

A HOARD OF GREEK FEDERAL SILVER

During the spring of 1937 a hoard of 677 silver coins was secured from an Athenian dealer who declared it had been discovered on an island off Preveza. Prior to the acquisition of the hoard, the purchaser had heard various rumors of its origin, one locating it in Cephalonia and another in Patrae. Nothing more positive can be stated than that it seems to be a complete group of coins, presumably unearthed at some spot on the central shores of the Ionian Sea. Contents of the collection, in which Achaean League triobols predominate, would tend to favor the Patrae attribution. However, trade relations or the fortunes of war might account for a more northerly place of interment.

Besides the 429 coins which represent the Federal currency of twenty-two members of the Achaean League, the hoard contains 119 pieces from Peloponnesian cities assignable to approximately the same period, the third and second centuries before Christ. These are autonomous issues of League members, for the most part coined while the cities belonged to the Federation, and include 80 Megalopolis specimens with the seated Pan on the reverse, 35 coins from Argos, 2 from Lacedaemon, and 1 each from Messene and Patrae. Another contemporary group of 21 coins comes from outside the Peloponnese, being minted in Aetolia between 279 and 168 B.C. Then there are 108 coins, all issued in Central Greece with the exception of 53 Sicyonian pieces, 6 being from Boeotia, 31 from Chalcis, 13 from Locri Opuntii, and 5 from Phocis. These are considerably older than the other types, with a range of date from *ca.* 426 to *ca.* 300 B.C.

In general the coins were in an excellent state of preservation when obtained. Some few had an iron deposit and a score or more showed a green encrustation, but most of them were clearly legible without preliminary cleaning. Taken as a whole, the least wear is apparent, as one might expect, on the Achaean League issues. Similarly well-preserved are the autonomous coins of Argos. Within the League circle the best groups are those of Megalopolis, Pallantium, and Antigoneia. In the latter case the reverses show clearly defined details while the obverses seem frequently to be struck from worn dies. Individually best are examples from Argos, Megalopolis, Patrae, Cleitor, and Tegea.¹

There is a noticeable difference in wear between League and extra-League coinages. In the former group the greatest evidence of use is manifested by two Early Style specimens, by most of the Dyme coins, and by one type from Ceryneia (No. 280). The Elis coins without symbols are often rubbed, likewise the Megarian

¹ Nos. 130, 223, 251, 380, 386, and 427 in the catalogue.

assortment shows signs of wear. However, the most worn pieces from the hoard in general are those of Sicyon, Chalcis, and Locri Opuntii, while the coins of Phocis and Boeotia are only slightly better. If the British Museum dating is accepted for this latter group and the presence of the coins explained on the ground that they continued in circulation at this period as equal in value to the League triobols, then it is natural that they should be the most worn of the hoard since they antedate the Federal money by a century or more, the oldest coin being a Boeotian piece dated 426-395 B.C.

An interesting problem is raised by the inclusion of these early coins in our hoard. Why should specimens minted before 300 B.C. be mixed so plentifully with Achaean money? It is easy enough to trace a connection between the early money of Sicyon and the money of the League to which she later belonged, but the route by which coins of Central Greece might have come into the Peloponnese is not so obvious. Our belief is that the connecting link was Aetolia. Early in the fourth century—a newly-discovered inscription from the Agora Excavations in Athens proves it to have been previous to 367 B.C.¹—she had united her tribes into a strong League which lasted until it was dismembered by the Romans in 189 B.C. During its 200 or more years of existence the Aetolian League gained a wide-spread reputation for aggression and plunder which made its citizens hated and feared throughout most of Greece. How early this predatory career began is uncertain, but during the fourth and third centuries B.C. the Aetolians were prominently identified with the affairs of Central Greece. Diodorus² reports an alliance with the Thebans soon after the battle of Leuktra in consequence of which they were able to take over Kalydon.³ In the Sacred Wars of 356-346 they are not mentioned, but the fact that the Phocians used many mercenary troops, together with the known Aetolian custom of selling military services, is suggestive.⁴ Shortly after the acquisition of Naupaktos in 338 the League seems to have gained a place in the Amphictyonic Council at Delphi which naturally brought it into close contact with the rest of Central Greece.⁵ Once the Theban hegemony had been crushed and the attention of the Macedonian rulers was concentrated on Asiatic troubles, Aetolia began to expand, occupying a part of Acarnania in 330 and invading Locris in 321.⁶ The next twenty years were to see her extending her influence eastward. M. Flacelière believes that some time between the years 301-298 B.C. Aetolia seized Delphi and concluded an alliance with the Boeotians.⁷ Plutarch (*Demetrius*, XL) tells that Poliorcetes in 290 had the Pythian festival at Athens because the Aetolians, in possession of the defiles of Parnassus, forbade access to the Sacred City.

