482.

²⁹ Active Mints: Large economies: Chios, Samos, Mytilene, Aigina, Thasos; Anatolian mints: Aspendos, Kelenderis, various Lycian mints; Minters of electrum: Mytilene, Lampsakos, Phokaia, and Cyzicus. See *Power of Money* Table 2.2, 2.3, pp. 84-91.

patently belonged to the Athenians themselves, who used their own coins for almost all local economic activity. The next largest economies in the *arkhē* belonged to the non-tributary states of the islands of Chios, Samos, and Lesbos. These states continued to mint and use their own coinage, although it is unlikely any of them produced enough coins for total internal, let alone external, use. Yet, it is also worth remembering that these autonomous, non-tributary states owed the relative independence of their policies to their possession of large military establishments that were valuable to the Athenians for their collaboration in maintaining peace in the Aegean. The ability to issue their own coins may well have been significant in the procurement and maintenance of indigenous forces. To these large non-tributary economies may be added the tributaries Aigina and perhaps Thasos. Aigina, a fading commercial power, was earlier the issuer of a huge coinage, which continued to be the main monetary medium for large areas within the Greek mainland³⁰, as well as possessing an important secondary role in the Aegean islands³¹. Thasian coinage had particular significance in the commercial relations of the Thracian littoral with its native hinterland³². Both Aigina and Thasos paid the pre-war maximum tribute of thirty talents³³.

Another group of mints belonged to the peripheral states in southern Anatolia: Aspendos, Kelenderis, and various Lycian political units. The majority of the trade contacts for these communities lay outside the *arkhē*, so that the dynamics of monetary exchange within the Aegean were attenuated for their economies. Most Lycian allies ceased being tributary after 446, although many may have remained allied with Athens (as their reappearance in the assessment of 425/4 would indicate). Aspendos and Kelenderis would attract sufficient Attic coins in the normal course of commercial relations, as Attic silver had a strong flow toward the Levant during the Pentekontaeteia.

The case of Mytilene leads us to identify another small group of minters. Not only is Mytilene notable for the size of its economy, but its mint also produced electrum coins. The rest of the class of active electrum mints, including Cyzicus, Phokaia, and Lampsakos, had large, but third tier,

³⁰ For example, the turtle stater was «the coin of the Peloponnesus», for which note Pollux *Onom.* 9.74; Eupolis fr. 150, *PCG* 5, 378; Apostolius fr. 12.31b, *CPG* 2.550; Hesych. s.v. *χελώνη*, *χ* 343 Latte; *καλλιχέλωνος*, *κ* 495.

³¹ For output, see FIGUEIRA *Aegina* 98-110; for hoard evidence, see FIGUEIRA *Power of Money* 36-38.

³² *IGCH* #691-92, 695, 701-3, 710-12; *CH* 1.18, 4.15, 6.7-8, 7.25, 8.75. See FIGUEIRA *Power of Money* 27-28, 590-91 (with citations of earlier work).

³³ Aigina: e.g., *IG* P³ 259.VI.18 (454/3), 272.100 (441/0). Thasos: e.g., *IG* P³ 268.III.15 (444/3), 280.II.58 (432/31).

economies³⁴. Electrum coins belonged to a discrete compartment of the international money supply that mediated interaction between Greek factors and native commercial partners in the Propontis and Black Sea. In these regions, stereotypical transactions with great monetary selectivity prevailed between Greeks and native «factors». Furthermore, electrum coins also played a role in paying military personnel, with electrum *hektai* ‘sixths’ standing in rough equivalence to Attic tetradrachms. Electrum coins varied in the proportion of gold that they contained and the mixture of the two metals in particular was very hard to determine in ordinary use. Consequently, Cyzicene staters and Phokaian and Mytilenean *hektai* had a fiduciary equivalence in which various issues circulated at parity. More dependent than silver on the nature of relevant transactions and on specific transactional context, electrum coins were not substitutes for silver coins either in private business or in state finances. Thus, electrum and silver money supplies were limited in their inter-permeability.

As Mytilene points us toward the electrum mints, Thasos, well endowed with mineral resources, evokes the northern Aegean mints. This final category includes Abdera, Ainos, Akanthos, Maroneia, and Mende³⁵. Their region possessed significant silver deposits. Abdera, Ainos, and Maroneia dominated trade routes between the Aegean and the Thracian interior, then controlled by the powerful Odrysians³⁶. Mende and Akanthos lay in the Chalcidice, adjoining Macedonia. Here too, we appear to find the influence of commercial relations with non-Greeks, who may well have been less flexible in their manipulation of monetary media than Greek transactors, a situation already noted *vis-à-vis* the economic activity mediated by electrum coins. Neighboring Poteideia and Torone also minted lighter coins until the expulsion of their inhabitants by the Athenians³⁷. To summarize, still active mints of the late 430s were typified by five characteristics, either alone or in combination: (1) a large economy, (2) geographically or commercially peripheral location, (3) access to supplies of silver, (4) intense interaction with non-Greek trading partners, and/or (5) specialization in coining in electrum.

That most economic activity not handled in local coins was probably transacted through use of Attic coins, probably accepted as legal tender, can be argued by examining mint output. Despite the absence of a die study for Attic coins from 450 to 400, it is clear that the already massive coin produc-

³⁴ FIGUEIRA *Power of Money* 92-109.

³⁵ FIGUEIRA *Power of Money* 127-49, 596-98.

