Problems in the political economy of archaic Greek coinage

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Coins first appeared in the Mediterranean in Lydia (western modern Turkey) around 600 BCE. Their production was probably a response to both an abundance of electrum panned out of the Pactolus River near the Lydian capital of Sardis, and the inherent difficulties of using this natural gold-silver alloy as a monetary metal.¹ The practice of striking electrum coins spread quickly to nearby Greek cities, like Ephesus and Miletus. By c. 550 BCE, electrum was being abandoned as a coining metal in preference of silver and to a lesser extent gold; by 525 BCE, dozens of poleis around the Aegean and in the Greek west were producing coins, a list of mints that was extended remarkably by the end of the archaic period.² Thus within a couple generations after the Lydian invention of coinage, it became primarily a Greek phenomenon. As such it was tightly implicated in the (often unpleasant) social, political, and economic changes that many poleis experienced throughout the sixth century as these communities developed new types of social registers, forms of governance, law codes, and markets.

From an economic perspective, the invention of coinage did not make a tremendous, initial impact.³ Many Aegean economies were probably already monetized

¹ Natural Lydian electrum is, on average, 70% gold and 30% silver, but this can vary widely. Because of the extreme differential in the commodity value of gold versus silver (c. 1:10), using nuggets of unknown and varying composition as money would require lengthy testing to determine the exact value of each piece in a transaction. Coinage, as a means of pre-determining and guaranteeing the value of each piece, may have been a solution to this problem. For a recent overview of the literature and divergent views on this problem see von Reden (2002) and Peacock (2006).
² Osborne (1996: 253-55) provides a handy list of 115 poleis that were minted coins by 480 BCE.
³ This is a controversial statement. Seafor (2004) and Schaps (2004) both argue at length that the Greek adoption of coinage was something radically new; both, by different means, also deny the existence of money before coinage. Le Rider (2001) and Kroll (1998, 2001, 2008) discuss the monetary role of bullion and Hacksilber in Aegean economies before coinage; for Near Eastern evidence see Thompson (2003) and Kroll (2009).
to some degree, using chopped bits of precious metal (*Hacksilber*) to perform transactions, a practice inherited from the Near East, and which continued long after coins became more widespread. Although *Hacksilber* was privately and anonymously produced, users had developed measures to ensure metal purity and facilitate weighing to speed transactions; it need not have been a clumsy monetary instrument. The critical difference between *Hacksilber* and coinage was the role that political authorities had in the production (and distribution) of the monetary instruments. The application of a stamp to individual pre-weighed, refined pieces of metal announcing the producer was transformative: the monetary instrument could now advance upon levels of political symbolism that were unattainable with anonymous bits.

Because coins are both economic material and political symbol, their production, distribution, and consumption can be both economically and politically motivated, thus the interpretation of individual series of coins, or coinage qua coinage, is a complex matter, one that requires careful consideration of interrelated motives. I use “political economy” as shorthand for the interrelationships of political and economic aims in the production of archaic coinage. I am less concerned with the distribution and consumption of coinage since the original meanings and intentions of production can be lost or reinterpreted as the object passes through countless hands across time and space. I suggest here that two common methodologies for studying archaic coinage—numismatic (deductive) and non-numismatic (inductive)—and two common systems of interpretation—the political and economic—together fall short of asking the right questions, or noting how truly different archaic coinage is from that which follows. Lost

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4 Hoards containing both *Hacksilber* and coins are common on the fringes of the Greek world well into the Roman period. Similar hoards from the Greek world are mostly archaic and provide important evidence that coins and *Hacksilber* were used together. See, for example, a large recently published hoard from Colophon dating to the later sixth century (Kim and Kroll 2008). The *Hacksilber* in this case likely served as small change below the smallest denomination of the coins.

5 Reducing transaction costs is seen as one of the great advantages of coinage over *Hacksilber*, but as Thompson (2003) has shown, pre-weighed, sealed bags of *Hacksilber* could perform the same function. Also, along with the introduction of coinage came counterfeits necessitating, for the cautious seller, a careful check of all coins offered.

6 For complications in the post-production use and meaning of manufactured commodities in the archaic and classical periods see van Alfen (forthcoming a).
is the sense that archaic coinage was a *developing* rather than *developed* medium of political and economic exchange. This then is a call to develop broader and deeper methodologies, which are necessarily grounded in the numismatic evidence, but which simultaneously are theoretical aware, employing fitting approaches to help frame the problems.

