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The Gold Coinage of Asia before
Alexander the Great

By

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Fellow of the Academy

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THE GOLD COINAGE OF ASIA BEFORE ALEXANDER THE GREAT

By PERCY GARDNER

FELLOW OF THE ACADEMY

January 29, 1908

I PROPOSE to give a brief account of the issues of gold money in Asia down to the time of Alexander the Great. A sketch of this kind may have its uses, since numismatists are apt to dwell on small points, and to neglect broader aspects of the subject, while the historians of Greece have often lacked that close familiarity with coins which is necessary before one can use their testimony with confidence and success. Coins are of all the materials for the reconstruction of ancient history the most trustworthy and objective, together with inscriptions, but their testimony must needs be weighed by a hand used to them before its value can be fully appreciated.

What I shall especially attempt is a chronological survey of the relations between the Persian state and the subject countries and cities, as they are reflected in the issues of gold and electrum coin. And in doing so we shall have carefully to consider the view now generally held, that the issue of gold coin was the exclusive privilege of the Great King, a privilege jealously guarded and enforced. Satraps of the Persian Empire were allowed to strike silver coins freely for the needs of military expeditions, and the Greek cities of the coast struck silver for ordinary purposes of trade. But no issue of gold coin was allowed, save under exceptional circumstances.

Although this view is generally accepted, yet it is not easy to establish it by quotations from ancient writers. Herodotus seems under the influence of such a view when he writes,¹ 'Darius wished to leave such a memorial of himself as no king had ever left before: therefore, refining his gold to the last degree of purity, he issued coins of it.' But this is, of course, no assertion of a principle of state, that no one else should issue coin. Nor in fact is it likely that the issue of gold coin was from the first looked upon as something quite

¹ iv. 166.

exceptional. The first issue of pure gold was due to Croesus, not to Darius. It seems likely that the principle that the issue of gold coin was the first privilege of authority was one which made its way slowly and perhaps almost unconsciously. From age to age it became more solidly fixed: and the Roman Empire maintained it even more rigidly than did that of Persia.

There is, however, another question as to which modern expert opinion is more divided. If we allow that the issue of gold was a right jealously guarded by the Great King, how far does this apply to the issues of white gold or electrum, of that mixture of gold and silver which was in ordinary use for coinage in the earliest period? Did Persia regard these as issues of gold? or did Persia place them on the level of issues of silver? or did it pursue a middle course in regard to their authorization? This is not an easy question; and it is one on which we may hope to throw some light in the course of the present investigation.

I propose to divide my subject into five sections, as follows:—

- I. The early electrum coinage.
- II. Croesus to Darius.
- III. The Ionian Revolt.
- IV. Electrum coins, B. C. 480–330.
- V. Gold coins of the same period.

I. *The early Electrum Coinage.*

It is generally thought, alike by numismatists and historians, that the coinage of the western world took its origin on the coast of Asia Minor in the eighth or at latest in the seventh century B. C., in those primitive and rude coins of electrum, which are now abundant in our museums. Of this coinage I do not propose to treat in detail, as it has been the subject of able papers by Head, Babelon, and other writers,¹ nor is it possible to discuss it without taking into account a multitude of small numismatic considerations, the introduction of which would thwart the purpose of the present paper, which is to give a broad historic sketch. I will, however, give a brief summary of views held in regard to it.

In the first place, it has been disputed to whom belongs the honour of the first invention of coins. We know from Julius Pollux that this question was much discussed by his learned authorities. He writes² that it was disputed 'whether coins were first issued by Pheidon of

¹ Head in *Numismatic Chronicle*, 1875; *Catalogue of Greek Coins in the British Museum: Ionia*, Introduction. Babelon, *Traité des Monnaies grecques et romaines*, Part II, vol. i, where further references. Also *Revue Numismatique*, 1894 and 1895.

² ix. 83.

Argos, or by the Cymæan Demodice, wife of the Phrygian Midas, who was daughter of Agamemnon, King of Cyme, or by the Athenians, Erichthonius and Lycus, or by the Lydians, as Xenophanes asserts, or by the Naxians, according to the view of Aglosthenes.' Some of these views are now out of court, especially those which give the origination of coins to Pheidon of Argos or to Athens. It is universally allowed that money first appears on the western coast of Asia Minor. But it may still be doubted whether it originated with the wealthy Mermnad kings of Lydia or with Miletus and other Ionian cities of the coast.

In favour of the Lydians it may be urged that Herodotus seems to support their claim. He writes of the Lydians,¹ *πρῶτοι ἀνθρώπων, τῶν ἡμεῖς ἴδμεν, νόμισμα χρυσοῦ καὶ ἀργύρου κοινάμενοι ἐχρήσαντο· πρῶτοι δὲ καὶ κάπηλοι ἐγένοντο.* There seems to be some connexion between the clauses of the sentence: that is, the fact that the Lydians were pedlars or hucksters was the reason for their invention of coin. And here it may be allowed that we can cite a parallel: the great extension of the Aeginetan currency is explained by the fact that the Aeginetans were the pedlars of Greece Proper. At the same time the words of Herodotus are too ambiguous to be pressed. To say that the Lydians first struck coins in gold and silver is not the same thing as to say that they first issued money of mixed gold and silver or electrum. There is thus some justification for those who have regarded Herodotus as referring to the coins of gold and coins of silver, issued, as we shall presently see, by Croesus.

Another ancient authority for the Lydian origin of coins has been found in the phrase of Julius Pollux,² who speaks of *Γυγάδας χρυσός* in the same breath with darics and staters of Croesus; and this passage has been taken as a proof that the early electrum staters were issued by Gyges. To this argument, however, there lies an insuperable objection in the fact that in another passage³ Pollux speaks of the gold of Gyges as notable for purity; it could not, then, have been electrum. Gyges, as we are told by Herodotus,⁴ dedicated at Delphi many objects in gold. It was from this that his gold had its reputation; and Pollux, in bringing it into line with darics and staters of Croesus, no doubt mistakes his authorities. Certainly no coins of pure gold of the time of Gyges are known.

The mere fact that Lydia possessed in great abundance the raw material of the electrum coinage can scarcely weigh very heavily, since that material was also easily accessible to the Ionians. The only definite proof of an early issue of coins in Lydia is furnished

¹ i. 94.² *Onomasticon*, iii. 87.³ *Ibid.*, vii. 98.⁴ i. 14.

by the legend FAAFEI in archaic letters read (first by M. Six) on some electrum coins, as the name of King Alyattes of Lydia. To these coins I will presently return. Meantime it is clear that, even if we accept M. Six's reading, all that it would prove would be that Lydian coins were issued in the reign of Alyattes B. C. 610-561, not that coins originated with the Lydians. Quite as early as these coins is the remarkable stater of electrum¹ which bears the name of Phanes, and which was almost certainly struck in one of the cities of Ionia.

Most numismatists, Lenormant, Six, Head, and others are disposed to assign the earliest electrum coins to early Lydian kings, Gyges and his successors. But the most recent writer on the subject, M. Babelon, is disposed, alike from the probabilities of the case, and the evidence of extant coins, to think that coinage originated with the Greeks of Asia. I am ready to support this view. It would be strange if the Lydian horsemen anticipated the quick-witted and versatile Ionians in so remarkable a discovery as that of striking coins. Moreover, in addition to the intrinsic probability of this view, the balance of evidence to be drawn from existing coins is in its favour.

It may well seem strange that the Greek world contrived to do without coins until the eighth century B. C. We now know what a highly developed civilization flourished in Crete and in Peloponnesus at a much earlier time. But there are abundant examples of an elaborate civilization without money. The great empires of Egypt and Assyria had no coins. The Phoenicians did not issue money for centuries after its invention, though they may have used the coins of Persia and of Greece. It is conjectured from a survey of the places where Persian gold coins are found, that they were but little used in the eastern provinces of the Persian Empire, but almost exclusively in Asia Minor. And we have a modern parallel for indifference to the use of coin. In China, down to our own days, only copper and iron coins have been issued by authority, gold and silver still passing by weight, whether in the form of bars or of foreign coin.

The early electrum coins of the Ionic coast are bean-shaped, bearing usually on one side a type, on the other punch-marks enclosing smaller devices. The unit is divided into halves, thirds, sixths, and so on, down to ninety-sixths. The metal is hard; the art and fabric primitive. They present us with a series of problems, which cannot at present be said to be solved.

In the first place, were they issued by cities or by temples, or

¹ *Br. Mus. Cat. : Ionia*, Pl. III. 8.

by private persons? It was perfectly natural that numismatists, accustomed to the fact that in later historic times every Greek city had one or two easily recognized devices which stamped its coin as belonging to it only, should have begun by trying to assign the early electrum also to city mints, by help of the types which the coins bear. The lion was held to be the mark of Miletus, the lion's scalp of Samos, the stag of Ephesus, and so forth. But there are grave reasons for thinking that this procedure was mistaken, or at least was carried much too far. The lion, the lion's head or his scalp, appear on a large number of the electrum coins, which differ so widely in style and in monetary standard that they can scarcely come from any one mint. To suppose that the lion is always the regal sign of the Lydian kings is a view which cannot be maintained. Again, there are on electrum coins many devices, the cock, the chimaera, the fox, the human head, and others, which cannot be satisfactorily assigned to any known mint. It therefore seems probable that, to begin with, the custom of issuing money by state authority, and impressing upon all coins so issued the civic badge as a type, was not observed with any regularity.