³⁶ See now Z. ARCHIBALD, *The Odrysian Kingdom of Thrace* (Oxford 1998) 126-35, 144-50.

³⁷ FIGUEIRA *Power of Money* 586, 589.

tion of 480 to 450 accelerated appreciably³⁸. Estimates of the silver production from Attica – some as high as 750 talents annually – buttress this appraisal, even if only a modest proportion, say 100 talents, was ever sent to the mint³⁹. Attic coin output dwarfs allied minting in the cases where we have systematic die studies, as for Chios, Samos, Abdera, Ainos, Akanthos, and Maroneia⁴⁰. Significantly, none of these mints increased output during the *arkhē*, either to keep pace with Athens or to compensate for the closings of other allied mints. Indeed, most of the enumerated mints reduced production, at least down to the Ionian War.

Some other features of monetary policy signified the late fifth-century dominance of Attic coinage, although it must be conceded that these manifestations are suggestive rather than probative because of the absence of direct testimony on intentions in policy. There are traces at some mints, like Kos and Maroneia, of targeting individual issues toward restricted, symbolically important, contexts, where disbursements were made to a broad cross-section of the people to allow them to use local coins that had traditional imagery⁴¹. Furthermore, some allied mints adopted the Attic standard, like Kameiros and Ialysos on Rhodes, or Samos, though these manifestations for the allies with the largest economies, which most interest us, seem to come toward the very end of our period⁴². Some manipulated denominations on a non-Attic standard to exploit points of convergence with the Attic coin standard, like the Thasians⁴³.

Attic Money and the Athenian Arkhē

Our discussions in Cividale del Friuli have been deliberately framed in

³⁸ FIGUEIRA *Power of Money* 180-88.

³⁹ C.E. CONOPHAGOS, *Le laurium antique* (Athens 1980) 138-52, 341-64; FIGUEIRA *Power of Money* 184-85.

⁴⁰ The material is collected in *Power of Money* Table 7.1, p. 188; Table 7.2, pp. 191-92.

⁴¹ Kos: FIGUEIRA *Power of Money* 80-83, where it is argued that the *diskoboloi*, which were roughly equivalent to Attic tetradrachms, were connected with disbursements at the Triopian games (important for the Greeks of the Dorian *hexapolis/pentapolis*). Cf. J.P. BARRON, «The Fifth-Century Diskoboloi of Kos», in C.M. KRAAY & G.K. JENKINS (eds.), *Essays in Greek Coinage presented to Stanley Robinson* (Oxford 1968) 75-89. Maroneia: FIGUEIRA *Power of Money* 140-49, where internal distributions of coins connected with ritual occasions are envisaged. Cf. J.M.F. MAY, «The Coinage of Maroneia: c. 520-449/8 B.C.», *NC* 7 5 (1965) 27-56; E. SCHÖNERT-GEISS, *Griechisches Münzwerk: Die Münzprägung von Maroneia* (Berlin 1987) 17-19.

⁴² FIGUEIRA *Power of Money* 73-75; cf. H.A. CAHN, *Knidos: Die Münzen des sechsten und fünften Jahrhunderts v. Chr.* (Berlin 1970) 180-87. Samos: *Power of Money* 171-72; cf. J.P. BARRON, *The Silver Coins of Samos* (London 1966) 97-101.

⁴³ École Française d'Athènes, *Guide de Thasos* 186-87.

terms of the appearance of the Euro as the sole legal tender of the majority (12) of the states of the European Community/Union⁴⁴. The emergence of the dominance of Athenian money in the Pentekontaeteia differed in one crucial regard from the inauguration of the Euro. The Euro is a new form of money that has superseded the older national currencies, such as *deutschmarks*, *francs*, and *lire*, and is controlled by a central bank beyond the direct influence of national sovereignty. The civic coinage of Athens, the Attic owls, replaced other coinages in use, its peers in political terms, and displaced local religious, mythological, and patriotic images for the benefit of Athenocentric symbolism – the head of Athena Polias, the patroness of the Athenians, on the obverse, and her owl on the reverse. These were hardly panhellenic symbols. The Euro balances European and national symbolism. Undeniably, the Euro is the fruit of supra-nationalistic attitudes, while the supremacy of Attic money was part and parcel of Attic hegemony (the *arkhē* as it were)⁴⁵. At a minimum, the Athenians were encouraging the employment of their money through the structure of the tribute system and through bilateral agreements, as witnessed by the scene between Pisticheiros and the Decree-seller in Aristophanes' *Birds* (1035-57)⁴⁶. In the traditional interpretation of the Coinage Decree, the Athenians went so far as to mandate the exclusive use of their money, weights, and measures (*IG I³ 1453*).

Therefore, it is important to understand the scope of our revisionism about fifth-century Athenian imperialism. The old paradigm about Attic hegemony was formulated by the authors of *The Athenian Tribute Lists* and extended by influential Oxford historians like Russell Meiggs and David Lewis⁴⁷. My goal has been to begin to replace this earlier structure, not

⁴⁴ The final version of this contribution was assisted by my consulting a paper of my colleague, Professor M. Dutta of the Department of Economics of Rutgers University, entitled «The EU and the Euro Revolution: The Theory of Optimum Currency Area Revisited». I should like to express my gratitude to Professor Dutta.

