

THE COINS OF ATHENS

Plate VII

The number of coins found in the excavation of the Athenian Agora fairly staggers one. In ten weeks' excavation, in the season of 1931, 4350 coins were found. Immediately many problems arise in the mere handling of such enormous numbers. But since numismatic evidence is indispensable to the excavator, the coins with all their problems must be given the utmost care and attention.

Outside of one gold coin, a French Napoleon of 1854, and a few Athenian silver pieces, the great mass of coins are bronze which come out of the damp earth in a very badly corroded condition. This is true of most coins coming from excavations and accounts for the distinct lack of numismatic records derived from excavating. The chlorides and nitrates in the soil are the chief corroding agents and convert the constituents of the bronze into an outer hard green crust, usually so thick that recognition or identification is almost impossible. Often the very core of the metal has been eaten by the corrosion, in which case we have nothing left but a green shell of copper compounds covering a soft brittle core, red or brown in color.¹ The presence of water merely as moisture in the soil will mineralize the surface of the bronze.² This no doubt accounts for the bad corrosion of the Agora coins, since the entire area was riddled with drains. They seem to be in a worse state than most excavation coins, as those from Corinth for example.

Since we had such fragile and badly corroded coins to study, it was necessary to use a method of cleaning that would not only remove the ugly crust, but would likewise restore or preserve intact what designs and engravings there were on the coins. The only safe and satisfactory method to accomplish this result was by electrolysis. Though this does away with some of the drudgery of the other methods and gives us a larger percentage of identifiable coins, nevertheless it requires infinite time and patience. If the coins are properly cleaned then more than half the battle is won.

The electrolytic process is described in detail by Colin G. Fink in his article *The Restoration of Ancient Bronzes and Other Alloys* published by the Metropolitan Museum of Art.³ Without any preliminary cleaning, the coins are wrapped with soft copper wires constituting the cathode and are completely immersed in a 2⁰/₁₀ solution of caustic

¹ Fink, Colin G. and Eldridge, C. H., *The Restoration of Ancient Bronzes and Other Alloys*. Published by the Metropolitan Museum of Art. 1925, pp. 9–10.

² Fink, *op. cit.* p. 10.

³ Fink, *op. cit.* p. 15.

soda, to which a low amperage direct current is applied. The anodes are small platinum plates about 6×9 centimetres which are hung on either side of the coins. A rectangular glass battery jar of about four litre capacity is used as a container. Since the electric circuit in the city of Athens produces 220 volts, alternating current, it is necessary to use a transformer to change this to direct current and reduce the voltage. The cell is thus connected in series with a rheostat and a transformer, converting the current to a direct one of from 2-3 volts, so that 0.4 amperes flow in the circuit. By using four of these battery jars with from 16 to 20 coins to the jar, we are able to clean from 65 to 80 coins at a time. We have found it most satisfactory to leave the coins in this solution for 48 hours or more, as it takes about that length of time for the hydrogen at the cathode to reduce the crust to finely-divided or spongy copper. The complete reduction of the crust is indicated by a free evolution of gas at the cathode.¹ The coins are then removed and soaked in warm water to eradicate the caustic soda.

The final process of cleaning is that which requires care, patience, and judgment. In the well-preserved coins the spongy outer surface readily comes off with a small blunt metal instrument, revealing a hard metal surface beneath, so that it is quite safe to use a soft brass-wire brush to remove the blackened traces of the oxide layers. The final polish is given to the good coins with a rotary brush, running at slow speed, the bristles of which are made of very fine brass wire, so soft that not even the skin is affected when the fingers are held on it in motion.

However, many of the coins are in such an advanced state of corrosion that the surface will stand only the most gentle brushing with a soft bristle brush. If any design is to be made out on a coin it will appear at this time, when the crust has been softened and the metal compounds in the corrosion reduced back to metal. It is at this time that the coin should be cleaned as completely as possible, for if the crust is allowed to harden again, this entire process has been in vain. The constant cleaning of coins teaches one how much treatment the surface of mal-preserved coins will stand. Also it is in the cleaning of these poor coins that one realizes the necessity of having the coins cleaned by one familiar with coin types, for the disappearance of a single letter or a bit of design may make it totally impossible to identify a coin.

Though all of these 4350 coins have been cleaned during the course of the past year, as yet they have not all been identified and catalogued, owing to their great numbers, the slowness of the cleaning process, and the fact that the coins have to remain in Greece and can be studied there alone. However, the coins of the 1931 season coming from the excavation of the Royal Stoa and vicinity have been completed, as well as a goodly proportion of others, and it seemed well worth while to give a short preliminary survey of the character of these coins.

Though coins from one short season may give a fair indication of what we can expect in the future, nevertheless from the very nature of the excavation this will be

¹ Fink, *op. cit.* p. 16.

but a bare introduction to the numismatic evidence which this site will produce. Considerable light is thrown on the history of the site, as well as on the trade and foreign relations of the city of Athens. Moreover, a scientific examination and thorough-going study of the coins found in the Athenian Agora will eventually give us a complete chronology of Athenian coinage. Especially illuminating will be the sequences of the bronze coins which are found in such quantities and which heretofore have been given only a limited attention.

The coinage of Athens has always been a subject of the utmost controversy, particularly the early coins of the late seventh and early sixth centuries, known as "Wappenmünzen" or "heraldic coins." At the present our coins do not warrant a discussion of this question, as we have but one small example. The scarcity of this type in the Agora may possibly be explained by the fact that this was not the civic centre until the late sixth century, but future discoveries may add more of these types to our collection.

These "heraldic coins" testify by their technique and character that they are a homogeneous group, and I think E. Beulé is quite right in saying that either all are Athenian or none is.¹ According to Mr. Barclay Head,² the Athenians until the time of Solon would have used exclusively foreign money, presumably the "tortoise" of Aegina.³ In the *British Museum Catalogue of Attica* he contends that the Solonian currency consisted of the Athenian "owls" of the early archaic style, but in his second edition of the *Historia Numorum*, he retracts that statement and assigns the group of "heraldic" coins, with the owl to the left, with and without the linear circle, on the obverse and the incuse square on the reverse, to the Solonian coinage.⁴

Older numismatists as Abbé Barthelemy, Cousinery at the end of the eighteenth and beginning of the nineteenth century, then Beulé, and others proposed the "heraldic" coins as the early Athenian currency, which more recent savants, including Head, have believed themselves authorized to attribute to different cities of Euboea.⁵ I hope that Professor Seltman's treatise⁶ on the subject has done much to retrieve the older position.

¹ Babelon, E., *Traité des Monnaies Grecques et Romaines, II^e partie, Description historique* 1, p. 700.

² B. M. C. (*Attica*). Introduction, p. XIII.

³ Head, Barclay, *Historia Numorum*, 2nd edition, p. 366; C. T. Seltman, *Athens, Its History and Coinage before the Persian Invasion*, p. 6, note 3. "This misconception has been based upon a statement of Pollux (*Onom.* IX 76), who mentions that the ancient coins which the Athenians spoke of as 'fat drachms' were Aeginetan 'turtles,' but he does not refer to any particular period, nor does the context show that they were ever used in Athens at all as regular currency."

It is impossible to think that the Athenians would have deigned to use Aeginetan coins when the hostility between Athens and Aegina was of so long standing after the Aeginetan war (Herodotus V, 83 ff.) which Ure (*Origin of Tyranny*, Appendix C) places before 670 B.C.

⁴ Seltman, *op. cit.* Plate III P₅₄ A₄₈, P₅₆ A₄₈-A₅₀, also Plate XIV P₂₅₁ A₁₉₉, P₂₅₂ A₂₀₀; Svoronos, Jean N., *Trésor de la Numismatique Grecque Ancienne, Les Monnaies d'Athènes*, Plate I, nos. 1-12.

⁵ Babelon, *op. cit.* p. 700.

⁶ Seltman, *op. cit.*

Professor Seltman has proved that a group of coins of Pheidonian standard, consisting of didrachms¹ with an amphora of "Tyrrhenian" shape² on the obverse and an incuse square on the reverse, is the Athenian Pre-Solonian coinage, because of the similarity to Solonian coins of Attic standard.³ The oil-amphora in which the state's chief export was carried abroad was a most appropriate symbol for coins used by the Athenian merchants.⁴

Aristotle tells us that Solon "increased the currency,"⁵ a measure to relieve the Attic farmers from the deplorable conditions that resulted from the use of current coin.⁶ Seltman believes that the coinage was debased to a lighter standard, thus increasing the bulk of coins.⁷ A comparison of Pre-Solonian⁸ and Solonian didrachms⁹ shows this difference in weight. In adopting this new system which Seltman contends was already in use in Corinth, borrowed by her from Cyrene,¹⁰ Solon, a great trader in the age of merchant princes, hoped to open the way to the world markets and to prosperity for Athens.¹¹

The oil-amphora was even more appropriate to the currency of Solon, for Plutarch¹² tells us that Solon allowed oil alone to be sold abroad, and forbade the exportation of all other products. The amphora now became a civic badge, for Solon saw the need to imbue the Athenian people with a civic sense. Thus he raised the coin type of the amphora to a civic dignity by presenting it in the guise of a coat-of-arms carved within the circle of a shield. "The love of heraldry was strong in the 6th century, as is manifest from the prominence given on Black-figured vases to shields and their devices."¹³

Mr. Seltman, by his study of punch and anvil dies, has arrived at a most plausible sequence of devices which are found on these "heraldic coins." He attributes them all to the Athenian mint, proving that they are the money issued under the regime of the old Eupatrid families.¹⁴ Every device represented on these coins can be found as a shield sign on some early Athenian vase. The family badges of the nobility of Athens served as a prototype common to both coins and vases,¹⁵ and in literature there is ample evidence for the existence of these family emblems.¹⁶ At the time of the Athenian oligarchy, the

¹ Seltman, *op. cit.* p. 7, § 5, Plate I P₁ A₁—P₆ A₅.

² These are known to be Athenian in origin. H. Thiersch, *Tyrrhenische Amphoren*, 1899.

³ Seltman, *op. cit.*, see p. 7, figure 5.

⁴ Seltman, *op. cit.* p. 9.

⁵ *Ath. Pol.* 10.

⁶ Seltman, *op. cit.* p. 16; Solon, *Fragm.* 36 (Bergk).

⁷ Seltman, *op. cit.* § 10, pp. 16—17.

⁸ Seltman, *op. cit.* Plate I P₁ A₁—P₆ A₅.

⁹ Seltman, *op. cit.* Plate I P₇ A₆—P₉ A₇.

¹⁰ Seltman, *op. cit.* pp. 17—18.

¹¹ Seltman, *op. cit.* p. 16.

¹² *Plut. Sol.* 24; Seltman, *op. cit.* p. 8.

¹³ Seltman, *op. cit.* p. 19.

¹⁴ Seltman, *op. cit.* Introduction, p. XVIII.

¹⁵ *Ibid.*

¹⁶ Aeschylus, *Sept. c. Theb.* 387 ff. (shield signs); Paus. V, 25, 9; *Plut. Alcib.* XVI, 2; Schol. on Aristoph. *Lysistr.* 664 ff. (ancestral crests upon shields).

Masters of the mint used their family emblems on the coins, as well as on their shields which were constantly seen on the streets of Athens.¹

After Solon's retirement, the city of Athens was torn by factions, one after the other seizing the administrative power,² which accounts for the constant changing of coin types between 590–570 B.C. With the return of the Alcmaeonidae to power, the civic badge, the amphora emblazoned on a shield, was removed to make way for the "three legs" or triskeles, the device of their clan.³ Since a didrachm with this symbol shares a punch-die with the last of the Solonian amphorae, this coinage follows directly that of Solon and is dated about 590 B.C.⁴ The devices of the forepart of a horse, the beetle, and the astragalus follow in rather quick succession⁵ but, though found as shield devices on vases, their significance is obscure.⁶

Subsequently, the appearance of the early cross-bar cart wheel⁷ as a device leads Seltman to suppose a wealthy farmer was in power. The bull⁸ on the shield recalls Philochorus' statement that before the "owls" there were coins which had a type of bull.⁹ The whole or half horse device¹⁰ is the badge of Peisistratus¹¹ before he had actually seized the government, says Seltman agreeing with M. Six. This takes us down to about 570 B.C. when the one lone example of these "heraldic coins" from the Agora fits into the chronology.

¹ Cf. Thucyd. VI, 58.

² Seltman, *op. cit.* p. 23.

³ Seltman, *op. cit.* p. 52. Aristophanes *Lysistrata* and Schol. 664ff.; Seltman, *op. cit.* p. 21. Fortunately we know from this passage in Aristophanes that the badge of the Alcmaeonidae in the sixth century was "white legs" (3 legs) which is quite rightly interpreted as the bent "white legs" or "white leg" of the triskeles.

⁴ Seltman, *op. cit.* Plate I P₉ A₈ and A₇, also p. 22, figure 12.

⁵ Seltman, *op. cit.* p. 25, figure 14.

⁶ Seltman, *op. cit.* p. 26.

⁷ Seltman, *op. cit.* Plate I P₁₅ A₁₆. This type of wheel was used for nothing but the country cart, so that if it is "short hand" for country farmer's cart, then it was no doubt the badge of a wealthy farmer who held some high office. In 581 B.C. after the Archon Damasias was ejected, we hear of three archons out of ten being chosen from the agriculturists' party. Seltman, *op. cit.* pp. 26–27.

⁸ Seltman, *op. cit.* p. 28, Plate I P₁₆ A₁₇.

⁹ Philochorus, in Schol. on Aristophanes *Aves* 1106.

¹⁰ Seltman, *op. cit.* p. 29, Plate I P₁₇ A₁₈—Plate II P₁₉ A₂₂. These types belong together, as they share the same punch die (P₁₇) Plate I A₁₈ and A₁₉.

¹¹ Seltman, *op. cit.* pp. 30–31. At this time Peisistratus was one of the rising men in the party of the "Shore." In 570 B.C. he captured Nisaea, the port of Megara and Salamis, an event which the Athenians celebrated by an annual ceremony re-enacting the capture of the island. There is a scene where one man in armour leaps from the ship with a shout of triumph and runs to the cliff of Sciradion. E. Peterson (*Jahrb. d. K. deutsch. arch. Inst.* XXXII, 1917, p. 137) has identified this ceremony on a R. F. cylix by the potter Hieron which was found at Vulci (Seltman, *op. cit.* p. 31, figure 23). Here a group of Athenians run forth with gesticulations and shouts; at their head is one man in armour who has already reached the cliff Sciradion and is mounting it. The significant point is that this man bears a shield on which the device is the forepart of a horse. It is logical to suppose that this figure represents Peisistratus, the polemarch or strategos, since he was responsible for the capture of the island. (Wilamowitz, *Arist. u. Athen* i, p. 267f.). At this time Peisistratus had not yet formed his own party and was a supporter of Megacles, son of Alcmaeon.

Throughout the course of the sixth century the great family of the Alcmaeonidae played an important rôle in Athenian affairs and it would be surprising indeed, if this were not further reflected in the coinage.¹ We have found the triskeles, the coat-of-arms of one member of the clan, on the Athenian money about 590 B.C. The triskeles on these early coins have a well defined central disc. Mr. A. B. Cook² interprets the various forms of the triskeles as "zoomorphic transformations of the solar wheel," a point substantiated by the fact that the triskeles actually revolves around a four-spoke wheel on a 5th century coin of Aspendus.³ The solar wheel in the form of the Lynx-wheel is most closely connected with the temple of Apollo at Delphi.⁴ We know that the Alcmaeonidae were closely allied to the Delphic sanctuary, for it was there they sought refuge when exiled before 600 B.C., and again in 546 B.C. In fact they actually rebuilt the façade of the temple in marble about 514 B.C., as the temple had previously been destroyed by fire.⁵

From Apollo then they borrowed the triskeles' other form, the solar wheel, which was their alternative symbol.⁶ It was a natural modification that this magic wheel should become a simple chariot wheel.⁷

I am stressing this wheel type of coin⁸ because the one example of these "heraldic" coins found in the Agora is this early wheel type.

R. Obol — Size 9 mm. Weight 0.70 gr. Athens ca. 572 (or earlier) to 561 B.C. Seltman.

Ob. Alcmaeonid wheel. Four-spoked wheel with hub, stays spring from each spoke curving outward to meet the rim.

Re. Shallow incuse square.

Reference: Seltman, p. 36. Pl. IV, *r*, *ξ*.

Svoronos, Pl. I, nos. 60 and 61 (dates Epoch before Solon).

The wheel had a two-fold symbolism for the Alcmaeonidae: first, it was sacred to Apollo; and second, it was merely short hand for chariot.⁹ These coins with the wheel, according to M. Six¹⁰ were struck in 592 B.C. in order to celebrate the victory of the chariot race, won for the first time by an Athenian at Olympia. This Athenian was

¹ Seltman, *op. cit.* p. 33.

² Zeus I, p. 309; Baldwin, Agnes, (Brett), *Symbolism on Greek Coins*, p. 104. She interpretes the triskeles as the symbol of solar worship. Since Apollo was the Sun God, it would naturally be connected with his worship.

³ Seltman, *op. cit.* p. 33 and figure 25 reproduced from Zeus I, p. 305, figure 235.

⁴ Cook, Zeus I, p. 258ff. If the Lynx-wheel is a representation of the sun it is reasonable to expect its connection with Apollo.

⁵ In 548 B.C.

⁶ Seltman, *op. cit.* p. 34.

⁷ Seltman, *op. cit.* p. 35. The modification is not confined to coinage, for the sacred temple wheel of Delphi itself is depicted as that of an ordinary wheel. Seltman, *op. cit.* figure 26. Cista from Volterra, reproduced from Cook, Zeus I, p. 260, figure 188.

⁸ Seltman, *op. cit.* Plate II P₂₀ A₂₃—P₂₇ A₂₅.

⁹ Seltman, *op. cit.* p. 35.

¹⁰ Babelon, *Traité II^e partie, Description Historique* 1, p. 715.

none other than Alcmaeon, head of the clan of the powerful family of the Alcmaeonidae and this victory greatly fortified their position in Athens. Mr. Seltman, however, prefers to put it later.

This coinage with the device of the older type of chariot wheel was very plentiful, for it is found on several denominations;¹ such as didrachms,^a drachms,^b obols,^c and hemiobols.^d Chariot wheels also occur as shield signs on various Attic Black-figured and early Red-figured vases.² Both on coins and vases we find two early forms of strengthening the wheel employed: one has triangular pieces to strengthen the spokes where they join the rim; the other has curved stays on either side of the spokes, as on the Agora coin. We know that this last type of strengthened wheel is early for it is found on chariot wheels of Proto-Attic vases.³

Seltman wishes to attribute the badge of the wheel to Megacles, son of Alcmaeon, and leader of the "Shore" party. The house of Alcmaeon was long famous for its love of racing. It was in honor of Megacles, grandson of the Megacles whose wheel perhaps is on the coins, that Pindar wrote the seventh Pythian ode.⁴ Thus the wheel emblem of Megacles had a dual significance as the symbol sacred to the Pythian Apollo, and as a boast of his triumphs in chariot racing.⁵

When we arrive at the middle of the sixth century we are treading on less uncertain ground, as far as the coinage of Athens is concerned. At least the coins which now appear with AΘE clearly stamped on them cannot be attributed to any other city than Athens, though the question of their dates and mints may still be a question of dispute.

⁶ Ob. Head of Athena r., eye large and full, iris (and some times pupil) indicated; lips thick; ear large with ☉ earring; hair indicated by lines or dots or both. She wears a close fitting helmet (Athenian) with neck piece and crest, the crest support ornamented with dots between chevrons; on the back of the helmet above neck piece a small volute.

Re. AΘE to r. downwards. Owl r., head facing upright, legs close together, tail short, head large; body plumage of dots, wing plumage of lines or lines and dots. In field above l. hanging downwards an olive on stalk between 2 leaves. Incuse square.

Mr. Head says that a highly probable date for the inauguration of this new series was the event of the first celebration on a grand scale of the great festival of the

¹ Seltman, *op. cit.* p. 36.

a) Plate II P₂₀ A₂₃—P₂₇ A₂₈.

b) Plate IV, δ, ε.

c) Plate IV, ν, ξ.

d) Plate IV, αα.

² Seltman, *op. cit.* p. 35, note 4.

³ Seltman, *op. cit.* p. 36, figure 29, reproduced from *J. H. S.* XXII 1902, Plate III. This fragment possesses qualities of the Dipylon Style. A fragment of early Attic pottery found in the Agora in 1932 also has a similar wheel.

⁴ Seltman, *op. cit.* p. 36. *Pyth.* VIII 13–16. "Victories at the Isthmus five, and one famous victory at the Olympian festival of Zeus, and two from Cirrha, won by yourself, Megacles, and by your ancestors."

⁵ Seltman, *op. cit.* p. 36.

⁶ Seltman, *op. cit.* Catalogue p. 159, Plate II A₃₁ P₃₁—Plate III A₄₅ P₅₁.

Panathenaic games in the summer of 566 B.C.¹ This was in the archonship of Hippocleides of the deme of Philaidae.² It has been suggested that Peisistratus leader of the third party, though still a private citizen, inspired the idea of this festival.³ This is probable, but what is even more certain is that it was only the discernment of a Peisistratus that could have inspired this new coinage which was destined to stamp the coins of Athens for many generations.

The older numismatists and Beulé assert that this type was created by Peisistratus.⁴ M. de Fritze in 1897 and Lermann in 1900, followed by Babelon, reassert this contention, and, I believe, the weight of opinion at present would support this dating for the creation of this new coin type.

It is possible that Peisistratus started to coin money before he gained the throne,⁵ for he realized that he could only maintain power through the amassing of a large fortune. Presumably he worked the silver mines at Laurium which lay near his estate at Brauron⁶ and there is ample evidence that these mines were worked before the middle of the 6th century.⁷ His power rested not only on his great wealth, but also, on his reputation as a soldier, on his engaging personality, and on his generous nature.⁸ In addition he had been given the protection of a private guard when his life had been threatened.⁹

His desire was that his money should not only gain popular favor with the Athenians, but also be held in high esteem abroad. To achieve the first, he appealed to the national consciousness of the people through their zealous worship of Athena stimulated by the creation of the greater Panathenaia. Thus he sealed his coins with the head of Athena, a badge that was the pride of every Athenian. In order to command its acceptance abroad, he doubled the weight of the older standard coin by creating the handsome tetradrachm, which became the Athenian silver stater.¹⁰

This was the first money to be issued with a clear type on both obverse and reverse and among the earliest coins to have the human head depicted.¹¹ The use of the initial letters of the city's name was also an innovation in ancient mint practice. On these

¹ Head, Barclay, *Historia Numorum*, 1911, p. 369.

² Seltman, *op. cit.* p. 37.

³ Seltman, *op. cit.* p. 37, note 3. G. v. Brauchitsch, *Die Panath. Preisamphoren*, 1910, p. 77.

⁴ Babelon, *Traité*, *op. cit.* p. 725.

⁵ Seltman, *op. cit.* p. 40.

⁶ Seltman, *op. cit.* p. 39.

⁷ Ure, *Origin of Tyranny*, p. 46 ff.

