

Date: April 3, 2006

Student's Name: Catherine Elise Bosse

Object: Tetradrachm: c002

Collection: Antiquities Museum of the University of Queensland

Provenance: Athens

Date: 449-415 B.C.

The decoration on both the obverse and reverse tell us that this tetradrachm was minted after the battle of Marathon in 490 B.C., as Athena is wearing a helmet decorated with upright olive leaves, and on the rear, between the owl and the olive branch, is a small crescent moon. Both of these additions were symbolic of the victory at Marathon [see below]. Athena's hairstyle (two waves above the ear) indicates that this coin was made after 478 B.C. and the end of Persian wars. This coin was not one of the earlier ones minted – Athena's helmet has only three olive leaves and not four. In any case, few coins were minted from that time until about 449 B.C. – Perikles' substantial building program was put into place around this time, necessitating the production of a massive number of tetradrachms.¹ This particular tetradrachm appears to be one of the millions created during this period, and may have been minted until 415 B.C., at which point silver coins ceased to be produced due to the severe financial crises surrounding the Peloponnesian War.² Some decades later, when the minting of silver coins resumed, the artistic style changed quickly and dramatically.³

A common method of dating coins is that of die sequencing: given the fact that an upper die [see below] wears out more quickly than a lower die, the upper die may be replaced several times for a single lower die: this results in a unique combination of obverse and reverse decorations on different coins, indicating the sequence in which the coins were minted.⁴ I am not sure if this technique was used in the dating of this tetradrachm but it is worth mentioning.

Description: This is a standard silver Athenian tetradrachm. It is roughly circular and is concave: the edges of the coin are a little wavy where they curve up. It has a very solid feel in the hand: it is smooth, and not much worn. The decoration/etching is very clear and easy to make out. For the most part, the silver has a high degree of shine, although several nicks around the edges (two significant) show heavy tarnish, and some of the finer grooves and etchings etc. are also tarnished. The obverse of the coin (convex side) shows a helmeted Athena, smiling slightly and facing right, with a large earring, and three olive leaves and some vines on her helmet. She has a sideways-facing eye and her hair is dressed over her ear in two large waves. The reverse shows the Athenian owl, with an olive branch appearing from the upper left corner and a small crescent moon between the branch's leaves and the owl's head. The letters A Θ E are inscribed vertically down the right hand side of the coin, along the owl's body. There is an obvious, approximately rectangular depression outlining the decorations on the reverse – clearly this coin's blank

¹ Kraay, C.M. 1976, *Archaic and Classical Coins*, Methuen & Co Ltd, London., 67

² Kraay, *Archaic and Classical Coins*, 68

³ Kraay, *Archaic and Classical Coins*, 74

⁴ Seltman, C 1955, *Greek Coins*, 2nd ed., Methuen & Co Ltd, London., 23

was noticeably larger than the die used in its creation. The reverse of the coin is rotated approximately 90 degrees clockwise from the obverse.

State of Preservation: This coin is in a very good state of preservation. It is shiny and not much worn; although there are several nicks and cracks around the edges, they do not appear to be jeopardizing the condition of the coin. The inscriptions/decorations are clearly etched and still easy to see – they have not been rubbed away.

Imperfections: There are several nicks and other imperfections around the edges of this coin. Two of these are fairly substantial notches, and are heavily tarnished within. This coin is not a perfect circle, and the edges wave where they are curved up – likely due to the imperfect hand-minting process.

Dimensions & Shape: This coin is a slightly irregular circle; on average about 25mm in diameter and 5mm thick, although the thickness varies somewhat due to the concavity of the coin.

Material: Silver (likely from Laureion mines)

Technique of Execution: This coin is clearly cast by the punch die method, which was employed as follows: the design of one side of a coin would be engraved onto a piece of metal then sunk into the top of an anvil ('lower die'), and the design of the other side of the coin would be carved into a large 'punch' ('upper die'). A circle of metal (in this case, silver) was weighed out on a balance and cut to create a 'blank', and then heated to soften it. The hot silver was carefully placed on top of the lower die, the upper die end of the punch was placed on top of the hot silver, and the other end of the punch was hit with a hammer, causing the hot silver to squeeze out between the two dies as the impression was simultaneously received on both sides of the new coin.⁵