⁴⁵ Admittedly, some European intellectuals and «Eurocrats» aspire to create a European nationalism (a super-nationalism, so to speak) that would replace the older linguistically, culturally, and dynastically based nationalisms. That aspiration might offer a valid parallel for those fifth-century Greeks who sought an *arkhē* based on *dēmokratia* and *autonomia* and shaped by a shared Ionian cultural milieu. Yet the politicking on behalf of an exclusively European military that would be outside of the command structure of NATO forces may be more indicative of European «super-nationalism».

⁴⁶ See FIGUEIRA *Power of Money* 203-16.

⁴⁷ Ironically (but not truly unexpectedly), the alternative standard paradigm offered by H.B. Mattingly, based on the redating of several important «imperial» inscriptions to the 420s, is more tenacious in its adherence to the leitmotifs of the *ATL* paradigm than the adherents of the *ATL* positions. It is especially weak on policy motivation and causation, something over which we must be clear-eyed in light of the proposed redating of the Egesta Decree (*IG I³ 11*). See MATTINGLY, *The Athenian Empire Restored: Epigraphic and Historic Studies* (Ann Arbor 1996) with W. SCHULLER, «Folgen einer Um-

merely by offering emendations and adjustments, but by a fundamental re-thinking⁴⁸. This tendency to approach the investigation of the Athenian empire by major analytical restructuring is not limited to my own work⁴⁹.

How might a new paradigm differ? In the first place, it could depart from earlier scholarship by emphasizing the huge role of Attic authority from the inception of the alliance, namely, exclusive military command, the absolute right to assign allies to tributary rank, complete discretion over levels of assessment, and a monopoly of the office of the *Hellenotamiai*⁵⁰. Concomitantly, the *phoros* system by its very nature was massively intrusive with regard to the inner workings of an allied *polis*, because the exaction of tribute was a supervening mode of taxation that enveloped or capped the local taxational apparatus, and because tribute payments were the largest item of allied budgets, affecting the entire local financial administration. The tightening of control over the allies came early in the history of the alliance, as Thucydides implies (1.99.1-3). Moreover, Thucydides also asserts that the consolidation of the *arkhē* was consummated during the Pentekontaeteia (1.118.2)⁵¹. Hence, we ought not countenance the division of the hegemony into phases of alliance and empire, divided by a mid-century crisis that is marked by the Peace of Kallias and a year of remission of the tribute. The Peace of Kallias is of doubtful historicity, especially in this chronological setting and when it is given the valence of a definitive end to conflict with the Persians.

Rather, our appreciation of the evolution of the *arkhē* must always be

datierung des Egesta-Dekrets (IG I³ 11)», in N. EHRHARDT & L.-M. GÜNTHER (eds.) *Widerstand – Anpassung – Integration. Die griechische Staatenwelt und Rom: Festschrift für Jürgen Deininger zum 65. Geburtstag* (Stuttgart 2002) 41-47 and my review in *Bryn Mawr Classical Review* (2001).

⁴⁸ This program is not only embodied by my *Power of Money* in 1998, but was also laid out in major outline in *Colonization* in 1991, and supplemented by my study of *autonomia* (*BICS* [1990] ~ *Excursions* 255-92) and by «Thoukydides, Melesias, and the Aiginetans», in *Excursions* 197-230, which dealt with the fundamental grounds for allied policy marked out by Perikles in 455-444.

⁴⁹ Note for example the two books of LISA KALLET(-MARX): *Money, Expense and Naval Power in Thucydides' History*, 1.-5.24 (Berkeley & Los Angeles 1993); *Money and the Corrosion of Power in Thucydides: The Sicilian Expedition and its Aftermath* (Berkeley & Los Angeles 2001); the scholarship of LOREN SAMONS II, including his monograph: *Empire of the Owl: Athenian Imperial Finance, Historia Einzelschriften* 142 (Stuttgart 2000).

⁵⁰ That the initial assessment was a much heavier burden on a restricted body of tributaries – with many ship contributors not liable for its payment – is an important hypothesis that would underline this portrait of the early alliance. Note FIGUEIRA *Colonization* 187-88.

⁵¹ Thuc. 1.118.2: ταῦτα δὲ ξύμπαντα ὅσα ἐπραξαν οἱ Ἕλληνες πρὸς τε ἀλλήλους καὶ τὸν βάρβαρον ἐγένετο ἐν ἔτεσι πεντήκοντα μάλιστα μεταξὺ τῆς τε Ἐέρξου ἀναχωρήσεως καὶ τῆς ἀρχῆς τοῦδε τοῦ πολέμου· ἐν οἷς οἱ Ἀθηναῖοι τὴν τε ἀρχὴν ἐγκρατεστέραν κατεστήσαντο καὶ αὐτοὶ ἐπὶ μέγα ἐχώρησαν δυνάμειος... Here the term ἐγκρατής in the comparative degree is particularly emphatic (cf. 5.35.5; ἐγκρατῶς: 1.76.1). See SCHULLER *Festschrift Deininger* 46 (with n. 20).

sensitive to the limitations on the exertion of political power set by contemporary ecological and technological constraints on productivity, demographic circumstances, and technical and logistic restrictions on projecting military force. Even the most powerful fifth-century *polis* had little ability to manipulate economic conditions. Athens had no mercantile policy, was ignorant of (and probably virtually powerless over) its balance of payments, and did not try to monopolize foreign markets. Instead of a mercantile policy, Athens administered a colonial policy by which its citizens, metics, and allies were positioned within replicas of Attic society and its democratic polity in order to exploit new resource bases so that the profits of that exploitation might be shared between colony and *mētropolis*. These considerations encourage our balancing the ideological and symbolic aspects of Athenian hegemony with an equal interest in the administrative challenges to which so many of our extant inscriptions speak. And while we must concede that Attic hegemonic and democratic ideology should not be taken at face value, we require that it also be understood from the inside out, not ignoring our wealth of literary evidence in order to project crudely modernizing constructs onto bare administrative details that seem to be attested epigraphically. The same considerations alike encourage our reluctance to surrender to a historiography of personalities, notwithstanding due admiration for the factional acumen and statesmanship of a Perikles or unavoidable distaste for the brutality of a Kleon.

