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Extraordinary Episodes of Ancient Money

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Extraordinary Episodes of Ancient Money

By

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ABSTRACT

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The spread of coins, which occurred throughout the archaic and classical periods of Greece, was a foundational advancement toward forms of the modern economy. Modern theory has sought to explain the invention of coins with a variety of narratives. Generally, these narratives fall into two broad categories: market-driven monetization or state-driven monetization. On the one hand, some theory argues that coins developed from reducing private transaction costs. On the other hand, some theorists argue that the state benefitted from reductions in administrative costs from the use of coins and therefore undertook the cost of minting them. This thesis problematizes these two models and shows that neither of these explanations is satisfactory for understanding early coins. In fact, these theories introduce biases because they were constructed from analysis of modern money systems. Coinage was likely driven by the religious sector of the ancient state rather than by practical benefit. Moreover, the state adopted early coins despite the increased transaction costs they would have caused. The political and social gain outweighed the economic cost of their minting. This reassessment allows for a framework from which we may understand early coinage.

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INTRODUCTION

The question of how and when the invention of money came about is not an easy one for economists, archaeologists, or historians to answer. This is partially because evidence for its first use is limited. Yet, the more disruptive problem is the subjective nature of the word ‘money’ to most people. Some people perceive money as what we call cash, or in the case of the classical world, coins of metal. Others with a more complex understanding may think of all the money in their accounts and on their person. However money is perceived, it is understood by money theorists to be much more than simply the currency of an economy. Chapter one is devoted to unpacking some modern theories of money and what they say about the origins of coin. Specifically, it approaches two opposing families of theories which seek to explain monetization as a phenomenon of institutions or, alternatively, as a grassroots development of the market. While each theory contains elements that help us think about ancient money, modern theory does not provide an adequate framework for understanding the earliest coins. Nonetheless, the moment of the invention of coinage was seminal in the beginnings of a ‘money economy,’ an economy driven by transactions involving money.

Before diving into the implications of coins for monetization, one must first understand how money has changed over time. Today, only a small percentage of money today is actually in the physical form of currency, coins or bills. Rather, the clear majority of money is in the form of loans on the part of the holder to a financial

institution. These loans are called deposits and they represent depositors' willingness to lend money at near-zero interest rates to an institution (which invests the money) in exchange for safekeeping and the privilege to withdraw the money instantly without notice. Banking, as we know this process, once revolutionized and continues to shape the economy because it efficiently provides capital to those who demand it. With the advent of modern technologies, this has never been truer; however banking and lending did not exist in anything like their modern form during antiquity. As a hypothetical example of just how vital financial markets are to a developed economy, imagine a small business which needs a loan in an economy with none of the banks we know and use today. Without the ability to go to a financial institution and gain a loan, the options of this business are very limited. This may result in a lack of available funds that may in turn stifle productivity, disable future growth, or cause insolvency. The ability to quickly lend large amounts of capital is one of the greatest developments of our modern money. Such an ability did not exist in the ancient world. Chapter two discusses what makes ancient money, especially coinage, distinct from modern money.

In contrast, coinage represented most of the money in use in the ancient economy. There were no financial institutions like those of the modern day to risk saved money for future interest from those who required credit. We know that the forms of lending that took place in the ancient world were primitive compared to modern ones. While debt became a common trait of many people, lending was necessarily tied up with all kinds of social stipulations.¹ Often, cases of debt had deeper issues at stake than simply their monetary value. This was very different from the way we think about credit, as a largely

¹ Millett 1990, 5-7.

impersonal transaction. This likely stemmed from the lack of institutional trust by lenders, particularly the lack of legal recourse. Although Millett reveals that lenders had some recourse in the legal system of Athens, regulations on loans were undoubtedly limited, increasing risk.

The lack of credit necessitates small-scale markets. This is even truer of the lack of money in general because uniform and trustworthy money enables credit. In contrast to the gift economy, which relied primarily on reciprocity. Reciprocity constituted an unstated social expectation that one party would repay assistance with gifts of prestige goods, as in Homer. Currency allowed the denomination of debts into units. Coinage, through its more recognizable appearance, greater uniformity, stable value, and institutional assurances, presented the most advanced form of money to its day and enabled greater confidence in lending. Money is understood to be vital to any economy because it is the most efficient means of reducing transaction costs. Coins greatly expanded the scale at which trade between entities could be conducted.

Coins are simply a form that money takes. Many early forms of money shared some qualities of coins. Pre-coin moneys are often called commodity moneys. Although commodity moneys have existed in modern times, the term is an especially apt description for money that existed before the advent of coinage because such moneys were commodities immediately and apparently useful for life. Cattle were one such commodity and were one of the earliest ways by which people measured value. Although cattle undoubtedly did not make a great medium of exchange due to their large size and limited mobility, they were a widely owned and perceived commodity with many useful qualities as money. Cattle are, for the most part, uniform, numerous, recognizable,

durable, and inherently valuable. In fact, the term 'pecuniary' derives from the Latin word *pecus*, meaning 'cattle.' The beginnings of durable, recognizable goods exchanged as money is difficult to date, but is likely older than most people realize. Scholars have argued that livestock or plants were used in this way over 10,000 years ago. Cattle served as a particularly widespread form of money because of livestock cultivation's near universality.²

The birth of coinage, a more recent and concrete development than the esoteric money, is easier to date and constitutes a topic of great scholarly interest. The origins of the first coins likely date to the seventh century B.C. in Lydia, a kingdom of Western Anatolia. Chapter four discusses the first coinage of Lydia, where a pale-yellow alloy of gold and silver called electrum deposits naturally in riverbeds. Generally, scholarship agrees that the first coins were minted within Lydia, probably around some time before as early as one hundred years before Croesus (561-546 B.C.), the famously wealthy archaic king. The archaeological and historical evidence of Lydia as coinage's birthplace appear to align with each other. On the one hand, Herodotus attributes the first minting of coins to Lydia saying, "They were the first men whom we know who coined and used gold and silver currency."³ The earlier source, Xenophanes of Colophon, also asserts the Lydians invented coinage.⁴ The reasons for coinage's invention in Lydia lies in the nature of electrum, the relative prosperity of the Lydian economy, and importantly the institutional developments of archaic Greek or near Greek culture.

² Davies & Davies 2012, Online.

³ Herodotus, 1.94.1.

⁴ Kroll 2017. Introduction.

Another form of money, developed by civilizations to the east of Greece, was that of weight and measure of bullion, or unshaped metal.⁵ This involved weighing out pieces of metal on a scale to ascertain their exact value, then exchanging them for a good or service. Needless to say, this process was cumbersome compared to coinage, but it was significantly closer to coinage than other forms of money. Even so, weighing metal and testing its purity lacked coins' utility for several reasons. For one, weighing out significant amounts of metal on scales is a tedious and clunky process for any metal no matter its quality. This makes unstamped metal cumbersome as a medium of exchange, especially in the case of inflation or large transactions. Indeed, coinage would have solved a pressing issue in seventh century B.C. in Lydia. Electrum was dug up at copious rates within this time period in Lydia. This plentiful electrum is thought to have generated the oft-mentioned wealth of the Lydian royal dynasty. John Kroll asserts that while this medium of payment must have been used in all sorts of exchanges, it presented unique problems to its users.⁶ In each transaction using bullion, the purity would have to be tested by scraping the electrum on a touchstone to see the color of the mark it left. This would be work enough for larger nuggets, but impossible for smaller pieces and dust. Doing this in an exact manner for a bag of various shaped bullion would be extremely tedious and would not yield a fine result in the value of a group of pieces.

Electrum contains varying quantities of gold and silver combined with other less valuable metals. Determining the exact composition of a particular piece of electrum was impossible in archaic times because the process for separating silver and gold had not yet

⁵ Grierson 1977, 3.

⁶ Kroll 2017: "Lydians and their Greek and Carian neighbors who had accumulated large stocks of this metal must have found it increasingly difficult to utilize it in payments that other would accept."

been discovered. The extent of tertiary metals present in a particular vein could not be known, which made weighing the metal inconclusive.⁷ For this reason, although electrum was readily available, easily identifiable, and universally recognized as having intrinsic value, its users could not know its exact intrinsic value. The metal lent itself well to stamping, so its weight could easily have been read without weighing on a scale. The issuer could then have created equal weights of electrum, stamped them, and issued them as coinage. This might have driven some institution to stamp the metal to universalize its value in the market, and thus provide an example of how such an institution advanced monetization to facilitate administration. Moreover, the political gains from producing coinage must outweigh the considerable cost incurred from their production. In understanding early coinage, the monetary profit the state gains from the production of coins is secondary to its political gain.⁸

The most extraordinary episode of all is explained in chapter five. The iron money of Sparta, historically attested but never recovered, paints a wholly different picture of how institutions used money to shape the economy. Sparta, decidedly an anomaly of the Greek mind, contained an equally anomalous money. This early money remains unexplained by any economic theory. Rather than reducing transaction costs, the iron money of Sparta directly increased them. The introduction of a heavy, devalued *protocoin* of more than a pound of iron shows just how important the religious and political aspect of coinage really was to early coinage. Spartan law and custom imposed this clunky coinage on the citizenry of Lacedaemon for as long as six centuries. If it truly existed as ancient sources say, it caused uniform degradation of commerce (domestic and

⁷ Melitz 2016, 1.

⁸ Melitz 2016, 4.

interstate), inequality (with some exceptions), and a Spartan demographic unchanged from immigration.

In chapter three, I examine the spread of coinage considered archetypal of standard monetization. In classical history, coins by various standards of silver weight became the currencies of the known world. Examining the most important of these standards, I show that states advancing early monetization acted to create new coinage even when it actually increased transaction cost. This implies that there must be some motivation for those minting the coins to undertake the costly operation and the degradation of transaction costs that would accompany creating a new standard. Various theories of money seek to explain the monetary history of ancient Greece as an archetype of monetary development through pure market mechanics. Adopting a more nuanced approach, I find that even the most widespread coinages display extraordinary episodes that break from theoretical expectations as to why coins were created. In doing so, I aim to show that modern theories tend to apply modern motivations for money to the ancient world. While these coinages may appear wholly different from the more unusual episodes discussed in the fourth and fifth chapters, they shared common traits of origin with those currencies in that their primary motivation may have been more institutional than profitable. In reality, the motivations for the creation of coinage were spontaneous and various.

Coinage was necessarily a revolutionary development in monetary system because it introduced much more uniformity and transaction efficiency as a form of money. Its benefits to institutional and individual transactions gradually made it the dominant form of money in the ancient world. This is the central idea on which the

widespread adoption of money is based. The origins of this idea, however, are not so clear-cut. I discuss one way in which this idea first came about by analyzing the birth of coinage in the near eastern land of Lydia and coins' meteoric rise throughout archaic Greece. I relate how the institutions of the cult, ancient polytheistic religion of Greece and the near east, played a dramatic role in the creation of currency in the form of coinage and therefore monetization. Then, I discuss how modern theory has often failed to take account of the possibilities that institutions other than the state influenced original monetization in unexpected ways and how the original uses of money may change our understanding of it.

CHAPTER I

MONEY & ITS PURPOSE

Money is such an integral and indispensable facet of everyday life that few people actually stop to think about what it *is*. Nevertheless, the purpose of money lends itself easily to human intuition. First, money acts as a medium of exchange that people use as payment for goods and services. In doing so, money avoids the coincidence of wants. This means that it becomes unnecessary for two people to have goods or services that they both desire from each other, a rare occurrence. Instead, one person may give money in return for another's good or service. Second, money can be a store of value, an asset that can be saved in some form and retrieved at a later time to be used as expected. The inability of any money to fulfill either of these roles, a medium of exchange or a store of value, imposes severe inefficiencies on transactions, such as the need for two goods to be present simultaneously. To solve this, money also acts as a unit of account because it is able to show the relative value of different things. This enables the formation of debt wherever money is a predictable store of value, has low volatility, and is widely accepted. This allows people to save money that they later rely upon as a remittance for a debt. Another quality of money is its status as "legal tender." This refers to the fact that the state will accept this money in exchange for discharging debts to the state. The degree to which legal tender is necessary for money is the subject of great debate by monetary theorists.