⁸ Seltman, *op. cit.* p. 40.

⁹ Herodotus 1, 59; Aristotle, *Ath. Pol.* 14, 1.

¹⁰ Seltman, *op. cit.* p. 40.

¹¹ Seltman, *op. cit.* p. 41. Babelon, *Traité*, *op. cit.* pp. 726–727. This type of Athenian coin would have been an anachronism before the middle of the sixth century, for it is not until this time that the reverse incuse squares were replaced by a type on any of the coins of the Greek world. Also the use of human or divine heads as coin types only began to be used at this period. Seltman, *op. cit.* p. 41, note 3. There are only two or three heads on coins that can be cited as older than the Athenian heads.

earliest coins from the "Imperial" mint of Peisistratus, the heads of Athena were crude indeed, but no more so than other examples of contemporary Attic Art.¹ The earliest owl of the reverse type is likewise a quaint bird.² Little did Peisistratus realize how long these types were to be perpetuated on the coinage of Athens.

At first Peisistratus did not intend to have his coins displace the older Eupatrid coinage, but merely to take their place beside it.³ Impressive as these new coins were they did not greatly affect the market at first. The old Eupatrid mint of his rivals with its conservative traditions was to have about fifteen more years of active life.⁴

There now appear coins with the shield devices⁵ of Athens'⁶ owl and the gorgoneion,⁷ both civic badges, as well as the personal badges of the Eupatrids with the type of wheel⁸ and with the bull's head.⁹

For a number of years Peisistratus' career suffered many vicissitudes, but finally in 546 B.C. he firmly and triumphantly established his tyranny. Henceforth "owls" alone were to be the coins of Athens.¹⁰ Peisistratus issued money continuously and in great abundance for nineteen years until his death in 527 B.C., for he now had great resources at his disposal.¹¹ Through the course of these years the technique and style of the coinage naturally developed. The heads of Athena now had all the qualities of the 6th century Ionian art which a comparison with the Acropolis Korai will bear out. The heads are small, the profiles delicately drawn and the *coiffures* show a variety of fashions. These archaic heads with their cheerful smile have a characteristic charm of their own.¹² The character of the owl, too, changes gradually and the bird becomes rather a half-fledged owlet with long legs, big claws and disproportionately large head.¹³

Hippias at first carried on the policy of his father, but unlike his father favored the art of the Dorians. This Dorising tendency changed the character of the Athena heads

¹ Seltman, *op. cit.* p. 41. Babelon, *Traité, op. cit.* p. 725. If these early Athena heads be compared to the contemporary art of Athens, it is very noticeable that they reflect the characteristics of the early Attic School of sculpture which was an autochthonous development before it acquired any of the influences of the Ionic School. However, the coins of but a slightly later period begin to reflect the gradually developing Ionic characteristics.

² Seltman, *op. cit.* p. 43.

³ Seltman, *op. cit.* p. 41.

⁴ Seltman, *op. cit.* p. 44.

⁵ Seltman, *op. cit.* p. 49.

⁶ Seltman, *op. cit.* Plate III P₅₄ A₄₈—P₅₆ A₄₈ and A₅₀.

⁷ Seltman, *op. cit.* Plate IV P₆₀ A₅₄—P₆₇ A₆₁.

⁸ Seltman, *op. cit.* Plate III P₅₂ A₄₆—P₅₃ A₄₇; Plate IV A₅₂, A₅₃, A₅₉.

⁹ Seltman, *op. cit.* Plate III A₄₉; Plate IV A₅₁, A₅₈.

¹⁰ Seltman, *op. cit.* p. 57.

¹¹ Seltman, *op. cit.* p. 61, also pp. 54—55. During the ten years that Peisistratus was retired from Athens (556—546 B.C.) he was in the Pangaion district where he was amassing money from the wealthy silver mines of Mt. Pangaion, in order to regain the throne which he had lost. For this Paeonian issue of coins see Seltman, *op. cit.* Chapter VIII and Plates V, VI, and VII.

¹² Seltman, *op. cit.* p. 62.

¹³ Seltman, *op. cit.* p. 63.

on the coins which now became distinctively larger and devoid of that cheerful archaic smile. The owls assume more moderate proportions and display marked improvement in detail.¹

My purpose in discussing these 6th century "owl" coins of Athens, though our Agora coins of 1931 show none of these specimens, is to show the development of the type and account for the various elements in the composition. The coinage of Hippias is quite distinctive and one group² of his coins, which is probably a Panathenaic issue, is quite superior in technique and style, but the unique and unusual elements³ do not become permanent in the coin types of Athenian currency.

The Persian war could not have failed to leave its imprint on Athenian coinage. The amazing victory of Marathon was commemorated on the coinage by the addition of first four and then three upright olive leaves on Athena's helmet and these remained a part of the design until after the age of Alexander.⁴ The tiny waning moon, now appearing for the first time upon the coins, must also be a reference to this memorable date in Athenian history. The battle of Marathon was fought when the moon was past the full and a few days later was due the celebration of the greater Panathenaia when the moon was in its third quarter.⁵ Marathon was specifically an Athenian victory, so that it is right to expect new elements on her coinage to mark this event which was so impressed on the average Athenian mind. Thus these coins can be dated with exactitude.⁶

After the advent of the Persian wars, the development of the technical execution and the acquisition of the elements of the composition on the Athenian tetradrachm

¹ Seltman, *op. cit.* p. 64.

² Seltman, *op. cit.* Chapter X, Plates XIII and XIV. Group H.

³ Seltman, *op. cit.* pp. 72-74, § 55. They are superior in technique and style to the types which had preceded them; they are more carefully struck, since the crests are more carefully preserved on the flans; they have an elaboration of detail, for 2 coins in the British Museum have the helmet adorned with a tall crest support raising the crest above the bowl of the helmet and the aegis is adorned with serpents which rise on Athena's shoulders (Plate XIV A₁₉₈); they have more realism, for the owls are more like living birds. A peculiarity confined to this group of coins is the owl sometimes turned to the left rather than the right (Plate XIII P₂₃₃, P₂₃₄, P₂₃₅, P₂₃₆, P₂₃₇ and P₂₄₅). And on three dies which bear the owl left, there is behind the bird's head, instead of the usual olive twig, a crescent moon with its horns turned up (Plate XIII P₂₃₃-P₂₃₅). The olive twig too has various changes: on some coins the twig sprouts from the ground (Plate XIII P₂₃₉-P₂₄₀, and Plate XIV P₂₅₀); and on others it is a branch, instead of a twig, with 3 berries and 4 leaves (Plate XIII P₂₄₆, P₂₄₇, and Plate XIV P₂₄₈). The legend too is placed in various positions depending on the disposition of the twig, and on some dies we find ⊕ instead of ⊙ (Plate XIII P₂₃₆, P₂₃₇, P₂₄₃, and Plate XIV P₂₄₉). This whole group is distinguished from the Peisistratid issues in one particular; that is, the coins have been struck on broad, thinnish flans and have flat bevelled edges around the reverse designs (Seltman, *op. cit.* p. 75).

⁴ Seltman, *op. cit.* p. 103.

⁵ Seltman, *op. cit.* p. 103, and note 3. Also Head, *Historia Numorum*, p. 370. Even if one should fail to accept the fact that the greater Panathenaia followed the battle of Marathon, we remember that the Spartans could not leave Lacedaemon until after the full moon and they arrived on the battle-field in time to view the dead.

⁶ Seltman, *op. cit.* pp. 103-104.

were complete. Its character was destined to remain unaltered for an unprecedented length of time. With the growth of the Athenian Empire in the fifth century, the money of Athens became an international currency,¹ for it had soon taken root and gained a wide commercial vogue. It was the commercial convenience that caused the money of Athens to become fixed and stereotyped.²

The great mass of 5th century Athenian coinage was silver³ and the beautiful tetradrachms had a wide circulation throughout the Aegean, but the small denominations served merely as local small change.⁴ The coins from the Agora excavation of 1931 were entirely of this latter variety, but since they are neither wholly representative of 5th century Athenian currency, nor an index to the coins from this period that will come from this area, I wish to supplement this group and also the 4th century silver with a few of the silver pieces of the 1932 finds that have already been studied, not for the purpose of augmenting the numbers, for there are only a few, but to fill in some of the gaps of the missing denominations. In this discussion I shall specify the 1931 and 1932 finds.

In order to differentiate the chronological periods of these Athenian coin types, both on the larger and smaller denominations, one must pay great attention to the execution by which it is possible to detect minute changes of style. The drawing of the eye and the technical skill and delicacy of the die-engraver are usually clues as to the date of the coin. However, it is wrong, I believe, to carry this too far, for one must allow for the differences in skill and technical peculiarities of the various die-engravers. Svoronos's arrangement of the coins according to "coiffures" is erroneous. I well appreciate the valuable evidence that is derived from arranging coins according to die sequences, but this, of course, is only of value when one has enough coins to permit of such an arrangement. This will come with the final publication of all the coins from the Agora when the numbers are such as to make such a study worthwhile.

The earliest 5th century coin from the Agora in 1931 was:

A. 1. *R* Obol — Size 10 mm. Weight 0.70 gr.

Ob. Head of Athena r., eye full, features well proportioned, round earring, hair indicated by lines. Close-fitting Athenian helmet crested, two upright olive leaves above forehead. Crest row of dots and horse hair of plume indicated.

Re. AΘE to r. downward. Owl r., head facing, well proportioned, plump and upright, one leaf behind owl. Incuse square.

References: Cf. B. M. C. (*Attica*), Pl. IV, no. 11, p. 10, nos. 96—111, dates 527—430 B.C.; cf. Svoronos, Pl. 8, nos. 40—47, dates Epoch of Cimon, ca. 471—464 B.C.

I see no reason to doubt this dating of Svoronos, for the eye is purely archaic,—a full eye set absolutely horizontally in the face with both corners visible and the arch of the

¹ B. M. C. (*Attica*). Introduction, p. XXII, § 2.

² Gardner, Percy, *History of Ancient Coinage*, p. 223.

³ Gardner, *op. cit.* p. 222.

⁴ Gardner, *op. cit.* p. 226.

upper lid exactly above the centre of the eye. The workmanship is delicate and refined and characteristic of this period.

From a slightly later date, probably the Age of Pericles until 431 B.C., we have several different denominations of coins.

B. 1. *℞ Drachm* — *Size 14 mm. Weight 4.25 gr. 1932.*

Ob. Head of Athena r., hair waved over forehead with strand over ear. Close-fitting Athenian helmet with 3 upright olive leaves, floral scroll over back of bowl. Horse hair crest off flan, but row of dots visible. Dotted truncation.

Re. AΘE to r. downward. Owl r., head facing, thin triangular body, head a little large, no waning moon; in field l. olive on stalk between 2 leaves, downward leaf longer. Incuse square.

References: Cf. Svoronos, Pl. 10, nos. 19–27, dates Periclean Age to 431 B.C.; cf. B. M. C. (*Attica*), Pl. IV, nos. 5 and 6, p. 9, nos. 74–81, dates 527–430 B.C. or later.

A slight difference in the rendering of the eye explains the later date. It is still a full archaic eye with both corners visible, but the arch of the upper lid has now shifted slightly to the right, a little nearer the nose. Also the eye now is not set exactly horizontally, but is slightly upturned at the inner corner, breaking the rigid effect of straightness. These same characteristics apply to the other coins dated at this specific time. A coin of another denomination shows a very similar head.

B. 2. *℞ Triobol* — *Size 13 mm. Weight 2.00 gr. 1931.*

Ob. Head of Athena r., archaic style (same as B. 1).

Re. A Incuse circle within which owl facing, legs apart, tail hanging between them; wings closed, Θ body plumage of dots, wing plumage lines. Hanging over the head of the owl on either side olive branch with four leaves and a berry. Letters in triangular distribution.

References: Svoronos, Pl. 10, nos. 28–30, dates Periclean Age to 431 B.C.; B. M. C. (*Attica*), p. 9, nos. 82–89, Pl. IV, nos. 7 and 8, dates 527–430 B.C. or later.

The fine delicacy of style and the precision of rendering warrant this date. From the Persian wars until ca. 431 B.C. we find a comparatively uniform type on all the denominations in use; that is, the tetradrachm, the drachm, the obol, and the hemiobol all use the owl turned to the r., head facing, except the four little tetartemoria with olive sprays on the reverse (Svoronos, Pl. IX, nos. 52–59). The details of the other denominations vary slightly, as the olive spray and the omission of the waning moon on the small denominations. It is probably the necessity of issuing other fractional denominations that caused the adoption of additional types to differentiate them.

In B. 2 we see the reverse type has changed, but it is only on these coins of small denominations that we find this occurs; they no doubt varied the types slightly to indicate the value.¹ As there is certainly not much appreciable difference in size among the lower denominations of Athenian coins, a difference in type seemed essential. “The careful discrimination of denominations is characteristic alike of the love of the

¹ Gardner, *op. cit.* p. 224.

Athenians for their silver coins,—the *γλαῦκες Ἀσπρωτικάι* of which Aristophanes speaks so fondly in the *Birds* (line 1106), and of the fine perfection of their intellectual faculties.”¹

A still smaller denomination is represented by two hemiobols which are similar in type to the obol of the previous period (A. 1).

B. 3. *℞ Hemiobol* — *Size 6 mm. Weight 0.32 gr. 1931.*

Type similar to A. 1.

Reference: Svoronos, Pl. 10, cf. nos. 48-57, dates Periclean Age to 431 B.C.

B. 4. *℞ Hemiobol* — *Size 8 mm. Weight 0.40 gr. 1931.*

Type similar to A. 1.

Reference: Same as B. 3.

The most beautiful coin that has been found in the excavations so far is a silver tetradrachm that is still fresh and sharp. It was found lying in a small saucer. The head of Athena was wrought with the utmost attention to the artistic details; such as the delicacy of the elaborate floral scroll of the helmet, the meticulousness of the looped locks of hair, and the dotted ornamentation at the neck and on the crest, and the delicate refinement of the features. The owl, too, is well proportioned and realistic and the plumage is carefully delineated. The type is so familiar that it is not worth while to describe it.

C. 1. *℞ Tetradrachm* — *Size 24 mm. Weight 16.90 gr. 1932.*

Reference: Svoronos, Pl. 12, cf. nos. 13, 14 and 16, dates in the Peloponnesian war to the Peace of Nicias, 421 B.C.

I see no reason to differ with Svoronos on this dating, for I believe this coin belongs in a class slightly later than B., as it is possible to detect a slight change in the development of the eye. The inner corner has been still further lifted up until it meets the hollow formed by the juncture of the brow and the nose. This inner corner thus falls into partial shadow, so that the actual point is not visible. However, one can still see plainly the entire arch of the upper lid. The workmanship, too, substantiates this date, for it is delicate and precise in all its details and shows no trace of less careful execution which characterizes the coins of a later period.

An obol of the same type as A. 1. I should also place in this period from 431-421 B.C., for it has all the technical characteristics of this tetradrachm in regard to the treatment of the eye. The owl, too, has become less triangular with a shorter wing, giving it a plumper appearance.

C. 2. *℞ Obol* — *Size 9 mm. Weight 0.70 gr. 1931.*

Reference: Cf. Svoronos, Pl. 12, nos. 37-42, dates 431-421 B.C.

The closing years of the Peloponnesian war were very trying ones for Athens. The prolonged period of the war, the failure of her expedition to Sicily, and the defeat at

¹ Gardner, *op. cit.* p. 226.

the naval battle of Notium in 407 B.C. had completely exhausted her war funds.¹ In the archonship of Kallias (406/5 B.C.) the *demos* voted to turn over the "ex-votos" which were the precious properties of the gods (the offerings and temple furnishings) to the *Hellenotamiae* for conversion into money to defray the expenses of the war.² This vote envisaged all the gold and silver properties of the Attic gods. Unmintable things were naturally eliminated; also certain gold and silver objects, such as one of the eight golden Nikae of Athena Nike, above all the chryselephantine statue of Athena, as well as various other things³ remained inviolate.⁴ These may have been spared the melting down process not through the will of the *demos*, but because of the abrupt termination of the war. The others went into the melting pot, but before gold could be minted in Athens special dies and anvils had to be made, for the city had never issued gold coins before.⁵ The crisis of Arginusae was undoubtedly the occasion for the general expropriation,⁶ but due to the brief delay caused by the need for new minting apparatus, the fleet put off in old triremes and not in new constructions and the money was minted after the departure of the fleet.⁷

The operation of the minting of the golden Nikae extended at least over two years (406/5 and 405/4 B.C.).⁸ In January, 405 B.C., the gold currency was described as *καίρων*, the silver as *ἀργαῖον* in the *Frogs* of Aristophanes.⁹ In 405/4 B.C. it was a novelty and was disbursed by the *Tamiae* to the practical exclusion of all other money.¹⁰ The only gold coins that have reached us today are the $\frac{1}{2}$ stater, the $\frac{1}{4}$ stater, the $\frac{1}{6}$ stater or hekte and the $\frac{1}{12}$ stater or hemihekte. On them is the symbol of the laurel branch which points to their source, the golden Nikae from which the metal was taken.¹¹

By 399/8 B.C. the "dies and little anvils with which the gold was struck" were already dedicated to Athena¹² and appear in the Opisthodomus in inventories of the Treasurers of the epoch 398/7 B.C.¹³

¹ Ferguson, William Scott, *The Treasurers of Athena*, Chapter XV, also pp. 21 and 22. "In 434 B.C. the system was inaugurated of creating a public war fund from the surpluses of the tribute, and when in 421-415 B.C. this system bore fruit, it led not to the augmenting of Athena's reserve, but to the accumulation of a new reserve which could be utilized without borrowing. After 421 B.C. Athena's reserve grew by the addition to it of the net yield of Athena's own revenues alone."

² Ferguson, *op. cit.* p. 12.

³ The "karchesion" of Zeus Polias, the solitary, gold crown left in the Pronaos, and the gold leaves from the crown of Niké.

⁴ Ferguson, *op. cit.* pp. 93-94.

⁵ Ferguson, *op. cit.* p. 86.

⁶ Ferguson, *op. cit.* p. 94.

⁷ Ferguson, *op. cit.* p. 90.

⁸ Ferguson, *op. cit.* p. 94.

⁹ Ferguson, *op. cit.* p. 87. *Frogs* of Aristophanes, 717 ff.

¹⁰ Ferguson, *op. cit.* p. 95.

¹¹ Newell, E. T., *The Coinages of Demetrius Poliorcetes*, p. 133, note 4.

¹² Ferguson, *op. cit.* p. 95.

¹³ Ferguson, *op. cit.* pp. 86-87.

These gold coins were, of course, swallowed up for war expenses¹ and since the Athenians could not obtain silver from Laurium, because Deceleia was occupied by the Spartans,² their only recourse was to melt down the silver votive objects, but this gave them only a limited supply. Thus they resorted to bronze as a money of necessity. Moreover, this too was initiated in the year 403/5 B.C. in the archonship of Kallias,³ and bronze coins plated with silver were the result.⁴ They belong to the same system of monetary expedients as the issue of gold coins.⁵ This was an issue of token money and it is because it was a debased silver currency⁶ that it was attacked by Aristophanes.⁷

To adopt a silver-plated coin at this period of stress seemed a natural expedient in order to disguise the wretched bronze as much as possible, since it was a great humiliation to Athenians to have to resort to such a base metal when they had so prided themselves on their silver coins.⁸

In the *Ecclesiazusae*, Aristophanes narrates how the bronze money of necessity was cried down in 393 B.C., the Town crier being sent around to proclaim that silver was once more to be the only legal tender.⁹ The bronze pieces were struck at the time of Athens' greatest need and were withdrawn after the victory of Conon at Cnidus.¹⁰ Thirteen years seemed a long time for the Athenians to have to accept this makeshift currency, so that when it was demonetized, they greatly rejoiced over the return of their beautiful silver tetradrachms which they made identical with the older ones. It is even possible that some of the old dies were still in the mints.

A silver tetradrachm from the Agora I would place in this period after 393 B.C.

D. 1. R *Tetradrachm* — Size 24 mm. Weight 16.60 gr. 1932.

Type same as C. 1.

Reference: Cf. Svoronos, Pl. 16, no. 16, dates 403—365 B.C.

¹ Head, *Historia Numorum*, 1911, p. 373.

² Thucydides, VII 91. Gardner, *History of Ancient Coinage*, p. 231.

³ Aristophanes, *Frogs* and the Schol., 725 ff.

⁴ Svoronos, Jean N., *Trésor de la Numismatique Grecque Ancienne. Les Monnaies d'Athènes*, Plate 15, nos. 12—27. Ferguson, *op. cit.* p. 88, note 2. "Svoronos (*Jour. intern. d'arch. numismatique*, XIV, 1913, pp. 123 ff.) argues that a genuine copper currency had been introduced in the time of Pericles, on the initiative of Dionysios, surnamed Chalkos." These minute bronze pieces called κόλλυβις (Svoronos, *Trésor*, Plate 18) have long been known in Athens. The types are dissimilar to coin types of the 5th century and seem to have many of the characteristics of the tesseræ (Svoronos, *Trésor*, Plates 100—102). A number of these small pieces were found in the Agora excavations, but they had been rubbed so smooth that their types could not be identified.

⁵ Ferguson, *op. cit.* p. 88. Two of these silver-plated bronze coins were found in the Agora excavations on May 9, 1933.

⁶ Ferguson, *op. cit.* p. 88, note 2.

⁷ Aristophanes and Schol. *Ecclesiazusae*, 815 f. and *Frogs*, 725.

⁸ Gardner, *op. cit.* p. 222. In Aristophanes' *Frogs*, 730, he speaks in the most glowing terms of the Athenian coins and their great vogue. He refers to them as not alloyed, as the most beautiful coins, in fact the only ones rightly struck and ringing truly, and as accepted among Greeks and barbarians alike.

⁹ Head, *Historia Numorum*, p. 373. Aristophanes, *Ecclesiazusae*, 819.

¹⁰ Gardner, *op. cit.* p. 295.

The most noticeable change that has come in these fourth century coins is the lack of delicacy and fineness of execution. The type by now is irretrievably conventionalized. Moreover, we see another gradual development in the rendering of the eye which was first apparent on the gold coins. About one quarter of the eye from the inner corner is now in shadow; however, the eye has not yet begun to recede under the brow as it does later. The development is now approximately half way between the archaic full eye and the later profile eye. Other details that strike one are: the heaviness of the features, the coarse locks of hair, and the stiffness of the olive leaves. The owl, too, has a more shaggy appearance.