It is probably not worth the effort to disentangle here the modern preoccupations that condition traditional images of Attic «imperialism» save to note their reflection of a historical sensibility that prevailed in certain Anglophone academic circles during the period extending from the Common Front movements of 1920s and 1930s down through the Vietnam War. It is also worth noting the surprising stringency of criticism in America of the hegemony of the democratic, relatively tolerant, and comparably diverse Athenians.

More to the point is the observation that the Athenians are not being offered as «cuddly administrators»⁵². Although such present-minded rhetoric might be excusable as useful in teaching, a series of more difficult questions about Athenian «imperialism» must be posed by any new paradigm that is worthy of our attention.

1. To what extent was the Athenian *arkhē* exploitative? Exploitation should

⁵² See M.H. CRAWFORD, *JHS* 121 [2001] 199-201, esp. 201, for this misrepresentation: «F(igueira)'s view, then, of the Coinage Decree does not convince, of the Athenians as nice cuddly administrators ...». Ancient historians should not inject anachronistic moralizations that are better calculated to treat personal anxieties about modern politics than shed light on the ancient events.

be defined as any transfer of material assets from an ally or allies to the Athenians which would not have occurred in an environment where no coercion existed affecting the actions of the weaker party⁵³. Moreover, the factual presence or absence of exploitation must be balanced against contemporary judgments of the same.

2. A second set of questions touches the advantages accruing to Athens and its allies, seen singly or collectively. These advantages could be material, such as a higher level of consumption, or non-material, such as living in a democratic polity. Specific lines of inquiry involve the status of these advantages absent the existence of the *arkhē*, the potential for other foregone advantages during the Attic hegemony, and the differential enjoyment of advantages by the Athenians and various allies⁵⁴. Again, the findings of historical analyses may differ from contemporary (quite possibly evolving) appraisals.
3. A third realm for investigation is the legitimacy of the Attic *arkhē*, for it is indeed possible that even a non-exploitative and mutually beneficial hegemony could encompass coercive features that render it condemnable in the eyes of those whose participation is constrained. This evaluation, however, is truly problematic, because it concerns evolving appreciations of the past. Undoubtedly, the Delian League accorded extraordinary latitude to the Athenians (as already noted) at the foundation of the alliance in 478. Yet appraisals of the legitimacy of Attic policy or policies are time-sensitive, dependent on popular historicizing. Care over contemporary value systems becomes essential. Once again there is room for a disagreement between fifth-century appraisers and modern scholars, who themselves must be careful against importing their own value judgments.
4. Finally, we must recognize that appreciations of approval – traditionally cast in terms of the popularity of the Athenian empire – can differ from the aforesaid appraisals of legitimacy. All sorts of political results may be disliked without their propriety being in question. The «popularity» or «unpopularity» of the *arkhē* ultimately rested in the proverbial «hearts and minds» of the allies, so that these feelings not only were naturally

⁵³ FIGUEIRA, «Social Conflict in Archaic and Classical Greece», in A. MOLHO, K.A. RAAFLAUB, & J. EMLÉN (eds.) *City States in Classical Antiquity and Medieval Italy*, (Stuttgart 1991) 289-307, esp. 299-302.

⁵⁴ I would dispute that the *Power of Money* presents the monetary policy of the Athenians as altruistic rather than as cognizant of convergences as well as divergences between their own self-interest and the interests of their allies. Yet raising the question of altruism does fruitfully probe a line of analysis over «benefits» in a way that the «nice Athenian» / «ugly Athenian» dichotomy does not. Note S. VON REDEN, «Money in the Ancient Economy: A Survey of recent Research», *Klio* 84 (2002) 141-74, esp. 156.

more fluid than the material facts of hegemony or determinations of policy-making organs but also were more subject to variation from ally to ally and among social groups in the same allied state.

Fifth-Century Monetary Integration

The inception of the Euro drew explicit justification from its responsiveness to international economic and especially monetary conditions that could not be addressed by central bankers dealing in terms of national currencies. Thus, our analysis of the factors militating in favor of monetary integration starts with an examination of classical Greek economic conditions having a bearing on monetary consolidation that were generated in an autonomic manner by the myriad optimizing decisions of economic agents in their everyday life.

A range of underlying conditions encouraged consolidating policies. First, the inconsistencies among the many monetary issues under multiple standards made dealings between citizens of different cities more expensive, because reaching satisfactory prices and consummating deals in an appropriate monetary form were complicated. Beyond practical difficulties, the variety of coin standards and metrological systems impeded the flow of information via prices. Added costs were imposed in exchanging coins as commerce crossed political boundaries.