A confirmation of this view may be found in the fact that even in the case of the later issues of electrum coins, such as those of Cyzicus and Mytilene, there is no uniform type, as on the coins of most Greek cities, but an almost unlimited number of devices, which do not indicate place of mintage, but far more probably belong to the monetary magistrates.

Thus the types of early electrum coins are no safe indication of their place of mintage. And since, with one or two exceptions, they are uninscribed, there is a dearth of clues to direct us to their place of origin.

It is maintained by M. Babelon that these primitive coins were not state-issues at all, but struck by the bankers of Ionia and Lydia for the purposes of trade, and stamped with their private signets.¹ He has several historic parallels to cite. He shows that among the Franks of the Merovingian age money was issued by private coiners, and varies remarkably in alloy, and even in weight. And he brings forward examples in which trading companies in America in the eighteenth and nineteenth centuries issued great quantities of coin in their own name, and on their own responsibility.

It must also be noted that large classes of coins in Persian times, especially the Persian silver shekels or sigli, and the money of Aspendus in Pamphylia, bear a multitude of small stamps or countermarks

¹ *Origines de la Monnaie*, pp. 93-134.

which seem to be the marks of bankers, or possibly of local financial officers, guaranteeing the quality of the coin. This custom might well be the successor of a system of private coinage. Terrien de la Couperie observes ¹ that on early coins of China we find many private marks. 'The exchange being generally limited to the region of the issuers, they used on their currency to put as their marks names of regions, places, families, individuals, or things.' In early India also small ingots circulated bearing many countermarks, which may have been stamped on them either by financial authorities or else by private capitalists.²

I cannot examine in detail the theories of M. Babelon as to the way in which the Ionian bankers stamped the coin; and in that matter I do not think his particular views can be maintained. But as regards the probability that many of the types of early coins are only private marks, I agree with him. Certainty is not to be attained. It is, however, at the least quite possible that private issues made their appearance before the rise of the regular civic coinages. Long ago Professor Ernst Curtius called attention to the probability that in some cases, at all events, very early issues of coins may have taken place in connexion with the wealthy temples of Ionia, where specie tended to accumulate. And this view has been generally accepted, even by Professor Ridgeway,³ who is generally disposed to deny the religious origin of coin-types.

But however much truth there may be in the view that the earliest coins belong to bankers or temples, we have good reason for thinking that not later than about B. C. 650 the Greek cities of Asia were beginning to take the issue of electrum into their own hands, and to stamp it with an official seal.

It was first clearly set forth by Mr. Head ⁴ that certain classes of electrum coins may be distinguished belonging to different districts of Ionia, and following different monetary standards. M. Babelon has further developed this view ⁵ :—

(1) There is a very primitive class of coins following the Milesian standard of weight (stater, grammes 14.40, grains 222). Some of these have scarcely any type; and the fabric of the earliest of them is rude. (See Pl. I. 2; weight 215.3 grains, British Museum.) Their pale colour indicates, what is confirmed by analysis, that they contain

¹ *Br. Mus. Cat. : Chinese Coins*, Introd., p. 4.

² Thomas, *Ancient Indian Weights*, p. 52 and foll.

³ *Origin of Currency and Weight-standards*, p. 215.

⁴ *Numismatic Chronicle*, 1875.

⁵ *Revue Numismatique*, 1894-5, four papers.

but a small proportion of gold. They belong to cities in the neighbourhood of Miletus and Ephesus in the south of Ionia. The only mint which can be identified with high probability is that of Miletus, to which city we can attribute the coins which bear the type of a lion recumbent and looking back. The above-mentioned coin of Phanes belongs to this class, but its mint city is not certain: it was found at Halicarnassus. To this class also belong the numerous electrum coins found by Mr. Hogarth on the site of the Artemisium at Ephesus.

(2) There is a class of coins, also of pale electrum, which follows the Euboic standard (stater, grammes 16.84, grains 260). The types are very rude, and often unintelligible; but the lion's scalp, the eagle, and the ram can be made out on some specimens. Mr. Head mentioned some coins of this class; but they are best represented by a hoard of electrum, found at Samos¹ in 1894. M. Babelon would attribute the whole of them to Samos; but of course this assignment is very uncertain.

(3) There is a somewhat later class of coins, which follow the standard of Phocaea (stater, grammes 16.60, grains 256). These are of darker colour, and contain a larger proportion of gold. Indeed, Mr. Head has suggested that they were intended to pass as gold, not as electrum. They can be assigned to mints with far greater certainty than the previous coins; some, indeed, are of certain attribution, such as:—

PHOCAEA. *Obv.* ☉ Seal (phoca). *Rev.* Two square punch-marks.

Munich. Weight, 16.50 gr. (Pl. I. 3).

CYZICUS. *Obv.* Tunny, bound with fillet. *Rev.* Two punch-marks; in one a scorpion. Brit. Museum. Weight, 16.32 gr. (Pl. I. 4).

LAMPSACUS.² *Obv.* Forepart of winged horse. *Rev.* Incuse divided into four; two divisions deeper struck. Paris. Weight, 14.99 gr.

There is also a stater, with the type of a griffin's head³ and the inscription ΙΣΟΜ (Zios?), which has been given with great probability to Teos. Other attributions, of a less convincing kind, to Methymna and Mytilene in Lesbos, Smyrna, Cyne, and other cities are proposed by M. Babelon. All of these coins belong, so far as we can judge, to the cities north of Smyrna; and they may be mostly assigned to the period mentioned by Eusebius in his list of thalassocracies as the time of the greatest sea-power of Phocaea, B.C. 578-34. One

¹ *Revue Numismatique*, 1894, p. 149, Pl. III.

² Babelon, *Traité*, Pl. VIII. 1.

³ Babelon, in *Revue Numism.*, 1895, p. 18; cf. Head, *Cat. : Ionia*, p. xxi.

of the earliest coins of the class of uncertain mint is figured, Pl. I. 1.

That the Lydian kings at their capital of Sardes issued electrum coin is in the highest degree probable, for the Lydians as a people seem to have possessed the commercial instinct.¹ Yet it is not possible with certainty to assign to any of the Mermnad kings any electrum coin. The classification of electrum money to each of them by François Lenormant is little more than a work of imagination.

M. Six has indeed read on some electrum coins, bearing as type a lion's head,² the name of King Alyattes of Lydia. The letters, so far as they can be made out, seem to be FAAFEI. Whether these letters can stand for the name of the king is a problem for philologists. At the same time, the fabric of the coins and the nature of their incuse connects them closely with the coins of Croesus, shortly to be mentioned. And, as M. Six observes, the use of the digamma seems to exclude the notion of an Ionian mint. We may therefore regard the attribution to Alyattes as not improbable. The issue, however, was not important, like those of Croesus.

Thus there are few fixed points in regard to the early electrum coinage. We can identify but a few mints; nor do we even know by what authority the coins were issued. Another thing which has caused the utmost perplexity to numismatists is the very remarkable fact that the proportion between gold and silver in the composition of the coins varies greatly, and with it their intrinsic value. It is possible by weighing, first in air and then in water, to determine the specific gravity of electrum coins; and from the specific gravity it is possible to deduce, within certain limits, their composition, the proportion of gold and silver which they contain. In 1887 I applied this method to a number of electrum coins of Cyzicus; and in the same year Mr. Head made a series of similar investigations as regards other electrum coins³. The results are extraordinary, and very disconcerting. Instead of the proportions of gold and silver being fixed, they vary in an extreme degree. In the case of a set of electrum coins of Cyzicus of various ages, I found the percentage of gold to vary from 58 to 33 per cent. Mr. Head, ranging over a wider field, found that the percentage of gold in early electrum coins varied from

¹ Babelon, *Rev. Num.*, 1895, p. 20. The whole of M. Babelon's two articles on early electrum coins in this volume is important.

² *Numismatic Chronicle*, 1890, p. 204; *Brit. Mus. Cat.: Lydia*, p. xviii; Babelon, *Traité*, p. 227. In his most recent publication, in the volume published by the British Museum on excavations at Ephesus (p. 91), Mr. Head allows the probability of M. Six's reading.

³ *Numismatic Chronicle*, 1887.

72 to 10, and even 5 per cent. That is to say, coins of almost identical weight might vary in value, so that one should be intrinsically sixfold the value of another. Now the Greeks, even at an early period, were perfectly well aware of the methods for mixing gold and silver; and they used touchstones, found in the very district of Lydia where coinage originated, which enabled them to determine with considerable accuracy the degree of alloy in coins professedly of gold. How then is it possible that they can have accepted debased coins of electrum as of equal value with coins of good quality?

The view of Brandis and Mommsen was that electrum was regarded as a metal apart, and conventionally accepted as of ten times the value of silver, or three-fourths of the value of gold, which latter metal, as we know both from the testimony of Herodotus and from induction, stood to silver in Asia in the relation of 40 to 3, or $13\frac{1}{3}$ to 1. And, strange as it may seem, this view is after all probably the true one. For, remarkable as it may be that Greek merchants should be willing to accept coins not guaranteed by any king or city at a fixed and conventional rate, it is still more improbable that they should have to value every piece of money offered them by means of the touchstone, and make the simplest bargain into a very elaborate arithmetical problem. In the latter case, one cannot see what advantage the electrum coinage would possess over bars or rings of gold or silver, which as a matter of fact it superseded in commerce.