I started out in this paper by saying that the great mass of coins found in the Agora were bronze and yet up to this point I have discussed nothing but silver. To fix a date in the fourth century when a regular issue of bronze money was introduced is puzzling. Julius Pollux¹ mentions bronze coins in use in the time of Philemon, that is the age of Alexander. They seem to have varied in value from three quarters of an obol (six chalci) to a single chalcus.² I believe that the earliest bronze coins found in the Agora belong to this period, though whether they represent the first bronze issue or not it is impossible to determine. The coins of this group have the head of Athena in a Corinthian helmet on the obverse, and an owl, with or without a wreath of wheat or olive, on the reverse. They themselves testify to their date in the Alexandrian period after 339 B.C. and probably were in use until ca. 288 B.C. The head of Athena wearing a Corinthian helmet occurred on the gold coins of Alexander, a type that was further adopted by Philip III, Antigonos, and Demetrius Poliorcetes. It would be most curious not to find the Athenian coinage influenced by the coin types of their Macedonian suzerains. The introduction of symbols on some of the later coins of this group likewise reflects the influence of Macedonian coins on which symbols were very frequently used. This group consists of:

Group E

<i>Obverse</i>	<i>Reverse</i>	<i>Specimen</i>
I. Head of Athena r., wearing crested Corinthian helmet.	Owl to r., with 2 olive branches on either side. A In triangular arrangement around Θ E owl.	3
Svoronos, Pl. 22, nos. 62 and 63; not in B.M.C.		
II. Same.	A Owl with closed wings to r., within Θ wheat wreath.	6
2 others probable but not certain.		
Svoronos, Pl. 22, nos. 64-70; B.M.C., p. 22, nos. 229-235, Pl. VI, no. 8.		

¹ *Onom.* IX, 65.

² Gardner, *op. cit.* pp. 295-297.

<i>Obverse</i>	<i>Reverse</i>	<i>Specimen</i>
III. Same.	A Owl r., with closed wings. Behind Θ owl, branch.	2
	Svoronos, Pl. 22, nos. 71—72; not in B. M. C.	
IV a. Same.	Owl r., closed wings. A In field right, cornucopia? Θ E	1
	Svoronos, Pl. 22, nos. 73—74; B. M. C., p. 22, no. 239, Pl. VI, no. 10.	
IV b. Same.	A In field r., kalathos. Θ E	1
	Svoronos, Pl. 22, no. 75; not in B. M. C.	
IV c. Same.	A In field r., wreath. Θ E	1
	Svoronos, Pl. 22, nos. 76 and 77; B. M. C., p. 22, nos. 236—238, Pl. VI, no. 9.	
IV d. Same.	A In field r., spear of wheat. Θ E	2
	Svoronos, Pl. 22, nos. 78 and 79; not in B. M. C.	
IV e. Same.	A Owl to r. Θ E Symbol to r., illegible.	9 3 others probable but not certain.
	Svoronos, Pl. 22, nos. 73 and 79.	
V. Same.	A Owl r., with closed wings, in olive Θ wreath. H	1
	Svoronos, Pl. 22, nos. 80—84; not in B. M. C.	
VI. Same helmet, but adorned with serpent.	A Owl l., in olive wreath. Θ H	7
	Svoronos, Pl. 22, nos. 85—88; B. M. C., p. 22, nos. 240—244, Pl. VI, no. 11.	

It is barely possible that the wreath of wheat and the adjacent symbols as the cornucopia, the kalathos, the wreath, and the spears of wheat are connected with the Eleusinian Mysteries.

To the late fourth century, the period of Alexander and his successors, belongs also a silver tetradrachm which possesses all the qualities of the late "owl" coinage.

F. 1. *A Tetradrachm* — Size 21 mm. Weight 16.20 gr. 1932.

Type similar to earlier ones.

Reference: Svoronos, cf. Pl. 20.

The semblance of archaism is now only a delusion, for the eye is now rendered in profile. This treatment, however, was apparent on the tetradrachms of Philip¹ (359—336 B.C.) and from that time on we find the die engraver trying to free himself from the conditions imposed upon him of adhering to old familiar types. He has tried to modernize the fixed hieratic type which he was set to copy and ventures small innovations in the

¹ Svoronos, *Trésor*, Plate 19.

features of the goddess without departing from the general outlines of the older type.¹ The workmanship is coarse and careless in every respect and the die is most poorly adjusted to the very irregular flan. The features are less archaic to be sure, but there is a sharpness and stiffness about the execution that is striking and it is totally lacking in the subtle charm that characterizes the earlier archaic types. The owl has suffered sorely and is now no more than a frightful caricature of a bird with a huge head, poorly proportioned body, and speckled ruffled plumage. The little waning moon which used to be tucked neatly in at the neck of the owl, has now wandered half way down the back.

By comparing this coin with the gold coins of the second issue which were struck at the beginning of the 3rd century, we can readily see that the details of style are similar. Thus our silver tetradrachm belongs to a period either just before or just after 296 B.C. I should be inclined to put it before.

At the end of the fourth century Athenian politics were influenced tremendously by the interference of the foreign, contemporary, great powers who were constantly fighting against each other. In 301 B.C. the Moderates of Athens grew tired of this and took the government into their own hands.² Lachares, of unknown deme and parentage, being the most energetic of them became their leader.³ Constitutional changes to disarm the *demos* were necessary to ensure their domination.⁴ Dissatisfaction with these changes and dissensions among the governing faction brought civil war in Athens in 296 B.C.⁵ Demetrius Poliorcetes, then general of the Macedonian forces, came to Athens to quell this sedition. Lachares, strengthening his position and crushing out his opponents within the city, made himself dictator of Athens. Demetrius concentrated his forces not to lay siege to the city, but to starve it out. Conditions within the city were acute, provisions ran short, and the money gave out in the public chests.⁶ The treasurers of the city were forced to hand over on Lachares' orders "the golden Nikae and shields and the gold plates from the chryselephantine statue of Athena" to pay the mercenaries whom "the tyrant" kept in his service and who helped him defend Athens against Demetrius Poliorcetes in 296/5 B.C. (*Pap. Oxy.* XVII, 2082; *Class. Phil.*, 1929, pp. 1 ff.). The expropriation of the "ex-votos" on the Acropolis was much more complete than that of 406/4 B.C.⁷

This melting down resulted in the second issue of gold coins which are always the storm signals of Athenian finance and came as a result of financial exhaustion.⁸ This

¹ Head, *Historia Numorum*, 1911, p. 374.

² Ferguson, W. S., *Hellenistic Athens*, p. 125.

³ Ferguson, *op. cit.* pp. 130-131.

⁴ Ferguson, *op. cit.* pp. 129-130.

⁵ Ferguson, *op. cit.* p. 132.

⁶ Ferguson, *op. cit.* p. 133.

⁷ Ferguson, *The Treasurers of Athena*, p. 126.

⁸ Ferguson, *Hellenistic Athens*, p. 448.

issue consisted of three denominations: the stater, $\frac{1}{4}$ stater, and $\frac{1}{6}$ stater.¹ They bear the kalathos, symbol of their origin, from the sacrificial golden baskets carried on the heads of the maidens in the processions.²

I shall take a moment to describe the character of these coins for they serve as criteria of dating for other coins. On the obverse is the head of Athena, right, of fine style (eye in profile), but of rough execution. The type is similar to that of the tetradrachms on the earlier coinage. There is a sharpness and staccato quality to the technique which makes the details of the ornaments strike one above all else on the die. The owl on the reverse is a very dishevelled creature with the large ruff of plumage around the head made by very coarse and rigid radiating lines. The body plumage has a most speckled aspect with a short stubby tail, looking as if it had been clipped. He certainly is a very poor frightened looking bird. In the field to the right is the new symbol of the kalathos. The waning moon is now half way down the owl's back, instead of at the neck as in the earlier coins.

From this time on there is an abundant use of bronze coins which the quantity found in the Agora will verify. Contemporary with the 2nd issue of gold coins are the bronze coins with the double-bodied owl on the reverse.

Group G

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens</i>
1. Head of Athena r., wearing close fitting crested helmet; 3 upright olive leaves in front, floral scroll behind. Hair formed by vertical lines. Svoronos, Pl. 22, nos. 44-46.	A Double bodied owl, head facing. Θ E Above on either side an olive spray.	2
2. Same. Svoronos, Pl. 22, cf. no. 43.	A Same. Θ E	1
3. Same. Svoronos, Pl. 22, nos. 35-42, 47, 48; B. M. C. p. 21, nos. 221-223.	A Same. Θ E Beneath kalathos.	3 5 others probable but not certain.

The treatment of the hair is very similar to that on the small denominations of the gold coinage, as well as the sharpness of the execution. The shaggy and careless treatment of the plumage of the owl also suggests the gold coinage.

Demetrius Poliorcetes had always retained a considerable band of followers in Athens since 307 B.C. when he had liberated the city from the democracy of Demetrius of

¹ Svoronos, *Trésor*, Plate 21, nos. 1-22.

² Newell, E. T., *The Coinages of Demetrius Poliorcetes*, p. 133, note 4.

Phaleron.¹ The Athenians had even given him the title of king and deified him in Athens.² So that when Demetrius defeated Lachares in 294 B.C., the city opened its gates to Demetrius and expected mercy at his hands.³ They had expected freedom and autonomy, but the garrison on the Museum Hill belied this fact.

Undoubtedly, Athens still maintained her immemorial right to coin local money. Demetrius had always treated that proud and wayward city with the utmost leniency and showed the constant desire to remain in her good graces, even under most severe aggravations. He may have retained garrisons on the Museum and Munychia but that gives no one ground to assert that the city was deprived of the privilege of coining money. The fact that Athenian tetradrachms similar in type and fabric to the gold coins have been found in a number of hoards buried throughout the course of the third century gives us every reason to suppose that the old "owl" coinage continued even though the city fell to Demetrius in 294 B.C.⁴

Some time after this date, however, we do find some outside influence at work on the types of Athenian coinage. The flans have become slightly larger and the fabric is not as heavy and thick as on the older "owl" coinage. The designs are more carefully struck to fit the flan. But the most noticeable difference is in the type of helmet. It is not entirely new but new details have come in. The changes of course are gradual. The band on the front of the helmet now becomes more and more like a visor and on many coins the round hinge above the ear is clearly defined. At first the olive leaves are still represented, but later we find they have disappeared. Also the bowl becomes larger and rounder and is set further down on the brow, showing less and less hair, and soon it, too, is hidden beneath the helmet. The guard at the back of the neck is longer and more emphasized and the decoration at the back of the bowl has changed from the old elaborate scroll to the aplustre. Whether this is just the normal change that has come into the type of Attic helmet in the third century I have not yet been able to determine, but it may be a type derived from foreign coin types at this period.

A silver tetrobol from the Agora in 1931 shows the transitional qualities between the early Attic helmets of the fifth and fourth century tetradrachms and the fully developed late type of Attic helmet. There are no longer any lingering traces of archaism. There seems to be some new influence directing the die-engraver's art. He is using a new model and the result is a delicately executed head rendered with great precision of detail. It is most pleasing and, indeed, rather unexpected. The owls, too, which adorn the reverse have now lost all the caricature qualities that belonged to their immediate predecessors. On this Agora coin there is a charming pair of little owlets carefully rendered with much more normal proportions.

¹ Ferguson, *Hellenistic Athens*, p. 63.

² Ferguson, *op. cit.* pp. 107-108.

³ Ferguson, *op. cit.* pp. 134-135.

⁴ Newell, *op. cit.* pp. 133-134. I take this opportunity of expressing my sincere thanks to Mr. Newell for his most helpful suggestions and kind assistance.

H. 1. *R Tetrobol* — *Size 14 mm. Weight 2.51 gr. 1931.*

Ob. Head of Athena r., wearing crested Attic helmet with large high bowl; narrow horse-hair crest sweeps over the bowl and ends in simple curved strand in back of neck. Helmet has visor made of two narrow bands which project from forehead, hinged over the ear, and adorned in front by three dart-shaped olive leaves. Short neck guard. Hair does not show under helmet, but hangs in loose locks in back. Wears earring and necklace.

Re. A In triangular arrangement around two owls turned toward each other. Well proportioned Θ E small heads, triangular shaped bodies, body plumage made of dots.

Reference: Svoronos, Pl. 23, cf. no. 45.

We find bronze coins of Demetrius Poliorcetes¹ with somewhat similar helmets which Mr. Newell says possess strong stylistic affinities with an Athena head found on certain bronze coins of Lysimachus.² However, it is not usual to find types on bronze coins influencing the types on silver coins, for the bronze coins had a more limited circulation. But the change in the style of helmet both on the bronze and silver coins of Athens is now definitely apparent and also the use of adjunct symbols on the reverse becomes the rule. The following coins from the Agora belong to this group.

Group H'

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens</i>
1. Head of Athena r., wearing close fitting late Attic helmet with cheek pieces raised, triangular visor with hinge set down on forehead with no hair showing. Long neck guard. Svoronos, Pl. 22, nos. 89–92.	A Θ Owl l., with closed wings, in a E wreath? In field l., amphora.	3
2. Head of Athena l., wearing close fitting late Attic helmet with cheek pieces raised. Visor down on forehead. Crest made of lines falls to nape of neck. Svoronos, Pl. 22, nos. 93–98 (calls barbarous); B. M. C. no. 220, Pl. VI, no. 5.	A Owl facing, wings closed, on either Θ H side ●●, beneath spear of wheat; the whole in olive wreath.	2
3. Head of Athena r., wearing crested Corinthian helmet. Svoronos, Pl. 23, no. 46.	[A] Owl towards r., head facing, [Θ E] closed wings, on thunderbolt.	1
4. Head of Athena r., wearing close fitting late Attic helmet with hinged visor, set low on forehead. Crested. Long neck guard; on bowl behind aplustre. Svoronos, Pl. 23, nos. 47–49.	A Owl to r., head facing, closed wings, Θ E on thunderbolt.	3
5. Same. Not in Svoronos or B. M. C., cf. Pl. 23.	Same. In field r., cicade. Svoronos, nos. 47–49 for owl on thunderbolt, but this example has no cicade in field.	1

¹ Newell, *op. cit.* Plate XVII, nos. 15, 16, and 17.

² Newell, *op. cit.* p. 160; cf. L. Müller, *Die Münzen des Thrakischen Königs Lysimachus*, nos. 61–63, 71–84, 113, and 319.

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens</i>
6. Same. Svoronos, Pl. 23, no. 51.	A Owl to r., with closed wings, head Θ E facing, on prow of ship.	1
7. Same. Svoronos, Pl. 24, nos. 29—31.	[A] Two owls facing. [Θ E]	1 1 probable but not certain.
8. Same. Svoronos, Pl. 24, nos. 34—40.	AΘ Between 2 owls in wreath with kerchnos between them.	1
9. Same. Svoronos, Pl. 24, nos. 42—50.	AΘE Beneath 2 owls in wreath with kalathos between them.	1
10. Same. Svoronos, Pl. 24, nos. 51—59.	AΘ Between 2 owls in wreath.	3 1 probable but not certain.

That this group of coins belongs in the third century is evident by their transitional character from the old "owl" coinage to the New Style, but just where in the third century they belong is not so readily determined. Svoronos¹ has assigned them to the period between the rule of Antigonos Gonatas and the alliance with the Romans 255—229 B.C. That presupposes that the coinage of Athens did not terminate with the close of the Chremonidean war when Antigonos Gonatas subdued Athens in 261 B.C. It seems necessary, in order to determine this point, to look ahead to the Athenian coinage of the New Style which was introduced in 229 B.C. by Eurycleides and Micion. The adoption of radically new types with the definite abandonment of the conservative types of the "owl" coins seems obviously to show that considerable time had elapsed between the cessation of the old "owl" coinage and those of the New Style. Ferguson² says that Athens lost the right of issuing money when Antigonos Gonatas crushed Athens in 261 B.C. I believe it is reasonable to suppose that this was actually the case. This necessitates, then, our placing this group of coins under discussion before 261 B.C.

It seems best to place them after 289/8 B.C. when Athens revolted from Demetrius Poliorcetes with the help of Lysimachus who stocked the city with money. After this date Demetrius no longer vitally influenced the affairs of Athens. His death in 283/2 B.C. followed by that of Lysimachus in 281 B.C. left Antigonos Gonatas, son of Demetrius, to struggle with the Athenian irritations caused by the curtailment of their liberty by the Macedonian suzerains. But first Antigonos had to establish his claim to the throne of Macedon and this took him to Asia Minor, an absence which caused him the loss of his kingdom of Greece. During this time Athens saw fit to regain her cleruchies in the Thracian Sea.³

¹ Svoronos, *Trésor*, Plate 23.

² Ferguson, *Hellenistic Athens*, p. 184.

³ Ferguson, *op. cit.* pp. 144—155.

With no foreign intruders clamoring at her gates, Athens seemed to feel that at last she had achieved her independence. Even after Antigonos had ascended to the throne of Macedon and had re-established his control of Greece, Athens was able to arrange an amicable settlement with him because she had had a general governmental house-cleaning, introducing a limited democracy of moderate men with peaceful tendencies in power. This period was a brilliant one in Athens and no doubt these new coins represent a revival of the spirit of the city because of the preservation of her liberty. This general amnesty lasted until the Chremonidean war which was instigated in 266 B.C. by Ptolemy Philadelphus who offered assistance in a war of independence against Macedon, a war which ended in 261 B.C. with Athens entirely at the mercy of Antigonos Gonatas.¹

The personnel of the administration was changed from top to bottom.² We are not able to say with certainty that the public property, such as the silver mines, was confiscated by the Macedonian crown, says Ferguson, but "at any rate Athens lost the right of issuing money and the Macedonian tetradrachms, the so-called Antigonids, took the place in Athenian circulation formerly held by the Attic 'owls.'"³ The coins mentioned in the Inventory of the Asklepion at Athens as *τέτραχμα Ἀντιγόχεια*, specimens of which appear among the dedications in the years B.C. 261/0, 256/5, 255/4, and 254/3, are probably those with the head of Pan on the Macedonian shield.⁴ They may have been made in an Athenian mint, but belonged to the Macedonian monetary system, which, I believe, the bronze coins of this period help to confirm. This issue has the kalathos like the Attic bronze money and like the gold coins of the second issue.⁵ The change advertised abroad the humiliation of the city, but it hurt more than the pride of the people: it was a disastrous blow to the foreign commerce of Athens, for the integrity of Attic money had given it a wide circulation, and its general use gave the place of issue an advantage over business rivals. To maintain this circulation the Athenians had preserved with great conservatism the rude processes and devices of their antique coins. Zeno still contrasts the purity and crudeness of the Attic tetradrachms with the beauty and impurity of the new coins of the successors of Alexander.⁶ There was, therefore, we may be sure, regret elsewhere than at Athens when the old reliable pieces, which had once dominated the money market, ceased to be issued, and more than one generation passed before those already in circulation ceased to be used. With the "owls" disappeared her commercial supremacy and with

¹ Ferguson, *op. cit.* see pp. 156-182.

² Ferguson, *op. cit.* p. 183.

³ Ferguson, *op. cit.* p. 184. *I.G.* ii, 836. 45, 80, 86, 93.

⁴ Head, *Historia Numorum*, p. 232; Babelon, *Traité* I, p. 485; Ferguson, Univ. of Calif. Publ., *Classical Philology* I, p. 148.

⁵ Ferguson, *Hellenistic Athens*, p. 184, note 2; cf. Köhler, *Zeitschr. f. Numism.*, 1898, p. 10, also *J.H.S.*, 1910, p. 196, no. 36.

⁶ *Diogenes Laert.*, VII 18.

the Long Walls, which Antigonos let fall in ruins, vanished her political importance which had been maintained of late only by the most heroic sacrifice and courage.¹

It is not so easy to calculate just what the coinage situation in Athens was during this period. It is possible that there was sufficient old coinage to continue in circulation for 32 years. If the *τέτραχμα Ἀντιγόχεια* which were dedicated in the Asklepieion were in wide circulation in Athens at that time, it is extraordinary that none was found in the Agora. In fact only two coins of Antigonos Gonatas, both bronze, appeared in this first season's excavation.

Ob. Head of Athena r., wearing crested Corinthian helmet.

Re. BA. Above on either side of Pan r., crowning a trophy. (Between legs A) Symbols to r. and l. illegible.

References: McClean Collection 3599–3606.

Head, *Historia Numorum*, p. 232.

These are dated 277–239 B.C.

There is a group of bronze coins, though not many in number, which seem to belong to this period. The fact that they are stamped with the name of the city proves, I believe, that they were minted in Athens. The types are familiar ones on the silver coins of Antigonos Gonatas with the head of Zeus on the obverse and the Athena Polias?² hurling a thunderbolt, right, on the reverse.³ It is possible that the minting of bronze coins for local use was not prohibited by Antigonos, but that silver was not coined because the mines belonged to the Macedonian crown. Nevertheless, it seems reasonable to place this group of bronze coins in the period of Antigonos Gonatas.

Group I

<i>Obverse</i>	<i>Reverse</i>	<i>Specimen:</i>
1. Head of Zeus r., bound with taenia; border of dots.	AE Athena Polias? r., hurling thunderbolt and holding shield on l. arm. In field l., spear of wheat; in field r., coiled serpent.	1
Svoronos, Pl. 22, no. 55; B. M. C. (<i>Attica</i>) p. 84, no. 582; Pl. XV, no. 2.		
2. Same.	Same. In field l., Medusa head.	2
Svoronos, Pl. 22, no. 58; not in B. M. C.		
3. Same.	Same. Symbols illegible.	3
Cf. Svoronos, Pl. 22, nos. 53–58.		

¹ Ferguson, *op. cit.* p. 184.

² Pausanias, 1, 26, 7.

³ Newell, E. T., *The Coinages of Demetrius Poliorcetes*, cf. Pl. XVII, no. 27.

The Macedonian hegemony was a period of great depression in Athens and discouraged all enterprise.¹ The city was run down and suffered greatly from dire neglect. Periodic wars had reduced the government to financial exhaustion.² A wealthy Athenian, Eurycleides of Cephisia had alleviated distress in a number of instances, which not only brought him great respect, but prominence in Athenian affairs.³ His influence was paramount in 232 B.C. about two years before the death of Demetrius II, son of Antigonos Gonatas, and in 232/1 B.C., he was a most energetic treasurer of military funds.⁴ The situation in Athens then was almost hopeless; the land lay untilled, for there was no seed grain. Eurycleides came to the rescue and revived agricultural operations.⁵ His public spirit caused the Athenians to turn to him after the death of Demetrius II to decide what course Athens should pursue. It was resolved to secede from Macedon. The commander of the Macedonian garrison agreed to turn over the forts on payment of 150 talents. The money was secured from the friends of Athens and in 229 B.C. Athens was rid of the foreign garrison for the first time in sixty-five years. Now that Athens had regained her liberty, Eurycleides advocated a policy of the strictest neutrality. Athenian independence was recognized by the new regent of Macedon, Antigonos Doseon, and even Rome solicited the friendship of the Athenians. The whole ancient world seemed ready to recognize her independence.⁶

No free state could exist without its own money, so that one of the first acts of the new government was to reopen the mints; "rather to require" says Ferguson, "the mints henceforth to coin Attic, not Macedonian pieces."⁷ The new issue of Athenian coins was not merely to meet local needs, but to seek the circulation that had previously been enjoyed by the "owls," and above all to herald the fact that Athens was again a sovereign state.⁸

¹ Ferguson, *op. cit.* p. 237.

² Ferguson, *op. cit.* p. 205.

³ Ferguson, *op. cit.* p. 206.

⁴ Ferguson, *op. cit.* p. 205.

⁵ Ferguson, *Athenian Tribal Cycles in the Hellenistic Age*, pp. 87-88.