Athens supplies an interesting instance of the factors militating in favor of allowing the use of foreign coinages and metrology, in an *a fortiori* case involving their political and military rivals, the Aiginetans. The Athenians called the heavier Aiginetic drachma the *παχεῖαν δραχμὴν* out of hatred of the islanders (Pollux *Onom.* 9.76)⁵⁵. Yet the Athenians used Aiginetic measures extensively in their *agora*, with some weights marked ΔΕΜΟ or ΔΗΜΟ for *δημόσιον* ‘public’, indicating that such use was sanctioned⁵⁶. Moreover, it seems that it was possible to charge prices in Aiginetan money and even to complete mixed currency transactions in the Attic market (Diphilus fr. 67, *PCG* 5.92)⁵⁷.

⁵⁵ Compare their name for the Aiginetan aristocracy, οἱ πάχεες ‘the bloated ones’ (6.91.1; cf. 5.30.1, 77.2; 7.156.2). See my discussion with reference to the Solonian metrological reforms in *Excursions* 76-86.

⁵⁶ See E. PERNICE, *Griechische Gewichte* (Berlin 1894) 100-15; M. LANG & M. CROSBY, *Weights, Measures, and Tokens, The Athenian Agora* 10 (Princeton 1964) 5, 8-11; FIGUEIRA *Excursions* 68; *Power of Money* 314-15.

⁵⁷ Diphilus fr. 67, *PCG* 5.92: οὗτος ἀποκοίνετ’, ἂν ἐρωτήσης “πόσου ὁ λάβραξ;” | “δέκ’ ὀβολῶν” οὐχὶ προσθεῖς ὀποδαπῶν. ἔπειτ’ ἐὰν τὰργύριον αὐτῷ καταβάλλῃς, ἐπράξατ’ Αἰγι-

Second, most allied governments were unequal to providing a sufficient supply of coins to satisfy the volume of local economic activity. Local markets may often have been hungry for specie and ready to accept foreign coins to remedy deficiencies of civic coinage⁵⁸. Recent comparative work has emphasized the adverse effects imposed by a lack of small change for modest transactions⁵⁹. During the *arkhē*, it was fractional coinages that persisted longest in the progression of mint closings down to 431. It was fractional coinages that reemerged first as the Peloponnesian War dragged on. If we consider the ways in which coinages on various standards were divided into denominations at specific points of correlation with other standards, allowing supplementation of one coinage with another, we realize the strong impetus to augment lighter coins and fractions with equivalent units⁶⁰.

Third, the *phoros* system promoted using Athenian money in local markets. Allied states had to acquire enough Attic tetradrachms to pay their tribute each year⁶¹. The easiest means to this end was to accept Attic coins in payment of the many indirect taxes upon which *polis* governments depended. Accepting payments, making expenditures, and holding reserves in Attic owls greatly simplified and lowered the cost of amassing the annual payment of tribute that was, for most cities, the largest single budgetary item. Fourth, paying tribute in Attic coin had pervasive effects on regional economic conditions, especially for allies near Attica or on maritime routes. Such allies were strongly motivated to recapture as much as possible of their tribute payments by doing business with the Athenian navy and by accommodating their own citizens who served as sailors in that fleet. Many factors conditioned the channeling of the flow of Attic coins, but their acceptance as valid tender or acquiescence in their use assisted other mechanisms for their attraction.

ναῖον· ἂν δ' αὐτὸν δέη κέρματ' ἀποδοῦναι, προσσπέδωκεν Ἀττικά. κατ' ἀμφοτέρα δὲ τὴν καταλλαγὴν ἔχει. See FIGUEIRA *Power of Money* 483-84.

⁵⁸ Overstriking is a strong marker of such deficiencies. See FIGUEIRA *Aegina* 132-35; *Power of Money* 21-22, 122-23.

⁵⁹ SARGENT & VELDE *Small Change* 1-14. Their emphasis on the production costs of small change in comparison with larger denominations is based on medieval and early modern evidence (pp. 50-54), but has considerable validity for the ancient world as well. The major ancient mints like that of Athens, however, possessed several non-technical advantages in producing small coins. Minting was not contracted out, but produced by a governmental organ under closer and more efficient administrative control. Mint workers were public slaves and not free craftsmen who could be protected by membership in a guild.

⁶⁰ For an important discussion, see CAHN *Knidos* 178-95; also FIGUEIRA *Power of Money* 479-81. Note that such correspondences were chiefly important for the ordinary users of different coinages and not for money-changers.

⁶¹ FIGUEIRA *Power of Money* 265-73.

Fifth, some economic conditions affected individuals and governments only indirectly. The territory of Athens harbored the largest population and produced the largest share of economic output in the Aegean basin. Thus, there was a strong incentive for those selling goods to seek out the Peiraeus in order to gain access to this market. One effect of this tendency was that containers in different metrological systems came to be harmonized with Attic measures of volume by finding sizes of common relevance⁶². Unsurprisingly, this phenomenon is best attested in the trade in wine, a high-value agricultural product⁶³. Sixth, Attica was rich in silver, and the peak of its ancient production coincided with the height of the dominance of Attic money. The Athenians had what other aspirants to dominance in homeland Greece did not, the ability to stock the money supplies of their allies⁶⁴. Attic tetradrachms were not only common in the Aegean basin but also flooded into Egypt and the Levant⁶⁵. This allowed metic and allied merchants a convenient medium for conducting business. The slackening of this outward flow in the late fifth century triggered a wave of imitation of Attic coins in service of monetizing non-Greek economies⁶⁶. The convergence of democracy, hegemony, and huge exports of silver from Attica gave the mid-fifth century a characteristic and unique economic dynamism.