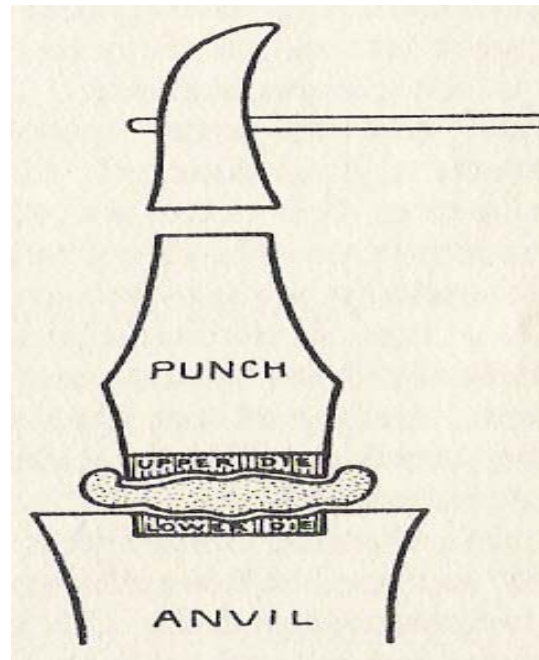


Figure 1: Punch Die Method of Minting a Coin⁶

Meaning/Type of Decoration:

The Athenian 'owl', a coin with Athena on the obverse and owl, olive branch and legend on the reverse, had been coined since the standard was introduced during Peisistratos' reign in the mid 6th century B.C.⁷ Athena was the patron goddess of Athens, and the owl

⁵ Seltman, *Greek Coins*, 21

⁶ Illustration taken from Seltman, *Greek Coins*, 21

⁷ Seltman, *Greek Coins*, 48

a representation of her and the symbol of the *polis*.⁸ The olive branch, closely associated with Athena, was sacred to the Greeks as a symbol of hope and continuity.⁹ The A Θ E are the first three letters of the minting city's name: Athens. As mentioned above, after the battle of Marathon in 490 B.C. two new decorations appeared on the Athenian tetradrachm: the first, several olive leaves on Athena's helmet; the second, a small crescent moon between owl and olive branch. The olive crown is widely recognized as a symbol of victory, and was placed on the coins as a memorial to the Athenians' stunning victory against the Persians at Marathon. Although the meaning of the crescent moon is in debate, popular theory states that the crescent is a waning moon, symbolizing the fact that the Spartans, intending to assist in routing the Persians but, not wanting to leave until after the full moon, arrived at the battle site after the Persians had already been thoroughly thrashed.¹⁰ Thus it was the victory of Athens and Plataea alone: the Spartans had no part, which fact was surely gloated over by the Athenians. These Athenian 'owls' were minted with little stylistic change for hundreds of years: it is likely that this was at least in part due to the wide acceptance of Athenian currency in foreign cities and the Athenians' desire not to interfere with that acceptance.¹¹

Comparanda:

I have selected an Athenian decadrachm, equivalent in value to 2.5 tetradrachms. This coin was minted in approximately 485 B.C., likely for the purpose of paying the annual 10 drachm 'dole' to Athenian citizens which resulted from the discovery of a substantial silver vein in the Laureion mines.¹² This coin is startlingly large, much larger than the tetradrachm, being about 34mm in diameter, and while there are many similarities in the styles of the two, there are also significant differences. The obverse of the two coins is similar, showing a right-facing helmeted and smiling Athena with an earring and sideways-facing eye. The three upright olive leaves are placed on the helmet of the decadrachm just as with the tetradrachm. It is worth noting that the earring on the decadrachm is much smaller than on the tetradrachm, and unlike the tetradrachm, the hair on the decadrachm is dressed in 3 waves. The reverse of the two coins differs greatly: most noticeably, the decadrachm has an owl standing, facing forward, with wings spread wide, and while the typical olive spring projects from the upper left, there is no crescent moon. The owl is also so large that there is no room for the vertically placed legend A Θ E on the right and so the three letters are squeezed in wherever they fit: the A above the owl's left wing, the Θ beneath it, and the E (oddly, upside down) beneath his right wing. This coin appears to be in very good condition although the left side is uneven (probably occurred during the minting progress). Like the tetradrachm, the reverse appears to be rotated approximately 90 degrees clockwise from the obverse.

⁸ Kitto, H.D.F. 1951, *The Greeks*, C. Nicholls & Company Ltd, Great Britain., 19; In early times, Athena was claimed to transform herself into a bird; later, her constant companion is the owl. (Nilsson, M.P. 1964, *A History of Greek Religion*, 2nd ed., Norton Library, New York., 27)

⁹ Burkett, W., ed. Raffan, J., 1985, *Greek Religion: Archaic and Classical*, Basil Blackwell Ltd, Oxford., 141; Most notably, the sacred olive tree on the Acropolis quickly put out shoots after being burned by the Persians. (Nilsson, *A History*, 27)

¹⁰ The purpose being to divide the mine's profits between the citizens. Seltman, *Greek Coins*, 92

¹¹ Kraay, *Archaic and Classical Coins*, 65

¹² Seltman, *Greek Coins*, 92



Figure 2: Athenian Decadrachm: 485 B.C.¹³

¹³ Illustration taken from Seltman, *Greek Coins*, Plate XIII-2.