In *I.G.*² II 791 (Diomedon Archon 253/2 B.C.) "the specific reason assigned for the solicitation of subscriptions 'for the safety of the state and the protection of the countryside' was to provide the treasurer of the military fund, Eurycleides of Kephisia, with the money needed 'to harvest in security the crops during the remainder of the year.' The time of the launching of the project was the last day of Elaphebolion (April 8th, 252 B.C., Dinsmoor). That an emergency levy had thus to be made in this spring is intelligible and accords well with the demands of historical facts."

"Should, however, l. 4 of *I.G.*² II 791 be restored with a secretary of Leukonoe and Diomedon be regarded as a second archon of that name (see pp. 18 ff.), the resultant date 232/1 B.C. likewise permits a plausible adjustment between the contents of the decree and the historical situation (*Hell. Ath.*, pp. 203 ff.). It yields an equally satisfactory construction of the *cursus honorum* of Eurykleides . . . and it brings the activity of [Diogenes] Make[don], in subscribing for the defense of Attica, into closer juxtaposition with his extraordinary manifestation of Phil-Athenianism in 229 B.C."

⁶ Ferguson, *Hellenistic Athens*, pp. 206-210.

⁷ Ferguson, *op. cit.* p. 211.

⁸ Ferguson, *op. cit.* p. 212.

The old coin types were definitely abandoned; the new issues were made with a wider and thinner flan which had come into use during the course of the third century. The new devices were inoffensive to modern taste, and they bore marks to fix the responsibility for purity and weight upon mint officials and the various mints.¹ The new money of Athens soon obtained the widest circulation.²

Tradition had been too strong to have them change the Athena head on the obverse. However, the character of the head on the silver series and most of the bronze is very different. Its inspiration was undoubtedly the chryselephantine statue of Athena by Phidias in the Parthenon. The head is adorned with earring, necklace, and a close fitting helmet which is decorated in front with the foreparts of four or more horses abreast. On the side is a flying griffin or Pegasus, and on the back of the bowl is an aplustre. The helmet has the ear guards turned up and the neck guard elongated and finished with an ornamental border. The head is surrounded by a border of small dots. The reverse likewise has innovations, for the owl is represented as standing upon a prostrate Panathenaic amphora; the monograms or magistrates' names and symbols are conspicuous in the field; on the amphora there is often a numeral ranging from A-N; two or more letters often occur beneath the amphora; the whole is surrounded by a wreath of olive.³

This silver series can be divided into four general classes: No. 1 has two monograms and a symbol and can be dated ca. 229-197 B.C.; No. 2 has two abbreviated magistrates' names and a symbol and can be dated ca. 196-187 B.C.; No. 3 bears three magistrates' names and a symbol and can be dated ca. 186-100 B.C.; No. 4 has two magistrates' names and a symbol and can be dated 100-30 B.C.⁴

When the new coinage was adopted in 229 B.C. the monograms of the mint magistrates were affixed to the coins to establish, as I have said above, the responsibility for purity and weight upon the officials. About 196 B.C. the men in charge of affairs seemed to feel that the Roman victories had given their own government added security, so they used the quasi-monarchical privilege of putting their names on the coins of the city;⁵ at first abbreviated and then written in full.

The mint magistrates were members of influential families;⁶ sometimes visiting foreign princes as Antiochus Epiphanes whose name and symbol, the elephant, is found on the coinage of ca. 176/5 B.C.;⁷ and very often closely related members of one and the same family, such as father and son or two brothers. For example, the two brothers Eurycleides and Micion of Cephisia who initiated the new coinage have the names of

¹ Ferguson, *op. cit.* p. 245; Head, *Historia Numorum*, p. 316; Hill, *Handbook of Greek and Roman Coins*, pp. 121 ff.; Sundwall, *Untersuchungen über die attischen Münzen*, p. 110, note 2.

² Ferguson, *op. cit.* p. 247.

³ *British Museum Catalogue (Attica)*. Introduction, pp. XXXIV-XXXV.

⁴ Head, *Historia Numorum*, pp. 380-386.

⁵ Ferguson, *op. cit.* p. 287.

⁶ Head, *op. cit.* p. 379.

⁷ Ferguson, *op. cit.* pp. 302-303.

members of their families recurring in successive generations on the coins of Athens. The adjunct symbol was chosen by the magistrate whose name stood first.

Sundwall's exhaustive study of the subject seems to show that the mint officials were not magistrates in the strict sense of the term; their office was an honorary one which entailed a financial obligation to be met at their own expense.¹ He also supposes a close connection between the Athenian mint and the Areopagus. He believes that the series of names of the third official which occur during the greater part of the second century reveal the fact that a committee of twelve Areopagites was annually appointed and entrusted with the direct responsibility for the purity, etc., of the coins. The members of this committee held office in rotation, so that whenever a fresh issue of coins was required, the signature of the committee-man whose turn it was to assume duty was added beneath that of the ordinary magistrates.²

The third magistrate's name was frequently changed, in some series as often as twelve times during the period in which the other two magistrates held office. Presumably this period was a year, as deduced by the numeral letters on the amphora. No doubt these letters indicated the month of the ordinary or lunar year in which the coins were struck. We should not assume from this, however, that coins were minted with undeviating regularity, year by year or even month by month, in the years when they were issued. The supply was regulated by the demand. There were years of considerable activity, of course, and there are issues which bear all the month numerals A-M (or even N in intercalary years, when an extra month was inserted to adjust the calendar).³ These numerals represent calculations by the lunar month; whereas, the third magistrate's period of office is thought to be reckoned *κατὰ θεόν* or by the solar year.⁴

Every precaution was taken to differentiate the various issues of silver, as is shown by the addition beneath the amphora of various initial letters of uncertain significance. Some scholars believe that these stand for the names of the various *officinae* of the mint.⁵ Svoronos and Sundwall, however, think that these marks designate the various silver mines in Laurium from which metal was procured.⁶ If this interpretation is correct the mint used the output of thirty or forty separate mines during the era of this New Style coinage,⁷ but only about half of this number were the permanent sources of supply, while the other half were mines resorted to only occasionally in periods of stress.⁸

¹ Sundwall, *Untersuchungen über die attischen Münzen*, p. 108; Ferguson, *op. cit.* p. 436.

² Head, *op. cit.* p. 379; Sundwall, *op. cit.* p. 69.

³ Head, *op. cit.* p. 379.

⁴ Head, *op. cit.* p. 380.

⁵ Hill, G. F., *A Handbook of Greek and Roman Coins*, pp. 129 ff.

⁶ Head, *op. cit.* p. 380; Sundwall, *op. cit.* p. 110.

⁷ Ferguson, *op. cit.* p. 377.

⁸ Head, *op. cit.* p. 380.

In the middle of the second century, ca. 166 B.C. Delos was given to Athens by the Romans on the condition that it was to be a free port.¹ The growing needs and immense commerce of Delos had a direct effect upon the coinage of Athens. The demand for metal for minting purposes alone was large and insistent. Thousands of slaves were employed near Sunium to mine and smelt the ore: "The coins were made by hand in a public mint located in the shrine of the hero Stephanephorus." "It was a large business and the mint worked under pressure. Hastily and with little regard to elegance of form, the dies were made and the coins struck; for the Athenian money, being honest in weight and material, had secured a wide circulation."²

In the first quarter of the first century, ca. 92 B.C., the interests of Rome and Pontus were clashing in Asia Minor.³ Athens became engaged in the combat by appealing to Mithradates, king of Pontus, who then seemed to have the upper hand, to help overthrow the oligarchs who were usurping the power in Athens and were monopolizing the offices. Mithradates' aid to Athens only brought Sulla to her gates. This was another period of financial exhaustion and the gold Athenian coins struck with the name of ΒΑΣΙΛΕ ΜΙΘΡΑΔΑΤΗΣ show that the Pontic king helped Athens weather the financial storm. But even with this aid and that of military reinforcements Athens could not withstand Sulla's attacks. After his siege and sack of the city, poverty and demoralization were found on every side in Athens. Money was coined with some regularity after 87 B.C., but not in very large quantities.⁴

None of these silver coins of the New Style was found in the Agora in the first season, but about 120 bronze coins belong to this period.

By means of a chart I have tried to present my study of the chronology of the bronze coins of the New Style classed as Group J (on Plate VII). As a working basis, I have selected all the bronze coin types of this style represented in the *British Museum Catalogue of Attica*, those of the two Attic hoards published by Alfred R. Bellinger in *Numismatic Notes and Monographs* No. 42, those from Barclay Head's *Historia Numorum*, the large collection of Svoronos in *Les Monnaies d'Athènes*, and the specimens from the Agora excavation found in 1931. The majority of these bronze types bear symbols that can be related to the symbols occurring on the silver series of the New Style coinage. By this comparison of bronze and silver coins one can arrive at a tentative chronology for the bronze series, but the inconclusive results obtained show that it is not wise to push these comparisons too far.

Judging from the variations found in the dating of the silver series, as yet there seems to be no absolute certainty of their chronology. The most scientific method of approaching a chronological sequence for the silver series is only now being

¹ Ferguson, *op. cit.* p. 329.

² Ferguson, *op. cit.* p. 377.

³ Ferguson, *op. cit.* p. 439.

⁴ Ferguson, *op. cit.* pp. 439-448; p. 456, note 3; Sundwall, *op. cit.* p. 106.

undertaken by M. Kambanis (*Arethuse*, Vol. V, 1928, pp. 121 ff.) by the comparative method of anvil and punch dies. It is a stupendous task, because of the long series of New Style silver coins, but, I believe, this method alone will produce definite chronological evidence. Since none of these silver coins was found in the first season's excavation, it did not seem necessary to go into this complex problem of chronological sequences on the silver series.

Necessarily then, this study of the bronze coins must be purely tentative, arrived at on the basis of the study of the silver coinage made previously by various numismatists. I have not sought to compare so much the variant datings of the silver coins, but rather the variant datings of the bronze in relation to the silver. To the best of my ability I have tried to make the most reasonable comparisons of bronze and silver and to give the most plausible datings, as nearly as possible on the grounds of style. The results have not been wholly satisfactory, for there is still a distressing variety of dates and difficulties that cannot seem to be reconciled.¹

In the chart (Plate VII) I have given the sequences within the class and the results show that the classes overlap. It does not seem reasonable to think that one class existed alone in a given period, especially in bronze coinage of a late period. That various types existed side by side is more natural and that one group of magistrates preferred one type, another group chose a second. Bellinger is wont to keep these classes mutually exclusive, as far as dating is concerned, and there runs into difficulty.

That Classes I and II begin earlier than Class III seems probable, but that Class III was adopted some time before Classes I and II ceased to be issued is most certain. It is natural to expect this, since Class III is but a replica in bronze of the type of silver coin adopted in 229 B.C. That this should appear early in the second century along with the other types is to be expected.

A point that is brought out in this comparative chart seems to confirm the fact that Classes I, II and III existed side by side for a certain period. Toward the end of the second century we find a confusion of the obverse types. Class I, usually represented with Athena wearing the Corinthian helmet, adopted the Athena Parthenos type of head in Class Ie; Class II, always portraying Athena in the Corinthian helmet, also adopted the Athena Parthenos type in Class IIu at about the same time; while Class III, always using the Athena Parthenos type from the silver coins, represented Athena in the Corinthian helmet Class IIIe 2 toward the end of the second century.

Most of the other classes of bronze coins represent types current at more or less one specific time within the period of the New Style coinage. They are not types

¹ M. Kambanis, in a recent article in *B. C. H.*, LVI, 1932, pp. 37-59, has arrived at a completely new arrangement of a certain group of magistrates by means of coördinating the same obverse dies, the rotation of the third magistrate's names, the letters on the amphoras which denote the month, and the groups of initial letters beneath the amphora, which are either the names of the various officinae of the mint or the marks of the silver mines at Laurium. When this task has been completed for all the series of New Style silver coins the chronological sequences may be such that the arrangement of the bronze series will in turn be more satisfactory.

which survived for an extended period and which were changed slightly by each succeeding magistrate to suit his particular taste, such as Classes I, II and III were.

Either in 167 or 166 B.C. the Romans declared Delos a free port by exempting it from taxes,—an expedient resorted to in order to suppress the prosperity of the Rhodian commercial enterprise which annoyed Rome at this time. The temple at Delos was handed over to the Athenians and an Athenian cleruchy was sent composed of governors or “Ἐπιμεληταί” and other magistrates who virtually ruled the island.¹ The foreign inhabitants were ordered to leave, but allowed to remove their property.² This was not the boon to Athens that it might seem on the face of it, for Delos became a great trading centre, a merchant community where speculators and profiteers flourished with no civic duties to fulfil. This, of course, destroyed the commercial prestige of Piraeus and the administration of the island brought a score of unexpected difficulties to the Athenians. Since this was nothing but an artificial prosperity in Delos, it lasted only from 167 or 166 B.C. until the First Mithradatic War in 88 B.C., and during that time the city of Delos was only subsidiary to the commercial prosperity which the harbor afforded.³

The cleruchies ordinarily were accorded the privilege of striking money; however, this right was limited to bronze money and the coins themselves testify that Delos was no exception. Köhler was the first to recognize the series of coins struck AΘE, the style of which differed from the usual Athenian currency and the symbols of which recalled the Delian cults. These he attributed to the Athenian cleruchs in Delos. In 1900 Svoronos confirmed the opinion of Köhler by a study of a group of coins 14 of which had the name of Delos and 91 the name of Athens. Since then the excavations on the island have yielded a great number of these coins and their attribution is no longer doubted.⁴

This group of coins⁵ is characterized by its dual nature, portraying a combination of Athenian and Delian types. One variety has the head of Artemis on the obverse with ^AΘE around the owl and the symbol of the lyre on the reverse.⁶ Another has the head of Athena on the obverse with ^AΘE and the quiver of Artemis on the reverse.⁷ The series which includes the cicade on either obverse⁸ or reverse⁹ recalls immediately the Athenian New Style coins representing the statue of the Delian Apollo¹⁰

¹ *Cambridge Ancient History*, Vol. VIII, pp. 643, 645.

² *C. A. H.*, *op. cit.* p. 294.

³ *C. A. H.*, *op. cit.* pp. 644–650.

⁴ Roussel, Paul, *Delos, Colonie Athénienne*, pp. 47–48.

⁵ Svoronos, *Trésor*, Pls. 106–107.

⁶ Svoronos, *op. cit.* Pl. 106, nos. 1–7.

⁷ Svoronos, *op. cit.* Pl. 106, nos. 27–29.

⁸ Svoronos, *op. cit.* Pl. 107, nos. 50–74.

⁹ Svoronos, *op. cit.* Pl. 107, nos. 28–35.

¹⁰ Svoronos, *op. cit.* Pl. 80, nos. 8–14.

which is invariably accompanied by the symbol of the cicade. A group made on the Attic model is represented by the coins with the head of Artemis on the obverse with A Θ

E and the owl on a postrate Panathenaic amphora on the reverse.¹ Of this latter type there exists a series² which is particularly interesting and confirmatory for this attribution to the Athenian cleruchs in Delos. Beneath the head of Artemis on the obverse are the letters TP1A which recall the name of Triarius, the legate of Lucullus, who repaired the damages of the ravaging of the island by the Pontic troops and the pirates led by Athenodorus. Sometime after 69 B.C. Triarius cleaned up the city, reconstructed the ruins of the sanctuary of Apollo, and fortified the city by a wall, a great part of the course of which can now be traced in Delos. Four epigraphical documents have been found in the excavations of the island which relate to the legate and his work.³ No doubt, these coins bearing his name were struck in commemoration of his services. The striking of these coins may have continued until near the end of the century.⁴

I have not attempted a chronological sequence of these coins of the Athenian cleruchs in Delos, but I am merely listing the various types found in the Agora in 1931.

Group K

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens in Agora</i>
1. Head of Artemis r. Svoronos, Pl. 106, nos. 48-51.	A Θ E Kerchnos within wreath of wheat.	1
2. Head of Athena r., wearing Corinthian helmet. Not in Svoronos; B. M. C. (<i>Attica</i>) Pl. XV, no. 14.	(A Θ E) Kerchnos within wreath of wheat.	1
3. Head of Artemis r. Svoronos, Pl. 107, nos. 43-45.	A E Cicade. Θ	
4. Head of Artemis r. Svoronos, Pl. 107, nos. 36-41.	A Θ Upright Amphora. E	3
5. Cicade. Svoronos, Pl. 107, nos. 50-54.	A Owl r., on thunderbolt. Θ E	1
6. Cicade. Svoronos, Pl. 107, nos. 55-69.	A Θ Upright Amphora. E	6

¹ Svoronos, *op. cit.* Pl. 106, nos. 52-65.

² Svoronos, *op. cit.* Pl. 106, nos. 66-71.

³ Roussel, *Delos, Colonie Athénienne*, p. 331.

⁴ Roussel, *op. cit.* p. 48, note 1, and p. 334, note 2.

During this period Athens also had other cleruchies than Delos, but the only other one that is represented by coins in the Agora in 1931 is Peparethos, an island lying off the coast of Thessaly. As the independent coinage of the island shows, Dionysos was the chief divinity of the Peparethians. This is, no doubt, the reason why Svoronos¹ attributes the series of coins with AΘE and the heads of the young and bearded Dionysos to this cleruchy. There were only seven coins found in the first season's excavations that can be placed here, but they represent four different types.

Group L

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens in Agora</i>
1. Head of young Dionysos r., bound with ivy. Border of dots. Svoronos, Pl. 25, nos. 29-31.	A ΘE Athena advancing r., armed with helmet, spear, and aegis.	1
2. Head of young Dionysos r., bound with ivy. Svoronos, Pl. 25, nos. 33-34.	A Θ Kantharos. E	2
3. Head of Zeus r., bound with taenia. Border of dots. Svoronos, Pl. 25, nos. 36-42.	A Θ Head of Dionysos r., bearded, E wearing wreath.	3
4. Head of Dionysos bearded r. Svoronos, Pl. 25, nos. 43-50.	A Θ Head of Athena r., wearing E crested Corinthian helmet.	1

Another series of coins bearing the letters AΘE is the money of Eleusis which is similar in type to that struck EAΕΥΣΙ. The explanation of these coins and their chronological sequences have been the subjects of much discussion among numismatists. Several of them have worked on the principle that this Eleusinian money was the sign of autonomy of this religious centre and of its accidental independence of Athens from time to time. They have searched the history for circumstances which might have produced this independence.² In B. M. C. (*Attica*)³ Mr. Barclay Head has placed all this Eleusinian money between 350-300 B.C. But in his *Historia Numorum* he has shifted his dating to 339-322 B.C., perhaps on consideration of style and comparison with Athenian money. He believes that at this time Athens conceded to this religious site the right of coining money, a privilege that was certainly of short duration.⁴

M. Cavaignac⁵ believes that the monies of Eleusis are the various issues struck for the festivals in the periods when Eleusis, independent of Athens, had need of

¹ Svoronos, *op. cit.* Pl. 25, nos. 29-50.

² Babelon, *Traité III*². *Description Historique*, p. 138.

³ B. M. C. (*Attica*), Introduction lx, § 5.

⁴ Head, Barclay, *Historia Numorum*, p. 391.

Cavaignac, *Les Monnaies d'Eleusis*, *Revue Numismatique*, 1908, pp. 311 ff.

small denominations for local commerce. He distributes these issues into several chronological periods, the first being placed 403–400 B.C. when Eleusis was separated from Athens during the failure at the end of the Peloponnesian War. The second series he dates ca. 318 B.C., during the struggle of Polysperchon against Cassander and of Cassander against Demetrios Poliorketes, when he thinks Eleusis detached herself from Athens and struck money. The third series he would assign to the short period from 287–285/4 B.C. when Demetrios having lost Athens seized Eleusis.¹ Because they are manifestly a later style than the other two, he thinks it is necessary to place them here. The fourth series he compares with certain Athenian bronze pieces of the second century and the fifth series he places still later.²

Mr. Ferguson states that the only “possible eras of Eleusinian independence are: of course, in 403–401/0 B.C.; 318/7 B.C.; 304 B.C. while Cassander was besieging Athens; 296–294 B.C. from the time Poliorketes captured Eleusis³ until the fall of Athens, and perhaps until the capture of Eleusis by Demochares in 289/8 B.C. Eleusis was Athenian from 289/8 B.C. onward, hence this period is excluded, but in 265–261 B.C. during the Chremonidean War Eleusis was certainly not in the possession of the Athenians.”

Ferguson believes it possible that two issues belong to 296 or 294–289/8 B.C. and 265–261 B.C. He says that it is not possible for an issue to belong to 318/7 B.C. “if the Archippus of *I.G.* ii, 5.574e⁴ was the Archon of this year, and not of 321/0 B.C., which is also possible; besides there is no record of Eleusis being separated from Athens at this time. Nor have we any certain evidence of a separation in 304 B.C., since Plutarch⁵ mentions only Panaeton and Phyle as being in possession of Cassander during the siege. Still there is no unlikelihood that he held Eleusis also. After 261 B.C. I know of no time when Eleusis was independent,” says Mr. Ferguson.⁶

M. Svoronos would attribute the money in the name of Eleusis to two different periods in Athenian history, when some of the people of Athens sought refuge in Eleusis. They were full-fledged citizens and free from Athenian control and interference. The first time was after the fall of the Thirty Tyrants, when the Athenian agreement with King Pausanias accorded the privilege to those in the city, who were afraid because of their political affiliations, to move to Eleusis without loss of property.⁷ The second time was very much later, during the epoch of the Chremonidean War, when again Athenian citizens occupied Eleusis.⁸

In opposition to these theories, M. Babelon contends that the money which bears the name of Eleusis was struck at Athens itself at the celebration by the Athenians

¹ Babelon, *Traité* III². *Description Historique*, p. 139.

² Babelon, *op. cit.* p. 140.

³ Plutarch, *Demetrios*, 33.

⁴ Ditt. *Syll.*², 647.

⁵ Plutarch, *Demetrios*, 23.

⁶ Ferguson, *Hellenistic Athens*, p. 145, note 4.

⁷ C. A. H., Vol. V, p. 372.

⁸ Babelon, *Traité* III², p. 140.

of the Greater Eleusinia. He feels that the money struck with AΘE, having the same type as the Eleusinian money and bearing the same symbols in the field of the reverse, is an argument against the Eleusinian money being produced in the periods when the deme of Eleusis had political autonomy and was independent of Athens. The exclusive use of bronze, the few small denominations, and the lack of variety of types and symbols, all go to prove that the Eleusinian coinage was struck under the authority of Athens.¹

But the abundance of this coinage from Eleusis, the variety of striking, and the very noticeable differences of style between the various groups lead one to the conclusion that this coinage was struck more or less intermittently over a long period of time. Is it not then the religious coinage struck at the periodic celebration of the Greater Eleusinia? This money was only poor bronze, since it was destined to be thrown at the people during the grand processions which wound along the Sacred Way.²

Babelon believes that the style of the earliest series warrants a date not earlier than the middle of the fourth century or, perhaps, even as late as the period of Alexander, as Barclay Head suggests. He thinks that the latest series belongs to a period well advanced in the third century or even later.³

It is probable that the bronzes of Eleusis bearing the name of Athens were struck at the times when the celebration of the Greater Eleusinia was held in Athens, perhaps, in moments of crises when the access to Eleusis was found to be closed to the solemn processions which ordinarily started from Athens and moved toward Eleusis.⁴

Though only a few of these coins were found in the 1931 excavations, the succeeding campaigns have added considerably more of them. It is to be expected that large numbers of them will be found in the Agora, for it is here that the procession assembled before starting out for Eleusis.