Seventh, we should consider the role of active intervention in creating monetary integration. The official recognition of Attic coinage was promoted by diplomacy. Note Aristophanes' treatment of the affairs of Cloudcuckooland in *Birds* 1035-57, where a Decree-seller offers for sale decrees regulating the metrology of the new *polis*⁶⁷. The mundane analogue must have

⁶² FIGUEIRA *Power of Money* 297-99, 311-15.

⁶³ FIGUEIRA *Power of Money* 299-307.

⁶⁴ Despite its confusions of the price movements of precious metals, Xen. *Poroi* 4.7-12 is illuminating about the potential for export growth in the silver mining industry (note FIGUEIRA *Power of Money* 227-31).

⁶⁵ Hoard Evidence: M. PRICE & N. WAGGONER, *Archaic Coinage: The Asyut Hoard* (London 1975) 13-22; D. SCHLUMBERGER, «L'argent grec dans l'empire Achéménide», in R. CURIEL & D. SCHLUMBERGER (eds.) *Trésors monétaires d'Afghanistan* (Paris 1953) 1-64; FIGUEIRA *Power of Money* 31-35.

⁶⁶ On imitations of Attic coins: T.V. BUTTREY, «Pharaonic Imitations of Athenian Tetradrachms», in T. HACKENS & R. WEILLER (eds.) *Proceedings of the 9th International Congress of Numismatics. Berne, September 1979* (Luxemburg 1982) 1.137-40; BUTTREY, «Seldom What They Seem: The Case of the Athenian Tetradrachm», in W. HECKEL & R. SULLIVAN (eds.) *Ancient Coins of the Graeco-Roman World: The Nickle Numismatic Papers* (Waterloo, Ont. 1984) 292-94; H. NICOLET-PIERRE, «L'oiseau d'Athéna, d'Égypte en Bactriane: Quelques remarques sur l'usage d'un type monétaire à l'époque classique», in L. KAHIL, C. AUGÉ, & P. LINANT DE BELLEFONDS (eds.) *Iconographie classique et identités régionales*, BCH Supp. 14 (1986) 365-76. For the significance of the phenomenon for Attic coin output and the money supply, see FIGUEIRA *Power of Money* 528-35.

⁶⁷ See FIGUEIRA *Power of Money* 203-16.

been the monetary and metrological agreements made on states' entry into the Attic alliance, in which a position of legal validity was fashioned for Attic coinage and metrological standards.

Naturally, the concessions about monetary and metrological use by allied states were not unconstrained decisions, but rather occurred in the context of the surrender of important prerogatives to the Athenians. Nonetheless, a degree of reciprocity may also have existed as evidenced by a tradition, preserved in Atthidography, that Chian coins were valid at Athens⁶⁸. The prevalence of Attic money and its convenience meant that Chian coins were probably not much utilized by the Athenians at home, but that does not alter the probability that they had legal status in some settings in Attica.

In my *Power of Money*, I approached the damaged clauses of the Coinage Decree in a spirit of skepticism regarding the traditional picture of the legislation⁶⁹. The traditional restorations appeared problematic on many grounds. The central question became whether an attempt was made to terminate allied minting or whether the Athenians were content to insist instead upon the universal validity of their coinage and metrology. That the Athenians were legislating a privileged place for Attic coinage and standards was and can be scarcely in doubt. One may indeed question my endeavors at reinterpretation and still recognize that the traditional reconstruction is problematical when confronted with the rest of our evidence. This evidence cannot be wished away and ought always to receive its autonomous weight in understanding the monetary history of the fifth century. The legislative component of the picture will now have to be rethought yet again⁷⁰.

Monetary Dis-integration

The protracted, intense hostilities of the Peloponnesian War reduced or blocked the influences that were promoting monetary consolidation. The plague, battle casualties, and family limitation lowered the population of At-

⁶⁸ Σ Gregorius Nazianzanus *Or. I, Contra Julianum* (MPG 36.1212d); Σ Arist. *Birds* 158b; *Etymologicum Magnum* s.v. κίβδηλον (512.44-48 Gaisford); cf. *Suda* s.v. κίβδηλία, κ 1573 Adler, κίβδηλον 1575. See FIGUEIRA *Power of Money* 161-64.

⁶⁹ See FIGUEIRA *Power of Money* 392-410.

⁷⁰ Some of our discussion at the Fondazione Niccolò Canussio understandably dealt with the new fragment of the coinage decree discussed at the XII International Congress of Greek and Latin Epigraphy in Barcelona (September 2002) by Dr. Miltiades B. Hatzopoulos of the Research Centre for Greek and Roman Antiquity of the National Hellenic Research Foundation. It would be inappropriate to reproduce the tenor and contents of that discussion in advance of the publication of Dr. Hatzopoulos' significant paper. Here I should, however, like to thank him for sharing with me an advance version of his paper.

tica. For classical levels of productivity, less people meant less economic output. The diversion of immense labor inputs to military service and the expending of vast sums on ongoing operations lowered investment in productive assets and reduced most imports from the *arkhē* to Attica, except for grain and war materiel. During the Archidamian War, Athenian public reserves were run down, and private reserves were drawn down by *eisphorai* at an accelerating rate. Tribute assessment was raised 150% in 425, a level probably unsustainable in the long term. The Sicilian expedition brought the waste of huge sums and the deaths of thousands of Athenian and pro-Athenian and pro-democratic allied soldiers. The subsequent Ionian War did tremendous damage to the allies through direct hostilities and *stasis*. The Attic economy sustained a triple blow: damage to its agrarian base through occupations and raids, loss of most of its output of silver, and the flight or manumission of thousands of slave workers.