PENNY ARCADE

In order to help set the stage for what follows, I offer a modern example of political and economic interrelations in the production of coinage. I have chosen this example because the coin is familiar to most readers; it also amply illustrates how our expectations about the way in which institutions governing coin production should behave are not always fulfilled.

This year (2009) marks the centennial of the U.S. Lincoln cent, currently the world's longest-lived coin. The decision to place the assassinated President Abraham Lincoln on the 1909 cent was a defiant and provocative act, a departure from U.S. coining tradition that had deliberately avoided incendiary iconography, like dead (or living) presidents, in order to preserve the sanctified notions of democracy and its refutation of everything royal. The only human figure allowed to grace U.S. coins was Liberty, who in classical allegorical fashion was depicted as a young(ish) woman in various guises, including, rather sadly, wearing Native American headdress. True to form, President Theodore Roosevelt was the bold actor, who admiring Victor David Brenner’s bas relief portrait of Lincoln, used his political might to ensure its appearance on the penny in time for the centennial of Lincoln’s birth. Lincoln was a safe choice to inaugurate this serious reversal from accepted practice—the tragedy of his assassination and the seeming purity of his politics made him the most saint-like of all possible contenders—but Roosevelt still circumvented normal democratic procedures, like open debate, in order to have his wish fulfilled. Roosevelt assuaged potential critics by insisting that the Lincoln penny would be produced only for 1909; the immense popular support of the design has guaranteed its continuous production ever since.

Part of Roosevelt’s attraction to Brenner’s portrait was its artistic quality, something which had, much to the President’s extreme embarrassment, been sorely
lacking in U.S. coinage. Declaring the nation’s coins “atrociously hideous” he embarked in 1905 on a coin beautification program, again side-stepping normal procedure, and the Mint’s engravers, by enlisting the country’s best sculptors to give all of U.S. coinage a make-over. This, he felt, would be yet another way to advertise the growing power and prestige of the U.S. and its rightful claim to Old World respect. The first coins of this program were released in 1907: Augustus St. Gauden’s tour de force $20 and $10 gold coins, and Bela Lyon Pratt’s $5 and $2.50 gold coins. The Brenner penny was next in line, followed by James Fraser’s “Buffalo” nickel (1913), Adolf Weinman’s “Mercury Head” dime and “Walking Liberty” half dollar (1916), and Hermon MacNeil’s “Standing Liberty” quarter dollar (1916). Roosevelt’s gamble paid off; the coins were generally well received, even by the politicians and bureaucrats he circumvented, and by breaking a century-old taboo, he opened the door for the run of presidential portrait coins we now use.

Despite Roosevelt’s disregard for the institutional procedures in place for choosing coin designs, he had less interest in decisions concerning the monetary function of the coinage, namely its weight, metal content, production volume, and distribution. As the lowest denomination coin, the anchor of the monetary system, with (in 1909) considerable purchasing power, the cent was in great demand. Despite the impending arrival of the new design, production of the older “Indian Head” pennies did not stop in early 1909; nearly 15 million were produced before the dies were switched over. By the end of the year 100 million Lincoln cents had been produced as well, exceeding the total number of all other U.S. denominations combined for the year. Regardless of what appeared on the coins, the economy depended on a steady stream of pennies in order to function and grow. In the chaotic years before the formation of the Federal Reserve Bank (1913), and its control over money supply, production numbers for coins were a function of the Treasury Department’s ability to measure (anticipated) demand against the supply and purchase price of monetary metals. While such calculations were normally the concern of lesser bureaucrats, high level politics could come into play if, for example, a shortage of small change caused unrest, or if there was need to alter the metallic composition or weight of the coins.
Over the course of the Lincoln cent’s lifetime, Congress has changed its metallic composition and weight five times. Most of these changes were during and soon after the Second World War in response to the need to conserve copper supplies for the war effort. In 1982, however, as the price of commodity copper continue to spike, making it cost more to produce the cent then its denominational value, Congress decided to flip the alloy: for most of its life, the cent was 95% copper, and 5% zinc; since 1982, the cent is 97.6% zinc and 2.4% copper. Because zinc prices have risen in the last 27 years, it now costs 1.4 cents to produce each penny.