How Coinage Stimulated Growth & Change in the Classical Agora

It is clear from archaeological evidence that during the 5th and 4th centuries B.C. the use of coined money appeared and increased simultaneously with the progression of democracy and the expansion of the Agora in ancient Athens.¹⁴ I would argue that this was no coincidence, that coinage hugely influenced the development of the Agora from social, commercial, and civil points of view. I will discuss how the convenience of coinage stimulated retail trade, enabled large building projects, and necessitated new laws, ultimately promoting the growth of a small, rural gathering place to a hub of social and civic function.

Coinage as a Convenience

The Greeks had long been an “aristocratic society... [with] an outlook that saw many of the most basic human relationships as matters of exchange”.¹⁵ Coined money, first appearing in the Near East in the 7th century B.C. but spreading swiftly throughout Greece,¹⁶ facilitated exchange of services and items from the largest to the least. Coins possessed anonymity – unlike previously, where personal items were reluctantly traded, coins were essentially identical, lacking history and personal affiliation. The absence of personal attachment to a coin made it easier to give away – coins swiftly changed hands and circulated very rapidly.¹⁷ No longer, when trying to obtain a certain item or service, must one search for another willing to take whatever one had in exchange: with the introduction of coinage, everyday transactions became efficient and straightforward.

The fluidity of coinage made it easy to profit by buying and (re)selling, which in turn, promoted greed as men of all standings realized how simply money could be accumulated¹⁸ without the physical peril of previous eras.¹⁹ The Agora, from ancient times a public meeting-place,²⁰ naturally became the place to buy and sell, being frequented by many. The construction of the Agora’s first fountainhouse – the Southeast Fountainhouse – toward the end of the 6th century gives clear indication of the ever-increasing impact of the Agora as a commercial center.²¹ Aristophanes remarks on the multitudes of people congregating at the fountainhouse even before dawn.²² Water collecting would have been only the first task of a long and busy day in the Agora.

New Financial Transactions

¹⁴ Schaps, D.M. 2004, *The Invention of Coinage and the Monetization of Ancient Greece*, The University of Michigan Press, Ann Arbor., 113; Meadows & Shipton (eds) 2001, *Money and its Uses in the Ancient Greek World*, Oxford University Press, Oxford., 11

¹⁵ Schaps, *The Invention of Coinage*, 108

¹⁶ Calhoun, G.M. 1926, *The Business Life of Ancient Athens*, The University of Chicago Press, Chicago., 88; By 480 B.C., there were over 100 mints in operation (Meadows & Shipton, *Money and its Uses*, 10)

¹⁷ Schaps, *The Invention of Coinage*, 121

¹⁸ Arist. *Pol.* 1.1257b

¹⁹ Hes. *Op.* 680-690

²⁰ Indeed, the very word *αγορα* means ‘assembly of the people’

²¹ Camp, J.M. 1986, *The Athenian Agora: Excavations in the Heart of Classical Athens*, Thames and Hudson Ltd., London., 43

²² “I could scarcely get near to the spring though I rose before dawn, what with tattling of tongues and rattling of pitchers in one jostling din with slaves pushing in!” (Ar. *Lys.* 321)

Parasites of the coined economy, the moneychangers, moneylenders and bankers, first appear in the 5th century. Moneylenders, while universally loathed,²³ did play an important role in the development of the marketplace by redistributing coins throughout the market so that even though the actual supply of coin might have been quite small, “any seller could count on finding enough coins to start a day's business”.²⁴ The small amounts loaned suggest just how pervasive the use of coinage became for even the most negligible daily transactions.

Bankers loaned out money that others had deposited with them, allowing one to borrow much larger amounts than was possible from a moneylender, thus enabling substantial endeavors. These transactions and others took place at ‘tables’ in the Agora, as mentioned by Socrates.²⁵ Again, the convenience of access to finances and the potential for profit for all involved certainly caused a marketplace boom. By the end of the Classical period, coinage had “insinuated itself into every level of the credit structure”;²⁶ the Athenian marketplace was completely dependant.

Civil Developments

In 508 B.C., Kleisthenes reformed Solon’s Constitution and Athens became the world’s first known democracy. With the great increase in civil positions, it became necessary to create new buildings for the official purposes of the government; however, the populace could not be forced to perform the necessary building tasks. The introduction of state paid labor²⁷ (given in coin) made it possible – and common – to organize huge projects, and it was at this juncture that the Agora came into its first true building period and gained the Bouleuterion, the Royal Stoa, and several temples. *Horoï* were placed as a formal indication of the boundaries of the Agora, within which no wrongdoers were allowed to go²⁸ – given the level of social and commercial activity which the Agora had presently achieved, such a ban would have been a keen deterrent to miscreant behavior.