The first sign of the unraveling of the imperial monetary order was the inception or resumption of the striking of lighter coins by some Attic allies, as I have noted above. Changed patterns of the circulation of currency were generated by the diversion of public expenditures into military activities and by the growing share of the output of Athenians and their allies that was shifted from private spending to the Athenian treasury. The changed situation meant that the previous flow of Attic coins into some allied domestic markets slackened. The exaction of *eisphorai* from Athenians and metics and the increased assessment of tribute for the allies (from 425) necessitated the liquidation of the reserves of *oikoi* held in hoarded coins and in gold and silver plate and other possessions.

In the internal money supply of Athens, the first sign of dramatic change arising from wartime conditions appears to have been the awakening of interest in base-metal coinage. The chronology is controversial, but the elegiac poet Dionysios, an early Attic champion of bronze money, who received the nickname ὁ Χαλκοῦς ‘the Brazen,’ appears to have been active during the 420s⁷¹. Dionysios may have helped gain acceptance, legitimacy, or even authorization for a merchant money in the form of iron tokens which emerged in this period⁷². Attic comedy seems to vouch for recourse to this practice

⁷¹ For Dionysios, note Athen. 15.668D-69E (containing his fragments 1-4 West), 10.443E (fr. 5), 15.702B (fr. 6); Aris. *Rhet.* 1405a32-34 with Athen. 13.602B-C (fr. 7); Plut. *Nic.* 5.3; Phot. *Lex. s.v. θουριομόνταις* with FIGUEIRA *Power of Money* 497-99.

⁷² See A. POSTALAKAS, «Κερμάτια συμβολικά», *Aeph* 3 (1884) 1-20; J.N. SVORONOS, «ΟΙ ΚΟΛΛΥΒΟΙ», *Journal international d'archéologie numismatique* (= *JIAN*) 14 (1912) 123-60; T. REINACH, «KOLLYBOS», *RN*⁴ 31 (1928) 145-60, esp. 145-52; E.S.G. ROBINSON, «Some Problems in the Later Fifth Century Coinage of Athens», *ANSMusN* 9 (1960) 1-15, esp. 6-7; FIGUEIRA *Power of Money* 498-506, which discusses Arist. *Eccles.* 815-22; fr. 3 (*PCG* 3.2.26).

by referring to such a coin or token as a *κόλλυβον*⁷³ (or *κόλλυβος*) or a *σύμβολον*⁷⁴. The utilization of such bronze tokens as change assisted the Attic wartime economy by sustaining an adequate money supply for retail transactions, while allowing many silver coins and their metallic content to flow toward paying for imports and the services of non-Athenian military personnel. The guarantees of merchants, money-changers, and bankers to redeem such tokens augmented the money supply of small change.

Nonetheless, even as late as 414, the prevailing system was still essentially intact. The Athenians would never have replaced the tribute system with a five percent tax on trade⁷⁵, unless they anticipated that enough of this trade would be in Attic coins, permitting the allies to pay the requisite levies with no greater exertion than that attendant on the earlier tribute payments. The Ionian War, however, saw the collapse of the pre-existing order. In the midst of massive dissidence from Athenian authority, rebellious allies resumed minting or adopted the Aiginetic or Chian standards to aid military collaboration with Peloponnesian forces⁷⁶. The Athenian economy experienced a series of enormous disruptions. The Sicilian expedition had permanently removed through casualties in battle thousands of productive members of the Athenian citizen body. The productive base of Attica itself was assailed by the depredations of the raids from the Peloponnesian base at Dekeleia and of cross-border incursions by the Thebans. The flight of thousands of slaves, many of whom were skilled workers (Thuc. 7.27.5), also sapped the output of the Attic economy, with the result that the mining industry was severely depressed. Private and public reserves of silver were exhausted. An ironic barometer of the monetary and financial crisis of Athens was marked by enemies of Athens. Persian satraps began copying Attic coins in order to compensate for a markedly reduced flow of newly minted Athenian silver overseas so that they could underwrite military operations against the Athenians themselves⁷⁷.

The Athenians therefore made significant adjustments to the hegemonic monetary situation. The new system had a hierarchy of monetary media: gold coins in denominations from hemiobols through didrachm staters; sil-

⁷³ Arist. *Peace* 1198-1202 with scholia; fr. 3 (PCG 3.2.26); Eupolis fr. 247 (PCG 5.438-39); cf. *Com. Adesp.* fr. 811 (PCG 8.233). See FIGUEIRA *Power of Money* 497.

⁷⁴ Pollux *Onom.* 9.70-72, containing citations of Hermippos (fr. 13, 61, PCG 5.568, 590), Aristophanes (fr. 41, PCG 3.2.52), and Archippus (fr. 8, PCG 2.540-1). See FIGUEIRA *Power of Money* 505.

⁷⁵ Thuc. 7.28.4; Arist. *Frogs* 363 with scholia (Σ *Ranae* 363; J. Tzetzes Σ *Ranae* 361a, 362; cf. *Suda* s.v. Ἡνίοχος, η 392 Adler). See FIGUEIRA *Athens and Aigina* 95-99, 190-91.