Group M

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens in Agora</i>
1. Triptolemus seated l., in winged chariot drawn by 2 serpents, holds wheat in r. hand. Svoronos, Pl. 103, cf. no. 10.	EAΕΥ (above) Pig standing on bakchos, all in wreath of wheat. Symbol in exergue kerchnos?	1
2. Same as 1., but Triptolemus seated r. Svoronos, Pl. 103, no. 15.	EAΕΥΣΙ Same as 1., but no symbol in exergue.	1

¹ Babelon, *op. cit.* p. 140.

² Babelon, *op. cit.* p. 141.

³ Babelon, *op. cit.* pp. 141–142.

⁴ Babelon, *op. cit.* p. 142.

<i>Obverse</i>	<i>Reverse</i>	<i>Specimens in Agora</i>
3. Same as 1. Svoronos, Pl. 103, cf. nos. 17–21.	EAΕΥΣΙ in exergue below the Pig on bakchos, all in wheat wreath.	5
4. Head of Demeter to r. Svoronos does not give the type with letters below, but cf. Pl. 103, nos. 57–64.	A Θ E in exergue below the Pig on bakchos.	1

It is hardly possible to estimate the extent of the trade and foreign relations of Athens through the Greek period from the foreign coins found in one short season's excavation. Every campaign of excavations adds numerous and different types from all over the Greek world. No doubt, Athens held the same position in the Greek period that our great modern metropolises do today. It was the centre for merchants and traders, travellers and scholars who came from abroad. They brought with them their local monies which were accepted in Athens only according to weight. We are assured that all kinds and varieties of people visited the Agora, where we find a strange assortment of money throughout all ages. I am listing the Greek coins from these various foreign sites merely to give a vague idea of the unlimited variety of coinages that we can expect as the excavations progress.

1. *Chalcis, 480–445* AE (1 coin).

Ob. Eagle with spread wings flying r.

Re. Incuse square (much rubbed).

Reference: B. M. C. (*Central Greece*) cf. p. 109, no. 36, Pl. XX, no. 7. (If this is Chalcis it is not otherwise known in AE, this reference is to silver.)

This, no doubt, belongs to the new currency issued after the Persian War when the fabric became thinner and flatter. At this time the cities of Euboea were subject allies of Athens. This late archaic money does not extend beyond the time of the revolt of Euboea from Athens in 445 B.C. and its reconquest by Pericles in the same year.¹

2. *Corcyra.*

a. 450–400 B.C. AE (2 coins).

Ob. Head of young Herakles r., in lion's skin.

Re. KO Bunch of grapes with leaves.

Reference: B. M. C. (*Thessaly*), p. 121, no. 101, Pl. XXII, no. 2.

b. 229–48 B.C. AE (1 coin).

Ob. Head of young Herakles r., in lion's skin.

Re. KOPKY Above forepart of gally r.

ΠΑΙΩΝ (Name or monogram of prytanis below illegible).

References: B. M. C. (*Thessaly*), p. 145, cf. nos. 482–484; McClean, Pl. 190, no. 29; Head, *Hist. Num.*, p. 328, dates this coin 229–48 B.C.

Between 450–400 B.C. Athens and Corcyra had an alliance; the coins of *a* may be representative of this. However, the coins similar to *b* were issued under the Roman

¹ B. M. C. (*Central Greece*), Introduction, pp. liv–lv.

Republic when Corcyra was free and allowed to issue money. There are coins similar to *b* that have NIKA on them which may refer to a victory won in galley racing by the Corcyreans.¹

3. *Euboea, 411–387 B.C. AE (1 coin).*

Ob. Bull standing r., above wreath?

Re. Bunch of grapes; to r. EYB; in field l., star?

Reference: B. M. C. (*Central Greece*), p. 97, cf. no. 26.

This coin belongs in the period after the second revolt from Athens, when Euboea thereafter was independent of Athens. Coins reading EYB may be attributed to Eretria, for there are no coins from that city at that time and the other cities of Euboea had their own names on the coins.²

4. *Rhodes.*

a. 400–333 B.C. *Æ Didrachm. Weight 6.30 gr. (1 coin).*

Ob. Head of Helios, $\frac{3}{4}$ face toward r., hair loose.

Re. ΠΟΔΙΟΝ Rose with bud in field r., below EY, symbol l., grapes. (Incuse not apparent.)

Reference: B. M. C. (*Caria and Islands*), p. 233, no. 34, Pl. XXXVI, no. 9.

b. 333–304 B.C. *AE (1 coin).*

Ob. Head of nymph Rhodes r., wearing stephane, pendent earring; hair rolled. (The wife or the daughter of Helios, according to varying accounts.)

Re. (ΠΟ to l. and r.). Rose on stem with bud to r.

References: McClean Coll. III, no. 8578, Pl. 299, no. 18, also cf. no. 32; B. M. C. (*Caria*), p. 238, nos. 82 seq. Pl. XXXVII.

After 408 B.C. when the city of Rhodes was founded, the new coinage that was introduced was, no doubt, inspired by the unrivalled masterpieces of Kimon at Syracuse, who used the full face or three-quarter heads which were a novelty at this period. The Rhodian die-engraver did not follow him slavishly, but asserted his individuality. The result is a worthy and characteristic rendering of the Sun God in his noon-day glory with rounded face and ample locks of hair blown back, suggesting his rapid course. The crown of rays which artists of the later age preferred is, on these earlier coins, merely hinted by a skillful adaptation of the locks of hair. The unradiate heads of coins similar to *a* come before the age of Alexander except the didrachms with magistrates' names at full length.³

5. *Phocis, ca. 371–357 B.C. AE (1 coin).*

Ob. Head of Athena facing slightly r., in three-crested helmet.

Re. Olive wreath (3 leaves visible), Φ in centre; perhaps should be Φ(Ω).

Reference: B. M. C. (*Central Greece*), p. 70, cf. no. 77.

In this period of Theban supremacy in Central Greece, bronze coins make their first appearance. From ca. 371–357 B.C. the Phocians were unwilling allies of Thebes during the Theban supremacy. The Phocian silver may have been driven out of circulation

¹ B. M. C. (*Thessaly*), Introduction, pp. xlix–l; Head, *Historia Numorum*, p. 328.

² B. M. C. (*Central Greece*), Introduction, p. lix.

³ B. M. C. (*Caria and the Islands*), Introduction, pp. cii–ciii, and p. cv.

by Locrian and Boeotian currency. This type with Athena facing may have been imitated from coins of Syracuse (tetradrachms),¹ as are also Locrian coins of this period. On the reverse of these coins the later form of Φ occurs for the first time.²

6. *Arcadia, Arcadian League struck at Megalopolis, ca. 363–330 B.C.* AE (1 coin).

Ob. Head of young Pan r. (with goat's horns).

Re. ☉ Syrinx.

Reference: B. M. C. (*Pelop.*), p. 174, nos. 62 ff.

Presumably, this is the festival or federal coinage struck for the Arcadian games which were held on Mt. Lycaeus, the Arcadian Olympus. The types, no doubt, are taken from the cult of Pan.³

7. *Salamis, ca. 350–318 B.C.* AE (1 coin).

Ob. Woman's head r. (Salamis).

Re. (Σ Λ Λ) Shield of Ajax.

Reference: B. M. C. (*Attica*), p. 116, nos. 1–6.

Salamis fell into the hands of Macedon in 318 B.C. Belonging to the dominion of Athens, it appears to have had the right to coin money from 339–318 B.C.⁴ There is a temple to Ajax on the island (Paus. 1, 35, 3). The festivals called *Αἰάντεια* were celebrated in honor of Ajax and these coins were doubtless issued on these occasions.⁵

8. *Locri Opuntii, ca. 338–300 B.C.* AE (2 coins).

Ob. Head of Athena r., wearing Corinthian helmet.

Re. Λ ΟΚΡΩΝ Bunch of grapes.

Reference: B. M. C. (*Central Greece*), p. 7, nos. 57–60, cf. Pl. II, no. 8.

After the battle of Chaeroneia in 338 B.C., Greece was reorganized under the hegemony of Macedon. It was said at the congress which assembled at Corinth that the separate autonomy of each individual city would be reaffirmed. But in Boeotia and Locris this is not borne out by the coins, for there are no longer names of separate cities, but the words ΒΟΙΩΤΩΝ and Λ ΟΚΡΩΝ .⁶

9. *Corinth.*

a. *400–300 B.C.* AE (1 coin).

Ob. Pegasus with pointed wing l.

Re. Trident upwards; in field r., amphora?

Reference: B. M. C. (*Corinth*), p. 56, cf. no. 462.

b. *300–243 B.C. (ca.)* AE (1 coin).

Ob. Head of Athena r., wearing Corinthian helmet.

Re. Pegasus, forepart with pointed wing to r. Below ♀ .

Reference: B. M. C. (*Corinth*), cf. p. 57, no. 476, Pl. XIV, no. 9.

¹ Head, B., *Coins of the Ancients*, Pl. XXVI, fig. 31.

² B. M. C. (*Central Greece*), Introduction, p. xxvi.

³ Head, B., *Historia Numorum*, p. 444.

⁴ Köhler, *Ath. Mitt.* IV, p. 250.

⁵ Head, B., *Historia Numorum*, p. 392.

⁶ B. M. C. (*Central Greece*), Introduction, p. xviii.

10. *Histiæa*, ca. 313–265 B.C. AE (1 coin).
 Ob. Woman's head r., wearing earring, necklace, and vine wreath; hair in sphendone.
 Re. ΙΕΤΙ Head and neck of bull, $\frac{3}{4}$ face r., with fillet (obscure), to l., bunch of grapes.
Reference: B. M. C. (*Central Greece*), p. 128, nos. 29–33, Pl. XXIV, no. 8.
11. *Megara*, 307–243 B.C. AE
 a. (2 coins.)
 Ob. Prow l, on it stands a tripod, above trident l.
 Re. ΜΕΓ Two dolphins swimming r., in circle, border of dots.
Reference: B. M. C. (*Attica*), p. 120, nos. 22–25, Pl. XXI, nos. 10 or 11.
 b. (2 coins.)
 Ob. (ΜΕΓΑ) Prow l.
 Re. Tripod between two dolphins upwards; border of dots.
Reference: B. M. C. (*Attica*), p. 120, no. 30, Pl. XXI, no. 12.
 c. (1 coin.)
 Ob. Prow l.
 Re. (Obliterated).
Reference: B. M. C. (*Attica*), Pl. XXI, nos. 12 or 13.
12. *Epidaurus*, 323–240 B.C. AE (1 coin).
 Ob. Head of Asklepius r., laureate.
 Re. Ε In laurel wreath.
Reference: B. M. C. (*Pelop.*), p. 157, nos. 16–17, cf. Pl. XXIX, no. 17 (without Γ).
13. *Macedonia*, Time of Alexander to 323 B.C. Ɱ Didrachma. Weight 4.50 gr. (1 coin).
 Ob. Head of Herakles in lion's skin r.
 Re. Zeus seated l, $\frac{1}{2}$ nude, holding eagle in r. hand and sceptre in l. (inscriptions illegible).
Reference: McClean Coll. no. 3483, Pl. 131, no. 1.
14. *Aegina*, 320–130 B.C. AE (1 coin).
 Ob. ΑΙΓΙ (inscription very vague). Prow r.
 Re. ΑΙΓΙ Rams head r.
References: B. M. C. (*Attica*), no. 228; Millbank, p. 54, c, Pl. IV, no. 7 (AITA).
15. *Achaean League*, ca. 280 B.C. AE (1 coin).
 Ob. Head of Zeus r., laureate.
 Re. Χ within laurel wreath.
Reference: B. M. C. (*Pelop.*), p. 1, no. 2.

This coin dates after the reorganization of the Achaean League when the federal mints issued a uniform coinage.¹

16. *Antigonos Gonatas*, 277–239 B.C. AE (2 coins).
 (Given within text of paper p. 254.)
17. *Aegae?*, *Aeolis*, *Asia Minor*. 3rd century. AE (1 coin).
 Ob. Head of Athena r., wearing crested Athenian helmet ornamented with pegasus or griffin.
 Re. ΑΙΓΑΕΟΝ (uncertain). Goat's head (obliterated).
Reference: B. M. C. (*Troas, Aeolis and Lesbos*), cf. Ɱ, p. 95, no. 1, Pl. XVIII, no. 1.

¹ Head, B., *Historia Numorum*, p. 416.

18. *Epirus Republic, 238–168 B.C.* AE (1 coin).

Ob. Head of Dione wearing laureate stephanos and veil. ΑΓ behind head.

Re. (ΑΠ)ΕΙ Tripod-lebes, all in laurel wreath.

ΡΩΤΑΝ

References: B. M. C. (*Thessaly*), Pl. XVII, no. 12, p. 91, no. 53; McClean Coll., Pl. 189, no. 13.19. *Dyrrachium, 229–100 B.C.* AE (1 coin).

Ob. Head of Dodonaean Zeus r., crowned with oak.

Re. ΦΙΑΩ Tripod-lebes, below ΔΥΡ, all in oak wreath.

ΤΑ

Reference: B. M. C. (*Thessaly*), p. 76, nos. 167–168; cf. Pl. XIV, no. 4, same type with different magistrate.

From 229–100 B.C. Dyrrachium was under Roman protection and still retained a considerable measure of autonomy. The names of the magistrates on the coins refer to mint officials who superintended the minting of the money or tested it when it was minted.¹

20. *Magnetes, ca. 197–146 B.C.* AE (1 coin).

Ob. Head of Zeus l., hair bound with a taenia.

Re. ΜΑΓΝΗ Above and below the prow of a ship r.

ΤΩΝ

References: McClean Coll., nos. 4641–4642; B. M. C. (*Thessaly*), p. 34, nos. 3–12, 13 (all with head r.).

In 196 B.C. Flamininus proclaimed the freedom of Magnetes and at once the city began to issue federal coinage.²

21. *Aenianes, Thessaly, 168–146 B.C.* AE (1 coin).

Ob. Head of Zeus r., laureate.

Re. ΑΙΝΙΑΝ(ΩΝ) around from r.; slinger (Phemius) discharging sling r., body full face, two javelins behind him on l.

References: Exact type not in B. M. C. (*Thessaly*) or McClean Coll.; cf. B. M. C. (*Thessaly*), Pl. II, no. 5, p. 12; McClean Coll. II, nos. 4553–4554, Pl. 171, no. 10. (Zeus head l., in these types.)

Aenianes did not begin to issue money until it obtained freedom from the Aetolian League which dissolved in 168 or 167 B.C. presumably.³

22. *Thessaly, Time of Hadrian.* AE (1 coin).

Ob. Bust of Achilles r., in close fitting crested helmet (ΑΧΙΑ); to r. ΑΕΥC.

Re. (ΘΕ)ÇCA ΩΝ Free horse r., trotting.

Reference: B. M. C. (*Thessaly*), p. 6, no. 69.

Some of these foreign cities belonged to the dominion of Athens, others were subject allies, and still others had merely commercial alliances. But whether there was a direct connection between Athens and these foreign cities or not, Athens was always a haven for foreigners. Among the metic and slave populations there were, no doubt, more foreigners than Athenians. There was probably no city in the ancient

¹ B. M. C. (*Thessaly*), Introduction, p. xi.² B. M. C. (*Thessaly*), Introduction, p. xxxi.³ B. M. C. (*Thessaly*), Introduction, pp. xxxi–xxxii.

Greek world that would have had as much foreign coinage filtering in as Athens. Though the numbers of foreign coins are not large for this first season's excavation, nevertheless, every campaign adds greater quantities and more varieties.

The coinage of Athens under Imperial Rome is a subject which has not yet been thoroughly worked out in any way. From the thirty series of silver money of the New Style known between 86 B.C. to the beginning of the Empire, there are only three¹ that can be attributed to the period of Augustus. Also, two of these contain only drachms and not tetradrachms, as in the past.²

There is a series of Roman money which has been said by some³ to have been struck at Athens on the occasion of the visit of Augustus in 19 B.C. If the Emperor even stopped at Athens in this year, it must have been only for a little time and it is mentioned in connection with his meeting with Vergil.⁴ Mattingly and Sydenham⁵ reject these conclusions and put the money, bearing the reverse IOVI OAY(M) with the temple of Zeus Olympius, among the coins which were struck in an uncertain mint in the orient, and place them between 19 and 15 B.C.⁶

In the Numismatic Museum in Athens there are only two pieces of this series, two denarii, one with the capricorn and the other with the temple of Zeus Olympius. There is nothing about them which would show that they are superior in style or even different from the ordinary Roman money of the time. The grounds for attributing these to Athens and for identifying the building with the temple of Zeus are very hypothetical.⁷

From the evidence of the coins struck with the name of Athens (ΑΘΗ or ΑΘΗΝΑΙΩΝ) it is necessary to conclude that the right of striking money was denied the Athenians about the beginning of the Empire. Augustus did not seem content to prohibit the Athenians from selling their rights of citizenship in Athens, but went further in withdrawing their privileges of a free city by refusing them the right to strike money. But it is possible that this punishment was inflicted upon them only at the time of a revolt which is placed at the end of the reign of Augustus.⁸

After the time of Augustus, the Athenians struck only bronze money and there is no evidence that will enable us to place this with any certitude before the time of Hadrian, 117 to 138 A.D. However, when they were again granted the privilege of coining money, they were accorded an exceptional favor; their money did not carry the head of the Emperor,⁹ as most provincial coinage did during the Imperial times,

¹ Demochares-Pammenes, Dionysios-Demostrates, and Architimos-Pammenes.

² Graindor, Paul, *Athènes sous Auguste*, pp. 37-38.

³ Gabrici, *Studi e materiali di archaeologia e numismatica* II, 1902, pp. 163 ff.

⁴ Graindor, *op. cit.* p. 37.

⁵ Mattingly & Sydenham, *Roman Imperial Coinage* I, 1923, p. 64, no. 56.

⁶ Graindor, *op. cit.* p. 37, note 1.

⁷ Graindor, *op. cit.* p. 37.

⁸ Graindor, *op. cit.* p. 38.

⁹ Graindor, *Athènes de Tibère à Trajan*, p. 132, note 3.

but still represented the head of Athena, the patron Goddess of Athens, which had sealed the coinage of Athens almost since its first beginning.

If one can not assign the beginnings of this Athenian Imperial coinage to a date before the second century of our era, what was the monetary situation in Athens for over a century and a quarter? And one may rightly ask, for here is a very moot problem. It is a simple solution to say that the city used Roman Imperial coinage, but I wish to point out this problem as it confronts us in the excavation of the Agora. Every year there is found an abundance of New Style bronze coinage and large numbers of Athenian Imperial coins, but in the interval between the two during the first century, when one would expect the use of Roman Imperial coinage, we find only an occasional coin here and there. In fact this is the only period which does not have a fair representation of coins. Indeed, a city the size of Athens had need of considerable coinage over a period of a century and a quarter. Is it to be supposed that the New Style coinage was sufficient to continue in circulation throughout this long period, or is it possible to place some of the issues of Athenian Imperial money in the first century A.D.? At present the evidence is not sufficient to assure one that this is the solution for the lack of coinage in the first century of our era.

Since the Athenian coinage of the Roman period did not carry the head of the Emperor, as in most provincial cities, it makes the problem of classifying it chronologically most difficult. To arrange this abundance of coinage according to die-sequences would furnish a chronological ordering but it would not elucidate very much the specific dating of the series.

Svoronos has arranged this long series according to the subjects on the reverse, but this gives no clue to dating whatsoever. From a hoard of these Imperial Athenian coins found at Eleusis, he drew the conclusion that this money was struck first under Hadrian and then not again until the time of Gordianus III.¹ But actually, the styles of the heads of Athena on the coins themselves show that there were many striking with a long deterioration of style and diminution of sizes. No doubt, they began under Hadrian, perhaps ceasing for a time under Severus, but soon resumed again and extended through the time of Gordianus to the reign of Gallienus who was a friend of the Athenians.²

If one assumes, then, that the oldest pieces of this money belonged to the first half of the second century, it is necessary to place the series of coins with the large flans, which it will be noticed have been most rubbed, as the earliest of this long series.³ An examination of the types of the heads of Athena in this group shows that there are two distinct variations of style. One group wears the Corinthian helmet and the other the Attic, which will be discussed later. The heads with the Corinthian helmets show

¹ *Ath. Mitt.*, Band 56, 1931. Pick, Behrendt, *Die "Promachos" des Pheidias und die Kerameikos-Lampen*, p. 60.

² *Ath. Mitt.*, *loc. cit.* pp. 60-61.

³ *Ath. Mitt.*, *loc. cit.* p. 61.

specific characteristics: first, they recall the form and style of the helmet of the New Style coinage; secondly the bowl of the helmet is large and slightly ovoid with a sweep of the narrow horse hair crest from the top of the bowl to the neck line. They are beautiful heads with delicate features. The hair is loosely waved beneath the helmet and hangs down the back in loose locks.¹ A variation of this group wearing the Corinthian helmet is represented by the bust of Athena, a charming, youthful Goddess with shoulders draped. The size of the head has diminished and the helmet is set more upright upon it. The bowl of the helmet is smaller and rounder and is crowned with a shorter and narrower crest worn high on the bowl. The hair is loosely waved beneath the helmet and is drawn back in a loose roll in the neck. Often we find that this type is surrounded by an olive wreath.²

Judging from the larger size of the flan, the darker tint in the metal, the rubbed condition of the coins, and the superior technique of the type, we must place the group of coins with the bust of Athena wearing the crested Attic helmet in this general period. In spite of the fact that most of the coins of this group are so rubbed that the details are uncertain, one can see that it is a lovely bust and of quite superior technique. M. Pick is inclined to suppose, in a study of these coins in comparison with lamps found in the Cerameicus, that when this Athenian Imperial coinage was initiated there was a competition to determine the style of the coin type.³ One type, that with the Corinthian helmet, drew its inspiration from the statue of Athena Promachos, while the other with the Attic helmet copied the Athena Parthenos of Pheidias. The representation of Athena with the Corinthian helmet appears to have found the greatest approbation, as it continues unremittingly throughout the period of Athenian Imperial coinage. While the type with the Attic helmet soon ceased and did not reappear until a somewhat later period.⁴ Even in the small fractional issues there seems to have been this struggle to determine the types and here, too, the Corinthian helmet seems to have prevailed.

The coins of this period soon changed to a smaller module of somewhat heavier fabric made of a lighter colored metal. In a general way it is possible to follow the changes of style which occurred throughout the period. In the second century the hair begins by being loose and soft over the forehead and in the back; then the back hair is turned into a soft roll which gradually becomes more twisted; until in the third century there is a hard roll with even the hair over the forehead changed from loose locks to a hard twist.⁵ The crest of the helmet, too, is altered. It began with a simple, narrow horse hair crest formed by parallel lines, which sweep over the bowl

¹ Svoronos, *Trésor*, cf. Pl. 82, nos. 1 and 29; Pl. 83, nos. 15 and 29; Pl. 86, nos. 2-3.