One vital task of monetary economics, a subfield of macroeconomics, is to explain why currency holds value and how that value changes. Before attacking this question, however, it is necessary to distinguish between the different kinds of money. The first kind of money to be developed was commodity money. Commodity moneys were simply inherently valuable goods that would be accepted in payment for goods and services by many people. Commodity moneys are very ancient indeed and developed as cattle, cowry shells, or many other valuable items.

More sophisticated forms of money emerged with the advent of representative money. This means that the money represented an amount of a good with intrinsic value for which it could be exchanged if taken to an authority. Such representative moneys might have actually come well before coinage. Our knowledge of ancient empires suggest that central palaces would issue certificates which represented a claim on grain stored there.⁹ This would likely explain why a *shekel*, a weight of barley, came to refer to the weight of some metal coins¹⁰. Representative implies a currency that represents a good of intrinsic value but is not itself valuable. Although examples of this type of money are extant in the ancient world and even predated coinage, the largest representative money was that of the gold standard in modern Europe and America. Similar to such certificates, the money of the European gold standard was simply a unit that denominated some weight of an inherently valuable good, gold, that could be exchanged for the money at a set rate. Generally speaking, representative money allowed a certificate, usually paper, to be exchanged for a commodity at a bank or warehouse.

⁹ Mundell 2002, 13.

¹⁰ Sutherland et al 1999, "Coin," Achaemenids, *Encyclopedia Britannica*, Online.

While the early representative moneys gave great centralization to pre-money economies, coins introduced new efficiencies in transaction that allowed for expansions in the markets of the ancient economy. As economies and institutions grew, even more advanced systems of money were needed.

In modern times, representative currency likely became widespread as bank notes because it eliminated devaluation of commodity coinage by 'clipping', whereby a small amount of metal is shaved off many coins for profit. It is worth noting that representative money requires the expectation that an authority, be that a bank or the state, will pay out the obligated amount to the holder of the certificate. Thus, longevity and acclamation were necessary for representative certificates to be accepted as mediums of exchange and stores of value. This may be a sign that the state was a significant player in the creation of money economies.

The final type of currency, and the one which is most prevalent today, is fiat currency. A fiat currency is one whose value is not backed up any commodity within the currency itself or up for exchange. Fiat currencies are backed only by the 'full faith and credit' of the government that regulates them. This means that each state's guarantee that it will back debts paid in the chosen currency. Some scholars theorize that the government could theoretically use its power to enforce the value of such a currency, but they also assert that this is unnecessary because people agree willingly on its value. Most mainstream theory disagrees that the government has full power over a fiat currency as the ability to lose control of quantity in the form of hyperinflation has been demonstrated. In any case, states can (and frequently do) exercise great influence over their fiat money. While the supply of a commodity, such as gold, is limited by how much can be mined,

the supply of fiat money can be changed almost infinitely. The ability to control money supply grants states power to deal with national debt and other facets of modern politics. The declaration of a government that its chosen currency is legal tender is central to the definition of a fiat currency.¹¹ Today, fiat currencies which ‘float’ (fluctuate freely in value) within the global market make up every national money and form the basis for modern theory.

In modern times, the divergent beliefs of monetary economists have practical effects on the economy and public policy. Some examples of issues of premiere importance to policy are appropriate levels of deficit spending, whether central banks are necessary, what taxes and monetary policy can accomplish for society, and regulation of the money supply. Understanding the nature of money derives its importance from the need to explain how the quantity of money comes about. Economic traditions have thus sought to conceptualize the nature of money through examining its origins and uses. The ideas of these two following conceptualizations of money are so antithetical that they often lead partisan economists to propose entirely disparate policy solutions to the same problems. This lends interest to a discussion of the topical theories that will serve as the basis of this study.

Modern Theories of Money & the Problems They Present

Two traditions of money theory form the basis for most research into the origins and nature money. While both sides agree on the quintessential utility of money, deep philosophical disagreements about the definition, value, and origin of money divide the

¹¹ Rollins 1917, 193: “Fiat Money. Money which a government declares shall be accepted as legal tender at its face value.”

partisan proponents of these two fields. Theorists from each side have differing ‘stories’ about the origins of money and currency because of their respective beliefs about the definition of money. The first, metallism, produces a whole tradition of money theory, including Austrian money theory, which argues that money is the most important commodity within the economy.¹² Metallist theory is so-called because technical adherents believe that money derives its value from something that backs it up, e.g., gold or silver. To be clear, however, I use the term in its broadest sense, that is, money derives its value from its ability to purchase goods and services. I will also use the term Austrian interchangeably with metallist. As a tradition, metallism emphasizes the role of money as a commodity that the public accepts as a medium of exchange because it reduces the costs of trade by eliminating barter. The adoption of this money is driven by the benefit that people gain from using it in exchange within the market. It is market-driven. People express the concepts of prices and value through this ‘commodity money’ in the form of currency.

Market-Driven Money

Literature supporting the Austrian story of currency’s origins is extensive in both microeconomic and macroeconomic study. One particularly illustrative paper about the development of currency by natural market interactions comes from R.A. Radford’s *Economic Organisation of a P.O.W. Camp*. In this essay, Radford argues that a P.O.W. Camp reflects markets and society very well. This is the case because prisoners of a camp find great meaning in their daily activities that would appear to an outsider, or even to a former inmate, trivial. The authority of the prison gives to each inmate a ration of goods

¹² Mises 1953, 32.

on which he is to live. Naturally, preferences arise and these prisoners desire more of one good than another. Therefore, they begin to barter in a hope to gain the goods they desire more. They trade food for soap, soap for cigarettes, cigarettes for coffee, etc. Exchange of goods and services is what enables a prisoner to become relatively comfortable compared to his fellow prisoners.¹³

Of particular interest is Radford's discussion of the growth of cigarettes as a currency within the prison. Cigarettes become a currency because of they have all the requisite qualities of a commodity currency and even some of its defects. They are of course recognizable and uniform to any inmate, especially machine rolled cigarettes. They have durability, meaning that they can be smoked instantly or in a month just as a coin could be used now or in a month. They are easily portable and divisible into larger (packs) and smaller (singles) units of value. Just as coins can be shaved of some of their metal without reducing their usefulness, the tobacco in cigarettes can be whittled out and rerolled into handmade cigarettes. Cigarette currency, as Radford relates, was subject to periodic deflation because of its non-monetary use, smoking. Coins also face this problem, albeit to a lesser extent, when their metal is used for other purposes. All inmates, smokers and non-smokers alike, accepted cigarettes in exchange for goods and services and used them to denominate prices on trading boards within the camp. Most exchanges involved trading food for cigarettes or other foodstuffs but barter always continued within the camp in goods that were not currency.

Several aspects of this article provide evidence for a privately driven monetization.

The prison camp represents a market that is monetized only by the newly created demand

¹³ Radford 1945, 189.

for money. No central authority made the cigarette currency feasible or sets its value. Rather, many independent actors within the prison's market discovered cigarettes as an efficient commodity currency. The growth of this perception increased the volume of cigarette trading for other goods and created a self-sustaining currency. The creation of a market by the distribution of equal goods with freedom of exchange provided the driving force for the institution of barter and then money. Any attempts to regulate the monetary market within the camp came later and were irrelevant to its origin. In this case, the medical office became a sort of state as it tried to regulate the amount of food that could be exchanged for cigarettes or other goods to make sure that soldiers received the proper caloric intake. This attempt at regulation was ultimately unsuccessful.¹⁴

Another interesting part to Radford's research arises when he talks about the prisoners' efforts to establish a paper currency called the Bully Mark (BMk). In the camp, there existed the Restaurant and the Shop, as Radford calls them. These inmate-led industries sold special food and goods in exchange for cigarettes; however, their attempt to establish a theatre led to the need for a currency not subject to cigarettes' deflationary episodes. The Shop acted as a bank of issue with the currency backed by the price of food.¹⁵ This suggests the sort of natural flow from metallic coinage toward representative money is typical and developed from market needs for more sophisticated currency. The BMk also fails in the end due to a deflationary episode from the bombing of the camp by allied forces. Radford argues that the BMk could not be stable in the long run because it was not tied to the competing cigarette currency, which would defeat its purpose anyway if it were.

¹⁴ Radford 1945, 192.

¹⁵ Radford 1945, 196.

While there are clear differences in structure from a P.O.W. camp and an economy, the instance of the P.O.W. camp does in some ways resemble what we might expect from an ancient economy. It moves from a state of no monetization toward a state with currency. As such, proponents of metallist monetary theory would posit that this article is an accurate representation of how money develops.

An interesting microeconomic parallel for the Austrian story of money creation comes from Hernando DeSoto's *Mystery of Capital*. DeSoto describes historical events that parallel metallist perspectives on the development of money. The state, rather than being part and parcel to monetization, only catches up to the market that has already been monetized. Instead of money, DeSoto's scenario recounts the recognition of property rights for miners of the California Gold Rush of 1848. Property rights are of similar importance to money in how significant they are to an advancing economy, insofar as, if they are removed, much economic activity becomes infeasible. For this reason, states and private markets have made establishing sound private property rights one of their foremost objectives. DeSoto relates how the United States government was unprepared to handle the need for legislation and enforcement that arose from the seminal California gold rush. In this vacuum of regulation, the miners acted in their own interest to increase the value of their property and preserve their improvements. Prospectors who held claims to land established a system of unofficial laws, enforced by private individuals, which resolved boundary disputes and laid out who should be the primary benefactor of a gold discovery. Miners created "acting mining laws" from "some legal acumen" in that such rules were based largely on property law already existing within the scope of the United

States' practical authority.¹⁶ In doing this, the miners hoped to incentivize the state to simply accept things as they were and legitimize the miners' arrangements. In the end, they were successful, and the congress and judicial system sought to codify the regulation almost exactly as the miners originally stipulated.

DeSoto provides a typical scenario that might parallel the spread of money from a market standpoint. Private interests act to better their own situation by the demarcation of money or private property rights, then the state steps in later and grants these arrangements legitimacy in the name of the law. The initial development is completely the result of a removed market in the absence of institutional power and the result is a market regulated by a state that benefits from private enterprise. This extreme example follows the course that an Austrian perspective might expect for the development of money, but it is no doubt open to challenge. It is not likely that money spreads so independently of the state as did the frontier of the United States. The fact that money developed primarily in cities suggests this. While cities certainly have the largest volume of private transactions, and therefore the most likelihood of developing a currency from barter, they were not so completely removed from state influence that all the state could accomplish was to catch up. During the advent of coinage for instance, the states and empires of the near East aimed for centralized control over their territory, especially cities.

State-Driven Money Theory

Chartalist theory takes an entirely different approach to the origin of money compared to metallism. The term 'chartalism' derives from the Latin word *charta*, meaning 'token' or 'ticket.' Here again, the term is used in a broad sense to denote a

¹⁶ DeSoto 2000. 147-159.

family of theories which argue that money derives its value from the authority of the state. Disagreements about the core value of money and its origins are the clearest distinguishing features of metallist and chartalist theories. Whereas, metallist theory emphasizes money as having been developed primarily as a medium of exchange by private individuals for their own betterment,¹⁷ chartalism connects money's spread with the growth of institutions as a medium of legal tender. Economist Georg Friedrich Knapp pioneered state monetary theory, and further expansion upon his ideas solidified chartalism as an independent monetary theory. Following Knapp's example, scholars argued that money is inseparable from the state by its very nature. They held that money could not be constructed or understood in the absence of the state¹⁸ because money's primordial quality is its acceptance as payment to the state. This is not to say that people must accept in private transactions whatever the state tells them to. Rather than a reacting player in the market, the government drives monetization through its own interest. This highlights the costs of introducing new systems of money, and that these costs must be outweighed by some targeted benefit in the state.

The state's real power over money is therefore its choice whether to accept it as payment from citizens, not simply its ability to manufacture money. This means that even if a currency has intrinsic value, as was the case with gold or silver currency, it has no real value as money unless the state recognizes it as such. What counts is that it may be accepted as a 'token' of payment for taxes or other fees.