During the ‘Golden Age’ of the 5th century Athens saw a construction boom. Plutarch notes,

So then the works arose, no less towering in their grandeur than inimitable in the grace of their outlines... And yet the most wonderful thing about them was the speed with which they rose. Each one of them, men thought, would require many successive generations to complete it, but all of them were fully completed in the heyday of a single administration.²⁹

²³ “...usury is most reasonably hated, because its gain comes from money itself and not from that for the sake of which money was invented. For money was brought into existence for the purpose of exchange, but interest increases the amount of the money itself.” (Arist. *Pol.* 1.1258b)

²⁴ Schaps, *The Invention of Coinage*, 186

²⁵ *Pl. Ap.* 17c

²⁶ Schaps, *The Invention of Coinage*, 193

²⁷ *Plut. Per.* 12.5

²⁸ “...the man who fails to take the field, and the coward, and the man who has deserted his post are excluded... from the purified precincts of the Agora.” (Aeschin. III.176)

²⁹ *Plut. Per.* 13.1

During this time the Painted Stoa and the South Stoa I (in which was found an “inordinately large number of coins”³⁰) were constructed, both existing simply for public enjoyment and commercialism. Several other notable buildings came into being as well.³¹ Without public building accounts, such projects could never have been feasible.

Coinage and Law

A rise in production of all denominations of coins is noted in the mid 5th century – this is likely associated with the introduction of regular pay for juries and magistrates.³² Payment for militia was simultaneously initiated, and in the mid 4th century, *ekklesia* pay as well. The commercial vigor of the Agora and the fact that most transactions took place between strangers generated abundant court cases, and in the 4th century we see many laws dealing with financial transactions put into place.³³ The courts and official buildings of the Agora would have seen great use, and around this time, a new Bouleuterion, the Mint³⁴ and, later, the Square Peristyle were erected.

New managerial positions became necessary: among them, the *agoranomoi*, given “superintendence of all merchandise, to prevent the sale of adulterated and spurious articles”,³⁵ the *epistatai*, mint overseers who controlled the manufacture and issue of coinage, and the *metronomoi*, whose job was to “superintend all measures and weights, in order that sellers may use just ones”.³⁶ In 375, the law of Nicophon put into place a public slave, the *Dokimastes*, who sat near the bank tables in the Agora, evaluating coins and confiscating those counterfeit. It was illegal to refuse coins which had been passed by the *Dokimastes*: to do so would result in confiscation of your wares.³⁷ Aristotle describes the scores of highly specific officials necessary to the successful running of the democracy and management of the Agora’s commercial, religious and civil functions; indeed, he claims, there were over 20,000, “all of [whom] had their maintenance from public funds”.³⁸ Political and civil operations and coined money had become irreversibly intertwined.

Conclusion

³⁰ Camp, *The Athenian Agora*, 123

³¹ Namely, the Hephaisteion [though not in the Agora proper] and the Stoa of Zeus. The Tholos had been built a few decades earlier.

³² Meadows & Shipton, *Money and its Uses*, 24

³³ e.g. the Law of Nicophon (375/4) which introduced the *Dokimastes*, the Coinage Law (375/4) written by the *nomothetai*, the Coinage Decree, a decree of the people, erected in front of the mint (Meadows & Shipton, *Money and its Uses*, 30)

³⁴ Although there is no evidence for silver coins being created in the Mint, there were many bronze blanks found within the building and dated to the 2nd and 3rd centuries (Camp, *The Athenian Agora*, 126), as well as a nearby set of dry measures dated to the 5th century (Camp, *The Athenian Agora*, 126). It seems clear that the Mint was actively used for official purposes before it became a true ‘mint’.

³⁵ Arist. *Ath. Pol.* 51.1

³⁶ Arist. *Ath. Pol.* 51.2

³⁷ *Law of Nicophon* 8-18 (Camp, *The Athenian Agora*, 131)

³⁸ Arist. *Ath. Pol.* 24.3

The picture we have of the Agora by the end of the Classical Period is dramatically different than that of the beginning. A sparsely adorned area with nominal religious and social function is transformed into an architecturally stunning, complex, and vibrant center of commerce and the very heart of the Athenian democracy. Athenaeus remarks on just how intimately marketplace and government embrace:

You will find everything sold together in the same place at Athens – figs, summoners, bunches of grapes, pears, apples, witnesses, roses, medlars, haggis, honeycombs, chickpeas, lawsuits, beestings, beestings-pudding, myrtle, allotment machines, hyacinth, lambs, water-clocks, laws, indictments.³⁹

It is clear that the widespread use of coinage had much to do with this transformation and compounding – in the words of Schaps, “Without money, the great temples, the dramatic festivals of Athens, its navy, and its democracy would have taken a very different form, if they had come to exist at all.”⁴⁰

³⁹ Ath. *Deipnosophistai* XIV, 640 b-c (American School of Classical Studies at Athens, 1976, 17)

⁴⁰ Schaps, *The Invention of Coinage*, 197

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