² Svoronos, *op. cit.*, cf. Pl. 82, no. 4; Pl. 83, nos. 31-32; Pl. 85, nos. 10, 12; Pl. 86, no. 1; Pl. 87, no. 15; Pl. 88, nos. 55-56.

³ *Ath. Mitt.*, *loc. cit.* p. 61.

⁴ *Ath. Mitt.*, *loc. cit.* p. 61.

⁵ *Ath. Mitt.*, *loc. cit.* p. 63.

of the helmet ending in simple strands in the nape of the neck. Later this crest broadens, becoming more elaborate with a fan-like flare from a central point on the bowl of the helmet, and often ends in a more sophisticated double curve in the back of the neck.

In the third century it appears that the helmets change in type and in elaboration. The use of the Attic helmet is again found with a variety of shapes of visors, with combinations of types with elaborately decorated bowls, and with the more frequent use of the neck guard. We also find high double crests on Attic helmets, along with broad sweeping single crests. It seems to be at this time that the Athena head which is turned to the left comes into use.

For the sake of convenience it has seemed best to present the specimens of this coinage found in the Agora in 1931 according to the subjects of the reverse. However, the Athena heads on the obverse of the coins found in the Agora can first be divided into 8 classes.

- I a. Head of Athena r., wearing crested Corinthian helmet, narrow horseshair crest with long sweep over bowl; hair in loose locks over forehead and in back of neck. Youthful Goddess—superior technique.
- I b. Bust of Athena r., same as I a., but has soft drapery at neck. Superior technique.
- II a. Bust of Athena r., wearing double crested Attic helmet, close fitting, hair loose in back. Details of helmet indistinct, but seems to be an owl on the neck guard, wears necklace and aegis. Superior technique. This head gives one a nobler and in some respects a truer representation of the Parthenon statue than the head on the New Style silver coinage.
- II b. Head of Athena r., wearing crested Attic helmet, close fitting with visor and olive leaves, neck guard; hair shows beneath helmet, wears necklace Superior technique. Occurs only on fractional issue.
- III a. Head of Athena l., wearing crested Corinthian helmet, narrow sweeping crest. Occurs only on fractional issue.
- III b. Bust of Athena r., wearing crested Corinthian helmet, narrow crest sweeps over bowl and ends in simple strands at neck; hair in loose locks over forehead and soft roll at neck; shoulders draped.
- IV a. Head of Athena r., wearing crested Corinthian helmet, broad fan-like crest spreads from central point on bowl; hair loose over brow and in back.
- IV b. Bust of Athena r., same as IV a., but shoulders draped.
- V a. Head of Athena r., wearing crested Corinthian helmet, broad crest spreads fan-like from central point on bowl; hair in soft locks on brow and loose roll in back.
- V b. Bust of Athena r., same as V a., with drapery on shoulders.
- VI. Bust of Athena r., wearing crested Corinthian helmet, broad crest spreads fan-like from central point on bowl; hair in soft roll over brow and in back; shoulders draped.
- VII a. Head of Athena r., same as VI., but hair in hard twisted roll over brow and in back; no drapery.
- VII b. Bust of Athena l., same as VII a.
- VIII. Bust of Athena r., wearing crested Attic helmet with visor, ear-guards, and long neck guard; shoulders draped.

Classes I a and I b and II a and II b are coins with large modules made of dark metal. Their rubbed condition and superior technique designate them as the earliest

groups of these Athenian Imperial coins. The other classes are made on a smaller flan and of lighter metal. Classes IIIa and IIIb are transitional types; while classes IVa and IVb and Va and Vb seem to belong to the last half of the second century. Class VI is transitional to the third century types of classes VIIa and VIIb and VIII.

The representations on the reverse of these Athenian Imperial coins cover a wide range of artistic, monumental, mythological, and symbolical subjects. This study of them has been divided into those categories.

A. Copies of statues represented on Athenian Imperial coins found in the Agora.

1. *Athena Parthenos of Pheidias.*

<i>Obverse classes</i>	<i>Reverse</i>	<i>References</i>	<i>Number</i>	<i>Remarks¹</i>
I a. and b. II a. V a. VII b.	ΑΘΗΝΑΙΩΝ Athena Parthenos facing l., holding Nike; armed with helmet, spear, and shield.	Svoronos, Pl. 82, nos 1-4, 13, 29, 35, 41; Pl. 83, nos. 10, 11, 15.	7	Pausanias 1, 24, 7. This is a copy of the Chryselephantine statue of Pheidias in the Parthenon.

2. *Athena Archegetis.*

VII a.	ΑΘΗΝΑΙΩΝ Athena standing l., wears helmet and long chiton; owl in r. hand extended.	Svoronos, Pl. 83, no. 39.	2	May be Athena Archegetis on Acropolis or Athena Paeonia near Cerameicus. Pausanias 1, 2, 5.
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3. *Athena from the Pediment of the Parthenon.*

I a. and b.	ΑΘΗΝΑΙΩΝ Athena advancing r., head l., shield and spear in l., r. arm extended back.	Svoronos, Pl. 85, nos. 9, 12.	3	Pausanias 1, 24, 5; cf. running figure on Madrid puteal—traced to E. Pediment of Parthenon. ²
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4. *Athena Promachos on Acropolis.*

I a. V a.	ΑΘΗΝΑΙΩΝ Athena standing facing, head l., armed with helmet, spear, and shield.	Svoronos, Pl. 86, nos. 2, 11.	4	Pausanias 1, 28, 2 Lange identified this as the Promachos, and says turn of head like that of bronze statue.
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5. *Chryselephantine statue of Zeus set up by Hadrian in Olympieion.*

V a.	ΑΘΗΝΑΙΩΝ Zeus seated l., on throne, holding spear in l. hand and eagle in outstretched r.	Svoronos, not exact type given, cf. Pl. 92, no. 3.	1	Pausanias 1, 18, 6. Copy of colossal Zeus in Olympieion, which in turn was copied from Zeus of Pheidias at Olympia.
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¹ The references to Pausanias and works of art have been taken from Imhoof-Gardner, *Numismatic Commentary on Pausanias*, unless otherwise noted.

² Most recently discussed by R. Carpenter in *Hesperia*, II, 1, 1933, p. 40.

6. *Asclepius, cult statue in Asclepieion at Athens.*

<i>Obverse classes</i>	<i>Reverse</i>	<i>References</i>	<i>Number</i>	<i>Remarks</i>
III a. and b.	ΑΘΗΝΑΙΩΝ Asclepius standing facing, head l., draped in himation which falls over l. shoulder.	Svoronos, Pl. 98, nos. 8, 14.	2	Pausanias 1, 21, 4. Copy of the cult statue in the Asclepieion at Athens.

7. *Kore, one of the figures from a group of Praxiteles.*

I b.	ΑΘΗΝΑΙΩΝ Kore advancing r., holding in each hand a lowered torch.	Svoronos, Pl. 93, cf. no. 44.	1	In the National Museum at Athens is a group of Demeter, Kore, and Iakchos said to be by Praxiteles.
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8. *Apollo with lyre.*

I b.	ΑΘΗΝΑΙΩΝ Apollo standing facing, head l., wears long chiton with diplōis, holds patera in r. hand, lyre l.	Svoronos, Pl. 93, no. 1.	1	Has not been identified with any statue.
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B. Ancient Monuments represented on Athenian Imperial coins found in the Agora.1. *Altar of Zeus near the Erechtheum.*

I b.	ΑΘΗ in exergue. Altar of Zeus on which stands bucranion between 2 vases, olive branches on either side.	Svoronos, Pl. 87, no. 42.	1	There was known to be an altar of Zeus on the Acropolis near the Erechtheum.
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2. *Acropolis from the West.*

I a.	ΑΘΗΝΑΙΩΝ Acropolis from w., on top are Parthenon, Propylaea, and statue of Athena Promachos; a flight of steps leads to the Propylaea; in side of rock is cave of Pan.	Svoronos, Pl. 98, no. 22.	1	From prominence of steps, infer type was to commemorate the paving of staircase with white marble. ¹
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¹ Lange, K., *Arch. Zeit.*, N. F. XIV, p. 199 has made this suggestion. Judeich, Walther, *Topographie von Athen*, 2nd edition, p. 215, note 2. Unfortunately, we know only the possible outside limits of this rebuilding in marble of the steps leading to the Propylaea. They can not be earlier than the Agrippa monument which was constructed in 27 B.C. nor later than the coins which were struck in the 1st half of the 2nd century to commemorate the erection and completion of this project. An inscription *I.G.* III, 1284 F which mentions the progress of the construction of the steps is dated in the time of Claudius. It has led Grainger and others to suppose that this was the date for beginning the reconstruction. No doubt, this is correct, but if we accept the fact that the Athenian Imperial Coinage did not begin before the reign of Hadrian, it is necessary to suppose that the project was completed somewhere about his time and that the coins were struck for this occasion. If the marble stairway was completed before the beginning of the 2nd century and the coins struck to commemorate this event, then the whole group of coins with large modules, dark metal, thin fabric, and superior technique must be put back in the first century. The other alternative is that these coins were not struck on this occasion, but in this event there is no explanation for the representation of this type.

C. Mythological Subjects represented on Athenian Imperial coins found in the Agora.

1. *Contest of Athena and Poseidon.*

<i>Obverse classes</i>	<i>Reverse</i>	<i>References</i>	<i>Number</i>	<i>Remarks</i>
Head of Athena r., wears Corinthian helmet. Details obscure.	(ΑΘΗΝΑΙΩΝ) Contest of Athena r., Poseidon l., with owl in olive tree between them. Coiled snake on tree hostile to Poseidon.	Svoronos, Pl. 89, cf. no. 13.	1	Pausanias 1, 24, 3 and 5. Represents Athena producing the Olive and Poseidon the waves. Subject of W. Pediment of Parthenon may be source.

2. *Demeter in winged chariot drawn by serpents.*

I a.	ΑΘΗΝΑΙΩΝ Demeter standing, in car drawn by serpents, going l., wears long chiton; holds wheat and a torch.	Svoronos, Pl. 94, no. 23.	1	This may have been symbolic in the cult of Demeter or reminiscent of her trip to the Underworld.
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3. *Triptolemos in winged chariot drawn by serpents.*

I b.	ΑΘΗ Triptolemos seated l., in winged car drawn by serpents.	Svoronos, Pl. 94, nos. 13, 42.	3	Pausanias 1, 38, 6. May be connected with cult in the temple of Triptolemos at Eleusis.
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4. *Theseus and the Minotaur.*

IV b.	ΑΘΗΝΑΙΩΝ Theseus on l., attacking Minotaur who has fallen. Theseus holds club in r. hand.	Svoronos, Pl. 96, no. 14.	1	Pausanias 1, 24, 1. On the Acropolis is a representation of the fight of Theseus and Minotaur.
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5. *Theseus alone.*

VI.	ΑΘΗΝΑΙΩΝ Theseus advancing l., nude, r. hand raised with lash?	Svoronos, Pl. 96, cf. no. 23.	1	Theseus attacking Minotaur who is not represented in scene.
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D. Historical Events symbolized on Athenian Imperial coins found in the Agora.

1. *Agonistic Table represented on coins struck for Hadrianeia.*

I b.	ΑΘΗΝΑΙΩΝ Agonistic table on which is bust of Athena r., between owl r., wreath l., amphora beneath table.	Svoronos, Pl. 88, no. 58; Pl. 91, nos. 1, 9.	3	Pausanias 1, 18, 9. Hadrian builds gymnasium at Athens and institutes Games. Similar coins with ΑΔΡΙΑΝΕΙΑ on table prove this attribution. ¹
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¹ There are coins with the representation of the Agonistic table that have other legends inscribed on the table, which would signify that they were struck for other Games than the Hadrianeia.

2. *Themistokles standing on a galley.*

<i>Obverse classes</i>	<i>Reverse</i>	<i>References</i>	<i>Number</i>	<i>Remarks</i>
I b.	ΑΘΗΝΑΙΩΝ Themistokles in military dress standing on galley to r., carrying wreath and trophy; on prow sits owl, at stern a serpent.	Svoronos, Pl. 97, no. 17.	1	Pausanias 1, 36, 1. In Persian sea-fight serpent appeared on ship. Victory won by Themistokles, trophy placed in sanctuary of Artemis at Salamis.

E. Symbolical Representations on Athenian Imperial coins found in the Agora.1. *Athena and the olive tree.*

II.	ΑΘΗΝΑΙΩΝ Athena standing facing, head l., armed with helmet, spear, and shield; olive tree l., with snake coiled on it.	Svoronos, Pl. 87, nos. 20, 23.	2	May be part of group which would include Poseidon, snake looks l., to him.
V a.				

2. *Athena seated.*

V a.	ΑΘΗΝΑΙΩΝ Athena seated l., wears helmet, long chiton and aegis with peplos over knees, holds patera or Nike in r. hand; spear and shield beside her.	Svoronos, Pl. 87, no. 33; Pl. 88, no. 3.	2	May be copies of statues not identified.
III b.				

3. *Olive tree with owl and amphora.*

IV a.	ΑΘΗΝΑΙΩΝ in exergue.	Svoronos, Pl. 90, nos. 1, 7.	2	Pausanias 1, 27, 2. Olive tree in the Temple of Athena Polias.
VIII.	Olive tree between amphora l., owl r.			

4. *Owl on upright amphora.*

I b.	ΑΘΗ Small owl sitting on upright amphora.	Svoronos, Pl. 90, nos. 35, 40.	2	Prominence of the amphora would suggest Panathenaic issue.
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5. *Nike with wreath or garland.*

IV a.	ΑΘΗΝΑΙΩΝ Nike in motion to r. or l., holds garland or wreath.	Svoronos, Pl. 96, nos. 42, 45, 47.	4	Only fractional issues.
V a.				

6. *Prow with owl.*

Head of Athena l., wears crested Corinthian helmet. (Details indistinct.)	ΑΘΗ Prow of ship r., with owl on end.	Svoronos, Pl. 97, no. 43.	1	Fractional issue.
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7. *Serpent.*

<i>Obverse classes</i>	<i>Reverse</i>	<i>References</i>	<i>Number</i>	<i>Remarks</i>
I b.	ΑΘΗ Coiled serpent ready to spring.	Svoronos, Pl. 98, no. 17.	1	Fractional issue.

8. *Bucranion.*

I a. and b. V a. and b. VI.	ΑΘΗΝΑΙΩΝ Bucranion bound with a fillet.	Svoronos, Pl. 99, nos. 7, 8, 11, 19, 26.	5	Significance unknown.
Head of Theseus r., bareheaded.	ΑΘΗ Bucranion.	Svoronos, Pl. 99, no. 42.	2	Fractional issue.

9. *Owl.*

I a. and b. II b.	ΑΘΗ Owl to r., or l., sometimes olive branch in field. Various arrangements.	Svoronos, Pl. 88, nos. 23, 32, 38, 39, 40, 46, 50, 51, 52, 54.	13	Fractional issues.
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It has seemed appropriate in this preliminary study of the coins from the Agora to concentrate attention on the history of Athenian coinage. Since the excavations are being conducted in the heart of the city of Athens, it will always be the Athenian coins with their chronology and problems that will be most abundant and important to the excavation of the site. There are many phases in the chronology that are still vague and unsettled, but it is the hope, as the excavations progress, that more evidence will be brought forth to elucidate, if not definitely settle, the chronology which is now only tentative in a number of periods. The coinage of Athens is as unique in the histories of coinage as the drama or sculpture of the Athenians. A dull-witted people could never have used or invented such a coinage and the study of it only adds to the versatility of their genius.

JOSEPHINE P. SHEAR

Class	Obverse	Reverse	Symbol	Reference
I α	Head of Athena r., wearing a late Attic close fitting helmet with hinged visor, set low on forehead. Long neck guard. Behind on bowl aplustre.	A Θ Zeus naked, standing r., E holding thunderbolt in lowered r., and l. arm extended.	In field r., owl.	Svoronos, Pl. 81, nos. 557-558 B. M. C.
I β	Head of Athena r., wearing crested Corinthian helmet. Border of dots.	Same.	Same.	Svoronos, Pl. 81, nos. 559-560 B. M. C.
I γ	Same.	Same.	In field r., spear of wheat.	Svoronos, Pl. 81, nos. 561-562
I δ	Same.	Same.	In field r., prow.	Svoronos, Pl. 81, nos. 563-564 B. M. C. p. 81, nos. 557-558
I ε	Head of Athena Parthenos to r.	A Same. Θ E All in wreath of olive.	No symbol.	Svoronos, Pl. 80, nos. 565-566
II α	Head of Athena r., wearing crested Corinthian helmet. Border of dots.	A Θ Zeus naked, hurling E thunderbolt r., l. arm extended. Lower r. eagle.	In field l., wheat, single spear.	Svoronos, Pl. 81, nos. 567-568 B. M. C. p. 80, no. 541 Svoronos, Pl. 73, no. 1
II β	Same.	A Θ Same. E	In field r., above eagle, star.	Svoronos, Pl. 81, nos. 569-570 B. M. C. p. 80, no. 542 Bellinger, <i>Num. N. and</i>
II γ	Same.	AE Same. Θ	In field r., cornucopia.	Not in Svoronos. B. M. C. p. 80, no. 543
II δ	Same.	AE Same. Θ	In field l., kerkh-nos, in field r., cornucopia.	Svoronos, Pl. 81, nos. 571-572 B. M. C. p. 80, no. 544 Bellinger, <i>Num. N. and</i>
II ε	Same.	A Θ Same. E	No symbol.	Svoronos, Pl. 72, no. 2
II ζ	Same.	A E Same. Θ	In field l., amphora, in field r., cornucopia.	Svoronos, Pl. 81, nos. 573-574
II η	Same.	Θ Same. A E	In field l., amphora.	Svoronos, Pl. 81, nos. 575-576 B. M. C. p. 80, nos. 545-546 Bellinger, <i>Num. N. and</i>
II θ	Same.	Θ Same. A E	In field l., one pileus.	Svoronos, Pl. 81, nos. 577-578

CHRONOLOGICAL TABLE OF COINS

	References	Specimen in Agora	Evidence for dating compared with silver or other b
owl.	Svoronos, Pl. 81, nos. 1-3. Not in B. M. C.	None.	This type of late Attic helmet is similar to that on the middle of 3rd century. Compare silver coins Svoronos, Pl. 23 also compare bronze in Agora. Group H, nos. 4-
	Svoronos, Pl. 81, nos. 4-6. Not in B. M. C.	1 2 others probable but not certain.	Since the reverse type is the same as I α, it undoubtedly follows in sequence.
spear t.	Svoronos, Pl. 81, nos. 7-8.	None.	On silver issue with 2 monograms  compare Svoronos nos. 6-32.
crow.	Svoronos, Pl. 81, nos. 9-16. B. M. C. p. 81, nos. 557-9, Pl. XIV, no. 7.	1 2 others probable but not certain.	Prow occurs on silver series of Karaich-Ergokle. Cf. Svoronos nos. 16-28. This type may be meant for the statue of Leochaers.
bol.	Svoronos, Pl. 80, nos. 22-24.	None.	There is nothing about this issue to connect it with a symbol except possibly the fact that it has no symbol, which may be compared with Diotimos-Magas, III Period, N. S. (after 187 b.c.) or Kleophanes, III Period, 4th group, N. S. (146-100 b.c. ca.). Cf. Svoronos, Pl. 52, nos. 18-29 and Pl. 65, nos. 1-18.
heat, ar.	Svoronos, Pl. 81, nos. 28-29. B. M. C. p. 80, no. 541. Svoronos, Pl. 73, no. 13.	None.	On silver issue with 2 monograms  compare Svoronos nos. 6-32.
above r.	Svoronos, Pl. 81, nos. 17 and 18. B. M. C. p. 80, no. 542. Bellinger, <i>Num. N. and M.</i> no. 42, p. 1.	None.	No silver series with symbol of star alone.
ornu-	Not in Svoronos. B. M. C. p. 80, no. 543.	None.	On silver issue with 2 abbreviated names Ammo-Dio, II Period, 196-187 b.c. Compare Svoronos, Pl. 39, nos. 11-20.
erch- d r., a.	Svoronos, Pl. 81, nos. 18? 19, 22-24. B. M. C. p. 80, no. 544. Bellinger, <i>Num. N. and M.</i> no. 42, p. 2.	5 1 probable but not certain.	These are both symbols which occur singly on the issue with 2 abbreviated names Ammo-Dio, II Period, N. S., Kerchnos cf. Svoronos, Pl. 39, nos. 6-10. Cornucopia cf. Svoronos, Pl. 39, nos. 11-20.
bl.	Svoronos, Pl. 72, no. 25.	None.	The fact that it has no symbol may connect it with Diotimos (after 187 b.c.) III Period, N. S. or Theodotos-Kleophanes (146-100 b.c. ca.) III Period, 4th group, N. S. Cf. Svoronos, Pl. 52, nos. 18-29 nos. 1-18.
l., field pia.	Svoronos, Pl. 81, nos. 20? 21.	None.	This symbol does not occur on silver series.
l., r.	Svoronos, Pl. 81, nos. 25-27. B. M. C. p. 80, nos. 545-547. Bellinger, <i>Num. N. and M.</i> no. 42, p. 2, IV.	None.	This symbol does not occur on silver series.
one	Svoronos, Pl. 81, nos. 30-31.	None.	The single pileus does not occur on silver series. This probably occurred before II ε because it seems that the one pileus was unsatisfactory they modified the old type omitting the eagle to make room for other pileus and the eagle was never replaced.
			This symbol occurs on silver issue with 2 monograms 