The literature on chartalist theory is more recent than that of metallism and is expanding with many active writers. Chartalism promotes the idea of money as a social

¹⁷ Mises 1953, 30-33.

¹⁸ Wray 2014, 4.

construct rather than a thing. Modern money theory, a branch of chartalism, has met with skepticism and enthusiasm by economists for its interesting implications about money, debt and state policy. The importance of the state in the origin of money is one of the central debates of modern theory and the central focus of this paper. To certain money theorists, the state takes on a very important role in the origination of currencies and explains why they become widely accepted.¹⁹ A critical question involves whether the state was creatively involved with the creation of money in ancient society or if it ‘attached itself’ to the development. On one hand, some modern theorists hold that by taxes, fines, and payments the state contribute the impetus for monetization.²⁰ Such proponents adhere to state monetary theory or modern money theory. On the other hand, there are those who argue that money arose purely from private human action because it eliminated inefficiencies by acting as the most important economic commodity.²¹ These scholars argue for Austrian monetary theory.

Modern Theory versus Ancient Realities

These are the economic theories that scholars have to choose from to explain the origins of money. Modern theories of any kind, however, fall short in providing satisfying explanations for the dawn of the money economy. If any of these theories were truly complete, we would expect that they explain why and how money expanded from beginning to end with regard to the history of monetary policy. One aim of this study is to show how certain episodes in classical monetary history are, as yet, unexplained by the predominant theories. On the one hand, the Austrian story is altogether simplistic in its

¹⁹ Wray 1998, 18.

²⁰ Wray 2014, 7.

²¹ Greaves Jr. 2012.

assertion that money arises merely from a reduction in exchange costs. While private human action and motivation are undoubtedly important to why money functions, our understanding of ancient society does not lead us to believe intuitively that money developed from a sort of free market scenario. If anything, studies of ancient societies suggest that such institutions as the cult and the state were involved with, and important factors in, the spread of money. In emphasizing the benefits money provides as a medium of exchange between individuals, Austrian theory fails to realize the benefits and incentives it gives the state to advance monetization. On the other hand, chartalist theory appears absurdly ideological in its argument that money's value is never derived from inherent value. If states and organizations really did have the power to fully "construct" the value of money in the ancient world, why would they ever have issued a currency in gold or silver? While it may not have played a role in many transactions, the inherent commodity value of ancient coins and money was significant to their spread.

Chartalist and metallist theories display a clumsiness in explaining the development of money in the ancient world. There may be several reasons for the distortions we see there. First, money theory derives almost exclusively from study of either the classical gold standard of early modern Europe or the fiat monies of today with little concern for the nature of ancient money and its idiosyncrasies. Second, from our modern stance it is easy to presume that monetary systems of the ancient world were simplistic and hence unworthy of theoretical study. This is simply not the case. Although ancient money took less developed forms and stemmed from less developed institutions, studying it and the context under which it developed provides revealing insights about political economy. In reality, the money economy of the ancient world showed a great

deal of complexity similar to the currencies we see today. Third, each side views the classification of money as exclusive of the other. Chartalists argue that as a social construct, money cannot possibly be a commodity. Metallists conversely postulate that if money was not inherently a commodity, it would lack essential value, and no one would accept it. Could it be possible, however, for a commodity to be part of a social construct? The following chapters examine instances in the ancient world where this may have been the case.

CHAPTER II

MONEY IN THE ANCIENT ECONOMY

The money economy, into which modern people are so well integrated, was not an overnight development. Hundreds of years of technological advancement in currency, institutions, social connections, and markets make the complex and interdependent world of today's money a reality. In order to be useful, money must be interchangeable, durable, portable, and recognizable with as little fluctuation in its value as possible.²² Today, our deeply held and virtually subconscious belief that other people will accept our money in exchange for resources drives its widespread use. For this reason, even though the paper on which currency is printed is valueless and there is no stack of gold or cash to match our bank accounts, we still believe that our money holds value. This realization led Friedman to remark that the entire monetary system rests upon a "fiction" that money users believe, even under great duress, because it is embedded in their personal experience.²³ Experiences that solidify the value of money to the modern user are so ordinary that they hardly require explanation. The pharmacist gladly accepts paper money for a manufactured drug. The dealership sells a car for a check that promises to transfer money from one account to another. Why? Their experience and the experience of the buyer tell them that money has had a value and will have a value in the future.

Imagine, instead, that all the qualities and experiences of money mentioned above were gone. Pharmacists refuse to believe that the paper currency can be as valuable as

²²Meltzer, Friedman 1998.

²³Friedman 1992, 9-10.

their drugs. Car dealers have no faith in a check. Society as we know it would grind to a halt under these circumstances. In the ancient world, the ability to trust was not nearly as clear-cut. Modern banking and accounting did not exist. States were often unreliable, self-interested, and subject to change. This is not to say that weak states and institutions were always the case. Certainly, some governments wielded great prestige and reliability. The Roman Empire and Delian League may serve as two notable examples. Nevertheless, these empires were the exception, not the rule. Despite this, most governing institutions minted coins and there were many mints. There are many, many variations of coins from thousands of different mints that existed throughout the ancient era.

An ideal coin in the ancient world was one which had exactly the amount of valuable metal in it purported by its minters at the reported purity. In this case, it is the value of its gold or silver that drives people to accept it as payment. This would make coins similar to the earlier commodity moneys. Coins in production could, however, be counterfeited, devalued, and diluted. This means that while the money itself had value stemming from what it was made of, usually a precious metal, they had some token value. This token value increased as time went on, inflation occurred, and the coins were diluted.

One important aspect of this thesis examines how money's origins relate to monetary theories of the present day. Despite the evidence that the ancient world was, in many places, under-monetized, there is good evidence that the state advanced monetization rather than simply 'catching-on.' One way in which my analysis will shed light on that question is by examining the extent to which people relied on the state to back up debt obligations. This information contains significant implications for the monetization of the ancient world, as this study will point out.

The societal changes of the centuries preceding the dawn of the money economy explain the context that made monetary innovation necessary and revolutionary. The seventh century was an enormously formative period for the civilizations around the Mediterranean and in the Near East because it continued and expanded upon the eighth century's 'renaissance' from the devastation of the Late Bronze Age Collapse. The Late Bronze Age Collapse of 1200-1150 B.C. was marked by destruction, depopulation, and decentralization combined with decrease interaction between peoples. The violence of the period is attested by the annihilation of nearly every significant city of the Eastern Mediterranean and the demise of all but the very most powerful Bronze Age empires.²⁴ This transition brought an end to all of the central redistributive palatial economies of the Bronze Age, including those of Mycenae, Pylos, and Knossos. As a result, Greece entered a Dark Age that created isolated villages that later became the *poleis* of Classical Antiquity.

The palace economy is closely related to the concept of a gift economy that dominated ancient economic systems. This means that individuals give goods freely without explicit agreement for compensation but may expect compensation later in some form. This formed the basis for exchange based on immediate evaluation by strangers.²⁵ By definition, this avoids barter and monetary exchange, which are complex instantaneous transactions. Examining the Homeric epics, scholars can identify a gift economy with the expectation of some form of 'reciprocity' from the person (or people)

²⁴ Drews 1993, 4.

²⁵ Finley 1977, 64.

receiving a gift.²⁶ Since these poems recall events of the late Bronze Age, it is thought that gift economies were prevalent in Greece at that time. One notable manifestation of the gift economy in *The Odyssey* occurs when Menelaus gives Telemachus a chariot, three horses, and a mixing bowl on his visit to Sparta.²⁷ Of course, there are many other examples throughout Homeric literature, yet this one is notable because Telemachus rejects the horses as Ithaca is too rocky for them. To complete the reciprocity of the situation, Telemachus also asks what he may give when his hosts visit him in their turn. This gives it some of the character of a payment in that it is acceptable for the receiver to choose the gift with the most utility. The palace economy operated on a similar concept about the redistribution of goods on a mass scale.

Decipherment of Linear B tablets (an ancient Greek writing form) and the presence of archives and food storages at major palace centers led archaeologists to the concept of a palace economy as an explanation for the evidence of redistribution. The tablets, most of which were found at the palace of Pylos, list incoming and outgoing goods within the palace. Scholars noted that the tablets never compare the value of two things directly,²⁸ but list all items separately. This clearly demonstrates a lack of monetization under the palace economic system. In a palace economy, much of the wealth of a territory flows into the centralized palace of the controlling power. The central authority in the palace then redistributes the goods to the public. Under such a system, the palace wields great power through taxation and withholding of commodities or services, usually agricultural goods. The palace must plan the portion of production

²⁶ Donlan 1982. 140.

²⁷ Homer, 4.589-620.

²⁸ Chadwick 1973, 198.

from which it will extract goods and services. This gives it at least partial control over the labor of the economy. Finally, the palace requires the means to collect the goods created by the individuals and redistribute them based on the central plan. Based on the procedures above, the palace must exercise sizable authority and centralization to tax its citizens and control production. Under such a system, the demand for currency is low for several reasons. First, since these ‘taxes’ came mainly in the form of agricultural goods, the controlling authority did not need to issue a legal tender currency. Second, the system of taxation probably took in much of whichever commodities might make a commodity currency possible. Third, since many of the most skilled artisans lived and worked within the palace, they would simply share in its resources. This means they did not operate as independent merchants seeking to collect a wage from a customer as we think of businesses today. Instead, they gave their products to the palace in an implicit return for their livelihood, eliminating the need for the palace ruler to compensate them with money. Therefore, in short, there is no impetus for either the governing authority or the people to drive monetization under a palace economy.

The disintegration of palace economies enabled the transition toward a monetary economy. The failure of palaces as centers for the storage of goods and the production of finished goods meant that production suddenly freed up, and goods stayed closer to their manufacturers. There was no palace authority to collect commodities for redistribution. This certainly contributed to the immediate decline in population, craftsmanship, and literacy of the Sub-Mycenaean period (1150-900 B.C.). As mentioned earlier, this isolation also had the effect of creating competing smaller towns that developed their own industries and identities.

After the palace economic system disintegrated in the late Bronze Age, new forms of states came into being in the Mediterranean world. The disorganized state of the Greek Dark Age followed by population growth within isolated villages would necessarily have led to the development of more localized states. The era prior to the 8th Century B.C. marked a uniform decline in economy that affected all social classes and decreased economic inequality. Among the many signs of degradation within the period are the disappearance of Linear B writing, the general lack of large buildings throughout the mainland, and the reduction in artisanship for goods.²⁹ Without the means to enforce the former systems of collection and generally decreased productivity, states were at their weakest point in this period.

²⁹ Violatti, 2015, Online.

CHAPTER III

GREEK EXPANSION, STANDARD COINAGE, AND AMPHICTYONIC LEAGUES

While Greece was probably not the first civilization to strike coins, Greek culture took up coinage very soon after its invention. It seems that the first Greeks to mint coins in the style of Lydia were from Aegina, a commercially important island in the western Aegean Sea. Aegina is credited with introducing coins to western civilization, and there is considerable evidence that this honor is justified. One such piece of evidence is that the Aeginetan standard for weights and measures became one of the measurements used for currency throughout the Greek world. The Aeginetan standard consisted of a drachm of about 6g of silver.³⁰ While silver eventually became the sole metal in coinage production, Aegina produced an electrum stater in the seventh century B.C., perhaps suggesting some knowledge of the Lydian coins.³¹ The silver coins of Aegina had similarities to the earlier coins of Lydia and likely began in the latter half of the 7th century. They had on their obverse a sea-turtle, an animal sacred to Aphrodite, and an incused punch mark on the back. By the end of the Peloponnesian War (404 B.C.), this design evolved toward a land tortoise and a punch inscribed with the letters of Aegina. These drachmae gained currency throughout most of western Greece,³² thereby encouraging adherence to the standard denominations of coinage that became the norm in the Greek world (drachm, stater, obol etc.).

³⁰ Sutherland et al 1999, Online.

³¹ British Museum Catalogue 11, Attica Megaris Aegina 700 – 550 BC.

³² Encyclopedia Britannica, *Aegina*.