Today, the cent is a useless monetary instrument; students toss them into trash bins. Even so, billions are produced every year incurring a substantial loss to the government. Why this is the case was a question that former Representative Jim Kolbe (R-Ariz) raised repeatedly in his lone wolf attempts to introduce legislation to kill the penny. But as the monetary value of the cent has declined, its political and social value has increased, not only with the bicentennial of Lincoln’s birth, but now as the psychological anchor of the monetary system and U.S. self esteem. What, for example, would it say about the value of the dollar, and by extension U.S. economic might, should the cent be eliminated? By killing the penny we would cross a threshold, one that countless other nations have crossed, of admitting to ourselves and the world that our currency, and our national prestige has been taken down a notch or two. In addition, we would likely face price increases due to rounding up to the nearest nickel, with all of the attendant psychological ramifications. The cent’s once path-breaking iconography now serves as no more than an excuse to keep the coin in production through at least 2009; procrastination of the inevitable, even if we are losing money in the process.

Among other things, this quick overview of the history of the Lincoln cent illustrates the role of various institutions in the creation of a single coinage. But despite our expectations that democratic institutions should operate in an almost mechanical, open, and rational fashion, especially in the production of something as seemingly cut and dried as coinage, this is not the case. We see, for example, individual elites acting successfully out of bounds on a single aspect of coinage (iconography) for the sake of personal agendas; we also see individual elites acting within bounds on other aspects (monetary function), but failing to push their common good agendas forward. And we see
the congressional body as a whole making seemingly (ir)rational and (un)economical
decisions about the coin as a whole. Perhaps most importantly, we also sense how the
political and economic motivations of individuals acting both within small groups and
larger institutions cannot always be easily distinguished from one another, and how
difficult it can be to align these motivations towards as single outcome. It is important to
note as well how these rationalizations and motivations can change over time. The 2009
Lincoln cent may not look much different from its 1909 counterpart, but it is an entirely
different coinage, economically, socially, and politically.

Before turning to the problems of archaic Greek coinage, I want to underscore
two points: the first is that we should not lose sight of the people making decisions about
coinage, meaning we should expect at times personal exuberance, irrationality, and messy
outcomes. The second has to do with our assumptions of what coinage is and who
produces it. Decisions in the White House or the Treasury Department concerning the
production of coinage, and scholarly assessment of these decisions, all start with certain
assumptions: that there is a general cultural and economic understanding of the function
of coinage; an understanding of the role of the state in the production of coinage; and a
clear idea of what the state is. For most periods and places where coins were produced
(in the western world), these are good starting assumptions. But not necessarily for the
sixth century BCE: both the coins and literary texts suggest that the use and meaning of
coinage qua coinage was still being negotiated along with other equally serious
discussions about what the (political) community is and does. For this reason, we cannot
always read archaic coinage in the same way we do later coins, like an Augustan
denarius or the Lincoln cent; concepts like “national identity,” “monetary policy,” and
even the “state,” if they existed at all, had significantly different meanings. Nor can we
assume that the negotiated solutions to the problems of coinage were the same in all
poleis, had the same outcomes, or happened at the same rate.

SYSTEMS OF INTERPRETATION: THE POLITICAL AND ECONOMIC

Scholars, of course, are not unaware of the political and economic spectrums of
use and meaning in coinage; most every publication dealing with coinage touches on
these issues to greater or lesser degrees. In the study of ancient Greek coinage, however,
it is possible to detect a large degree of polarization between two general systems of interpretation for how the coins in question came to be: one that tends to favor political explanations for their existence, and the other which favors economic explanations.

Arguments for the political motivation and function of Greek coinage has developed along multiple, sometimes interrelated strands. Comparatively in world numismatics, much of (classical and Hellenistic) Greek coinage stands apart for its aesthetic qualities: the design, execution, and details of the engraving would appear to attest to great concern for the presentation of the coinage and how the coins might represent the community. It is in this sense that Moses Finley voiced his oft repeated dictum that Greek coins were “no more than” a political phenomenon, that is they served simply as a form of self-representation and civic pride, much like, for example, monumental architecture. Although not all scholars have been as game as Finley to place all of Greek coinage under this rubric, they are seduced on occasion by the idea of “prestige” issues, coins produced solely with the intent to use numismatic art or monetary value to enhance the political power of the issuer either at home or abroad. Civic pride as a motivation for production finds support in a second century BCE decree from Sestos (OGIS 339), listing both pride and profit as reasons for the introduction of a new series of bronze coins, but here “pride” is more likely an expression of political autonomy than prestige.