⁷⁶ FIGUEIRA *Power of Money* 474 with 130, 136-37, 147-8.

⁷⁷ See FIGUEIRA *Power of Money* 533-34, also W. WEISER, «Die Eulen von Kyros dem Jüngeren zu den ersten Münzporträts lebender Menschen», *ZPE* 76 (1989) 267-96.

ver in the traditional denominations continued to circulate, but was no longer being minted; a bronze-cored, silver-plated new money, mainly drachms and tetradrachms; and finally (and most controversially) bronze tokens that were accorded state recognition.

A gold coinage was emitted from 407/6 until the end of the war, using metal from dedications like the gold plated statues of *Nike*⁷⁸. The inauguration of the coinage is a remarkable testimony to the collapse of the silver mining industry and the exhaustion of public and private stocks of silver. It would hardly have been issued if it were still possible for the Athenian government to sell the gold in its possession in return for silver coins that could be spent or silver bullion that could be reminted. The gold coins, which possessed considerable purchasing power, would have been used to make vital, larger state purchases and the payments associated with military operations. These coins, along with the remaining supply of traditional silver issues, will have gravitated to the best-situated transactors of business, those who were in a position to demand payment in coins of the greatest currency and metallic content.

A bronze-cored silver coinage was issued in 406/5⁷⁹. The fabric of these coins indicates that they were intended as a token coinage in order to supplement the surviving stock of silver coins of various denominations. Therefore, the coinage had a large fiduciary element and would have possessed currency wherever the writ of the Athenian government ran strong, and so was utilizable mainly for domestic circulation. Faced with the emission of the plated coins, we may also suspect that the remaining Attic silver coins would have retreated into more privileged uses like overseas trade, conveying ransoms, and stocking hoards.

Bronze tokens, issued by private factors, received enhanced, nominal values, being permitted by the state to assume equivalences in excess of an obol for the first time⁸⁰. This redrawing of the line of demarcation between the realm of civic coinage and the equipment of private enterprise betokens the urgency of the current economic situation, in which the Athenians were

⁷⁸ Arist. *Frogs* 718-26 with scholia; Hellanicus *FGH* 323a F 26; Philochorus *FGH* 328 F 141. See SVORONOS *JIAN* (1927) 152-56; W.E. THOMPSON, «The Date of the Athenian Gold Coinage», *AJPb* 86 (1965) 59-74; THOMPSON, «The Functions of the Emergency Coinages of the Peloponnesian War», *Mnemosyne*⁴ 19 (1966) 337-43; T. FISCHER, «Zu den Athener Goldmünzen von 407/06 v. Chr.», *Münzen und Medailiensammler* 17 (1977) 383-88.

⁷⁹ Note Arist. *Frogs* 718-26 with scholia; Hellanicus *FGH* 323a F 26; Philochorus *FGH* 328 F 141. See SVORONOS *JIAN* (1927) 152-56; J.H. KROLL, «Aristophanes *πονηρὰ χαλκία*: A Reply», *GRBS* 17 (1976) 329-41; KROLL, «The Piraeus 1902 Hoard of Plated Drachms and Tetradrachms (IGCH 46)», *Festschrift in honor of M. Oeconomides* (Athens 1996) 139-45; FIGUEIRA *Power of Money* 502-3.

⁸⁰ See FIGUEIRA *Power of Money* 505-8 with the sources cited in notes 74, 75 above.

determined to maintain the liquidity of the economy and the level of the money supply that was necessary for the functioning of internal commerce. These *kollyboi* and *symbola* were dependent on a strong fiduciary quality in order to achieve an acceptance in transactions. Compared with the old silver and the new gold coins, whose high value and portability granted acceptance, these tokens had the most restricted sphere of circulation, in all likelihood one scarcely transcending the marketplaces of Athens and the Peiraieus.

This upheaval in the use of money is remarkably profound. Yet the deftness of these Athenian adjustments is also noteworthy. The Athenians did not fall prey to the temptation to debase their coinage in order to stretch their stock of silver, nor apparently did they adopt such radical mechanisms as a demonetization. Instead they undertook emergency policies that were transparent to those using their coins and thus did not subvert the high repute traditionally accorded to Attic silver. Just as in so many other aspects of Attic policy in the fourth century, considerable communal energy was later directed at the recovery of what was felt to be a «normal» dispensation, that is, the recreation of the practices current during the fifth-century hegemony⁸¹.

Conclusion

I have provided above an impressionistic portrait of the level of fifth-century monetary integration. But it is possible to provide quantification for most of the contours I have sketched, either in the form of genuine measurements (as for the output of certain mints) or as reasonable estimates based on comparative data. My intention has been especially to emphasize the singularity of the economic conditions of this period for Greek *poleis*, among which characteristic monetary consolidation appears alongside economic integration, a greater dependence on trade, rising output, emerging financial sophistication, and a general affluence (relative to the contemporary level of technological attainment and productivity).

⁸¹ Nikophon's coinage law of 375/4 was one such initiative (*SEG* 26.72). See (e.g.) R.S. STROUD, «An Athenian Law on Silver Coinage», *Hesperia* 43 (1974) 157-88; S. ALESSANDRÌ, «Il significato storico della legge di Nicofonte sul *dokimastes* monetario», *ASNP*³ 14 (1984) 369-93; FIGUEIRA *Power of Money* 536-47.