II. *Croesus to Darius.*

There is no proof that the Mermnad kings of Lydia, whose power was rapidly increasing in the seventh and sixth centuries, showed any desire to interfere with the Ionian issues of electrum. If, as is probable, they issued electrum coin of their own at Sardes, they seem to have allowed it to take its chance with the rest, and did not stamp it distinctively as a royal issue. But when Croesus came to the throne he seems to have determined to take another line. It may be that the inherent faults in the electrum coinage of Ionia were unfitting it for its purpose. It may be that with great sagacity he grasped the notion that by concentrating the issue of coin in his own hands he could strengthen his political power. It may be that he merely wished, with commercial instinct, to make the most of his great stores of gold. Whatever the motive, he certainly initiated one of the greatest of all political movements which the world has known—the issue of a state coinage.

It is true that the proofs that this action was due to Croesus are

not absolutely conclusive. Holm is even disposed to call them in question. They are circumstantial rather than direct. But in my opinion they are ample. This is the only view which brings consistency and order into the arrangement of facts. And since Julius Pollux¹ talks of the staters of Croesus in the same line with the noted gold staters of Philip and the darics, he bears testimony to the existence of well-known gold coins named after Croesus. These can only be the coins long attributed by numismatists to the king; which are the following:—

Obv. Foreparts of lion and bull facing each other.

Rev. Two incuses side by side (Pl. I. 5).

These coins were issued in gold of the weight of a stater of 10.89 grammes (168 grains), with its fractions of a half, a third, a sixth, and a twelfth; a stater of 8.17 grammes (126 grains), with corresponding divisions, and a silver unit of 10.89 grammes (168 grains), again with corresponding fractions.

The gold and silver of these coins is singularly pure, giving them such a natural advantage over the electrum that they could scarcely fail to supersede it in circulation.² We may suppose that the stater of 126 grains was intended mainly to take the place of the darker or Phocæan electrum, and that the gold and silver of the 168 grains' standard (Babylonian silver standard) was intended to take the place of the lighter or Milesian electrum. It certainly seems from the style and fabric of the extant coins of electrum that few, if any of them, saving only certain exceptions to be presently mentioned, belong to a later date than the middle of the sixth century.

When the kingdom of Croesus fell, about B. C. 546,³ the royal coinage at Sardes of course ceased. Before long, its place was taken by the royal darics and sigli, or staters of gold and drachms of silver, issued by the Persian kings (Pl. I. 6, 7). The daric stater was a few grains heavier than that of Croesus, following the Babylonian standard. It was current until the fall of the Persian empire, and governed the trade of Asia Minor for ages. The date of the

¹ ix. 84.

² It may be suggested that it was out of the superseded electrum coinage that Croesus made the bricks of white gold which he dedicated at Delphi just as Pheidon, according to tradition, dedicated in the Heraeum the obeli which were superseded.

³ All the dates in early Greek and Oriental history are only approximate. Winckler prefers for the date of Croesus's fall, B. C. 548. As the exact year in which events took place is a matter of small importance to the purpose of the present paper, I have not judged it necessary to enter into chronological discussions, but usually accept the ordinary view.

first introduction of the daric is a matter of some uncertainty. The word daric is a Greek adjective, formed from Darius, and it is expressly associated by Julius Pollux with the name of that king.¹

But that fact does not necessarily prove that darics were not issued before the accession of Darius in B. C. 521. For it is quite maintainable that the Greeks named the coin after the Persian king best known to them, even if they were issued before his reign.²

It is certainly in itself improbable that Asia Minor had to wait until the reign of Darius for a satisfactory gold currency. The coinage of Persia is confessedly modelled on that of Lydia; and it is difficult to believe that the 25 or 30 years which elapsed between the suppression of Croesus and the reforms of Darius passed without the issue by Cyrus and Cambyses of coins to take the place of the Lydian money. Indeed, so improbable does this seem, that some writers, such as François Lenormant and Mr. Head, have supposed that the Persian governors of Sardes continued to issue money of the types and the standard of Croesus.³ This is of course not impossible, and parallels may be found; but it is improbable, and the view is rightly rejected by M. Babelon.⁴ It is true that Herodotus writes of Darius,⁵ χρυσίου καθαρώτατον ἀπεψήσας ἐς τὸ δυνατώτατον, νόμισμα ἐκόψατο. But this phrase merely asserts the purity of the coin issued by Darius, and does not at all imply that he was the first to issue a Persian gold coinage. Thus it seems most probable that the Persian darics were issued immediately after the conquest of Lydia, and were the institution of Cyrus rather than Darius.

It has been supposed that half-darics also were struck, because Xenophon records, in his account of the expedition of the younger Cyrus,⁶ that the latter promised to raise the pay of his soldiers from a daric a month to a daric and a half, τρία ἡμιδαρειακά. Since, however, no half-darics are known to exist, it is probable that the half-daric was a money of account. The mercenaries would be paid at the end of a campaign; for they could not well carry money with

¹ *Onom.* iii. 87 οἱ Δαρεικοὶ ἀπὸ Δαρείου.

² Attempts have been made to show that similar words to daric were used for money in Assyria in pre-Persian times. In any case, though the adjective *δαρεικός* is regularly formed in Greek from *Δαρείος*, it may be what is called a Volksetymologie, and really have nothing to do with that king. Cf. Harporation (Hultsch, *Metrol. Script. reliquiae*, p. 310) ἐκλήθησαν δὲ Δαρεικοὶ οὐχ, ὡς οἱ πλείστοι νομίζουσιν, ἀπὸ Δαρείου τοῦ Ξέρξου πατρός, ἀλλ' ἀφ' ἐτέρου τινὸς παλαιότερου βασιλῶς.

³ Lenormant, *Monn. royales de la Lydie*, p. 198; Head, *Coinage of Lydia and Persia*, p. 23.

⁴ Babelon, *Traité*, p. 242.

⁵ Hdt. iv. 166.

⁶ *Anabasis*, i. 3, 21.

them, and in ancient times soldiers were not so much inclined to pay for supplies as they are now. Double darics have in recent years been discovered in considerable numbers, especially in the far east. They certainly belong to the very latest time of Persian rule. M. Babelon thinks that they were issued shortly before the time of Alexander, and that he continued to strike them; but numismatists have generally been more disposed to think that they were struck only by Alexander and his generals.

The subsidiary coins to the daric, in addition to rare fractions in gold, were silver coins of the same type and form, the sigli or shekels, which, as we know from the testimony of Xenophon,¹ passed at the rate of twenty to the daric. It is strange indeed to find thus, at the beginning of consecutive history, the primary coinage of Asia consisting of gold coins of nearly the weight of an English sovereign, divided into twenty sigli, each nearly of the metal weight of a shilling.

Several ancient historians bear witness to the enormous extent of the daric currency of the Persian Empire. In the reign of Xerxes, as Herodotus² informs us, a wealthy Lydian named Pythius had amassed four millions of darics, lacking seven thousand. The Persian archers, as the darics were called because they bore the type of the king holding the bow, were but too well known and too potent in the domestic affairs of Greece. The vast stores of them found by Alexander at Ecbatana and Susa³ inundated the whole Greek world with gold, and doubtless formed the material out of which many of Alexander's own coins were struck.

A century ago the daric was a comparatively rare coin in our museums, the obvious reason being that those found were concealed by the finders, and at once melted down. A great abundance of them has appeared in recent years. To determine their find-spots is almost impossible; but they certainly range over a great part of western Asia.

Can they be classified as regards period? Lenormant tried to find on them the portraits of the successive reigning monarchs of Persia. Mr. Head, with his usual sanity and moderation, writes⁴: 'A close examination of the gold darics enables us to perceive that, in spite of their general similarity, there are differences of style. Some are archaic, and date from the time of Darius and Xerxes, while others are characterized by more careful work, and these belong to the later

¹ *Anabasis*, i. 7, 18, where the talent of silver (6,000 sigli) is equated with 300 darics.

² Hdt. vii. 28.

³ At Susa Alexander captured 9,000 talents of darics, besides unminted gold and silver. Diodorus, xvii. 66.

⁴ *Lydia and Persia*, p. 28.

monarchs of the Achaemenian dynasty.' More recently, M. Babelon¹ thinks that he has found a clue in a hoard of 300 darics found in the canal of Xerxes by Mount Athos, which he ventures to divide, on the ground of minute differences in the portrait and beard, between Darius and Xerxes. For my part I prefer to stop at the point marked by Mr. Head. An exceptional coin of the British Museum has as type the king not bearded but beardless (Pl. I. 7).² M. Babelon proposes to attribute it to the younger Cyrus; but there appears no sufficient reason for such assignment. In fact several of the Persian kings came to the throne young. And the extreme rarity of the coin in question is a strong reason against supposing that it was issued by Cyrus, who must have used gold coins in great quantities to pay his Greek mercenaries, who received a daric or more a month.

It is probable that the staters of Croesus and of Persia brought to an end the early electrum issues of Ionia. We can in the case of some cities such as Teos and Phocaea give good reason for the complete ceasing of this coinage at a definite date, since these cities were abandoned by their inhabitants through fear of Persian conquest. Probably at other cities at about the same time coinage ceased. The king of Persia was beginning to assert his monopoly of gold coinage, and it is probable that he regarded the issue of electrum as a violation of that monopoly.

III. *The Ionian Revolt.*

We have next to treat of a well-marked and homogeneous set of electrum coins, struck on the lighter or Milesian standard, and evidently contemporary one with the other, but decidedly later than the early Ionian electrum. These coins have often been discussed, but numismatists seem to have missed, almost by a hair's breadth, what seems to me their definite chronological attribution. Most of them have a pronounced civic character, though of some the mints cannot be ascertained:—

Samos.