The minting of coins is of course a costly undertaking and must be matched by produce some benefit for the institution which mints coins. The adoption of the Aeginetan standard across western Greece indicates the prowess of Aegina's merchant navy during the advent of coinage in Greece. The Aeginetan silver coinage suggests what we might call a mainstream view of the spread of coinage. During the seventh century, Aegina became a trading power within Greece, probably through trade with Ionian Greeks, Egyptians, and the Persian Empire. As we have discussed, barter or less efficient forms of money make trade, especially foreign trade, quite difficult. This is even truer of maritime trade of Aegina for many reasons. One such reason is that whatever is given in exchange must be carried home by ship. Another is that it would be very difficult to know when a ship laden with foreign goods might arrive in order to prepare for a more time-consuming exchange. Coins would facilitate the expansion of Aeginetan trade within its array of ports and involvement in foreign markets. It is known that the Aeginetan trade network was far-ranging, with merchants sailing from Egypt, to Cydonia (Crete), and throughout the Black Sea.³³ Interactions between Aegina and her neighbors neatly spread the technology of coinage far and wide.

It is difficult to say with any certainty who first minted the coins of Aegina. What is worth noting is the mercantile intention of the currency. Coins must be manufactured through a process involving many steps. First, two dies (presses which impart the obverse and reverse faces of the coin) must be constructed, engraved, and stabilized in an anvil. Then blanks poured out of molten metal of consistent composition must be made, placed in the die, and struck. The principles of this process are still largely the same today, but

³³ Herodotus, *Histories*, 7.147 and 2.178.1-3. Hogan 2008, *Cydonia*.

industrialization has enabled much larger-scale production of coins. The high costs of making quality coins makes it difficult for anyone but the most powerful authorities within a country to oversee their production. Counterfeit coins were not unheard of but matching the quality of a legitimately minted coin is very difficult. At any rate, the cost of minting the coinage to the authority which oversees it must be outweighed by the expected benefit that the coinage will produce. This leads us to look at the motivations for each of the extraordinary episodes of money presented in this thesis and also to examine what we, as modern people, consider the normal motivation for money's creation.

Most people hold subconsciously that money's value primarily stems from its use as a medium of exchange. This is to say, that I am willing accept or even store dollars spent by other people only because I believe others in turn will accept them in exchange for a good or service I request. The Aeginetan coinage may be an example of a coinage created to provide this advantage because of the trading nature of that archaic economy. It replaced barter and previous forms of less portable or precise money as a means primarily of conducting trade. An important footnote to this assertion is that even though the silver coins of Aegina had considerably less spending power than the earliest coins of electrum, they still would have had very more spending power than would be useful for everyday transactions.³⁴ Their utility in exchange must have been for sizable commercial transactions well before they were useful for menial ones. Modern currency comes in many fractions, any number of which could be useful for a given size of transaction. Small fractions of coinage developed only slowly in the ancient world due to the

³⁴ Sutherland et al 1999, Ancient Greek Coins – Early Developments c. 650-490 B.C., Online.

difficulty of manufacturing large numbers of coins. Nevertheless, valuable trade between interstate merchants could justify the creation of coinage. It is possible both that merchants minted the first coins or that a ruler was responsible. At any rate, the division between state and commerce was not as clear then as today. The state has incentives to create coins which will be used by traders all over its ports system as it will be able to easily collect taxes or fees from merchants of different origins and wares. The merchants themselves have incentive to adopt the coinage because it makes their individual transactions more efficient. It is likely that this synthesis of aims led to the adoption of Greece's first silver coinage.

If Occam's razor is anything to go by, the Aeginian story represents a readily acceptable explanation for the whirlwind spread of coins through Greece. It seems feasible that the reason Greece took to coinage from the standard unit of the drachm. The Lydian anomaly of coinage spread to Greece through Aegina, an island which picked up on the commercial advantages of using coins and then made them more accessible by using silver. This story makes sense but is unnuanced and without account for surrounding political history. The silver coins of Greece were not limited though to the coinage of Aegina. There may yet be a more complicated story to tell about the uses of money for the Greek *poleis*.

The currency and silver standard of Aegina promoted competition among other Greek states for dominant currency. In the 6th century, while Aegina relied solely on its trade network, other powers were also expanding their spheres of influence through colonization. One such polis was Corinth. Just as geography favored Athens over Corinth with more sturdy clay, it favored Corinth over Aegina with the ability to project its power

westward. Corinth introduced the first successful competitor with Aeginetan coinage around 650 B.C. by minting coins for its colonies on the Adriatic Sea and around Italy and Sicily. Corinth introduced a lighter drachm with a much more intricate double-faced design. Interestingly, Corinth experienced higher production cost in producing coinage than Aegina. The city's closest silver mines were located in the Illyrian mountains, and ore had to be moved by ship. Corinth chose to change the weight standard, decreasing coins usefulness for international exchange by increasing transaction costs. Moreover, its geographical situation made minting new coins considerably costlier. We see that the primary factor motivating the creation of the Corinthian coinage was political benefit for its colonial network. This benefit outweighed the costs enough to cause production.

Corinth was far from the only power that sought to introduce an alternate silver weight standard to the Greek world. In fact, the Greek world saw a number of different standards throughout the course of the archaic and classical periods, and the accepted standard usually varied by region. I have mentioned in this chapter only the few most important. While Aegina was the dominant maritime power of Greece during the archaic period, it certainly did not remain so during Athens' height. In fact, most of what we know about Aegina comes from Herodotus' histories of its conflicts with the expanding power of Athens. Unsurprisingly, Aegina's main point of conflict with emerging Classical Athens was an economic rivalry. This rivalry (and a likely substantial amount of trade with powers opposed to Athens) led Aegina to fight with Athens and to collaborate with the Persians and later the Spartans. A brief moment of heroic unification between the two cities in the Battle of Salamis (480 B.C.) is about the only time we know

that the two states ever got along.³⁵ Athens was eventually most successful at launching an interstate currency throughout its empire during the Classical era.

The Attic standard of silver coinage moving toward the Hellenistic era was by far the most widely adopted Greek coinage standard primarily thanks to the conquests of Philip II and Alexander the Great. By the time of Classical Athens, the drachm seems to have become more usable for everyday transactions. In a survey of ancient sources, despite a range of possibilities, it appears during classical times that a drachm represented a day's pay for a hoplite and his attendant. Thus, a drachm might represent today the daily wage of a skilled worker.³⁶ One of the most popular coins of Athens was the Owl. It was a tetradrachm with the head of Athena on the obverse and an owl, olive branch, and an inscription of Athens on the reverse. The popularity of Athenian Owls led Philip and Alexander to issue gold and silver coins under the Attic standard. This quickly made it dominant throughout the Greek world and the near east.³⁷ It is important to note that mints were very common throughout the classical period. Most *poleis* had at least one mint, and major *poleis* had several. Coins produced up until the fall of Rome suggest that over 2,000 mints existed before the fall of the Roman Empire (410 A.D.).³⁸ This is some evidence that weights were the most important factor in the acceptance of any coin. The stamping of coins provided value for the trustworthiness of each coin and each state had some control over the methods of payment it issued. Coins from different *poleis* are often found in faraway locations.³⁹ The metallic value drives their acceptance across nations.

³⁵ Encyclopedia Britannica. *Aegina*.

³⁶ Young 1875, 32.

³⁷ Morkholm 1991, 8.

³⁸ Peck 1898, *Moneta*.

³⁹ Morkholm 1991, 8.

The Attic weight standard provided Athens' empire some facility in conducting administrative transactions among members of its league.

The cases of Aegina, Corinth, Athens, and other standards further emphasize the role of political recognition, competition and influence in acceptance of an intrinsically valuable coin. The standard used in a given area was generally a visible projection of a state's power within the area. The competition among different coinages to become currency paralleled other forms of competition among the Greek *poleis*. Coinage was a symbol of civic pride as well as a tool of commerce. Often, problems of acceptance arose due to the different weights of different *poleis*' coins despite the fact that the three staters (meaning 'standard units') were linked under the weight of a mina and could be used for interstate commerce (150 Corinthian, 100 Attic, or 70 Aeginetan drachmae were 1 mina).⁴⁰ In any case, many localities would often demand that travelers pay in either a highly recognized currency, like Athenian owls, or exchange a foreign currency for a locally produced one. Benefitting from an exchange rate was yet another way by which a state might gain an advantage from coins. A polis might be able to take competing coins out of circulation in a region this way.

What is most noteworthy, however, about the monetization of ancient Greece with its varying standards is the existence of those standards in the first place. If Aegina created the first silver standard used by Greece, and the market-driven theories of monetization hold true, then we should expect that a universal standard of weight follow from any other Greek powers to introduce coins. This was not the case. In fact, Greek city-states were willing to sacrifice cheaper transaction costs to make their coins currency.

⁴⁰ Sutherland et al 1999. *Coin*. Early Developments, Online.

The political cost outweighs the transaction savings gained by adopting earlier standards. This is a very important insight into how monetization occurs, as it shows that political action must play a large role.

Extraordinary Episodes – Amphictyonies

If Aegina, Corinth, and Athenian coinage embody the norm of how we expect an advanced currency to develop, then we may juxtapose their coinage with other currencies within the time of these coins' origins. That is the aim of this section and the following chapters. We shall see that archaic and classical history display extraordinary episodes of early money that break our expectations of how a successful currency may come about. The clearest examples of this come from the era before the standardization of Greek coinage. Chapter four examines the case of Lydian electrum coins, thought to be the first coins ever created. Chapter V discusses the iron money of Sparta, which may have begun as early as the eighth century B.C. The monetization of archaic Greece was a complex process with progressive innovations toward what we today call coins. Setting those extraordinary episodes aside for later chapters, I discuss one much later coinage which is revealing about how institutions may benefit directly from coins and also shows some remnant of a religious origin for coinage well after coinage became widely adopted.

An Amphictyonic League, or amphictyony —literally “league of neighbors”— was a religious association of Greek tribes based upon Greek Dark Age organization. Amphictyonies from early times are not fully understood due to sparse documentation. Ancient sources relate that the earliest amphictyonies comprised alliances of several cities that met to hold sacred events and maintain holy sites. Strabo lists the members of one early Calaurian Amphictyony that originated on the island of Kaulaureia near the

coast of the Peloponnese. At this time, the island was called *Eirene* (“Peace”) in reference to the foundation of the amphictyony.⁴¹ Archaeological evidence indicates that this amphictyony began around first half of the seventh century and included Athens, Aegina, Epidaurus, among others, and eventually Sparta and Argos.⁴² It is possible that this amphictyony was an organization which facilitated the spread of the Aeginetan silver standard. Claiming the authority of Ephorus of Cyme, an early Greek historian, Strabo says that the Aeginetan coins were created by the rule of Pheidon.⁴³ Pheidon of Argos is thought to have been in control of a large empire in Greece at this time,⁴⁴ and it is interesting to synthesize this, the foundation of the amphictyony (willingly or not) and the assertion that it was he who first minted Greek silver. Such a thought seems to suggest that the creation of coinage may have been a more top-down than previously thought. Recent scholarship has asserted that the coins are too late to be directly from Pheidon,⁴⁵ but this does not preclude the role that an amphictyony might have played in their success.

Amphictyonies were Greek institutions that related the power of the state to the authority of the divine. I posit that this divine authority was necessary to create coinages throughout the Greek world. With the passage of time, the formerly religiously driven amphictyonies took on more political importance. The amphictyony most understood in the modern day was centered on the Sanctuary of Apollo in Delphi during the fourth century. It is spoken about by the Attic statesmen Aeschines as an organization of *poleis*

⁴¹ Kelly 1966, 118 Note 45.

⁴² Strabo, *Geography*, 8.6.14.

⁴³ Strabo, *Geography* 8.6.16.

⁴⁴ Kelly 1966, 119, Note 57.

⁴⁵ Sutherland et al. “Coin.” *Encyclopedia Britannica*, Online.

who swore oaths to abide by international laws of war.⁴⁶ Specifically, the amphictyonic league set rules regarding the punishment of those who harmed sanctuaries.