Because so much of Greek history is a tale of civic destruction and hegemonic takeover, and because the production of coinage has been seen as intimately linked to the political identity of a community, it has generally been assumed that production of coinage must cease with defeat. Once a polis rebuilt itself, or regained its autonomy, its natural “right of coinage” would be asserted in revived coin production. These assumptions have long been used to date Greek coinage, providing the rather precise dates of production for many series found in the literature. The dust has yet to settle from

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7 Finley (1985: 53ff; 166ff). For a recent attempt to interpret Athenian coinage as little more than a political phenomenon see Trevett (2001).
8 Notions of pride or prestige often appear in discussions of Sicilian coinage, e.g., Kraay (1976: 209); Vargyas (2000) argues that the Persian daric was a prestige issue.
9 This decree has rightly received a lot of attention. For important recent discussions see Le Rider (2001: 241ff) and Meadows (2001: 61).
Thomas Martin’s (1985) forceful challenge of these assumptions; although Martin was able to demonstrate cases of continued coin production after an external political takeover in the classical period, detractors have marshaled evidence, mostly from the Hellenistic and Roman periods, which complicate Martin’s conclusions.\(^\text{10}\) Political change generated from within is also used to date coinage on the assumption that different governments, or types of government, would desire new coins, or would wish to celebrate political change with a commemorative issue.\(^\text{11}\)

Leslie Kurke (1999) and Sitta von Reden (1995, 1997) have studied the role of coinage in the internal power struggles of the archaic period, the former as a locus of conflict between elites and non-elites, and the latter as a key component in the developing “moral economy” of the polis. Both stress the symbolic aspects of coinage qua coinage and its close identity with specific political forces. On a different tack, Papadopoulos (2002) considers the role of coin iconography in “minting identity,” as an active agent in shaping political and communal identity in the archaic Greek west. The theme of using coinage (qua coinage) to generate political cohesiveness also appears in von Reden’s (2008) latest book, wherein she argues that aggressive Ptolemaic monetization via coinage (as opposed to bullion) served to achieve greater political consolidation in Egypt.

A number of studies have also explored the use of coinage qua coinage as a political tool in external power struggles. Thomas Figuiera’s (1998) study of the Standard’s Decree (\textit{IG I}\(^\text{1}\) 1453), for example, demonstrates at length the political use of coinage and monetary policy in the conflicts between an imperial Athens and her subordinate allies in the later fifth century. It has also been repeatedly argued that the primary reason for the production of coins in antiquity was to serve that ultimate form of political expression: war (e.g., de Callataj 2000).

This brief, and by no means comprehensive survey illustrates some of the recurrent themes in the political interpretation of Greek coinage, including the effective

\(^{10}\) See, for example, Howgego (1995: 40ff); Meadows (2001); Le Rider (2001: 241ff).

\(^{11}\) The Athenian owl coinage, for example, which was introduced around the time of the Kleisthenic reforms, is often caught up in these types of arguments. Some, like Price and Waggoner (1975: 64ff), see the coinage as a product, and therefore, a symbol of the new democracy. Others (e.g., Kroll 1981) have argued that the owls were introduced under the tyrants.
veiling of monetary function, the insistence on a right of coinage, and the use of coinage as a means—a tool and club—to achieve desired political ends. Arguments that appear to follow these themes to extremes, favoring political interpretations too resolutely, or without affirming the monetary functions of coinage, have met with considerable backlash. In building his case against the presumed link between political autonomy and coin production, for example, Martin (1985) denied almost all political and symbolic motivations for Greek coinage, instead heavily underscoring the many economic motivations a polis would have for producing coins, including the financing of public works, the payment of salaries and doles, and profit. Indeed, the most frequently argued economic motivation for the production of Greek coinage is profit, the notion that ancient states, like their modern counterparts, could generate (substantial) income from the production of coinage through fiduciary and market mechanisms. Significantly, George Le Rider (2001) has suggested that this was the primary motivation for the earliest electrum coins: the ability to enforce an overvaluation of 15-20% made minting coins a highly lucrative activity for the state. Even a lesser mark up, the normal 3-5% rate on silver coins, could generate sizeable profits for coinages in great demand.

Despite the polarization that sometimes occurs between the political and economic systems of interpretation, the two are by no means exclusive. A number of studies, those focusing on the Hellenistic world especially, have shown how political and economic motivations become entwined, or at least how, in certain cases, one cannot be considered without the other. The quality of textual sources and the changing nature of the political and economic landscape, not to mention the changing nature of coinage itself, make the melding of the two systems of interpretation obvious, and desirable for the Hellenistic period. For the archaic period we need to ask: where are the limits of each

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12 See, for example, Kroll’s (1997, 2000) reviews of Kurke and von Reden. Mackil and van Alfen (2006) take issue with the political interpretation of “alliance” or “league” coinages.