L TABLE OF COINS OF GROUP J

Compared with silver or other bronzes	Belleriger	Head (after Sundwall) 2nd Edition
<p>set is similar to that on the coins of the silver coins Svoronos, Pl. 23, nos. 1-45, in Agora. Group H, nos. 4-10.</p>		
<p>same as I α, it undoubtedly follows it in sequence.</p>		
<p>grams  compare Svoronos, Pl. 34, nos. 6-32.</p>	<p><i>Num. N. and M.</i> no. 42, p. 5, no. 1. Also p. 6: Useless to connect symbol of spear of wheat with single silver issue.</p>	<p>Dates silver issue with these Monograms 229-197 B.C. <i>H. N.</i> p. 381.</p>
<p>of Karaich-Ergokle. Cf. Svoronos, Pl. 54, γ be meant for the statue of Zeus by Leochares.</p>	<p><i>Num. N. and M.</i> no. 42, pp. 8 and 9. Places before Mithradates issue, 88 B.C.</p>	<p>Dates silver series 172 B.C. (ca.). <i>H. N.</i> p. 382.</p>
<p>issue to connect it with a silver series it has no symbol, which may connect it with the period, N. S. (after 187 B.C.) or Theodotos-Kleopatra, N. S. (146-100 B.C. ca.). Cf. Svoronos, Pl. 65, nos. 1-18.</p>		<p><i>H. N.</i> p. 382, dates silver series Diotimos-Magas ca. 150 B.C. <i>H. N.</i> p. 383 silver series of Theodotos-Kleophanes ca. 153 B.C.</p>
<p>grams  compare Svoronos, Pl. 34, nos. 6-32.</p>	<p>See note on I γ.</p>	<p>Same as I γ.</p>
<p>with symbol of star alone.</p>	<p><i>Num. N. and M.</i> no. 42, p. 1. Believes earliest coin in his hoard. Placing of letters on reverse is peculiar to these pieces?</p>	
<p>abbreviated names Ammo-Dio, II Period, N. S., compare Svoronos, Pl. 39, nos. 11-20.</p>		<p>Dates silver issue with 2 abbreviated names Ammo-Dio 196-187 B.C. <i>H. N.</i> p. 382.</p>
<p>which occur singly on the issues of silver Ammo-Dio, II Period, N. S., 196-187 B.C. nos. 6-10. Cornucopia cf. Svoronos, Pl. 39, nos. 11-20.</p>	<p><i>Num. N. and M.</i> no. 42, p. 5. The kerchnos which occurs on his Type III (p. 2) he says is found on silver series with  in conjunction with βάρυτος. But this only accounts for 1 symbol.</p>	<p>Same as II γ.</p>
<p>symbol may connect it with Diotimos-Magas, N. S. or Theodotos-Kleophanes (146-100 B.C.) Cf. Svoronos, Pl. 52, nos. 18-29 and Pl. 65, nos. 1-18.</p>		<p><i>H. N.</i> p. 382, dates silver Diotimos-Magas ca. 150 B.C. <i>H. N.</i> p. 383, dates silver series of Theodotos-Kleophanes ca. 153 B.C.</p>
<p>does not occur on silver series.</p>		
<p>does not occur on silver series.</p>		
<p>does not occur on silver series. This probably belongs to the one pileus was unsatisfactory, so substituting the eagle to make room for the pileus the eagle was never replaced.</p>	<p><i>Num. N. and M.</i> no. 42, pp. 3 and 4, dates before II ε, thus before 110-100 B.C.</p>	
<p>issue with 2 monograms  229-</p>		

(after Sundwall) 2nd Edition	Svoronos	Shear
		I believe this is the 1st bronze issue of the New Style. 229—197 B.C.
		2nd bronze issue of New Style. 229—197 B.C.
Silver issue with these Monograms 229—197 B.C. <i>H. N.</i> p. 381.	Same as Head. 1st Period of New Style.	The only series with single spear of wheat to which it could be connected. Others have 2 spears. 229—197 B.C.
Silver series 172 B.C. (ca.). <i>H. N.</i> p. 383.	Dates silver series III Period, 2nd group of New Style (after 187 B.C.).	Ca. 172 B.C.
382, dates silver series Diotimos-150 B.C. <i>H. N.</i> p. 383 silver series Eodotos-Kleophanes ca. 153 B.C.		187—110 B.C.
Same as I γ.	Dates this with silver series of Kointos-Charmost-(ratos), IV Period, N. S., see Pl. 73, nos. 9, 10, 13. But this silver series has 2 spears of wheat.	Only silver series with single spear of wheat. 229—197 B.C.
		Probably 229—197 B.C. Not certain.
Silver issue with 2 abbreviated names Dio 196—187 B.C. <i>H. N.</i> p. 381.	Dates silver issue same as Head.	196—187 B.C.
Same as II γ.	Dates this series with that of Mnaseas-Nestor, IV Period, N. S., Pl. 75, nos. 12 and 13. Cf. nos. 1—10. But this only accounts for the kerchnos, for there is no cornucopia on this silver series.	196—187 B.C.
382, dates silver Diotimos-Magas B.C. <i>H. N.</i> p. 383, dates silver Eodotos-Kleophanes ca. 153 B.C.	IV New Style series of 2 names, Herakleon-Herakleides, Pl. 72, no. 25. Cf. no. 24.	187—110 B.C.
		?
		?
		Before 110—100 B.C.

II η	Same.	Θ Same. A E	In field l., amphora.	Svoronos, Pl. 81, nos. B. M. C. p. 80, nos. 54 Bellinger, <i>Num. N. and</i>
II θ	Same.	Θ Same. A E	In field l., one pileus.	Svoronos, Pl. 81, nos.
II ι	Same.	A Θ E Same, without eagle.	In field r. and l., pilei of Dioscuri.	Svoronos, Pl. 81, nos. B. M. C. p. 80, nos. 54 no. 4. Bellinger, <i>Num. N. and</i>
II κ	Same.	A E Same. Θ	In field r., star between crescents.	Svoronos, Pl. 71, nos. 45-48. B. M. C. p. 81, nos. 55 no. 5.
II λ	Same.	A Θ Same. E	In field l., filleted Thyrsos.	Svoronos, Pl. 70, no. 40-44. B. M. C. p. 80, no. 548 Bellinger, <i>Num. N. and</i> no. XI.
II μ	Head of Athena Parthenos r., border of dots.	A Θ Same, but with eagle on E l. arm extended.	In field l., spear of wheat.	Svoronos, Pl. 80, nos. no. 12. B. M. C. p. 81, no. 556. Bellinger, <i>Num. N. and</i> no. G.
II ν	Head of Athena r., wearing crested Corinthian helmet. Border of dots.	A Θ Same, eagle on l. arm E extended?	In field l., <i>βάζυος</i> .	Svoronos, Pl. 77, nos. nos. 49-52. B. M. C. p. 81, no. 551
II ξ	Same.	Zeus naked, hurling thunder- bolt r., l. arm extended.	Symbols illegible.	Cf. Svoronos, Pl. 81, no.
III α	Head of Athena Parthenos r., border of dots.	A Owl r., wings closed, Θ E standing on amphora which lies on its side. All in olive wreath.	In field r., club and bow of Hera- cles over which hangs lion's skin.	Not in Svoronos. B. M. C. p. 78, no. 531.
III β	Same.	A Θ E Same.	In field r., tripod.	Svoronos, Pl. 72, no. Pl. 79, nos. 32-33. Not in B. M. C.
III γ	Same.	Same.	In field r., pilei of Dioscuri.	Svoronos, Pl. 79, nos. 8 B. M. C. p. 78, no. 523 Bellinger, <i>Num. N. and</i> no. A.
III δ	Same.	Same.	No symbol.	Svoronos, Pl. 69, no. 21; B. M. C. p. 79, no. 532.
III ϵ (1)	Same.	Same.	In field r., 2 spears of wheat.	Svoronos, (1) Pl. 73, no. nos. 22-24, 34? B. M. C. p. 78, no. 524.
III ϵ (2)	Head of Athena r., wearing crested Corinthian helmet.	Same.	Same.	
III ζ	Head of Athena Parthenos r.	Same.	In field r., serpent.	Svoronos, Pl. 76, no. 36-37.

	Svoronos, Pl. 81, nos. 25-27. B. M. C. p. 80, nos. 545-547. Bellinger, <i>Num. N. and M.</i> no. 42, p. 2, IV.	None.	This symbol does not occur on silver series.
one	Svoronos, Pl. 81, nos. 30-31.	None.	The single pileus does not occur on silver series. This probably before II ϵ because it seems that the one pileus was unsatisfactory they modified the old type omitting the eagle to make room for other pileus and the eagle was never replaced.
and I, scuri.	Svoronos, Pl. 81, nos. 33-39. B. M. C. p. 80, nos. 549-550, Pl. XIV, no. 4. Bellinger, <i>Num. N. and M.</i> no. 42, p. 3, IX.	4	This symbol occurs on silver issue with 2 monograms Ψ 197 B.C. and also on series Demetrios-Agathippos; compare Svoronos, Pl. 37, nos. 1-5 and Pl. 58, nos. 1-23. This symbol is probably to be compared with the later group. Demetrios ca. 110-100 B.C.: 1st variety without eagle.
star cents.	Svoronos, Pl. 71, nos. 8, 9; Pl. 81, nos. 45-48. B. M. C. p. 81, nos. 552-555. Pl. XIV, no. 5.	3	On silver and gold issues of Mithradates-Aristion, 88 B.C. important series of gold coins occasioned by the military needs of Mithradates' war with Rome. The gold for this issue was supplied by a subsidy from Mithradates and his agent Aristion. Svoronos, Pl. 71, nos. 1-12.
leted	Svoronos, Pl. 70, no. 26; Pl. 81, nos. 40-44. B. M. C. p. 80, no. 548. Bellinger, <i>Num. N. and M.</i> no. 42, p. 4, no. XI.	3	On silver issue of Architimos-Pammenes. Compare Svoronos nos. 21-26. IV Period, N. S., series of 2 names.
pear .	Svoronos, Pl. 80, nos. 25-28; Pl. 73, no. 12. B. M. C. p. 81, no. 556, Pl. XIV, no. 6. Bellinger, <i>Num. N. and M.</i> no. 42, p. 10, no. G.	1	This series is obviously a later type and no silver series of this type have single spears of wheat. It is possible that we can compare this with the symbol of 2 spears of wheat on silver series of Charostratos, IV Period, N. S. Cf. Svoronos, Pl. 73, nos. 9-10. A preferable comparison is with the series Amphikrates-Epistates, IV Period, 4th group. Cf. Svoronos, Pl. 62, nos. 15-27, also wheat of wheat. My reason for preferring this date is because of the symbol type which is explained in the text.
xyos.	Svoronos, Pl. 77, nos. 26-27; Pl. 81, nos. 49-52. B. M. C. p. 81, no. 551.	None.	On silver issue Sotades-Themistokles, IV Period, N. S., series of 3 names. Compare Svoronos, Pl. 77, nos. 18-22.
ible.	Cf. Svoronos, Pl. 81, nos. 17-52.	4	
club Hera- hich skin.	Not in Svoronos. B. M. C. p. 78, no. 531.	None.	Symbol on silver series of Aristoph-Hera. B. M. C. p. 39, no. 1. Pl. XI, no. 2 and compare Svoronos, Pl. 45, nos. 1-19. III Period, N. S., 1st group, series with 3 names.
pod.	Svoronos, Pl. 72, no. 17; cf. no. 16, Pl. 79, nos. 32-33. Not in B. M. C.	1	Symbol on silver series Polemon-Alketes. Cf. Svoronos, Pl. 72, nos. 17-18. III Period, N. S., 1st group, series with 3 names.
pilei i.	Svoronos, Pl. 79, nos. 8-14. B. M. C. p. 78, no. 523. Bellinger, <i>Num. N. and M.</i> no. 42, p. 9, no. A.	None.	On silver series of Demetrios-Agathippos. Cf. Svoronos, Pl. 58, nos. 1-2. III Period, N. S., 3rd group, series of 3 names, ca. 110-100 B.C.
l.	Svoronos, Pl. 69, no. 21; Pl. 79, nos. 1-7. B. M. C. p. 79, no. 532, Pl. XIV, no. 1.	10 1 probable but not certain.	The fact that it has no symbol may connect it with Diotimos, III Period, N. S. (after 187 B.C.) or Theodotos-Kleophanes (190-180 B.C.), III Period, N. S., 4th group or Nikogenes-Kallimachos, 5th group. Cf. Svoronos, Pl. 69, no. 21, also nos. 14-20. This later series in style.
ears	Svoronos, (1) Pl. 73, no. 11; (2) Pl. 79, nos. 22-24, 34? B. M. C. p. 78, no. 524.	(1) None. (2) 3	May be compared with silver series of Amphikrates-Epistates. Svoronos, Pl. 62, nos. 15-27, III Period, N. S., 4th group. Charostratos. Cf. Svoronos, Pl. 73, nos. 9-10. IV Period, N. S., 1st group, belongs to the earlier group.
ent.	Svoronos, Pl. 76, no. 25; Pl. 79, nos. 36-37.	4	On silver series of Xenokles-Harmoxenos. Cf. Svoronos, Pl. 76, nos. 25-26. IV Period, N. S. These magistrates held office for 3 years. Cf. archonship of Medeios. -Dinsmoor dates Medeios 101-100 B.C.

s not occur on silver series.		
ur on silver series. This probably belongs that the one pileus was unsatisfactory, so omitting the eagle to make room for the the eagle was never replaced.	<i>Num. N. and M.</i> no. 42, pp. 3 and 4, dates before II ϵ , thus before 110–100 B.C.	
issue with 2 monograms  229— Demetrios-Agathippos; compare respectively and Pl. 58, nos. 1–23. This bronze series with the later group. Demetrios-Agathippos : 1st variety without eagle.	<i>Num. N. and M.</i> no. 42, p. 5, no. 4, on silver series of Demetrios-Agathippos, ca. 110–100 B.C.	Dates silver series 110–100 B.C. (ca.). <i>H. N.</i> p. 384.
Mithradates-Aristion, 88 B.C. Historically s occasioned by the military necessities of The gold for this issue was doubtless Mithradates and his agent Aristion. Cf. s, Pl. 71, nos. 1–12.	<i>Num. N. and M.</i> no. 42, p. 7, dates with series of Mithradates-Aristion, 88 B.C.	<i>H. N.</i> p. 385, dates this issue 87–86 B.C.
s-Pammenes. Compare Svoronos, Pl. 70, eriod, N. S., series of 2 names.	<i>Num. N. and M.</i> no. 42, p. 5, no. 6, on series of silver of Architimos-Pammenes pp. 7 and 8, must be earlier than Head's dating,—puts before 87 B.C.	<i>H. N.</i> p. 386, dates silver issue ca. 30 B.C.
er type and no silver series of the later eat. It is possible that we can compare ears of wheat on silver series of Kointos-S. Cf. Svoronos, Pl. 73, nos. 9–10. But a h the series Amphikrates-Epistratos, III os, Pl. 62, nos. 15–27, also with 2 spears ferring this date is because of the obverse is explained in the text.	<i>Num. N. and M.</i> no. 42, p. 5, also p. 6. Useless to connect symbol of spear of wheat with single silver issue.	<i>H. N.</i> p. 386, dates silver series Koin Charostratos 56–55 B.C. Amphikra Epistratos ca. 104 B.C. <i>H. N.</i> p. 384
stokles, IV Period, N. S., series of 2 names. onos, Pl. 77, nos. 18–22.	<i>Num. N. and M.</i> no. 42, p. 5, no. 5; p. 8, wishes to place Sotades-Themistokles earlier than Head's dating, before 88 B.C.	Dates silver series of Sotades-Themistok ca. 50 B.C. <i>H. N.</i> p. 387.
istoph-Hera B. M. C. p. 39, nos. 334–337, onos, Pl. 45, nos. 1–19. III Period, N. S., series with 3 names.		<i>H. N.</i> p. 383. Judging by style silver series falls early in III Period. Sundwall da it somewhat later.
emon-Alketes. Cf. Svoronos, Pl. 50, nos. group, series with 3 names, 186–147 B.C.	<i>Num. N. and M.</i> no. 42, p. 13, dates to silver series Polemon-Alketes, 186–147 B.C.	Dates silver series <i>H. N.</i> p. 383 ca. 164 B.C.
gathippos. Cf. Svoronos, Pl. 58, nos. 1–23. p, series of 3 names, ca. 110–100 B.C.	<i>Num. N. and M.</i> no. 42, p. 12, dates ca. 110–100 B.C.	Dates silver series 110–100 B.C. <i>H. N.</i> p. 384
ol may connect it with Diotimos-Magas,) or Theodotos-Kleophanes (146–100 B.C.) or Nikogenes-Kallimachos, III Period, 69, no. 21, also nos. 14–20. Resembles ter series in style.		Dates silver series of Nikogenes-Kallimach <i>H. N.</i> p. 385, dates 105 B.C. ca.
er series of Amphikrates-Epistratos. Cf. III Period, N. S., 4th group or Kointos- l. 73, nos. 9–10. IV Period, N. S. Probably o the earlier group.		Dates silver series of (1) Amphikra Epistratos ca. 104 B.C. and series (2) Koin Charostratos ca. 56–55 B.C. (1) <i>H. N.</i> p. 384. (2) <i>H. N.</i> p. 386.
rmo Xenos. Cf. Svoronos, Pl. 76, nos. 16–24. strates held office for 3 years, during oor dates Medeios 101–100 B.C. <i>Archons of</i>	<i>Num. N. and M.</i> no. 42, p. 5, no. 3 and p. 6. Xenokles-Harmoxenos p. 8 prefers date	<i>H. N.</i> p. 386, dates silver 91–89 B.C.

		?
		Before 110–100 B.C.
ver series 110–100 B.C. (ca.). <i>H. N.</i> p. 384.	III Period of 3rd group. New Style.	Ca. 110–100 B.C.
. 385, dates this issue 87–86 B.C.	Dates this with King Mithradates - Aristion, IV Period, N. S. Cf. Pl. 71, nos. 1–12.	Ca. 88 B.C.
386, dates silver issue ca. 30 B.C.	Dates the silver series IV Period, N. S., with series of 2 names. Cf. Pl. 70, nos. 21–26. Dates bronze with the silver.	Uncertain. In style seems to compare with Mithradates-Aristion issue. ?
386, dates silver series Kointos-ratos 56–55 B.C. Amphikrates-ratos ca. 104 B.C. <i>H. N.</i> p. 384.	Kointos-Charmostratos, IV Period, N. S. Dates the bronze series to this period. Cf. Pl. 73, nos. 9, 10, 12.	Probably ca. 104 B.C. Reason explained in text.
ver series of Sotades-Themistokles ca. 50 B.C. <i>H. N.</i> p. 387.	IV Period, N. S., series of 2 names. Dates bronze series to this silver. Cf. Pl. 77, nos. 18–22 and 26, 27.	Uncertain.
383. Judging by style silver series y in III Period. Sundwall dates it somewhat later.	III Period, N. S., silver series of Aristoph-Hera. Does not have bronze issue. III Period, 1st group.	186–147 B.C.
er series <i>H. N.</i> p. 383 ca. 164 B.C.	Places these coins with series of Epigenes and Zenon. Cf. Svoronos, Pl. 72, nos. 16 and 17. No evident reason for placing here. IV Period, N. S.	Ca. 164 B.C.
er series 110–100 B.C. <i>H. N.</i> p. 384.	Dates silver series III Period, N. S., 3rd group, series of 3 names.	Ca. 110–100 B.C.
er series of Nikogenes-Kallimachos. <i>N.</i> p. 385, dates 105 B.C. ca.	Dates III Period, N. S., 5th group, series with 3 names.	Probably ca. 105 B.C.
ver series of (1) Amphikrates- ca. 104 B.C. and series (2) Kointos-ratos ca. 56–55 B.C. (1) <i>H. N.</i> p. 384. (2) <i>H. N.</i> p. 386.	Dates bronze issue with silver of Kointos-Charmostratos, IV Period, N. S., series of 2 names.	Prefer. 104 B.C.
p. 386, dates silver 91–89 B.C.	Dates bronze with silver of Xenokles-Harmoxenos, IV Period, N. S.	Ca. 91–89 B.C.

III ε (1)	Same.	Same.	In field r., 2 spears of wheat.	Svoronos, (1) Pl. 73, nos. 22-24, 34?
III ε (2)	Head of Athena r., wearing crested Corinthian helmet.	Same.	Same.	B. M. C. p. 78, no. 524.
III ζ	Head of Athena Parthenos r.	Same.	In field r., serpent.	Svoronos, Pl. 76, no. 36-37. B. M. C. p. 78, no. 530.
III η	Same.	Without AΘE.	In field l. and r., 	Not in Svoronos, unless Æ and I believe it. B. M. C. p. 79, no. 534.
III θ	Head of Athena Parthenos r., border of dots.	A ΘE Owl r., wings closed, standing on amphora which lies on its side. All in olive wreath.	In field r., helmet.	Svoronos, Pl. 70, no. 4.
III ι	Same.	Same.	In field r., head of poppy between 2 spears of wheat.	Svoronos, Pl. 73, no. 15-17, 29-31. B. M. C. p. 78, no. 527. Bellinger, <i>Num. N. and</i> no. C.
III κ	Same.	Same.	In field r., flower.	Svoronos, Pl. 70, no. 2.
III λ	Same.	Same.	In field r., βίχχος.	Svoronos, Pl. 77, nos. 18-21. Bellinger, <i>Num. N. and</i> no. E.
III μ	Same.	Same.	In field r., kerchnos.	Svoronos, Pl. 75, no. 1.
III ν	Same.	Same.	In field r., filleted Thyrsos.	Svoronos, Pl. 70, no. 2.
III ξ	Same.	Same.	In field r., cicade.	Svoronos, Pl. 71, no. 17-38-42. B. M. C. p. 78, nos. 523. Bellinger, <i>Num. N. and</i> no. B.
III ο	Same.	Same.	In field r., caduceus.	Svoronos, Pl. 72, no. 4; I B. M. C. p. 78, nos. 528. Bellinger, <i>Num. N. and</i> no. D.
III π	Same.	Same.	Symbols illegible.	Svoronos, Pl. 79, cf. no.
IV	Same.	AΘE Nike flying r., holding wreath with both hands; all in wreath.	None.	Svoronos, Pl. 78, no. 15-17. B. M. C. p. 82, no. 560. Bellinger, <i>Num. N. and</i> no. H.
V	Same.	AΘE Nike flying r., holding wreath with both hands; all in wreath.	In field l., poppy-	Svoronos, Pl. 72, no. 16; B. M. C. p. 83, nos. 566-

appears	Svoronos, (1) Pl. 73, no. 11; (2) Pl. 79, nos. 22-24, 34? B. M. C. p. 78, no. 524.	(1) None. (2) 3	May be compared with silver series of Amphikrates-Epistates-Svoronos, Pl. 62, nos. 15-27, III Period, N. S., 4th group Charmostratos. Cf. Svoronos, Pl. 73, nos. 9-10. IV Period, N. S. belongs to the earlier group.
ident.	Svoronos, Pl. 76, no. 25; Pl. 79, nos. 36-37. B. M. C. p. 78, no. 530.	4	On silver series of Xenokles-Harmoxenos. Cf. Svoronos, Pl. 76, IV Period, N. S. These magistrates held office for 3 years. 2nd archonship of Medeios.—Dinsmoor dates Medeios 101-100 b.c. <i>Athens</i> , and again in 91-89 b.c. These 2 magistrates probably held 2nd archonship of Medeios.
ident.	Not in Svoronos, unless Pl. 79, no. 19 is Æ and I believe it is same coin as B. M. C. p. 79, no. 534, Pl. XIV, no. 2.	None.	Dated with silver series same monograms—B. M. C. p. 77, no. 534, dated ca. 86-83 b.c., Pl. XIII, nos. 7 and 8, also cf. Svoronos, nos. 11-18. Ferguson, <i>H. A.</i> p. 454 and note 6, probably refers to provisional government reestablished in Athens before 87/6 b.c. Aristion 87/6 b.c. Sundwall 87/6 b.c. Significantly the inscription is omitted.
ident.	Svoronos, Pl. 70, no. 4.	None.	Symbol on silver series of Alketes-Euagion. Compare Svoronos, nos. 1-3. IV Period, N. S., series of 2 names.
ident.	Svoronos, Pl. 73, no. 25; Pl. 79, nos. 15-17, 29-31. B. M. C. p. 78, no. 527. Bellinger, <i>Num. N. and M.</i> no. 42, p. 10, no. C.	2 probable but not certain.	Symbol on silver series of Lysandros-Oinophilos. Compare Svoronos, Pl. 73, nos. 18-24. IV Period, N. S., series of 2 names.
ident.	Svoronos, Pl. 70, no. 20.	None.	This symbol doesn't occur on any silver issue. Svoronos, in style it is to be compared with Architimos-Demetrios Svoronos, Pl. 70, nos. 15-19.
ident.	Svoronos, Pl. 77, nos. 23-25; Pl. 79, nos. 18-21. Bellinger, <i>Num. N. and M.</i> no. 42, p. 10, no. E.	1	Symbol on silver series of Sotades-Themistokles. Compare Svoronos, Pl. 77, nos. 18-22. IV Period, N. S., series of 2 names.
ident.	Svoronos, Pl. 75, no. 11; Pl. 79, no. 35.	None.	Symbol on silver series of Mnaseas-Nestor. Compare Svoronos, nos. 1-10. IV Period, N. S., series of 2 names.
ident.	Svoronos, Pl. 70, no. 25.	None.	Symbol on silver series of Architimos-Pammenes. Compare Svoronos, Pl. 70, nos. 21-26. IV Period, N. S., series of 2 names.
ident.	Svoronos, Pl. 71, no. 17-18; Pl. 79, nos. 38-42. B. M. C. p. 78, nos. 525-526. Bellinger, <i>Num. N. and M.</i> no. 42, p. 10, no. B.	6	Symbol on silver series of Demochares-Pammenes. Compare Svoronos, Pl. 71, no. 16. IV Period, N. S., series of 2 names.
ident.	Svoronos, Pl. 72, no. 4; Pl. 79, nos. 25-28. B. M. C. p. 78, nos. 528-529. Bellinger, <i>Num. N. and M.</i> no. 42, p. 10, no. D.	2	Symbol on silver series of Dionysios-Demostratos. Compare Svoronos, Pl. 72, nos. 1-3. 2 silver and 1 gold. IV Period, N. S., series of 2 names.
ident.	Svoronos, Pl. 79, cf. nos. 1-42.	15	
ident.	Svoronos, Pl. 78, no. 10; Pl. 80, nos. 15-17. B. M. C. p. 82, no. 560. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. H.	2	On the silver series of Ktesi-Euma, II Period, N. S., with 2 names abbreviated, 196-187 b.c.; is the symbol of Nike figure, right, holding a crown with both hands. There are other Nike on them as symbol but none so nearly like the reverse coin. Compare Svoronos, Pl. 42, nos. 1-20.
ident.	Svoronos, Pl. 72, no. 16; Pl. 80, nos. 1-7. B. M. C. p. 83, nos. 566-9. Pl. XIV, no. 11.		The tripod occurs as a symbol on the silver series of Polemarchos-Nestor, III Period, N. S., series of 2 names.