Obv. Forepart of bull r., looking back.

Rev. Incuse square divided into four. British Museum, weight 14.04 (Pl. I. 10).

Abydos.

Obv. Eagle to l., looking back, standing on hare.

Rev. Similar. British Museum, weight 14.09. Sometimes a dolphin in place of the hare.

¹ *Traité*, p. 262.

² On the reverse of this coin is a small head incuse, bearded and horned.

Clazomenae.

Obv. Forepart of winged boar to r.

Rev. Similar. British Museum, weight 14.08.

Lampsacus.

Obv. Forepart of winged horse l.; above, leaf pattern.

Rev. Similar. British Museum, weight 13.98 (Pl. I. 9).

Chios.

Obv. Sphinx seated r.

Rev. Incuse square. British Museum, weight 14.04 (Pl. I. 8).

The following are of doubtful mint:—

Obv. Horse galloping l.; beneath, leaf.

Rev. Incuse square, divided into four. British Museum, weight 13.94 (Pl. I. 11).

Obv. Sow walking to l.

Rev. Similar. British Museum, weight 14.07 (Pl. I. 12).

Obv. Cock r.; above, palmette.

Rev. Similar. British Museum, weight 13.98 (Pl. I. 13).

The similarity of these coins one to another, alike in monetary standard and in style of execution, is so great that numismatists have long seen that they must be closely connected. They are even of the same colour, and analysis has shown that they possess the same proportion of gold, about 30 per cent., and several have the leaf or palmette ornament.

The coin of Chios alone differs somewhat in appearance from the rest. The type is rather more archaic in character; the incuse of the reverse is smaller and deeper. But since the weight and colour of the coin are just like those of the others and as it contains the same proportion of gold, it can scarcely be doubted that it belongs to the same group.

The coin marked with a cock has been given to Dardanus in the Troad, that with the horse to Cyme in Aeolis, that with the sow to Methymna in Lesbos; but none of these attributions can be considered more than possible. Even the attributions to Abydos and Clazomenae may be called in question. But the mints of Chios, Samos, and Lampsacus seem firmly established; and hence there arises a reasonable probability that the other coins also were issued by cities of Aeolis or Ionia.

In a paper in the *Numismatic Chronicle*¹ M. Six maintained that

¹ 1890, p. 215.

these coins were all issued from the mint of Chios. He would identify them with the Chian pentadrachms which according to Xenophon¹ Callicratidas gave in 406 to the sailors of his fleet. M. Babelon² rightly rejects this view; he sums up as follows, 'ou bien, ces pièces à types variés mais de fabrique identique, ont été frappées dans un seul et unique atelier; ou bien, ces pièces représentent le monnayage de villes associées en vertu d'une alliance monétaire.' In stating, however, their date as long after the beginning of the fifth century, M. Babelon brings them down far too late.

In my opinion the view of Mr. Head as to their date is the only admissible one. As early as 1887³ he accepted for coins of this class the date of the beginning of the fifth century. And in 1892⁴ he observed that they probably began to be struck before B. C. 500.

But a series of coins issued by a set of Asiatic cities in conjunction at about the date of 500 surely can be nothing else than the money struck by the revolted cities of Ionia when they rebelled against King Darius B. C. 500-494. The allied cities of Ionia would need much money to pay the sailors and soldiers of the fleet; and being in full revolt against the King of Persia they would not hesitate to invade his monopoly of issuing gold coin. The base composition of the coins shows them to be probably money of necessity issued at a time of strain, and their finished execution is just what we should expect from Ionian workmen of the late archaic period.

Herodotus⁵ gives us the details of the composition of the Ionian fleet at the battle of Lade; it was as follows: Miletus 80 ships, Priene 12, Myus 3, Teos 17, Chios 100, Erythrae 8, Phocaea 3, Lesbos 70, Samos 60. It would not be a matter of surprise if the coins failed perfectly to fit in with the account of the historian. Yet in some respects they agree perfectly. Chios appears in Herodotus as furnishing the most numerous and determined of the contingents; and the weight and character of the coins are so clearly Chian, that M. Six, as we have seen, regarded them as all struck in the island. Samos and Lesbos are represented alike in the fleet and in the coins. Lampsacus, Abydos, and Dardanus joined the revolt, but were reduced by the Persian Daurises, son-in-law of Darius⁶; while Artaphernes and Otanes captured Cyme and Clazomenae⁷ before the battle of Lade. Thus every one of the cities suggested by the coins is known to have been in revolt against the Persian yoke. That we have no revolt-money of Miletus is unfortunate. But the fact is that the electrum coinage of Miletus is as yet imperfectly known to us. It is probable

¹ *Hellen.* i. 6, 12. ² *Traité*, ii. 1, 198. ³ *Num. Chron.*, 1887, p. 281.

⁴ *Cat. Ionia*; *Introd.* p. xxv. ⁵ vi. 8. ⁶ *Hdt.* v. 117. ⁷ *Hdt.* v. 123.

that much of the early electrum really belongs to Miletus; but we cannot with certainty distinguish it, and so do not know what type to look for as Milesian among the coins of the revolt. It is, however, by no means impossible that the coin with the type of a cock may be Milesian. Dardanus, to which it is sometimes given, was a place of little importance. In the find of archaic electrum coins discovered by Mr. Hogarth at the Artemisium of Ephesus many had the type of a cock¹ or cocks. These Mr. Head attributes to Lydia; but the attribution to Miletus is at least as probable. In Persia the cock, the herald of day, was held sacred to the sun-god; at Miletus he may well have been consecrated to Apollo whose great temple of the Branchidae was well known throughout Asia.

It is observable that the coins of the Ionian revolt are staters, and that the fractions were not struck. This is very natural, if the money was issued for the pay of the sailors and soldiers of the fleet, who would receive it in substantial sums. And at this time silver coin had become abundant, and the usual tender for small amounts. The little electrum pieces of the seventh century had been superseded by silver, just as, about B. C. 400, small silver coins were superseded at most places by bronze. Minute electrum and silver coins can never have been convenient in use.

IV. *Electrum Coins* B. C. 480-330.

After the suppression of the Ionian revolt it is probable that all issues of electrum coins in Asia Minor would be for a time completely suspended. But we know of certain issues of such coins by some of the cities of Ionia and Mysia in the fifth century; and our next task is to try to assign their dates and their character.

The cities to which these issues belonged were Cyzicus and Lamp-sacus on the south shore of the Propontis, Phocaea in Ionia, and Mytilene in Lesbos, to which cities must be added the important island of Chios.

On Pl. II. I give a few examples of these electrum coins from the British Museum collection:—

1-4. Cyzicus: staters. Types: (1) Winged female figure, running, holding tunny; (2) Female figure seated on a dolphin, holding wreath and shield; (3) Apollo kneeling, holding bow and arrow; (4) Portrait of a man, bald-headed and bearded, wearing wreath; beneath, tunny.

5. Mytilene: stater. Type, Head of Apollo r., laureate.

¹ See Hogarth *Archaic Artemisia*, p. 81 (British Museum publication).

6-7. Hectae of Phocaea. Type, female head ; beneath, a seal.

8. Hectae of Mytilene. Types, Head of Persephone and lyre.

In determining the periods of issue of these coins, three kinds of consideration have to be taken into account : (1) historic probability, (2) the evidence of ancient historians and inscriptions, and (3) the evidence of the coins themselves.

(1) The indications of historic probability are clear. If the King of Persia jealously guarded his monopoly of the issue of gold coin, and if he, in accordance with the general view of antiquity, regarded electrum as a species of gold, then it is improbable that he would permit any of the cities of Asia under his immediate lordship to begin an issue of electrum coins. Such issues must almost necessarily have begun at a time when the Persian power on the coast was destroyed, or at least greatly weakened. Now it is well known that Persian lordship did thus suffer a check in the days following the repulse of Xerxes from Greece. The Greek victory of Mycale in 479 did much to drive back the Persian power. Herodotus (ix. 106) tells us that immediately the people of Samos, Chios, Lesbos, and other islands joined the Greek league, and after Cimon had in 466 won the great battle on the Eurymedon, Persia was still further repulsed. Whether this battle was followed by a peace humiliating to Persia is a matter much discussed by historians. But in any case it is certain that the result of it was to secure autonomy to the Hellenic cities of Asia. And we learn on excellent authority that there was a definite agreement that Persian war-fleets should not appear in the Aegean. From this time, for a while, the Greek cities suffered little interference from Persia. At first they were subject to Athens ; but after the disaster in Sicily the power of Sparta also largely prevailed on the Asiatic coast.

That Cyzicus and the other cities began their issues of electrum after Mycale and under Athenian protection seems almost certain. The Cyzicene staters, as we know, were largely used by the Athenians, especially for their trade in the Black Sea. But the date of their cessation is less easy to determine ; the evidence of the coins themselves must decide. We can, however, easily suppose that the Persian king might be willing to allow the continuance of what had by the end of the fifth century become quite an institution.

(2) Let us next make a brief survey of the inscriptional and literary evidence.

Various writers have given a list of the mentions in inscriptions of Cyzicene electrum staters.¹ The earliest appears to be in the

¹ *Num. Chron.*, 1876, 295 (Head) ; Lenormant, *Revue Numismatique*, 1867.