13 van Afen (forthcoming b) provides a discussion of the evidence in the case of Athens.

14 E.g. De Callataÿ (1997); Meadows (2001); Oliver (2001); von Reden (2008). Howgego’s (1995) seminal overview of the reasons why ancient states struck coins also provides a conspectus of political and economic motivations from the archaic through Roman periods.
system, where are the points of intersection, or, more boldly, do the two systems even ask the right questions? We cannot be so sure.

**CURRENT METHODOLOGIES: (NON-) NUMISMATIC**

There have been in recent years several studies demonstrating the significant cultural, social, and to a lesser degree economic impact of the introduction of coinage in the Greek world.\textsuperscript{15} Written in the main by literary critics and social historians with little background in numismatics, these studies have highlighted how money (not always clearly distinguished from coinage) was implicated in the power contests of the archaic poleis, or in the case of Richard Seaford’s (2004) book, how early Greek communal practices set the stage for the explosive adoption of coinage throughout the Aegean and in the Greek west. The methodology, in the main, is inductive, framing problems within anthropological or literary theories in order to approach the material evidence of coinage through the literary representation of coinage. When successful, these studies have been able to map archaic Greek mentalities coming to terms with the social, political, and economic aspects of money generally, rather than with the decisions of individual poleis regarding the production of specific series of coins. This has lead in some cases to gross generalizations derived from the treatment of money/coinage as an abstraction, or to the inadvertent oversight of numismatic particulars that negate or seriously undermine conclusions. Leslie Kurke (1999), for example, maintains that in the conflict between ‘elitist’ and ‘middling’ traditions over the civic appropriation of the long-term transaction order, there was tremendous elite hostility to coinage. This claim, however, is difficult to support since it was the elites who were responsible for producing coins in many poleis; archaic Syracuse and Athens stand out as obvious examples.

Greek numismatic studies, on the other hand, have traditionally been deductive, or simply descriptive. They focus intensely on single mints, such as Syracuse, and follow an established procedure: for smaller mints, i.e., those that did not produce a truly massive quantity of coins, the researcher gathers illustrations of all existing coins from that mint, from the archaic through the Hellenistic (or even Roman) periods, and produces a die study, which provides the relative chronology of the various series and the statistical

\textsuperscript{15} Notably Kurke (1999); von Reden (1995); Schaps (2004); Seaford (2004).
basis for determining the quantity of coins produced, plus technical information on
weight standards and die axis preferences. For larger mints, like Athens, the researcher
produces a typology, illustrating all known types and attempts to establish a relative
chronology. In both cases, once the relative chronology has been worked out it is set
against the political history of the polis derived primarily from textual sources. As noted
before, known political events, such as wars, changes in constitutions or hegemonic
takeovers, are thought to be reflected in the coins, and therefore these events are used as
anchor points for turning the relative chronology into an absolute chronology, thus
producing a “story” of the mint that is neatly linear and mainly political. Because there is
still so much basic work to be done in Greek numismatics (e.g., die studies, attributions),
synthetic treatments, like those of Thomas Martin (1985), George Le Rider (2001; 2003
[2008]), Ritter (2002), and Le Rider and François de Callataÿ (2006), which focus on
particular problems or eras, rather than individual mints, are rare. Rare too is the use of
theoretical approaches that lie beyond the realms neo-classical economics and positivist
classical studies. Greek numismatics has yet to break out of its Hilfswissenschaft tradition,
partly because path dependency continues to define what an acceptable numismatic study
is and is not, and partly because the weight of technical, specialized information in many
numismatic publications make them generally inaccessible, and unappealing to non-
specialists.