The Delphic Amphictyony underwent two disasters that led it to mint coins during the fourth century. The first was the destructive 373 B.C. natural disaster, maybe an earthquake, which thoroughly wrecked the Temple of Apollo. The amphictyony created the *naopoioi* (temple-builders) to manage the reconstruction of the temple. Composed of officials from member *poleis*, the *naopoioi* instituted an *epikephalos obolos* (a subscription) to be paid by each member state toward the reconstruction. The temple's international importance attracted subscriptions from other parts of Greece as well.⁴⁷ Once construction had begun, the Phocians, those living around the sanctuary of Apollo, seized control of the sanctuary for ten years during the Third Sacred War (355-346 B.C.). To pay the mercenary army occupying the sanctuary, the Phocians melted down valuables in the treasuries to the tune of 10,000 talents. They were eventually defeated by the members of the amphictyony and forced to repay this at 60 talents per year. This was reduced to 10 talents per year but still became an important source of income for the sanctuary.⁴⁸ The amphictyony eventually minted a series of staters, drachms, and *triobols* under the Aeginetan standard that bore the inscription of the amphictyony rather than that of Delphi. These silver coins were minted from coins paid into the treasury, some of which were from faraway mints or had lost much of their weight through transaction or shaving. The mint at Delphi kept careful records of *apousia* (the loss of metal that occurs when an old coin is reheated to make a new one) as it reminted the coins. The

⁴⁶ Aeschines, *On the Embassy*.

⁴⁷ Raven 1950, 1.

⁴⁸ Raven 1950, 2.

amphictyony, acting as an international organization, provided uniformity and authority to previous coins of inferior purity or shape. The costliness of this process in terms of loss and labor must have been outweighed by the benefit that the temple gained from reminting the coins. This benefit would have come from the growth in authority of the amphictyony and practical acceptance of a reminted coin for rebuilding the temple. It has even been suggested that these coins were minted to promote uniform coinage among the city-members of the league and increase international trade. While this seems feasible, the coins have only been found in the regions close to their creation in Delphi.⁴⁹ At any rate, the Delphic Amphictyony is interesting to monetary history for two reasons: (1) it presents an example of how extemporaneous emergencies can lead to advancements in monetary systems; and (2) It suggests continuity in the significance of religious authority to coinage even past the adoption of standard coinage.

Evidence presented in this thesis suggests that religion, among other social institutions, may play a larger role in the creation of coinage than previously thought. Even within the standard silver coinages of Greece, there is some evidence that religious-state institutions benefitted from coins enough to drive their creation. The amphictyonic coinage is one of the best examples of this because it was minted for the benefit of a religious cult within an interstate sanctuary. Despite its political context, the Delphic coinage would not be possible without a religious element. It was created an inter-state institution justified by the protection of holy sites. Although, in antiquity, the lines between the state and the cult were hardly clear, the tendency of multi-entity alliances to be inherently less centralized than single state organisms may entail that the need for

⁴⁹ Raven 1950, 9-10.

coins in this case was more motivated by the needs of the temple than the political aims of the amphictyony.

CHAPTER IV

LYDIA & THE RELIGIOUS NATURE OF EARLY COINS

Medium of Exchange or Store of Value

Unfortunately, the exact mechanism by which pieces of electrum transitioned from simple weights of metal to tokens of money remains mysterious. As mentioned, Aristotle attributes early coins to barter, and states that they “had a certain stamp to save the trouble of weighing, and to express their value.”⁵⁰ Nevertheless, the first datable appearance of coins leads us to believe that they were used as tokens of sacrifice. This suggests that their use stemmed from a debt to the god rather than barter's inefficiencies.⁵¹ The first coins were obviously rare and very valuable. Electrum was an extremely precious resource, as society was poorer then.⁵² Electrum coins would have been too valuable for everyday use by ordinary citizens, and thus were only used by elites.⁵³ This touches upon a central idea to this thesis. Due to the limited productivity of the ancient economy, the usefulness of coins at the time of their invention as a private means of exchange was questionable. Scholars thus posit instead that the use of coins in many cases derives from the state's goal to eliminate administration costs rather than transaction costs.⁵⁴ The state certainly became important in the issuance of coins in later eras. This is especially well documented through their stamping with inscriptions and the

⁵⁰ Aristotle, *Politics*. 1257a.

⁵¹ Seaford 2004, 88-95.

⁵² Grierson 1977, 4.

⁵³ Kraay 1964, 89.

⁵⁴ Grierson 1977, 5 “Since coins were issued by governments - the supposed issue of the earliest coins by merchants is unproven and unlikely - it was administrative rather than economic needs they were intended to serve.”

faces of prominent rulers. I argue, however, that we have as much cause, or perhaps even more, to believe that religious cults would have issued coinage as we do to believe that the state issued coinage.

The reader may have noted that in some way, the evidence presented above may, at first glance, appear in some conflict with itself. On the one hand, some evidence suggests that the invention of Lydian coinage was due to its usefulness as a medium of exchange because it would have solved problems of transaction efficiency. On the other hand, some evidence discredits this notion because electrum coinage would not have been very immediately useful as a medium of exchange for daily transactions. This is because of one small coin's immense value. It is more likely that administration was facilitated by coinage than exchange. The following section presents a model of thinking about the invention of Lydian coinage derived from the synthesis of these two perspectives within the known zeitgeists of the archaic period. It shows that the spark for the invention of coinage was likely its use as a store of value. The religious practice of polytheistic Grecized religion provided a context from which electrum coinage grew first as a store of value and only later as a medium of exchange.

Archaic Influences on Coinage

A central question of the case of Lydia becomes who actually minted the first coins of Lydia. Which institution it was that minted the coins of Lydia is subject to question. While the assumption of economists and many classicists has been that the state would have been the first to mint coins, there is considerable evidence that the government was not the first. The first institution to mint the coins of Lydia was likely a religious cult within Lydia. Such cults were overseen by the state and contained no

separation in the same way that we think about our modern governance. Undoubtedly, the power of religious officials also entered into the practical governance of any polis. Religious cults occupied a space of great importance in the lives of ancient people and at times wielded great power over worldly affairs. Such religious temporal power is of course most clearly embodied by the medieval Catholic Church. While this example is extreme, it is useful to show the kind of importance that religious elements hold in society varies greatly. It is important to draw out the role of religion in the origins of coinage not because of the distinction between religion and the state, but between the part of the state that regulated relations among human beings, but that religious part of the state which oversaw that state's relationship with the gods. This religious relationship between people and gods played a critical role in creating the first coinage. This is difficult for modern theory to take account of because it thinks of the *modern* state, solely interested in worldly affairs. The *ancient* state was equally (often even more) interested in heavenly affairs.

Examining the earliest Lydian coinage reveals some idiosyncrasies about how it came to be. Excavations revealed the most significant findings of early coins, as Kroll writes. The 1904-1905 British Museum excavations of the Temple of Artemis at Ephesus uncovered ninety-three electrum coins left as offerings from the last half of the seventh century.⁵⁵ While, it is only natural that people gave offerings of significant value. It would be easy to conclude that the location of these coins does not suggest anything about their nature. I posit, however, that our knowledge of ritual, economies, and temples should suggest that these coins were made for the administrative purposes of the temples.

⁵⁵ Kroll 2017, Early Coins.

First, it is important to explain the nature of sacrifice and ancient Greek religion during the time of coins' beginning. The archaic period saw the rise of monumental temples such as that of the Temple of Artemis in Ephesus. Increases in personal wealth, contractual religious beliefs, unification of Greek mythology lent great strength to the cults of the archaic period. Monumental temples characterize the Greek progression from tribal ways toward *polis* structure, internal competition, and interstate unification by common custom and belief. Besides many magnificent structures, such seminal institutions as democracy, the Olympics, and, of course, coinage began during the archaic period. To summarize in a simple manner, the unification of Greek custom, in large part through cohesive myth and religion drove the unification of Greece itself as a society which later dominated the world stage during the classical era.

Archaeologically, the archaic period is much richer than previous times because of the relative wealth of artifacts discovered from the time. Certain kinds of early Greek votive offerings are iconic to study of the era, most notably the *koros* and *kore* statues. These statues ranged in size from handheld to monumental. They are notable because they are forms of human representational art, often dedicated by a specific individual as a gift to the gods. They also often carry inscriptions naming their donor and the purpose or organization to which they were dedicated. These statues were dedicated in immense numbers. Their character is archetypal of the spirit of many votive offerings. They give donors a sense of insured recognition for their donation to the temple and the god. The durability of the many prominent votive offerings is one feature that suggests that coins may have made a very good gift indeed for a wealthy ancient donor.

Is it possible, in addition that the material of coinage would have made it another good offering for a religious devotee? Certainly, the first coins were known to be of electrum, a very valuable metal. As we have mentioned, any good that is valuable to human beings was perceived as having some value to the gods. Goods of metal were among the most prized goods of antiquity. Bronze votive offerings in the form of statuary, weaponry, cauldrons, tripods etc., were among the most honorable gifts excavated from ancient temples. Even in content rather than physicality, the archaeological evidence suggests that representational votive offerings, such as bronze facsimiles of livestock, show how the ancients viewed these commodities of living animals as a certain ‘money’ for fulfilling contractual relationships between the gods and themselves. This opens up very interesting theory for the arrival of coinage as votive offerings.

Richard Seaford's *Money and the Early Greek Mind* researches the role that the development of Greek society played in monetization of Greece. Chapter 3 contrasts the method of sacrifice presented in Homeric society with the noticeable increase of durable votive offerings during the 8th Century B.C. Seaford notes the lack of durable sacrifice presented in Homer.⁵⁶ Homeric writing glorifies the communal redistribution of a non-durable sacrifice (e.g., cattle). The gold-standard of Homeric sacrifice was of course the hecatomb, a sacrifice of one hundred cattle for a god. Obviously, these events required near universal participation by a given community, especially the wealthy who would provide the livestock and other necessities. Socially, sharing the meat among the priests and all the people who attended the sacrifice was a glorification of the god, who would receive the smoke as an *agalma*, a ‘delight’, and be pleased by it. The god would then

⁵⁶ Seaford 2004. 48-60.

show favor on the people who sacrificed and give them something in return. This reciprocity was often tied to agriculture, which was clearly dependent on natural phenomena, like weather, and therefore tied to the gods.

It is notable that this sacrifice is a one-off event that can only be of very short-term benefit to the community and the cult. The celebration feeds the priests, the donors, and the community for a short time at great cost, especially for concentrated interests including the temple and wealthy individuals. While an extravagant sacrifice may grant a large amount of immediate fame and gratitude from the community, it represents a gift without any sizable constancy. Once the one-hundred bulls have been sacrificed, they are gone and leave no reminder of the donor or the event on their own. Thus, neither the wealthy donors nor the cult receives much lasting prominence in return for very costly sacrifices. The primary way in which these sacrifices maintain a lasting impact on society is through their repeated practice by members of the community. While pleasing the deity provides the theoretical goal of the sacrifice, the motivation to sacrifice a commodity which is then consumed by the community is primarily driven by the socially constructed customs of a religious people. Seaford pits this against the revolutionary developments of the archaic period in Greece and the near east.

Growth in personal wealth was certainly among the most important factors leading to an explosion in new forms of religious displays. We would expect an economy expanding out of the Dark Ages into the newfound prosperity of the archaic period to see noticeable growth in all forms of sacrifice from different walks of life. We may also infer that many votive offerings presented a way for less wealthy members of society to participate in sacrifice for the gods, or at least members who did not own livestock. Such

sacrifices likely also presented many more immediate opportunities for sacrifice, as a devotee could likely obtain a votive offering with relative ease compared to a large sacrificial victim. Even a traveler could participate in sacrifice on a pilgrimage provided he was able to obtain a votive offering in whichever place he was going. A preserved quarterly bulletin from the Metropolitan Museum of Art captures the spirit of votive offerings well.⁵⁷ Even though what we have are the durable statues. Goods used by humans were liable to be used by gods because they were valuable. Mothers brought cakes, girls brought toys, etc.