er series in style.		
er series of Amphikrates-Epistratos. Cf. III Period, N. S., 4th group or Kointos-1.73, nos. 9-10. IV Period, N.S. Probably o the earlier group.		Dates silver series of (1) Amphikrates-Epistratos ca. 104 B.C. and series (2) Kointos-Charmostratos ca. 56-55 B.C. (1) <i>H. N.</i> p. 384. (2) <i>H. N.</i> p. 386.
armoxenos. Cf. Svoronos, Pl. 76, nos. 16-24. stratos held office for 3 years, during oor dates Medeios 101-100 B.C. <i>Archons of</i> c. These 2 magistrates probably came in onship of Medeios.	<i>Num. N. and M.</i> no. 42, p. 5, no. 3 and p. 6. Xenokles-Harmoxenos p. 8 prefers date 146 B.C.	<i>H. N.</i> p. 386, dates silver 91-89 B.C.
monograms-B. M. C. p. 77, nos. 516-522 nos. 7 and 8, also cf. Svoronos, Pl. 78, p. 454 and note 6, probably belongs to blished in Athens before surrender of /6 B.C. Significantly the inscription Α Θ Ε is omitted.		<i>H. N.</i> p. 388, resemble in style coins ca. 150 B.C. No place for them in monogram series (229-197) or in Sulla's time (B.C. 86). A on amphorae indicates connection with Athenian mint regulation. Attributed them to mint of Athenian Cleruchy Delos-Middle 2nd century.
ketes-Euagion. Compare Svoronos, Pl. 70, od, N. S., series of 2 names.		Dates silver issue shortly after Sulla conquest-after 86 B.C. <i>H. N.</i> p. 386.
ysandros-Oinophilos. Compare Svoronos, Period, N. S., series of 2 names.	<i>Num. N. and M.</i> no. 42, p. 12, no. 2, dates with silver issue of Lysandros-Oinophilos.	<i>H. N.</i> p. 387, ca. 60 B.C. dates silver issue
any silver issue. Svoronos thinks that ed with Architimos-Demetrios. Compare Pl. 70, nos. 15-19.		Dates Architimos-Demetrios ca. 50 B.C. <i>H. N.</i> p. 386.
otades-Themistokles. Compare Svoronos, Period, N. S., series of 2 names.	<i>Num. N. and M.</i> no. 42, p. 5, no. 5, dates bronze with silver of Sotades-Themistokles, p. 8 wishes to place Sotades-Themistokles earlier than Head's dating, before 88 B.C.	Dates silver series of Sotades-Themistokles ca. 50 B.C. <i>H. N.</i> p. 387.
aseas-Nestor. Compare Svoronos, Pl. 75, riod, N. S., series of 2 names.		Does not date silver or bronze issue Mnaseas-Nestor, but puts in IV Period ca. 86 B.C. to time of Augustus. <i>H. N.</i> p. 386.
rchitimos-Pammenes. Compare Svoronos, V Period, N. S., series of 2 names.	<i>Num. N. and M.</i> no. 42, p. 5, no. 6, on silver series of Architimos-Pammenes pp. 7 and 8, must be earlier than Head's dating, - puts before 87 B.C.	<i>H. N.</i> p. 386, dates silver issue ca. 30 B.C.
mochores-Pammenes. Compare Svoronos, riod, N. S., series of 2 names.		<i>H. N.</i> p. 386, dates silver of Demochares-Pammenes after 30 B.C. in the time of Augustus.
onysios-Demostratos. Compare Svoronos, gold. IV Period, N. S., series of 2 names.	<i>Num. N. and M.</i> no. 42, p. 13, no. 3. Says caduceus found on series of silver of Polycharm and Nikog; on this series it is a winged caduceus and not the simple type found on our bronze series.	<i>H. N.</i> p. 386. Says silver series of Dionysios-Demostratos is the last autonomous issue of silver coins; after 30 B.C. Time of Augustus.
si-Euma, II Period, N. S., with series of B.C.; is the symbol of Nike flying to the oth hands. There are other series with t none so nearly like the reverse of this Svoronos, Pl. 42, nos. 1-20.	<i>Num. N. and M.</i> no. 42, p. 12, assigns to period after Sulla.	<i>H. N.</i> p. 382, dates silver series 196-187 B.C. 2 abbreviated magistrate names.
l on the silver series of Polemon-Alketes,	<i>Num. N. and M.</i> no. 42, p. 13, dates with	<i>H. N.</i> p. 383, dates silver series after

<p>ver series of (1) Amphikrates- s ca. 104 b.c. and series (2) Kointos- ratos ca. 56-55 b.c. (1) <i>H. N.</i> p. 384. (2) <i>H. N.</i> p. 386.</p>	<p>Dates bronze issue with silver of Kointos-Char- mostratos, IV Period, N. S., series of 2 names.</p>	<p>Prefer. 104 b.c.</p>
<p>p. 386, dates silver 91-89 b.c.</p>	<p>Dates bronze with silver of Xenokles-Harmoxenos, IV Period, N. S.</p>	<p>Ca. 91-89 b.c.</p>
<p>388, resemble in style coins of e. No place for them in monogram 9-197) or in Sulla's time (ca. on amphora indicates conformity enian mint regulation. Attributes mint of Athenian Cleruchy in elos-Middle 2nd century.</p>		<p>Probably belongs 87/6 b.c. Style like Mithradates issues.</p>
<p>ver issue shortly after Sulla's st-after 86 b.c. <i>H. N.</i> p. 386.</p>	<p>Dates silver and bronze IV Period, N. S., series of 2 names.</p>	<p>Shortly after 86 b.c.</p>
<p>387, ca. 60 b.c. dates silver issue.</p>	<p>Dates silver and bronze IV Period, N. S., series of 2 names.</p>	<p>Ca. 60 b.c.</p>
<p>rchitimos-Demetrios ca. 50 b.c. <i>H. N.</i> p. 386.</p>	<p>Dates silver and bronze IV Period, N. S., series of 2 names.</p>	<p>Ca. 50 b.c.</p>
<p>ver series of Sotades-Themistokles ca. 50 b.c. <i>H. N.</i> p. 387.</p>	<p>Dates silver and bronze IV Period, N. S., series of 2 names.</p>	<p>Uncertain, but may be ca. 50 b.c.</p>
<p>date silver or bronze issue of Nestor, but puts in IV Period. time of Augustus. <i>H. N.</i> p. 387.</p>	<p>Dates silver and bronze issues IV Period, N. S., series of 2 names.</p>	<p>Probably belongs 2nd half of IV Period, 86-30 b.c.</p>
<p>386, dates silver issue ca. 30 b.c.</p>	<p>Dates silver and bronze series IV Period, N. S., with series of 2 names.</p>	<p>Uncertain. In style seems to compare with Mithradates- Aristion issue ?</p>
<p>386, dates silver of Demochares- s after 30 b.c. in the time of Augustus.</p>	<p>Dates silver and bronze series IV Period, N. S., with series of 2 names.</p>	<p>After 30 b.c. seems correct on account of late character of coins.</p>
<p>86. Says silver series of Dionysios- tos is the last autonomous issue coins; after 30 b.c. Time of Augustus.</p>	<p>Dates silver, gold, and bronze IV Period, N. S., series of 2 names.</p>	<p>After 30 b.c. Time of Augustus.</p>
<p>32, dates silver series 196-187 b.c. abbreviated magistrate names.</p>	<p>Dates the bronze with the silver series of Philo- krates-Kalliphon in the IV Period, N. S., with series of 2 names. The Nike on this silver series fys l., holds wreath in r. hand and palm in l. Resemblance not close.</p>	<p>196-187 b.c. Ktesi-Euma, II Period, with 2 abbreviated names.</p>
<p>383. dates silver series after</p>	<p>Dates series of bronze with silver of Epigines- Zenon, IV Period, N. S. Although there is nothing about this silver series that would warrant a</p>	<p>Probably after 164 b.c.</p>

III π	Same.	Same.	Symbols illegible.	Svoronos, Pl. 79, cf. no. 15-17.
IV	Same.	AΘE Nike flying r., holding wreath with both hands; all in wreath.	None.	B. M. C. p. 82, no. 560. Bellinger, <i>Num. N. and</i> no. H.
V	Same.	AΘE Tripod.	In field l., poppy-head, in field r., thunderbolt.	Svoronos, Pl. 72, no. 163. B. M. C. p. 83, nos. 566-9. Bellinger, <i>Num. N. and</i> no. K.
VI	Same.	AΘ Statue of Apollo Delios E naked, facing, holds statue of 3 graces and strung bow.	In field l., cicade.	Svoronos, Pl. 56, nos. nos. 8-14. B. M. C. p. 82, no. 564. Bellinger, <i>Num. N. and</i> no. J.
VII α	Head of Athena r., wearing crested Corinthian helmet. Border of dots.	AΘE Artemis dressed in short chiton, advancing r., holding torch in 2 hands.	None.	Svoronos, Pl. 73, no. 53-56. B. M. C. p. 83, no. 573
VII β	Head of Artemis r., border of dots.	Same.	None.	Svoronos, Pl. 73, no. 1
VIII	Head of Gorgon, facing.	AΘE Athena advancing r., armed with helmet, spear and aegis.	None.	Svoronos, Pl. 66, nos. 2 B. M. C. p. 84, nos. 578-5 Bellinger, <i>Num. N. and</i> no. M.
IX	Dolphin r., with trident erect. Border of dots.	AΘE Kerchnos, all in corn wreath.	No symbol.	Svoronos, Pl. 77, no. 1 1-8. B. M. C. p. 90, no. 641. Bellinger, <i>Num. N. and</i> no. O.
X	Head of Athena Parthenos r., border of dots.	AΘ Sphinx wearing modius, E seated r., all in olive wreath.	None.	Svoronos, Pl. 72, no. 11; B. M. C. p. 83, nos. 5 no. 12. Bellinger, <i>Num. N. and</i> no. L.
XI α	Head of Athena Parthenos r., border of dots.	A Athena advancing r., ΘE armed with helmet, spear, and aegis. All in wreath.	In field r., owl.	Svoronos, Pl. 80, nos. 1 B. M. C. p. 82, nos. 56 no. 8. Bellinger, <i>Num. N. and</i> no. I.
XI β	Same.	Same.	In field r., serpent.	Svoronos, Pl. 80, nos. 1 B. M. C. p. 82, no. 563
XI γ		Same.	Same.	Svoronos, Pl. 80, no. 3
XII	Head of Athena Parthenos r., border of dots.	A Owl to r., on prow of ΘE ship. All in olive wreath.	None.	Svoronos, Pl. 80, nos. 1 (41, 42, 44?). B. M. C. p. 79, no. 536
XIII	Same.	A Two owls r. and l. sur-ΘE rounded by wreath.	None.	Svoronos, Pl. 80, nos. 1
XIV	Same, helmet ornamented 2 olive leaves.	AΘE Two owls half facing on thunderbolt. Beneath AΘE. All in olive wreath.	None.	Svoronos, Pl. 24, nos. 1 B. M. C. p. 79, nos. 55 no. 3. Bellinger, <i>Num. N. and</i>

	Svoronos, Pl. 79, cf. nos. 1-42.	15	
	Svoronos, Pl. 78, no. 10; Pl. 80, nos. 15-17. B. M. C. p. 82, no. 560. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. H.	2	On the silver series of Ktesi-Euma, II Period, N. S., with 2 names abbreviated, 196-187 B.C.; is the symbol of Nike facing right, holding a crown with both hands. There are other Nike symbols on them as symbol but none so nearly like the reverse of the coin. Compare Svoronos, Pl. 42, nos. 1-20.
ppyr- d r., lt.	Svoronos, Pl. 72, no. 16; Pl. 80, nos. 1-7. B. M. C. p. 83, nos. 566-9, Pl. XIV, no. 11. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. K.	1	The tripod occurs as a symbol on the silver series of Polemon, III Period, N. S., 1st group, series of 3 names. Compare Svoronos, Pl. 50, nos. 18-27.
ade.	Svoronos, Pl. 56, nos. 26-27; Pl. 80, nos. 8-14. B. M. C. p. 82, no. 564, Pl. XIV, no. 9. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. J.	2	Apollo type used as symbol on silver series of Sokrates-Dionysios. Statue points to time when Delos was presented to Athenians by the Romans. Head <i>H. N.</i> p. 383. Compare Svoronos, Pl. 56, nos. 1-4.
	Svoronos, Pl. 73, no. 17; Pl. 81, nos. 53-56. B. M. C. p. 83, no. 573.	1	Artemis advancing r., holding torch with 2 hands, is the symbol on the silver series of Phanokles-Apollonios, III Period, 3rd group, series of 3 names. Cf. Svoronos, Pl. 61, nos. 1-4. Behrendt Pick writes that the tables in Svoronos, <i>Les Monnaies d'Athènes</i> identifies the symbol as Iakchos p. XII Svoronos, but B. M. C. identified it as Artemis. The similarity of the symbol on the silver series and the symbol on the bronze series is most striking.
	Svoronos, Pl. 73, no. 16.	None.	
	Svoronos, Pl. 66, nos. 23 and 24. B. M. C. p. 84, nos. 578-581, Pl. XV, no. 1. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. M.	1	Gorgon appears as symbol on silver series of Niketes-Dionysios, III Period, N. S., series of 3 names. Attributed to Sciathus (?) by Svoronos, but Svoronos, Pl. 66, nos. 1-22. III Period, N. S., 4th group, series of 3 names.
bl.	Svoronos, Pl. 77, no. 15; Pl. 107, nos. 1-8. B. M. C. p. 90, no. 641, Pl. XV, no. 13. Bellinger, <i>Num. N. and M.</i> no. 42, p. 12, no. O.	1	The dolphin and trident is the symbol on one of the silver series of Xenokles-Harmoxenos, IV Period, N. S., series of 2 names. Compare Svoronos, Pl. 77, nos. 1-14.
	Svoronos, Pl. 72, no. 11; Pl. 80, nos. 18-21. B. M. C. p. 83, nos. 570-572, Pl. XIV, no. 12. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. L.	6	The sphinx is the symbol on the silver series of Diophantos, IV Period, N. S., series of 2 names. Compare Svoronos, Pl. 72, nos. 1-2.
owl.	Svoronos, Pl. 80, nos. 29-32. B. M. C. p. 82, nos. 561-562, Pl. XIV, no. 8. Bellinger, <i>Num. N. and M.</i> no. 42, p. 11, no. I.	8 7 others probable but not certain.	No clue as to date.
pent.	Svoronos, Pl. 80, nos. 33 and 34. B. M. C. p. 82, no. 563.	1	No clue as to date. Serpent probably an attribute of Athena as a symbol.
	Svoronos, Pl. 80, no. 35.	None.	No clue as to date. May be tessera.
	Svoronos, Pl. 80, nos. 37-40 and 43 (41, 42, 44?). B. M. C. p. 79, no. 536?	6	No clue as to date.
	Svoronos, Pl. 80, nos. 45-47.	None.	The reverse is similar to 3rd century coins, but possibly is a later issue which lingered on and was found on the smaller bronze pieces of the New Style.
	Svoronos, Pl. 24, nos. 60-68. B. M. C. p. 79, nos. 537-540, Pl. XIV, no. 3. Bellinger, <i>Num. N. and M.</i> no. 42, p. 4.	11 2 probable but not certain.	Bellinger, <i>Num. N. and M.</i> no. 42, pp. 4 and 5. Probably the reverse of the issue used throughout the whole period.

<p>si-Euma, II Period, N. S., with series of b.c.; is the symbol of Nike flying to the both hands. There are other series with t none so nearly like the reverse of this Svoronos, Pl. 42, nos. 1-20.</p>	<p><i>Num. N. and M.</i> no. 42, p. 12, assigns to period after Sulla.</p>	<p><i>H. N.</i> p. 382, dates silver series 196-187 2 abbreviated magistrate names.</p>
<p>l on the silver series of Polemon-Alketes, series of 3 names. Compare Svoronos, 50, nos. 18-27.</p>	<p><i>Num. N. and M.</i> no. 42, p. 13, dates with silver series of Polemon-Alketes.</p>	<p><i>H. N.</i> p. 383, dates silver series af 164 b.c.</p>
<p>n silver series of Sokrates-Dionysodo(ros). Delos was presented to Athens by the . Compare Svoronos, Pl. 56, nos. 1-25.</p>	<p><i>Num. N. and M.</i> no. 42, p. 13, no. 5, dates with silver series of Sokrates-Dionysodo(ros).</p>	<p>Dates silver series 162 b.c. <i>H. N.</i> p. 3</p>
<p>torch with 2 hands, is the symbol on the Apollonios, III Period, 3rd group. Series of , nos. 1-4. Behrendt Pick who composes <i>Monnaies d'Athènes</i> identifies this figure but B. M. C. identified it as Artemis. on the silver series and the Artemis of series is most striking.</p>		<p><i>H. N.</i> p. 383, dates silver series of Phae- kles-Apollonios ca. 161 b.c.</p>
<p>silver series of Niketes-Dionysios. Compare III Period, N. S., 4th group, series of athus(?) by Svoronos, but some doubt.</p>	<p><i>Num. N. and M.</i> no. 42, p. 13, no. 8, dates with silver series of Niketes-Dionysios.</p>	<p><i>H. N.</i> p. 385, dates silver series of Niketes- Dionysios ca. 125 b.c.</p>
<p>e symbol on one of the silver series of III Period, N. S., series of 2 names. Compare s, Pl. 77, nos. 1-14.</p>	<p><i>Num. N. and M.</i> no. 42, p. 13, no. 9, assigns to silver series of Xenokles-Harmoxenos. p. 8 prefers date ca. 146 b.c. for this series.</p>	<p><i>H. N.</i> p. 386, dates silver series of Xenokles- Harmoxenos 91-89 b.c. in the archons of Medeios.</p>
<p>the silver series of Diophantos-Aeschines, nes. Compare Svoronos, Pl. 72, nos. 8-10.</p>	<p><i>Num. N. and M.</i> no. 42, p. 13, no. 7, dates with silver series of Diophantos-Aeschines.</p>	<p><i>H. N.</i> p. 385, dates this silver series ea in the 1st century.</p>
<p>clude as to date.</p>		
<p>probably an attribute of Athena and not a symbol.</p>		
<p>o date. May be tessera.</p>		
<p>clude as to date.</p>		
<p>century coins, but possibly is a type that on the smaller bronze pieces throughout the New Style.</p>		
<p>. 42, pp. 4 and 5. Probably the fractional throughout the whole period.</p>		

32, dates silver series 196—187 B.C. abbreviated magistrate names.	Dates the bronze with the silver series of Philokrates-Kalliphon in the IV Period, N. S., with series of 2 names. The Nike on this silver series flies l., holds wreath in r. hand and palm in l. Resemblance not close.	196—187 B.C. Ktesi-Euma, II Period, with 2 abbreviated names.
333, dates silver series after 164 B.C.	Dates series of bronze with silver of Epigines-Zenon, IV Period, N. S. Although there is nothing about this silver series that would warrant a comparison with the bronze, unless Svoronos thinks the style warrants this date.	Probably after 164 B.C.
ver series 162 B.C. <i>H. N.</i> p. 383.	Dates with silver series of Sokrates-Dionysodo(ros), III Period, 2nd group, series with 3 names.	162 B.C.
383, dates silver series of Phanokles-Apollonios ca. 161 B.C.	Dates the bronze issue with the silver series of Leukios-Antikrates, IV Period, N. S., which has the symbol of Artemis running l., holding 2 torches and beside her stands Demeter holding a torch. The comparison here is far from close.	Phanokles-Apollonios. Ca. 161 B.C.
385, dates silver series of Niketes-Dionysios ca. 125 B.C.	Dates with silver series of Niketes-Dionysios, III Period, N. S., 4th group, series of 3 names.	Ca. 125 B.C. ?
36, dates silver series of Xenokles-Archonios 91—89 B.C. in the archonship of Medeios.	Dates silver and bronze series in the 3rd group of Xenokles-Harmoxenos, IV Period, N. S., series of 2 names. Attributes bronze series to Athenian cleruchs at Delos.	Probably 91—89 B.C.
385, dates this silver series early in the 1st century.	Dates with silver series IV Period, N. S., series of 2 names.	Early in 1st century.