Because of the shortcomings in both methodologies, there is clear need for
“middle range” approaches that integrate the wealth of empirical evidence, i.e., the highly
detailed numismatic studies, with appropriate theoretical approaches. In the field of
Roman numismatics this has already begun, partly because the iconography of Roman-
period coins is more explicitly political than Greek coinage, thus easing theoretical
studies of Bildsprache (“picture language”), partly because the sheer abundance of
coinage makes die studies for some series all but impossible, thus necessitating different
approaches, and partly because the large number of Roman coins found in excavations
throughout Europe has encouraged the study of this coinage through the lens of post-

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16 Ritter’s (2002) look at Bildsprache in fourth century Greek coinage, while an
admirable attempt, stays firmly within the traditional numismatic interpretative mode
without venturing into, for example, art historical theories of iconography and
symbolism.
processual archaeological theory. This is most readily apparent in the recent *Coins in Context* volume, which aims at the deliberate use of social and archaeological theory to frame questions regarding coins found in archaeological contexts. While this volume is important for demonstrating how coins and theory can be integrated, the volume is centered on depositional (and post-depositional) problems, i.e., the distribution and consumption of the object, rather than with production. Coins out of context might better describe the situation with Greek numismatics, not only because information regarding the findspot of the coins is often long lost by the time the coin becomes known, but also because archaeological context, when it is known, generally has little to say about the political and economic factors of production; here the coins must speak for themselves. Distribution is also a concern of Greek numismatics, but from the economic perspective of payout rather than that of a non-Greek receiving an Attic tetradrachm, for example, and how he might view coins and monetary transactions differently than his Athenian counterpart.

Since my concern is delineating the political and economic motivations for the production of archaic coinage, and not so much with its reception and continued use, post-processual theories are of less use than those that can address the many communal (or individual) decisions that must be made in order to mint in the first place: why do we need coinage; how much should we produce; where do we procure monetary metal and what kind; what weight standard and denominational system do we use; what should appear on the coins? But, perhaps most importantly, who decides?

QUESTIONS AND FRAMEWORKS

I would suggest that many of the political and economic interpretations of coinage discussed above do not go far enough in their conceptual framework to be able to address these types of questions. In part this is because recourse to the “state” as the monolithic decider in these matters depersonalizes the very real discussions and decision processes behind the production of the objects we now hold in our hands. How then to proceed? We

17 The papers in Howgego, Heuchert, and Brunett (2005) deal with the problems of identity and coinage in the Roman provinces with theoretical sophistication, but not with the same theoretical awareness as found in von Kaenel and Kemmers (2009).
can begin by reminding ourselves that in these comparatively small communities, with their constant schedules of symposia, military obligations and religious festivals, those who were eligible to influence decisions about coin production came to know each other, or know about each other quite well; the “state” was their friends, neighbors, and enemies. If we think of coin production as a communal project, with individuals attempting to work in concert with each other in groups of various sizes, disciplines, and power, we can, for example, frame the problems within collective action, bargaining, and network theories. Doing so allows us to recognize that in the process of negotiating an outcome, pure motivations like the political or economic become blurred in the clash of personal preferences, strong cliques, powerful elites, and so forth. We are then able to move beyond the two rather rigid systems of interpretation.

As we begin to think along these lines, close study of the coins provides us with insight into the many, often difficult issues that would have to be resolved by those negotiating, some requiring specialized knowledge: the metal content of the coins and its relation to commodity prices for metals; the advantages of certain weight standards and denominations; the function of the iconography; a general monetary policy. Rather than ask as has been done to date, for example, was this choice of weight standard or metal content politically or economically motivated, we can be more subtle, asking instead: how did this particular group of people come to think it was important (and where did they obtain their information?); how did their governing structures help or hinder the alignment of interests; how did they implement and enforce their decisions; how successful was the outcome?

A methodology that integrates detailed numismatic study with frameworks derived from economic sociological and political theory would, I believe, offer a rich analysis of archaic coinage. In the remainder of this section, I review a number of particular problems in archaic coinage that might benefit from this approach.

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18 The literature on collective action theory, bargaining theory, and network theory, as well as related theories like rational choice, is vast, and I do not wish to get bogged down in it here. Rather I wish to show in a general fashion how these approaches can be of use for dealing with problems of archaic coin production. Ober’s (2008) latest book is an excellent example of how many of these theoretical approaches can be productively applied to the study of ancient Greek politics.
We are aware of differing regime types—tyrannies, oligarchies, democracies—in many of the archaic poleis that produced coins, yet beyond stereotypes (e.g., tyrants are self-serving elites so of course grace their coins with chariot scenes) there is little discussion of how the structure or “culture” of each regime type might affect decisions to coin. Although we lack direct evidence in all these cases, we can infer that there were different institutional structures within each regime that would have a bearing on the decision processes. Democratic institutions like the Athenian Boule and Ekklesia, for example, would, because of their scale, present a different set of collective action problems when compared to the tyrant and his group of advisors, or a restricted group of oligarchs. Similarly, because democratic governing culture is different from that of tyrannies, we might expect democratic decision makers, among other things, to perceive coins as a public good, to be produced in large quantity, in a large range of denominations, bearing generally inoffensive designs. Conversely, oligarchs might regard coinage as a club good, designed to appeal to and circulate among elite peers. These expectations are worth closer examination, in order to see how each group arrives at such conclusions, and whether we can detect and compare institutional differences and cultures in the numismatic record. We also need to be aware, as the story of the Lincoln cent reminds us, that individual elites can have outsized effects on outcomes, even in democracies.