Lygdamis inscription found by Sir C. Newton at Halicarnassus, and dated to about B. C. 445. It should be, however, observed that the mention is only of *staters*, not of Cyzicus as the mint. But Cyzicene staters are definitely mentioned in an Attic inscription of B. C. 434, in the Public Works accounts¹; twenty-seven staters and a hecte being entered in the table.

In the treasure-lists of Athens of B. C. 429 we have mention of gold staters of Cyzicus.² That they are spoken of as of *gold* is an important point, since it seems to show that the mercantile world was accustomed to regard them as gold coins rather than as money of mixed metal.

In subsequent Attic treasure-lists of B. C. 418, 416, 415, 412, and 406³ mention is made of Cyzicene staters: and Lysias in his orations against Eratosthenes (B. C. 403) and Diogeiton at the end of the fifth century speak of them in a way which shows that at that time they constituted, with the darics, the main gold coinage of Greece. Cyrus the younger promised his mercenaries a Cyzicene stater a month as pay.

At a considerably later time, just in the middle of the fourth century, we learn from the oration of Demosthenes against Phormio⁴ that then Cyzicene staters were current coin on the shores of the Black Sea. This does not, however, positively prove that they were then issued, for they might naturally continue in use in remote districts even when the mint was closed.

Lampsacene staters (70 in number) are mentioned in the Attic inscription of 434 already cited, and in other inscriptions of the same period. These may be with certainty identified as electrum staters of Lampsacus, not the gold coins issued from that mint, as we shall see, at a somewhat later time.

The staters and hectae of Phocaea are mentioned in several Attic inscriptions dating from B. C. 429-384.⁵ Staters of Phocaea are also mentioned by Thucydides (iv. 52 *δισχιλίους στατήρας Φωκαίτας*, of the year B. C. 424) and by Demosthenes,⁶ who speaks of a sum of 300 Phocaic staters as procured at Mytilene. The text of a remarkable convention between Phocaea and Mytilene for the common issue of electrum, dating from about the end of the fifth century, was published by Sir C. Newton.⁷ The two cities were in alternate years to undertake the minting of the coins: and if the

¹ *C. I. A.* (= *I. G.*), i. No. 301. It is true that only the first letter and the last two of *Κυζικηνοί* are preserved in this inscription; but the restoration is certain.

² *C. I. A.*, i. No. 196.

³ *C. I. A.*, i. 180 and foll.

⁴ p. 914.

⁵ *C. I. A.*, i. 196, 649, 660.

⁶ *Πρὸς Βοιωτών*, 1019.

⁷ *Roy. Soc. Lit.*, viii. 549. Michel, *Recueil*, No. 8.

mint-master debases the coin beyond a certain point, the penalty of death is assigned. It is remarkable that so important a detail should be decided, not by the city, but by an official.

(3) Turning from the literary and inscriptional evidence to that of the coins themselves, we have much material to deal with. And first of Cyzicus.

Every one accustomed to study the coins of the ancient world is astonished at the abundance, the variety, and the artistic beauty of the Cyzicene staters.¹ 172 different types are mentioned by Mr. Greenwell; and more are now known. The inscriptional and literary evidence makes it clear that the staters of Cyzicus, together with the darics, constituted the main gold coinage of the Greek world from the time of Thucydides to that of Demosthenes. Yet Cyzicus does not seem to have been a great or wealthy city. It had great natural advantages, being built on a peninsula, united with the mainland of Mysia only by a narrow neck of land,² and having two good harbours. But we are told by Thucydides (viii. 107) that as late as B. C. 411 the city was unfortified, and was occupied almost without resistance by the Athenian fleet. It seems to have been in the Roman age that it grew, and covered much ground. Why a city comparatively unimportant should have possessed so remarkable a privilege presents an interesting historic problem. In my opinion the secret must be the patronage of Athens, which was at the height of its power in the time of Cimon, and down to the disaster in Sicily. Some of the types of the staters of Cyzicus, the Tyrannicides Harmodius and Aristogeiton, Cecrops, Ge holding the young Erichthonius, Triptolemus in his winged car, are quite Attic. One, the young Herakles strangling serpents, commemorates the victory of Conon over the Spartans in B. C. 394, and cannot have been struck much later than that year.

As regards the dates of the Cyzicene coins, numismatic authorities are not altogether agreed. Mr. Greenwell, on the evidence of style, gives them to the period B. C. 500-360. Mr. Head in 1876 was disposed to think that their issue ceased early in the fourth century. French and German numismatists³ had, on the other hand, brought the latest of them down to the time of Alexander the Great (331).

¹ The most complete account, by W. Greenwell, in *Num. Chron.*, 1887.

² Originally it seems to have been an island, but the passage between it and the mainland was silted up by the time of Alexander the Great, who cut a fresh canal across the isthmus. Plans of the site are given in *Journ. Hell. Stud.*, 1902, Pl. XI; 1904, Pl. VI.

³ F. Lenormant, in *Revue Numismatique*, 1864, 1867; Brandis, p. 177.

In the *Historia Numorum* Mr. Head accepts the date 500–350. And in the British Museum Catalogue of Mysia the latest date is fixed at 350; the cessation of the Cyzicenes being regarded as the result of the great issues of gold coin by Philip of Macedon.

One of the latest of the staters of Cyzicus is a coin published by Millingen,¹ bearing the inscription ΕΛΕΥΘΕΡΙΑ, which has been regarded as a reference to Alexander's victory at the Granicus. It is, however, more than doubtful whether the people of Cyzicus, who had already enjoyed freedom, would look on the Macedonian conquest in this light. Mr. Head suggests that the reference is rather to the victory of Conon at Cnidus in B.C. 394, and he finds nothing in the style of the coin to conflict with the supposition.² But a far more suitable occasion for the boast of freedom is suggested by the assertion of Marquardt³ that the people of Cyzicus expelled the Persian garrison in 365, twenty-two years after the peace of Antalcidas. Marquardt's ancient authorities⁴ only say that Timotheus liberated Cyzicus when besieged: but the inference of Marquardt that until the city had expelled the Persians it could hardly have been besieged by them seems a reasonable one. It was after this time that Cyzicus possessed an important arsenal, and two hundred ship-sheds. As the Cyzicenes repulsed Memnon, the Rhodian general of Darius, they seem to have preserved their autonomy until the time of Alexander. As the Cyzicene staters were a common currency till beyond the middle of the fourth century, there does not appear to be any reason why we should suppose that their issue ceased before Alexander's time, or at all events the taking of Athens by Philip.

The electrum staters of Lampsacus, the obverses of which bear the type of half a winged horse, are far rarer than those of Cyzicus, and seem to belong to one period only. What that period was seems to be decided alike by the style of the coins, and by the fact that several of them were found with a number of Cyzicene staters which are neither archaic nor late in style.⁵ We have seen that Lampsacene staters are mentioned in an Attic inscription of B.C. 434, and this date admirably suits the extant examples of the coinage.

The small hectae or sixths issued by Mytilene and Phocaea in conjunction, in accordance with the above-mentioned treaty, the text of which has come down to us, are extant in great abundance. There is but one stater of Mytilene known (Pl. II. 5), and as yet none of

¹ *Anc. Greek Coins*, Pl. V. 11. ² Head, in *Num. Chron.*, 1876, p. 292.

³ *Kyzikos und sein Gebiet*, p. 65.

⁴ Diodorus, xv. 80; Cornelius Nepos, *Timotheus*, 1.

⁵ This find is published in the *Numismatic Chronicle*, 1876, p. 277.

Phocaea. We have, however, seen that staters and hectae alike are frequently mentioned in Attic inscriptions.

Some of the hectae of Phocaea are distinctly archaic in style, for example, our Pl. II. 6. M. Babelon¹ does not hesitate to attribute them to a time before the Persian war. Mr. Head gives them to the end of the sixth century.² But the weakness of the city at that time is shown by the fact that it contributed only three ships to the Ionian fleet. The inhabitants had abandoned the city to sail to the west. It is unlikely that at such a time it would begin an issue of electrum coins. I should therefore regard them as issued just after B. C. 480. And Mr. Wroth gives the corresponding coins of Lesbos to B. C. 480-350.

The only existing electrum stater of Chios of a period later than the Persian wars is at Berlin.³ Its fabric is like that of the Cyzicene staters, and the type, the Sphinx, is enclosed in a vine-wreath, just like that on the already mentioned staters of Lampsacus. There can be little doubt that it is contemporary with these latter, dating from the time of the Peloponnesian war.

Such are our data. What are the historic results to be drawn from them?

It seems abundantly clear that at some date not long after B. C. 480 three or four of the cities of the coast resumed their issues of electrum. The chief of these cities were Cyzicus, Mytilene, and Phocaea; Lampsacus and Chios joining them about the middle of the fifth century. It is impossible to tell with certainty when the issues of Cyzicus, Lesbos, and Phocaea began, since we have only the evidence of style to go by. But the incuse reverses of the earliest examples are distinctly later than those of the group of coins which I have given to B. C. 500-494. The incuses of Cyzicus and Phocaea are of mill-sail type; those of Lesbos are in the form of a second type. Thus the examination of the coins themselves confirms the view which is in itself far the most probable, that these issues of electrum were not sanctioned by Persia, but were begun at the time after the battles of Plataea and Mycale, when Greek fleets sailed the Aegean, and the power of Persia was being driven steadily westward by the arms of Athens. They are a sign of the Ionic independence of Persia which had been lost for half a century, except during the stormy years of the Ionian revolt.

It would be natural to expect that in the early years of the fourth century, when the mutual hostilities of Sparta and Athens had allowed

¹ *Revue Numismatique*, 1895, p. 12.