For the purposes of this research, examining the nature of newly developed votive offerings suggests how they created a set of social parameters highly conducive to the birth of coinage. As we have mentioned, one peculiar advantage of presenting a votive offering of metal (rather than meat) is that the object is not consumed instantly. Even so, such votive offerings only provide a little additional benefit to the cult and the donor through recognition. The volume of *kore* statues, bronze votives, and other durable goods not only suggests a huge growth in individual wealth and devotion to the cult; it also indicates that the cults were swimming in the sheer number of such goods. How many *koros* statues might a temple actually want for visibility before it starts running out of places to keep them? Impressive treasuries were constructed within sanctuaries to keep the durable votives from each polis' people. One example of this was the Siphnian Treasury constructed in the Sanctuary of Apollo at Delphi. Herodotus states that the Siphnians enjoyed the height of Greek wealth at this time due to rich silver mines on the

⁵⁷ H. McC. *Metropolitan Museum of Art Quarterly Bulletin*, 36.

island of Siphnos.⁵⁸ While these treasuries themselves represented hallowed spaces for the veneration of individual, polis, and cult, they in some sense, shut away such offerings. They also became spaces where a polis could display its wealth by the outward appearance of a treasury accrue a record of its offerings inside.⁵⁹ One great realization of monetary economics is that metal buried in a vault provides little utility to its owner. Naturally, some would desire a more useful form of it.

Big Spenders and Lydian Coinage

The growth in wealth, polis structure, and votive offerings was concurrent with the development of the monumental temples that so inform our understanding of the ancient Mediterranean world. The up and coming temples of the Archaic period involved massive expenditures on the part of a community through labor and capital. As the Greek world grew into the Classical era, these temples only became more elaborate and more expensive. The priestly class would have been the most involved in overseeing the construction of such temples. Perceiving a need for a more precise and all-encompassing form of payment, the coins of Lydia were likely first minted from offerings of electrum from a particular social group, and then used as a means to finance expenditures of the cult. What is important about this development in thought, is a distinction between the two institutions of the state and the cult. Instead of taxes providing the income from which coinage could be minted for use, the cult receives offerings in the form of electrum. It can then be spent upon projects in the large scale once it has minted. Moreover, this distinction is better to explain the rise of coinage because it captures the separate effect of a voluntary action versus an involuntary one. The electrum is first made by the cult from

⁵⁸ Herodotus, 3.57.2.

⁵⁹ Pedley 2005, 140.

willingly offered pieces of electrum. This centralizes the material into an important institution, which allows for circulation. At the same time, however, in this process, the people who offered the electrum are made better off for their transaction. They gain the much-desired favor of the gods and eventually, a store of value which may be offered in place of clunky votive offerings or livestock to the cult as an honored gift. This gift may actually provide the temple the ability to grow by construction, or labor, or any other large expense. Even further down the road, this cements the idea of coinage as a convenient medium of exchange. Coins of more affordable metals may then be made which can become a medium of daily exchange. Perhaps, the intervention of states into monumental temple architecture presents an intermediate phase where this action becomes necessary.

While the state would likely become involved in the making of electrum coins through its participation in the cult, the subject matter depicted on early Lydian coins is of decidedly religious character. Scholars have often cited the stamping of coins as evidence that the state drives monetization.⁶⁰ The truth of this matter is subject to question. While it is possible that state rulers advanced the goal of a money economy by putting faces and inscriptions to coins, promoting a pure worldly political agenda is not any more consistent than to say that coins were purely a market mechanism. The story is more complicated than this. The first coins did come with the social fabric and motivations of those that created them. Among the other motivations of early coinage was the promotion of the religious cult and increasing the people's communal participation in it. Analysis of the extraordinary episodes allows us to construct a

⁶⁰ Wray 2014, 5.

framework more useful for explaining the historical appearance of coins in association with religious organization. Reduced transaction costs for the state does not fully explain early money more adequately than gains to private transactions. Rather, the first electrum coins of Lydia depicted mythological iconography. This is hardly surprising given the pervasiveness of polytheistic mythology and religious practice in archaeological and literary evidence. Schaps' conversation is more revealing about early money. He notes that stamps on coins were probably not concerning their value for commerce, but were simply intended as a mark of temple ownership of coins.⁶¹ While these stamps may be seen simply as another manifestation of the wide practice of polytheism, they may suggest more about the origins of Lydia's coins. Namely, evidence suggests that the electrum coins of Lydia may have been first devised as a valuable, usable votive offering.

Another interesting argument for coins as a religious institution comes from the distinctly Mediterranean association of money with food. This shows through more than simply by choice of cattle as a currency alone. Embedded in animal sacrifice of ancient polytheistic religion was the consumption of food from a sacrificial victim. Seaford calls forth some philological evidence that may suggest that the connotation of money and food is particularly revealing. Colloquialisms aside (bread, bacon, dough, cheese, etc.), examination of Greek terms for money and other derivatives reveal a preference for food related words. *Obol* originally meant a spit and *tamas*, which means treasurer, originally denoted a 'carver' of sacrificial meat.⁶² In chapter five, I discuss the evolution of a Spartan currency that consists of iron bars called *pelanors*. Pre-coinage moneys came in many shapes and sizes. David Schaps speaks about Homeric Greece and what it suggests

⁶¹ Schaps 2004, 91.

⁶² Seaford 2004, 75-88.

about how money developed there. If money existed in Homeric times, it was certainly not in any non-primitive form. Rather, Homeric culture relied on the expectations of reciprocity between wealthy individuals, even if two parties have never met before. David Schaps notes that the gifts used for exchange among the prominent Achaeans and Trojans share some noteworthy characteristics with later forms of money. For example, metal ware was particularly prized as a gift in Homeric society. Tripods and cauldrons, ceremonial objects used for the cooking of sacrificial meats, were among the most prized gifts a Homeric leader could give. Schaps recalls an instance in which Agamemnon seeks to abate Achilles' anger with a litany of gifts.⁶³ The expectation of reciprocity necessitates a personal relationship between transacting parties in order that a gift be collected in the future. One of the purposes of money is to circumvent this personal relationship using a mutually favorable medium of exchange. As unified money forms, especially coinage, came to Greece, they changed the way in which the economy functioned. What is especially interesting to the economics of the matter is that sacrificial food is spread amongst the community just as coinage must be to obtain currency.

One prominent money in Archaic Greece was the obol or roasting spit.⁶⁴ These obols have been found at several sites in Greece as burial goods in the same fashion as later Greek coins, suggesting to many scholars their use as a currency. Plutarch writes that these iron spits were used as money by everyday people. Happily, the smallest silver coins of monetized Greece are called *oboloi*. The *drachm*, a more valuable coin, means a 'handful' (possibly of *oboloi*). Oddly enough, other objects lead us to believe that food

⁶³ Schaps 2004, 66-67.

⁶⁴ Schaps 2004, 83.

and the origins of currency are connected. The development of Greek money already appears from Homeric times to be associated with the preparation of food, ritual food in particular. Schaps even goes so far as to suggest that (uninfluenced by external developments of monetary systems) the Greeks might have fully developed a money system based entirely upon utensils.⁶⁵ This creates a neat tie-in with the development of coinage in Lydia, as discussed in this chapter, and even the development of Spartan iron money discussed in Chapter 5. In each case, the association of food with as a form of payment for a sacrifice.

Theory and Money

Grierson touches upon a central issue in his discussion in the origin of money. Theories of money have sought to classify ancient money into rigidly defined classifications as useful ‘commodity’ currencies, or token fiduciary currencies.⁶⁶ Grierson is quick to add that such distinctions are useful for the study of today’s money, but they do not adequately explain the origins of money. Rather than fitting neatly into a commodity or fiat money, the earliest forms of money only fit the bill of ‘commodity’ or ‘token’ intermittently. Cattle, considered one of the first commodity currencies, had only uniformity in ‘heads.’ Cattle, like any livestock, show variation in age, purpose, and health. Some may be old, others infirmed, and others stronger than normal cattle. The cattle accepted as a unit of exchange has more to do with their measurability as a quantity than with their uniformity as a commodity. One can imagine that, if forced to pay for a good in cattle, one would select the least prized cattle to expend first. Like cattle, other examples of early money suggest that social value is most integral in acceptance as a

⁶⁵ Schaps 2004, 88.

⁶⁶ Grierson 1977, 20.

medium of exchange. Grierson offers another example of this, arguing that brass cartridges used in exchange within tribal societies represents a socially driven currency despite the apparent usefulness of the object. This is because such tribes possessed no guns with which to use the cartridges.⁶⁷

This line of thought should be applied to ‘typical’ examples, for instance that of the cigarette currency of the P.O.W. camp. Radford describes how machine-made cigarettes could be debased by rolling a small amount of tobacco out of the cigarettes. If this process is repeated many times, a hand-rolled cigarette could be made. This increases the quantity of the currency without any increase in commodity value. Besides this inflationary tendency, this practice debases uniformity of the cigarettes by introducing shabby hand-rolled cigarettes to the market. These cigarettes do not function with the same fluency as the consistent machine-rolled cigarettes.⁶⁸ Compared to these prior forms of money, even weights and measures, coins provided much greater uniformity. This would improve money’s use as a medium of exchange through greater acceptance. Theoretically, it should also provide more accurate exchanges of goods based on their intrinsic value. This is because coins eliminate, to a large degree, the discrepancies shown in cattle or weights and measures. In analyzing the electrum coinage of Lydia as a token, we come to realize that the nature of electrum metal was a significant part of the reason it would eventually become coinage.

Their stamping and pre-measuring sped up transactions involving money. This is especially true of large-scale transactions and transactions paid over time. It is much easier to count consecutive units of coinage than to weigh large amounts of metal many

⁶⁷ Grierson 1977, 20.

⁶⁸ Radford 1945, 194.

times. Since even the smallest electrum coins of Lydia represented large sums of money in their day, scholars have recognized that the first coins were only used for large transactions, likely by institutions or wealthy people. The interests of wealthy donors and expansive institutions converge much more on the cult than on the state. Some speculate that these institutions could range from wealthy individuals to the state. Since states and other institutions were those that made the largest expenditures, it is likely that they would have been the first users of coin. For instance, governments of the ancient world often hired mercenaries. This would be a prime example of a transaction which coins would greatly aid. The mercenaries, if they desire immediate payment for their services rather than property in the future, must be paid in a commodity. The ideal of commodity is a coin because it is durable, separable by value, and very portable. The pre-weighing and stamping of the coins allows them to be quickly dispersed among the large group much quicker than previous forms of payment.

Equally important as the development of the iconic infrastructure of Greek polytheistic religion was the development of more powerful and numerous religious officials and organizations, referred to as cults. These cults and their priests became the recipients of countless valuable gifts. Coins were the most useful form of such gifts because they were both durable and could be used efficiently for payment by the temple. From this, we deduce that the origin of uniform payment systems, especially coinage, is driven by a need to store value and measure account.

Today, most people think of the government, particularly that of a nation-state, as the prominent institution within society. In fact, this is a relatively recent development borne out of the seminal political movements of early modern Europe. The cult often

played a decisive role in economy, morality, and authority of everyday life in the ancient world. Participation in it was socially expected, but nevertheless voluntary. This would have made it a more ideal institution to drive monetization through coinage.

Theories of money which emphasize the role of institutions in monetization, while they are on the right track, attribute too much of monetization to the state. It is clear that the state played a later role in the vast spread of coinage by taking control of minting the coins. This chapter has presented evidence though that the state was likely not responsible for the first coins. This is especially true in the ancient world, where direct state governance was decidedly rare. Rather, coins represented the product of voluntary donations to a cult which would then spend the coinage on projects of its own interests. Much archaeological and literary evidence suggests that coinage was an institution of religious economy before political economy.

CHAPTER V

THE CASE OF SPARTA

One of the first known instances of monetary policy comes from Sparta, a polis of the Peloponnese simultaneously revered and gawked at by the ancients for its atypical culture. Communalistic laws, militaristic laws, and an impractical form of government existed in classical Sparta as relics of the archaic past. The polis maintained an unstable dynastic dual monarchy (likely due in part to the unusually high mortality rate associated with serving as a Spartan King) and prohibited the impressive architecture and relative freedoms characteristic of other Greek city states. It was the combination of respectable, bizarre, and despicable facets of Spartan culture combined with military success that gained tremendous fame in the ancient world and enabled the city's complex and unwieldy to function continuously. For instance, observers admired the strength of Spartan soldiers, their austerity, and their laconic wit. Conversely, the communal lifestyle and categorical refusal of quintessential Greek norms (monumental architecture for instance) was bewildering to other Greeks. The more extreme parts of Spartan society, such as the brutalization of Spartan youth during the *agoge*, appalled many ancients. Historians argue that even though Spartan laws appear tyrannical and strange, their original intent lay in three virtues: equality among citizens (of whom there were few),

military readiness, and austerity.⁶⁹ Sparta's political aims created policies that were xenophobic, anti-growth, and totalitarian.