Archaic elites were often members of traditional aristocratic families, who by their wealth and prestige lay claim to power; they might also have been “middling” individuals who held key positions in civic institutions. In either case, the power they held could be disproportionate, inciting them to act in ways that introduced additional bargaining problems. Individual elites acting out may have left their mark in the numismatic record. For example, Robert Wallace (2006) has confirmed the reading of the inscription WALWET (Alyattes) on early some early Lydian electrum coins, as well as KUKALIM, who he identifies as a royal personage, and –LATE-, who need not be a royal person, but who may have stuck his coins at a “branch mint.” Wallace assumes, as most would viewing these issues from the perspective of post-archaic practice, that permission to mint would have to be sought from the head of state, i.e., Alyattes, who presumably owned the right to coin. But need we assume this was the case? Might
KUKALIM and –LATE- have simply produced parallel issues on their own authority, no less than the otherwise unknown Phanes of Ephesus appears to have done with his series of signed issues?

The iconography of other archaic coins might also reflect dispersed rather than centralized authority. There are hundreds, if not thousands of archaic electrum and silver coins in public and private collections that remain catalogued under “uncertain” attributions; it could be, in fact, that the “uncertain” types outnumber those that have been attributed to recognized archaic mints.¹⁹ Some designs are rudimentary, nothing more than geometric patterns or striations, while others are so common, e.g., lions, panthers, bulls, etc., that they fail to signal, from our wider (pan-Hellenic) perspective at least, the individuality associated with separate civic mints. Within the context of a narrower network of users, each of these designs may have served the function of identifying the issuer, but this information would be easily lost as the coins migrated away from the group, or would be irretrievable in a sea of similarly designed coins. Regardless of the significance of the signed Lydian and Ephesian issues, the uncertain types indicate either that the smaller number of monopoly holders did not care to “brand” their products in distinctive ways, thus undermining their control, or that there were a larger number of unregulated producers. Either case raises serious questions about coining and centralized control at this time, and who was making coining decisions. It also forces us to ask whether monopolies over coinage were born at the same moment as the first coins.

Saying no, and positing instead a movement from dispersed to centralized authority would seriously disrupt several models for the development of archaic coinage and monetization (e.g., Le Rider 2001; Wallace 1987), which depend on the notion of a centralized authority aggressively enforcing fiduciarity. But it may help to explain both the development of the widespread trust necessary to make coinage function as a monetary instrument, and the hundreds of uncertain issues. If, for example, we imagine the social networks accruing around individual elites, including peers and clients, as well as the interrelationships between all the networks within the larger community, we can

¹⁹ The count has yet to be made, but if the number of uncertain coins in the ANS collection, and in the Jonathan Rosen collection (Waggoner 1983), is any indication, this could well be the case.
see how the ties within and between the networks provide a readymade bed in which monetary trust could grow. We can further imagine individual elites, who would have the resources and need to produce coins, presenting them to their followers or peers in order to fulfill social and other obligations, including liturgy-like obligations, without the expectation that the coins would be accepted as coins beyond the immediate circle of trust. Larger patterns of circulation could develop as individuals with close ties to other networks passed the coins on vouching for their value. This operation would be analogous to other forms of private money, like tokens and scrip, that “go viral,” not so much because the issuing authority is recognized across the community, but because of the degree of trust between the parties to the transaction and the fact that the coin or bill serves a real monetary need.

If the initial production and use of coinage lay within smaller social networks, a (gradual?) change took place whereby those in political power began to make decisions restricting others’ abilities to produce coinage. By c. 500 BCE every coin-producing polis, as far as we can tell, had adopted similar restrictive policies, some perhaps learning from the example of others, or perhaps acting in competition with others. How and why this all took place is a complex problem, and may be a function of many other changes occurring in the poleis, including the development of public treasuries and new methods of taxation, the development of new types of public expenditure (e.g., festivals, navies, monumental architecture), the development law codes and an acute sense of citizenship, the expansion of market activity, and so forth. Even so, it is not immediately clear why those in power would identify a need to monopolize coin production, rather than simply adding their coinage to the existing mix, or how much force they would need to reset preexisting monetary practices. Economic motivation, especially the profit motive, ranks high as a probable answer, but this response can seem crude. It is not difficult to imagine, for example, a stereotypical tyrant and his cronies deciding to impose a restrictive system that would aid in filling their entertainment coffers at the expense of the subjects, but whether this would also keep the peace and aid their political longevity is questionable. Again, we might frame this problem with greater subtlety.