² *Cat. : Ionia*, p. xxii.

³ Babelon, *Traité*, Pl. VIII. 9.

the Persian power to reassert itself on the shores of the Aegean, and especially after the peace of Antalcidas had acknowledged the suzerainty of the Persian king over the Ionian cities, the electrum issues of Cyzicus and the other cities would come to an end. This appears, from the evidence of the coins and of the orations of Demosthenes, not to have been the case. For some reason or other the Great King allowed the invasion of his prerogative of issuing gold coin to go on. Why he did so we cannot with certainty say. We must, however, remember that though the power of Persia seemed to be increasing in the early part of the fourth century it was less centralized. The Satraps of Asia Minor were often in revolt, and maintained something like independence. And the long reign of Artaxerxes Mnemon, B. C. 405-359, was not one in which the privileges of royalty were strongly asserted.

The electrum issues seem to have persisted until the appearance of the gold coins of Alexander the Great. Mr. Head has suggested as a reason for their ceasing the abundant issues of gold coins by Philip II of Macedon. This, however, appears to be a less likely occasion. Philip had little authority on the Asiatic side of the Bosphorus; and one does not see why the cities of Asia should forgo their own commercial advantage in order to further the circulation of his money. It seems likely that the popularity of the gold Philippi would rather decrease the volume of the issue of electrum than bring it to an end.

V. *Gold Coins* B. C. 480-330.

The question why the Persian King ever allowed Greek cities to issue gold coin is, however, raised in an acuter form by our possession of a considerable number of staters, not of electrum but of gold, issued on the Asiatic coast in the earlier part of the fourth century. It is conceivable that the Great King might be willing to allow a few privileged mints to continue the minting of electrum. But how could he possibly tolerate the striking of actual gold money, not inferior, and generally superior, in weight to the imperial daric?

All these gold coins are rare, and seem to have had a narrow circulation; and for information in regard to them we cannot go to ancient writers or inscriptions: we are restricted to the evidence furnished by the coins themselves. The cities of Asia which issued them are Lampsacus, Abydos, and Clazomenae. In this connexion also we shall have to cite for purposes of comparison gold coins of Cius and Pergamon, with others minted in Rhodes, by the kings of Caria and Cyprus, and by some of the cities of Europe.

It seems almost certain that the coins of Lampsacus, Abydos, and Clazomenae must have been issued under similar circumstances. But if we turn to the British Museum Catalogue we shall find considerable variety in their dating, which stands as follows:—Lampsacus, 394–350; Abydos, 411–387; Clazomenae, 387–300.

This loose and inconsistent dating has arisen from the fact that numismatists have considered each city separately—on its own merits, so to say—and have not taken up the general question why the cities in question should have struck gold at all, and why if they struck gold they should have minted it on that particular standard. In fact they have made the mistake of detaching numismatics from the broad flow of history.

Certain historic facts have to be taken into account. In the first place, it is to be observed that although, as we have seen, electrum coins were issued from a few mints in the early part of the fifth century, yet there was, not only in Asia, but even in the whole world, no issue of gold coins save the darics until the very end of the fifth century. What was the occasion of the first issue of other gold coins? and which was the city which broke the ice, and invaded the long established privilege of the Great King?

Another fact to be observed is that, though we have a very great variety of silver coin issued by the Persian satraps in Asia Minor, in the later fifth and earlier fourth centuries, coins of Pharnabazus, Tiribazus, Datames, and others, yet none of these semi-independent satraps ventured to issue gold money, even when in revolt. To this point we shall return presently.

The earliest gold coins issued by any city of the Greek world (with the possible exception of a few very small gold coins struck in Italy and Sicily) were gold drachms of Athens, bearing on one side the head of Athena, on the other the owl, and weighing 4.34 grammes (67 grains), together with the half, third, and sixth of a drachm. Dr. U. Köhler has shown conclusively¹ that these pieces were issued by the Athenians at a time of economic pressure in B. C. 407. Hellanicus, as cited in the Scholia to the *Frogs* of Aristophanes (l. 717), states that in that year the Athenians melted down golden statues of Victory on the Acropolis and struck coins out of them; and this testimony is, as Köhler shows, fully confirmed by the testimony of Athenian inscriptions. Attic gold coins are first mentioned in the Athenian treasure-lists of the beginning of the fourth century.²

Now it is a remarkable fact that the gold of the Ionian cities,

¹ *Zeitschr. f. Numismatik*, 1898, p. 11.

² e. g. *C. I. A.*, i. 843.

of which I am speaking, all follows the Attic standard of weight, which is for the didrachm perceptibly (some five grains, .3 gramme) heavier than that of the daric. But the Attic standard of weight was not the standard in use in those cities. They must have had some reason for adopting it for their gold coin. In the same way at Rhodes, in Chalcidice, and in other places in which a gold coinage appears early in the fifth century, it is invariably the Attic standard of weight which is adopted for gold, though the silver follows other standards.¹

The ordinary opinion of numismatists in regard to these gold coins is that they were issued as rivals to the daric. As M. Babelon puts it, 'L'or des Grecs, sur le terrain commercial et économique, vient déclarer la guerre à l'or des Perses; la lampsacène est créée pour lutter contre la darique.'² And on this ground numismatists have tried to explain the fact that these gold pieces are heavier than the daric. They suppose that this extra weight was introduced purposely in order to force them into circulation. What the cities would gain by such a course no one has explained. When Germany introduced its new gold coinage it made the standard not heavier but somewhat lighter than that of the English sovereign.

Athens used the same standard for her gold coins which she had long used for silver. And the reason seems obvious. If the gold and silver coins had the same weight, then, whatever proportion in value gold had to silver, at that rate the gold and silver coins would exchange. That is to say, wherever the silver money of Athens was used as the regular medium of exchange, gold minted on the same standard would pass with ease and convenience.

But we know from the well-known lines of the *Wasps*,³ as well as from the testimony of finds, that about the year B. C. 400 Athenian silver was the regular currency of the shores of the Aegean, as well as largely current as far as Sicily and Egypt: received, as Aristophanes says, everywhere alike by Greeks and barbarians.

It seems then that the readiest way of explaining the adoption of the Attic standard for gold by the cities of Asia is to suppose that it was not minted in rivalry of the darics, but with direct reference to the monetary issues of Athens. Athens set the fashion as regards both metal and standard, and several cities of Asia followed it.

We have not, it is true, in this earliest gold mintage of Athens the didrachm or stater, but only the drachm and its divisions,

¹ Only at Panticapaeum the standard is somewhat higher than the Attic (140 grains, 9.07 grammes), apparently for some local reason.

² *Perses Achéménides*, p. lxxiii.

³ 720 and foll.

whereas the stater is struck in the Ionian cities. This must be allowed to tell somewhat against the view which I am supporting; but it is scarcely a serious argument against it. Certainly the earliest gold didrachms of Athens, minted about B. C. 339, are too late to be regarded as the prototype of the coins of Lampsacus and the other cities.

Cyzicus in the fourth century continues her electrum issues. But Lampsacus with the century begins to issue those very beautiful gold staters which have reached us in great variety. The type of their reverse is always the forepart of a winged horse; but on the obverse are various types. On Pl. II the following are figured:—9, Young Herakles strangling serpents; 10, Head of Athena; 11, Persephone holding corn, rising from the ground; 12, Head of Persian satrap.

Some of these types seem to have no special meaning,¹ but to be mere imitations of well-known coins or works of art. But a few convey more exact information. On one coin (12) is the head of a Persian satrap: unfortunately he cannot be with any certainty identified. M. Babelon, following M. Six, takes him to be Orontes, and thinks that the coin belongs to the time, about B. C. 360, when Orontes was in revolt against the Great King. This identification, however, is very doubtful. Considering the imitative character of the coins, the appearance of the head of a Persian noble, very possibly copied from some silver satrapal coinage, cannot surprise us. A head of Pan on one coin is copied from the gold of Panticapaeum. An interesting copy is a head of Athena, imitated from the silver money of Athens (10). It bears indeed a superficial likeness to the gold staters of Athens of a later issue, which according to Köhler² were struck in B. C. 339. But a closer examination shows that it is of a decidedly earlier type than these, and is copied from the silver coins of a previous period. This fact seems to fix its date at about B. C. 400. A still closer date is given by the type of young Herakles strangling serpents (9), which is copied from the silver issued by certain allied cities of Asia after the victory of Conon at Cnidus in B. C. 394. This coin is one of the earliest of the set, and proves that this gold coinage cannot have begun much before B. C. 400. We have seen that Lampsacus issued staters of electrum for a short period towards the middle of the fifth century. Why she should have

¹ A list of thirty-one types in *Brit. Mus. Cat.: Mysia*, pp. xxi-xxv. In the *Journal internat. d'Arch. numism.*, v. p. 1, Miss Agnes Baldwin increases the number to thirty-seven. The second part of her paper, dealing with the coinage as a whole, appears not to have been published.

² *Zeitschrift für Numismatik*, 1898, p. 13.

resumed coinage about B. C. 400 we cannot of course tell without a more exact knowledge than we possess of the history of the city. But we must not forget the celebrity of the wine of the district, nor the position of the city on the Propontis near the stations of the Athenian and Spartan fleets, which might produce a need for a coinage.

It is natural to think that the number of types on these staters (more than thirty-seven) indicates a considerable duration of the period during which they were struck. We should naturally suppose that the type would be changed once a year. And it is unlikely that we have recovered more than (at most) half of the varieties issued. In this case, if the coinage began about 400, it would have lasted down to the time of Alexander.