Ancient sources attribute the atypical laws of Sparta to a quasi-legendary figure named Lycurgus thought to have lived around the end of the ninth century B.C. Several ancient historians and philosophers make mention of Lycurgus the Lawgiver, including Plato, Herodotus, and Xenophon. Most of the information we have about him comes from Plutarch's *Parallel Lives*. Plutarch, relatively uncertain in his assessment of the historical sources on Lycurgus, nevertheless decided to write his own biography. Probably the most important biographical information Plutarch gives us marks Lycurgus as the author of *The Great Rhetra*. The *Great Rhetra* was a spoken constitution of Sparta that instituted Lycurgus' militaristic and communal reforms.

Among the many transformative reforms of Lycurgus was the ban on forms of useful currency, especially gold and silver currency, in order to avoid avarice on the part of Spartan citizens. According to Plutarch, Lycurgus, having failed to eliminate inequality in "movable property" of the citizenry by confiscation, managed to accomplish it by aggressive monetary policy.

In the first place, he withdrew all gold and silver money from currency, and ordained the use of iron money only. Then to a great weight and mass of this he gave a trifling value, so that ten minas' worth required a large store-room in the house, and a yoke of cattle to transport it. When this money obtained currency, many sorts of iniquity went into exile from Lacedaemon. For who would steal, or receive as a bribe, or rob, or plunder that which could neither be concealed, nor possessed with satisfaction, nay, nor even cut to pieces with any profit? For vinegar was used, as we are told, to quench the red-hot iron, robbing it of its temper and making it

⁶⁹ Forrest 1963, 50.

worthless for any other purpose, when once it had become brittle and hard to work.⁷⁰

Of course, the historicity of this reform as one actually enacted by Lycurgus himself is almost certainly false, as Lycurgus likely would have lived well before gold and silver currencies were common. Nevertheless, this law of Sparta is interesting to the study of how money and the state are related.

It is immediately interesting that Plutarch writes that Lycurgus sets the price of this iron currency at a trifling value. Of course, the text is not clear whether Lycurgus was successful at doing this or how he would have gone about it, only that he was able to set its value. The oddity of this statement then becomes completely superfluous in a somewhat humorous way when Plutarch reveals that the iron was rendered unusable by quenching it with vinegar. If this money existed in any form like the ancients describe it, rapidly cooling it with vinegar would have only minimal effect on the actual usefulness of the iron. This apparently silly assertion has led to outright dismissal of the whole argument by some scholars.⁷¹ I argue, on the other hand, that the importance of quenching the iron with vinegar is more symbolic than utilitarian. It would give the surface of the iron an appearance that demarcated it in the same way as a typical coin.

Plutarch's rosy description of this money's 'success' might strike the reader as peculiar or even amusing (and rightly so). First, it is typically Spartan to abuse the economy in such a way as, in essence, to ruin any money economy in the name of reducing crime. This is the equivalent of saying that if we had nothing worth stealing, then there would be no robbers and we would all be better off. Then again, Spartans were

⁷⁰ Plutarch, *Lyc.* 9.1-2.

⁷¹ Michell 1952, 301.

indeed known for their unusual viewpoints on society. Second, why would the Spartan King Lycurgus feel the need to set the value of a currency at no inherent value at all? How would he even accomplish this in practical terms? Did this currency contain elements that made it more of a fiat money than other ancient currencies? Third, Plutarch states, astonishingly, that this money obtained currency. The meaning of this is not exactly clear. From a monetary standpoint, a money is at its strongest when it obtains currency, i.e., it becomes circulated widely as a medium of exchange, and when it drives out other forms of money that compete with it. Plutarch finishes this thought by claiming, with a noticeably favorable perspective, that this currency solved all sorts of iniquities. This might suggest that it degraded the economy to the point at which even crime becomes profitless or, perhaps in some unforeseen way, that this currency actually benefitted the people.

Unfortunately, this passage is somewhat easy to brush aside as a mere curiosity of history. Some modern scholarship, however, has explored the idea of this currency with great interest because of what it may reveal about the nature of Spartan society and the unique set of institutions that the Spartan culture created. In this vein, I argue that much of our knowledge about the unique aspects of Spartan culture lend credence to the existence and feasibility of this iron currency. Moreover, our knowledge of Spartan customs and institutions can inform our knowledge about the origins of money with regard to its gradual development and valuation by people. Plutarch's explanation of the currency in his *Life of Lycurgus* indicates a sort of socially constructed currency that would have been perhaps the first of its kind.

If Plutarch is correct about it, this must be, in some sense, our first known fiat currency because its value comes from the decree (fiat) of Spartan law. Moreover, while this currency's origin would have predated coinage, it seems to hold many of the most important qualities of coinage. It is a predetermined weight of metal. Which would have a recognizable appearance through its chemical alteration and shape. According to the ancient source Hesychius, the iron 'coins' were about 20 troy ounces each and shaped like loaves of bread called *pelanors*.⁷² If this weighting is correct, a volumetric conversion for iron indicates a volume 4.82 cubic inches. In any significant transaction, a mass of such coins would be difficult to transport indeed. This of course presented all the unique problems related by Plutarch's *Lives*. If such a currency did exist, it fits very well into the category of Spartan uniqueness that has been the fascination and conundrum of classicists for generations.

The debate on whether such a currency existed is hard to resolve. While authors cite a strong tradition of ancient authors who speak about this currency,⁷³ the lack of archaeological evidence for the currency itself leaves room for doubt. Some candidates for the currency have been found, but it is impossible to claim definitively that such findings are the money of Sparta.⁷⁴ Hesychius calls the iron money of Sparta *pelanors* and Plutarch ascribes a weight of an Aeginetan mina (20 Troy ounces) to them. These *pelanors* may have yet to be found or identified. There are a few reasons that we might expect this currency to have existed and functioned in Sparta, and the currency itself is

⁷² Michell 1947, 43. Compare Smith et al 1890: "PELANOR (πέλανορ) is mentioned by Hesychius (s. v.) as a coin in use at Sparta, equivalent to four χαλκοῖ or half an Attic obol. Plutarch (*Apophtheg. Lacon.* p. 903) says that it was an iron coin of the weight of an Aeginetan mina (20 Troy ounces). These cumbrous coins seem to have constituted the coinage of Sparta down to the time of Alexander the Great; at least, no gold, silver, or copper coins of Sparta of an earlier date than B.C. 310 are extant."

⁷³ Michell 1947, 43.

⁷⁴ Michell 1952, 301.

not without precedents in some forms. Heavy moneys of bronze had been used in the ancient world as a means of payment. The Greek spits called *obols*, which later came to refer to a certain weight value of silver, were originally made of iron and served as a currency.⁷⁵

There are some noteworthy caveats to discussing Spartan money. First, Spartan society was always small and exclusive. There were generally fewer than 10,000 Spartan citizens. The Spartan citizens were males who did not work land or perform commerce. They lived by the strict regulations of Lycurgan law as an elite warrior class. Their slaves, called Helots, worked the land for them, and a class of *perioikoi* (around-dwellers) provided most of the commercial needs. Together, the other classes far outnumbered the few Spartan citizens, who cultivated only skills in combat and statesmanship. The small size and the close-mindedness of Spartan custom was vital to the success of the iron money. It is also noteworthy that some Spartans had other moneys. Spartan kings participated in interstate diplomacy (and therefore commerce). They were even known for corruptibility outside of Spartan lands.⁷⁶ There were rich people in Sparta, but they were a very elite few who could participate in external society. We shall see that this likely played a role in the creation of the iron money.

Inferences about archaic and Dark Age history often come from the epic poetry of Homer, who, if a single real person, was likely born toward the end of the geometric period of the Greek Dark Age (750-700 B.C.). Moses I. Finley's *The World of Odysseus* is the seminal work on the subject of the Homeric economy. Finley's analysis of the economy reveals that it is largely based on kinship. This means that the main unit of

⁷⁵ Michell 1952, 302.

⁷⁶ Michell 1952, 300.

society is the extended *oikos*, or household.⁷⁷ This household included slaves, masters, workers, and all other social classes. Each member of the household held it as their highest economic goal. This is revealing about why coinage might not have developed until after the bronze age or the Dark Ages of Homer. Society was introverted. There were fewer places of public religion or governance and far fewer institutions to go along with them. This is not to say that there was not civic interaction, but to say that it was limited by each person's primary concern for the *oikos*.

As this period was foundational to the beginnings of the Iron Age, scholars study the mention of iron in this poetry and elsewhere for clues about how quickly society may have developed more advanced technology during this time. One such study reveals that the events of the *Odyssey* and *Iliad* would seem, if anything can be gleaned from their references to iron, to have taken place at the end of the Bronze Age or in the Early Iron Age.⁷⁸ Before the large-scale transition from bronze to iron, it seems that iron had immense value for its rarity and resilience. This leads Jevons to speculate that the poet Homer might have known of iron only as we now think of adamantite, an extremely resilient and valuable metal. The difficulty of extracting and smelting iron ore made its use uncommon during the Bronze Age, and scholars suggest that much, if not all, of the iron found from times before the Iron Age was likely generated from meteorites, increasing its value. This meets well with Homeric literature, which often refers to iron as "heavenly."⁷⁹ Throughout ancient history, objects showing great quality or craftsmanship for their purpose were associated with divine inspiration or even intervention. For

⁷⁷ Finley 1977, 56.

⁷⁸ Jevons 1892, 30-31.

⁷⁹ Michell 1947, 43.

instance, many objects of immense value are attributed to the god of craftsmen and artists, Hephaestus. This was likely the case for the iron of Homer's day. Iron is a versatile and strong metal that shares many noticeable qualities with such precious metals as silver or platinum (which was discovered later). Presumably rare, iron was as coveted as these precious metals are even today. Iron's derivation from objects falling from the heavens would have only added on to its value. Whatever the case, iron certainly did not have the sort of everyday association that it did for the later Greeks or Romans, let alone modern people.

Given the extreme nature of Spartan devotion to militaristic, moralistic, and communistic belief, it is not so hard to believe that they could create a 'fiction' of iron money as the ideal currency. Of equal, or perhaps even greater, effect to the likelihood of *pelanors* is religious practice in Sparta. The iron money bears the kind of religious analysis presented in the previous chapter rather well. As discussed, votive offerings were composed of things useful for everyday life. This made any sort of metal good a potentially precious votive offering because of the expensiveness of metal. Moreover, certain objects had value to Greeks from their sacrificial roles. The *obol* spits, for instance, were viewed with some significance for their use with the meats of sacrificial victims. There is some evidence that Spartans revered iron as more than simply a strong metal. Jevons states that iron finger rings were worn by Spartans as jewelry even after iron became a more everyday substance.⁸⁰ Sparta revered military prowess above all virtues. Military goods of bronze and iron, especially when taken from fallen enemies, made excellent votive offerings for all elite Greeks. Findings of such offerings are well

⁸⁰ Jevons 1892, 29.

documented in Sparta.⁸¹ Sparta's particular emphasis on strength in combat and iron's superiority for weaponry may be a factor in why Sparta would value above its simple market value and present it often as a votive offering.

Another possibility comes from the name '*pelanor*' for the currency. This word is not certain as we have neither reason to doubt Hesychius nor reason to credit his name for the currency. The name would make some sense regarding the shape and estimated size of the iron currency. Seaford discusses the significance of a *pelanos*, of which *pelanor* is a variation, as a round cake offered to the gods. He speculates that this may have some connection to the circular shape that coins took. In any event, the term *pelanos* became interchangeable in the fifth century B.C. for monetary collections, like a *fund*.⁸² This presents a very interesting parallel given what we know about the Greek monetary system and food. *Oboloi*, for instance, gained legitimacy as a currency through their use in ritual sacrifice. Seaford suggests that the *pelanoi* began as food, perhaps had an intermediate step in the form of a more durable good (e.g. clay), and then transitioned toward a useful and durable good (a coin). A similar narrative could be the case for *pelanors* of Sparta. Loaves offered to the gods represent satisfaction of a debt to cult and state. These institutions may then demand forms of goods which assist their ends. Then a currency may become circulated.