20 The notion of coinage originated with individual elites is not new; I add the idea of networks facilitating the spread of coinage.
If generating fiscal revenue and maintaining political support were primary motivations, achieving the compliance of the community at large was necessary, and this might be done by finding ways to work together to shift some of the fiscal burden outside of the community, or at least away from those voicing the loudest opposition. Aligning interests to that goal would also require the support of any private producers, who would be forfeiting their independent ability to coin. But, by working to recalibrate indigenous coinage from a collection of club goods to a single public good, the community could take advantage of addition benefits of coin use it was not able to previously: for example, the creation of a closed monetary zone with a single currency would force those coming into the zone to exchange or re-mint their foreign coins for a fee; the creation of a successful trade or export coinage could also generate revenue through demand driven pricing or exchange fees. By positing a process of internal coordination and alignment that projects some functions of coinage to the edge of the community or beyond, we can also see how coinage might become more closely associated with the identity of a community, and how the success of the endeavor would encourage the continued monopolization of coin production, both at home, and as an example for neighbors to follow.

With a civic monopoly established, policy makers would then be faced with the problem of how best to pursue their ends with the means available. A number of (odd) series of archaic coinages indicate that the limits of both this monopolistic power and of coinage as a monetary instrument were continuously being tested. Significantly, a great deal of this experimentation involved coordination with other communities, as the archaic coinages of the island of Lesbos demonstrate. The two major poleis on the island, Methymna and Mytilene, which were not always on the best of terms, each produced civic silver issues in a range of denominations, with appropriate civic iconography, presumably for internal and external use. In addition, Mytilene formed a cooperative arrangement with Phokaia, a mainland community 80 km to the south of the island, with which it took turns on an annual basis producing an unusual, single denomination electrum hektai coinage. This arrangement, minting what was arguably a commodity coinage in an obsolete monetary metal, lasted for centuries (c. 525-330 BCE); the iconography, which changed every year, served no specific, civic symbolic function, in
part because the iconography was often lifted from the coinage of third parties. Still more unusual, an unknown number of communities on Lesbos, perhaps including Mytilene and Methymna, appear to have produced yet another cooperative coinage: a very large series in billon in a full range of denominations, from the stater to tiny fractions. The iconography of this coinage, which includes cow, lion, gorgon, and African heads, plus oculi, is not attributable to any of the individual communities. A seriously debased coinage of this sort was meant for local circulation only; hoard finds show it did not travel beyond Lesbos or its mainland territories. If the Mytileneans were involved in the production of the billon issues, their monetary activity simultaneously involved the minting of three mutually exclusive types of coinage, two of which required close coordination with other communities. The billon experiment soon failed; silver production was intermittent; only the electrum continued unabated. Do we label the motivations simply political? Economic? Or should we seek to understand how the same group of Mytileneans (let us imagine) worked together to coordinate their own interests, and those of other communities, in a series of overlapping yet exclusive exchanges, to undertake potentially risky cooperative monetary projects?

CONCLUSIONS

The need for new methodologies and frameworks in the study of archaic Greek coinage should by now be clear. My focus on the political economy of production is not the only possible avenue of approach, but it is one that could directly benefit from theoretical work in other fields. In order to maximize these benefits, however, numismatic projects need to be designed to focus more on specific problems than on mints, without losing the core contribution of technical studies. As a final example, a project looking at the collective action problems facing the Mytileneans and her partners should include a die study of all the relevant coinage. In order to gauge the (non-)success of the voluntary arrangements made between the Mytileneans and her partners, the same study might also seek contrast with other types of (non-)arrangements in nearby communities: Eretria and Chalcis on Euboia both shadowing monetary developments at Athens (or vice versa?), for example, or the role (if any) of the tyrant Polycrates of Samos.
in the production of the “flying pig” coinages of Samos, Kalzomenai, and Ialysos. Again, even with the expanded scope of analysis, full die studies would be required.

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