This hypothesis of an annual change of type is not, however, a certainty. Mr. Head has made it probable that the type of the later coins of Athens was changed every year. But of the Cyzicene staters more than 170 types are actually known, and their issue can scarcely have lasted more than 150 years: at Cyzicus then there must have been more frequent changes. In any case it seems impossible to confine the varied staters of Lampsacus to the period before the peace of Antalcidas: they must have gone on later.

The gold coins of Abydos are somewhat early in character: they seem to have been contemporary with the earliest of the Lampsacene staters. One is figured on Pl. II. 13 with the types of Victory slaying a ram, and a standing eagle (Brit. Museum).

It is a suggestive fact that Lampsacus and Abydos, as well as Cyzicus and Cius (of the coins of which last city I shall speak presently), are all on the Propontis in the direct line of the chief Athenian trade-route, that which led to the Black Sea. It would seem that the strength of Athens in this quarter together with the influx of gold from Colchis and Scythia produced abnormal conditions as regards the issue of gold coins.

It is necessary to consider the relations of these Greek cities to the Persian satraps in their neighbourhood. Almost in the midst of them was situated Dascyleium, the head quarters of the Persian satrapy of Mysia. Xenophon¹ describes the city as a luxurious residence. 'Here,' he says, 'was the palace of Pharnabazus with many villages round it, great and rich in resources: wild beasts for hunting abounded in the parks and the country round—a river flowed by full of fish of all sorts; and there were also abundant birds for such as had skill in fowling.' The description would be attractive to many an Englishman in India.

The view generally accepted by numismatists² is that the Persian

¹ *Hellen.* iv. 1, 15.

² Babelon, *Perses Achéménides*, Introd., p. xxiii.

satraps did not as such issue coins, but used the darics and sigli of the Empire. But on the occasion of military expeditions they sometimes issued silver coin at the Greek cities which they made their head quarters. Thus Tiribazus, satrap of Western Armenia, struck silver money in some of the cities of Cilicia, Issus, and Mallus, on the occasion of the war with Evagoras.¹ Datames also issued silver coins in Cilicia at the time of an expedition against Egypt about B. C. 378.² Tissaphernes issued silver coins which are supposed to have been struck at the mint of Aspendus³; and other examples may be cited.

Among the satraps who had head quarters at Dascyleium Pharnabazus, when in command of the Persian fleet, issued silver coins in Cilicia. He also seems on some unknown occasion to have issued silver coins at Cyzicus; the following is their description⁴:—

Obv. ΦΑΡΝΑΒΑ. Head of the Satrap r.

Rev. Prow of ship to left, adorned with griffin; in front and behind, dolphin; beneath, tunny. Weight, gr. 12.85 (198 grains).

Mr. Head is of opinion that a gold coin was also struck by Pharnabazus at Cyzicus; it is the following⁵:—

Obv. Persian King as an archer, kneeling.

Rev. Prow of ship to left. Weight, gr. 8.25 (127.5 grains).

M. Babelon, however, attributes the coin to Darius III of Persia, and to some mint in Caria. M. Six gives it to Salmacis, and the time of Alexander the Great.⁶ It is, in fact, of uncertain origin; and the reasons for attributing it to Pharnabazus are not strong enough to induce us to make this coin the one solitary gold issue by any Persian satrap. The continued loyalty of Pharnabazus to his master would make it very unlikely that he alone would infringe the royal prerogative.

Orontes, who appears as a satrap of Armenia about B. C. 400, at the time of the retreat of the ten thousand, and forty years later as ruler of Mysia,⁷ issued silver coins with the forepart of a winged horse on the reverse, which M. Babelon attributes to the mint of Lampsacus.⁸ But Dr. Imhoof-Blumer regards them as struck rather at Iolla, or possibly Adramyttium; and their assignment must be left in considerable doubt.

¹ *Ibid.*, p. xxix.

² *Ibid.*, p. xxxix.

³ *Ibid.*, p. xxxii.

⁴ Babelon, *Perses*, p. 23: Pl. IV. 5. It is the presence of the tunny on the coins which makes the attribution to Cyzicus probable.

⁵ *Ibid.*, p. 15: Pl. II. 22.

⁶ *Numismatic Chronicle*, 1890, p. 245.

⁷ Diodorus, xv. 90, 3.

⁸ *Perses Achéménides*, p. lxxiii.

It would seem then that so far as our evidence, which is certainly very fragmentary, goes, the satraps of Mysia had little to do with the issues of coins on the coast of the Propontis. No doubt they must have had frequent relations with these Greek cities. But if we adhere to the view that it was only on the occasion of military expeditions that the Persian satraps struck coins, we shall be slow in attributing to their influence coins so evidently commercial as the gold money of Lampsacus and Abydos.

The available evidence, then, seems to indicate that it was rather the influence of Athens than that of the Persian satraps of Mysia which gave rise to the gold coins of the shore of the Propontis in the early fourth century.

I may briefly summarize the historic situation as follows. It is very difficult to trace in detail the history of the Greek cities of the Propontis during the period *b. c.* 412-311, that is between the Athenian disaster in Sicily and the rise of the Greek kingdom of Syria. They passed with bewildering rapidity from Athenian to Lacedaemonian hegemony and back again. Sometimes they seem to have had Persian garrisons and to have been subject to the king, sometimes they were in the hands of revolted satraps, sometimes they appear to have enjoyed almost complete independence. The facts are only to be occasionally gathered from slight references in surviving history. We are able, however, to discern three periods in the history of Asia Minor at this time (1): 412-387. The constant hostilities between Sparta and Athens, of which the coast of Asia Minor was the cock-pit, caused constant commotion in the cities, until by the Peace of Antalcidas they were recognized by the Greeks as the property of the Great King (2): 387-334. Under the incompetent rule of Artaxerxes Mnemon, there were perpetual revolts of satraps in Asia Minor, and of these satraps some achieved an almost unqualified independence. We know that they depended largely upon the help of Greek mercenaries; but in regard to their relations to the Greek cities we have scarcely any information (3): 334-311. From the landing of Alexander to the establishment of the Seleucid dominion there was a time of great unrest, the military occupation of the country by the Macedonians not precluding the autonomy of the cities.

It is to the first of these periods, even apart from the testimony of artistic style, that we should naturally attribute the origin of the gold coins of Lampsacus and Abydos. The avoidance of all gold issues by revolted Persian satraps (unless indeed they struck darics on their own account), is a strong argument against supposing that

the Greek cities would after the peace of Antalcidas begin such issues. But the evidence seems to show that as Cyzicus continued her electrum issues down through the fourth century, so Lampsacus continued issues in gold. The reasons of this very exceptional privilege, which the Great King must at least have tolerated, can only be matter of conjecture.

Passing from the Propontis to the Ionian coast, we have to speak of the very exceptional issue of gold coins by Clazomenae.

The coin of Clazomenae (Pl. II. 14) is remarkable for its peculiar weight (grammes 5.70; grains 87.8). It is not a stater of the Attic standard, but exactly two-thirds of a stater. Clazomenae is almost alone among the cities of Asia at this period in using the Attic standard for silver. If the relation of value between gold and silver was at this time twelve to one, then this gold coin would be worth four of the tetradrachms of Attic standard, alike the tetradrachms of Clazomenae and those of Athens herself; this seems a natural relation. The gold of Clazomenae is very beautiful, bearing a full-face head of Apollo which may be compared with the head of the Sun-god on the coins of Rhodes, or that of Arethusa on the coins of Syracuse. The British Museum Catalogue gives for it the date B. C. 387-300, a wide date, which shows that Mr. Head did not feel sure of its exact time. But we must not overlook the remarkable fact that in the text of the king's peace, or the treaty of Antalcidas, as given by Xenophon, the Persian king expressly reserves to himself, besides the cities of the mainland, the islands of Clazomenae and Cyprus. To couple thus together the little island on which Clazomenae was built, and the great land of Cyprus, seems very strange; and it is to be observed that mention is not made of Cyzicus and other cities built on islands close to the coast. But since Clazomenae came definitely under Persian rule in 387, it would seem far more probable that the city struck its gold just before, and not after, that date. In the style of the coin there is nothing conflicting with this supposition.

The weight of the coins of Clazomenae may be paralleled by that of gold coins of the island of Thasos, which were issued about B. C. 400 after the revolt of the island against Athens.¹ The weights of these coins are given by Mr. Head as 60 and 43 grains (grammes 3.88 and 2.78). The former pieces are clearly Attic drachms; the latter Attic tetrobols, and just half as heavy as the coins of Clazomenae. But this weight cannot be explained on the same

¹ *Hist. Num.*, p. 228.

principle as that of the coin of Clazomenae, since in Thasos the Rhodian standard was at the time in use for silver.

There are in existence gold coins bearing the types of Ephesus,¹ which, if genuine, would be contemporary with those of Lampsacus and Abydos. They are the stater, drachm, and diobol, having on the obverse the type of the bee, and the name of the city, and on the reverse a quartered incuse. If they be genuine they will belong to Mr. Head's third period, B. C. 415-394. But their genuineness has been called in question; and it is unsafe to base any argument upon them.