Homer displays the kind of animosity toward commerce and trade that existed in the Greek Iron Age. Modern society generally tends to value industriousness and entrepreneurship, but this was likely not the case during the time of Odysseus and Achilles. One event that suggests apathy and even disdain for trading men and commerce

⁸¹ Pavlides 2011, 34.

⁸² Seaford 2004, 78.

occurs in Book 8 of the *Odyssey*. Challenged to athletic contests by the young men of the Phaeacians, Odysseus declines to participate, as he is overcome with grief. One of the young men, Euryalus, then taunts him by saying he is more like the “greedy” captain of a merchant ship than an athlete. Odysseus immediately becomes offended and far outperforms the young men in the athletic games.⁸³ Even as the noble Greeks disdain commerce, which they view as an activity of the lower classes, they display a sort of fondness for those skilled at piracy. In the next book, speaking again to the Phaeacians, Odysseus tells proudly of how he and his men destroyed the city of Ismarus, the stronghold of the Trojan-allied Cicones. This passage even emphasizes the equality with which Odysseus divided up the spoils of their piracy, so “no man might go defrauded of an equal share.”⁸⁴ Being skilled at militarism and overcoming one’s enemies by force are the aim of the noble Homeric Greek. This fits in quite well with the societal goals of the Spartans, who sought to eliminate various forms of commerce by the laws of the *Great Rhetra* to ensure conditions that promoted military prowess and courage for all their citizen men. Moreover, sharing in the spoils of war amongst comrades is seen as the duty of a leader of men. This custom may be embodied best in Spartan culture by the *Sysittia*.

Another element of Sparta’s culture comes into play here. Sparta was probably the polis which showed the greatest reverence and adherence for its own historical past. This shows through the eminently archaic culture of Sparta and its politics. The conservatism of Sparta shows through every Lycurgan law and custom. Education of the *homoioi* (equal citizens) focused on military preparedness for the polis. The citizens of Sparta did not tend crops or perform crafts, rather they lived the lifestyle of the austere

⁸³ Homer, *Odyssey*, 8.121-165.

⁸⁴ Homer, *Odyssey*, 9.39-47.

warrior in constant contact with their fellow soldiers. Commercial activities of all kinds were performed by the lower classes of Spartan society, the *perioikoi* (free non-citizens) or helots (slaves). Even the lack of architecturally advanced buildings in ancient Sparta speaks to its unwillingness to move forward in the same way as the rest of Greece. One of the most obvious ways in which Sparta venerated its geometric and archaic culture was through its veneration of Lycurgus. Clearly, through their claims that nearly every fundamental law and custom of the Spartan lifestyle came from Lycurgus the Lawgiver, the Spartans revered the archaic past.

Sparta breaks the mold of Greek society in many ways. Insofar as we divide Greek antiquity into ‘Classical’ or ‘Archaic,’ we must consider that these classifications are in many ways based on Athens and its Empire. The Archaic period was to Spartan society as Classical was to Athenian because Sparta was at the height of its political uniformity and strength. It set the foundations for Spartan political custom and culture and advanced the power of the city state to international levels. It is thus important to study the archaic customs of Sparta, as their customs made their polis the decisive power of the archaic period.⁸⁵ Moreover, an extremely strong sense of social cohesion and militaristic esprit de corps made Spartan society possible when it otherwise should have fallen apart. This social cohesion took the form of extreme conservatism toward the ways of the past, especially those associated with Lycurgus, spurious or not.

Odd as the iron money is, the Spartans may well have been the ones we should expect to have developed something as out-of-touch with time and place as this currency. Sparta throughout the Archaic and Classical periods developed its own system of

⁸⁵ Cartledge 2001, 21-22.

education, which may appropriately be described as a form of indoctrination. Ancient sources indicate that this education was remarkably successful at creating deadly warriors and fanatical patriots within Spartan society. The top-down construction of Spartan society was meant to accomplish this task by means of such institutions as the *agoge* (training from youth) and *syssitia* (communal meal). Spartan citizens, of whom there were only several thousand at any given time in a much larger population, lived communally and faced brutal training from childhood into adulthood.

Reverence for the old ways enabled a dual, dynastic monarchy to thrive for generations after all other such forms of government fell by the wayside in Greece. The backwardness of Spartan culture kept this and many other cultural/institutional oddities surviving and thriving throughout the Classical period. Plutarch even attributes Sparta's lack of artistic development to Lycurgus. "In the next place, he banished the unnecessary and superfluous arts. And even without such banishment most of them would have departed with the old coinage, since there was no sale for their products."⁸⁶ This is another vexing assertion of Plutarch, as it suggests that the people of Sparta gave up a currency of greater intrinsic value in favor of the useless *pelanors*. He explains this by saying that the precious metal currency became too valuable to buy anything in Sparta, which had stopped producing anything but utilitarian goods. Moreover, the iron money was mocked, understandably, and never accepted by those outside Laconia. As result of this monetary policy "No merchant-seamen brought freight into their harbors, no rhetoric teacher set foot on Laconian soil, no vagabond soothsayer... no gold or silver-smith,

⁸⁶ Plutarch, *Lyc.* 9.1-2.

since there was no money there.” If Plutarch is to be believed, Sparta's iron money made the economy very insular indeed.

What is important about the iron money of Sparta is its acceptance as a creature of law rather than a creature of economy. Ancient sources give us the impression that the currency of the iron money was driven by the actions of the Spartan state rather than a standard market adoption of other coinage. Plutarch gives some details about a later event regarding the iron money, wherein it came into some competition with gold and silver money held by the corrupt elites of Spartan society. Whether instituted then or earlier, the Spartan leaders reverted to it as a means to try to drive out this corruption.

The wisest of the Spartans, dreading the influence of money as being what had corrupted the greatest citizens, exclaimed against Lysander's conduct, and declared to the *ephors* (elders) that all the silver and gold should be sent away as alien mischiefs... it was resolved to bring in this sort of iron money to be used publicly, enacting at the same time that, if anyone was found in possession of any privately, he should be put to death.⁸⁷

The fact that Lycurgus himself did not ban other forms of money or implement the currency is irrelevant to the significance of this currency. Rather, the state's legitimization of the iron money by the use of law, attribution to a foundational figure, and a clear purpose is what makes this episode interesting. The Iron money had a purpose in its creation and installation. It was meant to drive out influences considered to be the most dangerous to the Spartan way of life. This meant foreigners, corruption among the elites of Sparta, and commerce by her citizens. It accomplished this as a socially constructed, recognizable coin rather than as a superior medium of exchange. Our theory does not explain this because the motivations of the institutions creating a dead currency, but one which lasted for hundreds of years, were not considered.

⁸⁷ Plutarch, *Lys.*16-17.

When we consider Sparta's admiration of Homeric and Lycurgan times, we discover many points of interest to the feasibility of Spartan iron money: (1) It is possible that the unique purported goals of Spartan laws could have led to the implementation of such a currency as an effective means of reducing inequality (primarily through mass degradation of trade and luxury). The popularity of the reforms of Lycurgus and the results they achieved suggest a strong faith in the customs of archaic Sparta on the part of its citizens and residents. This social cohesion could form the basis for a currency of little intrinsic value, provided the economy was insular enough. (2) Resolute allegiance to a sort of 'glorious past,' whether Homeric ideals or the laws of Lycurgus, could have created social norms that might have led to the possibility of iron currency within a highly insulated economy. The prehistoric intrinsic value of iron was the first means by which it was first viewed as a valuable commodity. While the rarity and value of iron diminished greatly with the expansion of the Iron Age, Sparta's counter-cultural conservatism withheld some piece of iron's ancient value in the form of a 'fiction' of the sort that modern fiat currencies are built on. (3) Analysis of the case of Sparta generates informative points that can reflect on modern theories of the origins of money. Intrinsic value is inherently important in creating objects that will come to be viewed as money at first; however, social perceptions of history and societal norms are deciding factors in money's value and feasibility over time even after intrinsic value has been removed. Containing some of the utilitarian elements of pre-coinage moneys and recognizable qualities of coins, the iron money of Sparta was a stepping stone from the purely utilitarian currencies of the archaic past toward the classical coins which dominated the

Greco-Roman world. This synthesizes the iron money of Sparta as both a traditional commodity currency in metallist thought and a token currency of chartalist theory.

CONCLUSION

Current economic theory is unwieldy in explaining the origins of ancient coinage. Scholars attribute its rise to its reduction of transaction costs either for private individuals or for the administrative processes state. Proponents of these theories have proposed simple solutions to the origins of coinage and money in general. Observation of the historical evidence demonstrates that the transition from early commodity moneys into coinage was anything but uniform. Constituent qualities of coins were developed at different times and places from each other. Moreover, the realization that early coins were developed to solve various problems is a significant conclusion of this thesis.

Market-driven money spreads from its usefulness in improving transactions for private exchange. Modern expectations of money dictate that its mutual acceptance is what ensures currency value. While coins eventually became useful for everyday transaction, their large spending power would make them only useful to an elite few of individuals. Expenditures of coins were decidedly large by comparison to other forms of money in the archaic age. Only gradually, with dilution and inflation, did coins become the most common form. This is to say that coins mirrored other technologies, which are adopted by wealthy individuals and institutions before they are made affordable for the majority. Coins remained in competition with barter for a considerable period after their invention.

Even the most widespread early coinages, upon close examination, bear out the mixed motivations of early coinages. The Aeginetan, Corinthian, and Athenian silver standards are evidence that transaction cost improvements for citizens or state are not the primary consideration of those who create the coins. The creation of alternative weight

standards for Greek coinage demonstrates how important political benefit is in the calculus of coinage. Institutions minting coins were not interested in the benefits they brought to the market or a reduction in transaction costs. Instead, they considered primarily the political advantage that controlling the currency would give them. We see from these 'standard' episodes that political competition was a sizable motivator in the advancement of coinage within a region. Amphictyonies and other institutions relate political and religious benefit to the introduction of new coins. The first coins were not introduced altruistically by institutions. Institutions saw the gain in recognition, prestige, and cultural uniformity that would result from coins' success. This led such varied institutions to expend the economic cost associated with producing coins.

The earliest coins, those of seventh century kingdom B.C. Lydia, reveal even more about what drives early monetization. State theories of money fail to consider the differences of ancient states and modern ones. This has led to the misconception that the state introduces coinage for the benefits of its daily administration. Under these theories, taxes and fees are what make coinage useful, because coinage can be used to easily pay out large sums accurately provided some faith in the institution that mints them. Lydia presents us with evidence that the institutional role in the creation of coinage was less top down and more enabled by popular religious custom. Electrum coins constituted a durable votive offering that could directly benefit the cult when given as an offering. There is evidence that these coins evolved out of previous forms of non-durable food offerings. The Lydian story supplies us with the argument that coins are neither purely creatures of market or creatures of law. There are two sides to their spread as money.

Finally, the unusual iron money of Sparta is most informative about how the adoption of coinage was less a uniform and rapid expansion from a single point, and more a gradual process in which some moneys acquired the requisites of coinage. The *pelanors* of Sparta are an example of a *protocoin*, which itself developed out of political-religious society aims by the ruling elite of Sparta. Research into the historical sources and numismatic study reveal that the iron money withheld its commodity status through the consensus of those who used it. This shows that *pelanors* had token value like modern currency through belief in the Homeric value of iron. Within the closed community of Sparta, archaic custom and the goals of Lycurgus remained the uniting principles of Spartan citizens for hundreds of years. It is more possible than previously thought that this currency actually took hold and accomplished an increase in transaction costs in order to benefit societal goals and prevent evolution of the economy. The case of Sparta leads us to the conclusion that social acceptance is the most powerful means by which a money becomes currency.

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