The gold staters of Cius in Bithynia (Pl. II. 15) are certainly of later date than those of Lampsacus and Abydos. Their style is considerably later than that of the coins of Chalcidice and of Philip of Macedon; it more nearly resembles that of the money of Pixodarus in Caria (B. C. 340-334). All the known examples come from the two Sidon hoards² which consist mainly of coins of the end of the fourth, or the beginning of the third, century. We are therefore driven to the supposition that the issue of these coins was allowed by Alexander for some reason which is lost to us, perhaps for services in connexion with his shipment to Asia, since Cius was the landing-place for Phrygia. A parallel may perhaps be found in the issue of gold staters at Philippi in Macedon, apparently by special licence of Philip II.

Another remarkable gold stater, probably from the Sidon finds, bears on the obverse a head of young Herakles, and on the reverse a Palladium.³ This is no doubt a coin of Pergamon; a third of a stater with the same reverse, but with the head of Athena on the obverse, is also known.⁴ M. Six is probably right⁵ in assigning these coins to the period when Herakles, the young son of Alexander, and his mother Barsine, established themselves at Pergamon, after the death of Alexander. It is to be noted that the coin in the Sidon finds which has been most worn, and so had probably been longest in circulation, is a stater of Panticapaeum, issued about B. C. 400.

In order to justify us for thus fixing the dates of the coins of Lampsacus, and other Greek cities of the coast, and the circumstances under which they were issued, it will be well to run through the contemporaneous gold issues in Greece proper, and the Islands of the Aegean. According to the British Museum Catalogue we may date them as follows:—Rhodes, 400-333; Panticapaeum, before

¹ Head, *Coinage of Ephesus*, p. 22. In the *Hist. Num.* they are omitted.

² *Revue Numism.*, 1865, 8.

³ *Revue Numism.*, 1865: Pl. I. 8.

⁴ *Brit. Mus. Cat.: Mysia*, p. 110, No. 4.

⁵ *Numism. Chron.*, 1890, p. 200.

Alexander: Cyrene, 431-321 (*Historia Numorum*): Olynthus 392-379, and later.

The coins of certain rulers and dynasts give us closer and more certain dates:—Evagoras I, of Salamis in Cyprus, 411-373: Nicocles, 371-361: Evagoras II, 361-351: Pnytagoras, 351-332: Nicocreon, 331-310: Melekiathon of Citium, 391-361: Pumiathon, 361-312: Pixodarus of Caria: 340-334: Philip II of Macedon, 359-336. These dates, being fixed, are valuable for comparison of style.

The kings of Cyprus seem to stand in a separate class. Evagoras I was a ruler of great power and audacity, who by force of arms asserted his independence of the Great King, and was never subdued, but at last made a compact with him 'as a king with a king'. That this high-spirited monarch should have broken through the tradition, and issued gold coins on his own account, need not surprise us. It is more remarkable that all his successors on the throne of Salamis should have continued the issues down to the time of Alexander the Great, and that the rival Phoenician kings of Citium should have followed their example. Brandis suggests¹ that this must have been the result of special favour of the Persian king. In any case Cyprus is quite exceptional in thus coining gold all through the fourth century.

It is to be observed that the powerful Mausolus of Caria, who was almost an independent sovereign, issued no gold coin, though he struck abundant silver: only his successor Pixodarus at a later time, when the Persian Empire was obviously breaking up, struck a few small gold coins.

The gold coins of Panticapaeum, Rhodes and Cyrene, belong to places too distant for the arm of the Persian king to reach. It is to be observed, however, that all these coins² are minted on the Attic standard, thus bearing testimony, if what we have said above be correct, to the prevalence of the Attic silver coins. All of them appear to be later than the appearance of Attic gold coins in B. C. 407. Mr. Head makes the gold of Cyrene begin in B. C. 431, but for this early commencement there is no evidence except that of style. And it seems to be impossible to place the gold coins of Cyrene on such grounds at an earlier date than those of Lampsacus and Abydos. Thus our glance at the gold coinages of the shores of the Aegean in the fourth century shows nothing inconsistent with the results we have reached in regard to the gold of the Greek cities of the Persian Empire; but tends rather to confirm them.

¹ Münz-, Mass- und Gewichtswesen, p. 256.

² Those of Panticapaeum are exceptionally heavy.

Numismatists are doubtless right in attributing to the time of Alexander and his successors the large series of double darics (Pl. II, 16). M. Babelon thinks that these were first issued before the fall of Persia and the issue continued by Alexander and his generals. In any case they belong to the time of transition. But the daric itself came to an end, being superseded by the abundant gold staters bearing the name and the types of Alexander, which were issued in many parts of his vast dominions in Europe and Asia. And with the daric the electrum coins of Cyzicus, Phocaea, and other cities also came to an end, as well as the gold coins of Lampsacus.

Thus ends the first chapter of the history of imperial coinage. The second chapter had scarcely begun, when the death of Alexander threw everything into confusion. When the dynasties of the Diadochi were established, especially the Seleucidae in Syria and the Ptolemies in Egypt, we are presented with a fresh series of problems which lie outside the scope of the present inquiry.

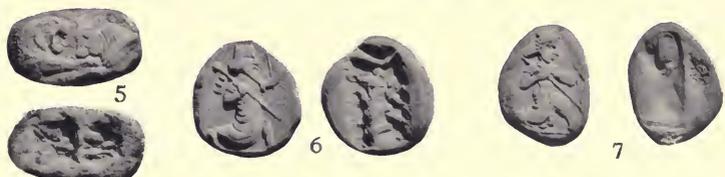
We may sum up our results in a few words. The earliest issues of electrum coins in Asia were of a tentative kind, very possibly the experiments of bankers or temples. Civic coinages at Phocaea, Cyzicus, and other cities begin to appear about B.C. 600, when Alyattes of Lydia also seems to have struck in electrum. The idea of originating a regular state coinage is due to Croesus, who substituted coins of gold and silver for those of the mixed metal. The kings of Persia took over the idea, and for a while monopolized the issue of gold coin. During the Ionian revolt there were temporary issues of electrum by Chios, Samos, and other places. Soon after the Persian wars, Cyzicus, Phocaea, and Mytilene began the issue of electrum coins; and were joined in the course of the fifth century by Lampsacus and Chios. About the end of the fifth century the cities of Lampsacus and Abydos, following the lead of Athens, began to strike in gold, and the example was followed by Clazomenae, and in some of the Islands, as Rhodes and Cyprus. A few cities, notably Cius, issued gold money in the time of Alexander. But the gold coins of Alexander himself brought to an end all issues of gold and electrum in Asia.

On the whole, the course of our inquiry has tended to confirm the current view that the Persian king regarded the striking of gold coins as his prerogative, although he seems to have allowed that prerogative to be invaded, on exceptional occasions, for reasons which it is difficult to assign with confidence.

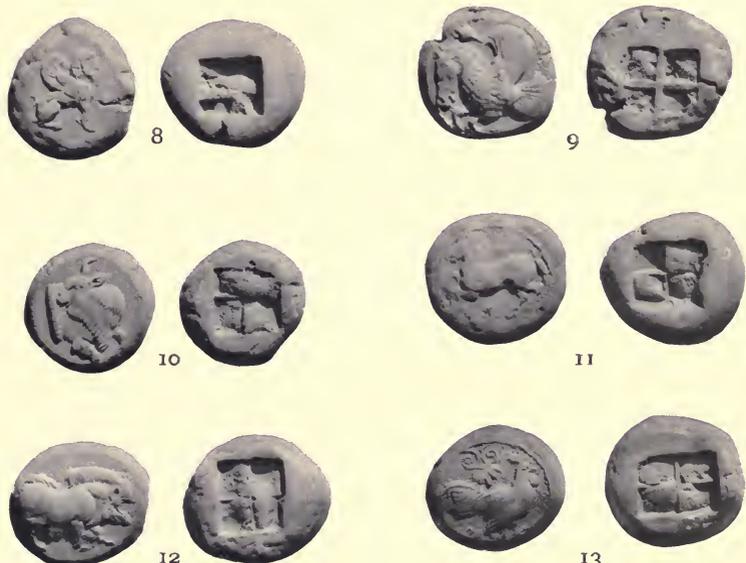




EARLY ELECTRUM

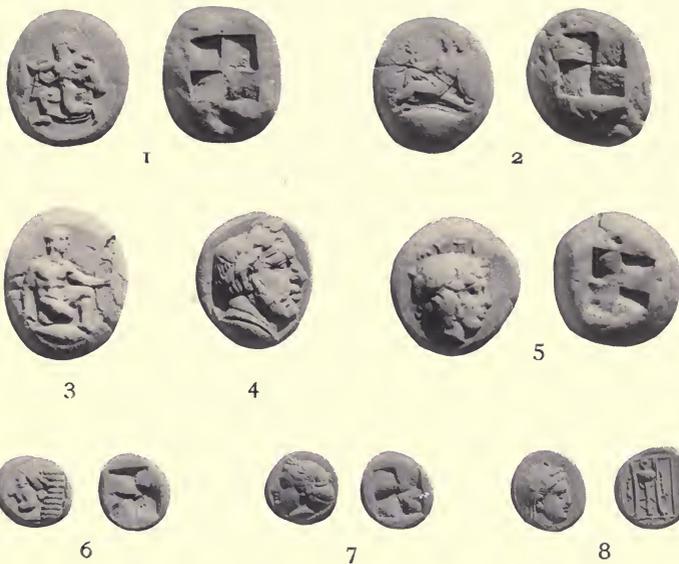


GOLD OF LYDIA AND PERSIA



ELECTRUM OF THE IONIAN REVOLT





ELECTRUM, B.C. 480-330



GOLD OF ASIA, B.C. 480-330



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