¹ *Hesperia*, VIII, 1939, no. 3, pp. 5-12. R. Flacelière (*Les Aitolien à Delphes*, p. 42, n. 6) points out that previously available evidence did not prove the non-existence of the League before 335.

² XV, 57.

³ Hohmann, *Aitolien und die Aitoler bis zum lamischen Kriege*, pp. 31-32.

⁴ *Cambridge Ancient History*, VII, p. 208.

⁵ Hohmann, *op. cit.*, pp. 34-35.

⁶ Flacelière, *op. cit.*, pp. 42, 46.

⁷ *Ibid.*, pp. 57-66.

It would seem then that at the very beginning of the third century Aetolia was a force in Central Greece, controlling the principal passes of that section and having a foothold in Western Locris and Phocis as well as a voice in the Amphictyonic Council. From that time on she continued her policy of annexation without hindrance, until *ca.* 245 B.C. she made the Boeotian League her ally and shortly thereafter acquired all of Phocis and possibly Opuntian Locris.¹

Since the currency of Aetolia did not begin until a late date, 279 B.C., it is possible that prior to that time she used as a medium of exchange the money of her neighbors which flowed into her coffers as a result of commercial and military enterprises. Even after she had a mint of her own, she undoubtedly did not hesitate to add to its output the coinage of other provinces. In this way money from Phocis and Western Locris, her possessions, as well as some from Boeotia, Chalcis, and Opuntian Locris, whose trade relations with the West would be close, came to be mingled freely with her own currency. Subsequent opportunities for introducing this Central and Western Greek coinage into the Peloponnese were numerous. A close alliance with Elis gave her an excuse for stepping into Peloponnesian affairs, which resulted in an invasion of the peninsula in 243-241 B.C. and the entrance of Mantinea, Tegea, and Orchomenos into her League.² Phigaleia, another Arcadian outpost, she still occupied late in the third century; indeed her garrison in that city by its raids on Messenian territory brought her troops into the Peloponnese again in 220 B.C.³ It seems possible that the Central Greek coins of our hoard are mementoes of these Aetolian incursions and that they continued in circulation as equal in value to the current Achæan League coinage.

Much of the preceding hypothesis rests upon the assumption that our hoard was either buried in the Peloponnese or at least assembled there, a likely theory in view of the preponderance of money from that province. The contrary possibility, supported by the Central Greek money, that the hoard came from Preveza, does not invalidate the tenor of our argument. From the fourth century on, intercourse between Northern and Southern Greece was well-established in the realms of war and trade. Both of these activities must have stimulated the movement of money out of as well as into the Peloponnese.

One other point which concerns the hoard as a whole remains to be discussed, namely the time of its burial. Selection of this date is, for the most part, a conjectural process. Nothing definite can be proved; only an occasional straw points the direction of the wind. With confidence it can be asserted that the interment must have occurred subsequent to 191 B.C., as the presence of numerous Elean, Spartan, and Messenian types signifies. If our κ^0 coins could be indisputably linked to Corone, a terminal

¹ *Cambridge Ancient History*, VII, pp. 732-733.

² Dubois, *Les Ligues étolienne et achéenne*, p. 32.

³ Freeman, *History of Federal Government*, I (1863), pp. 507 ff.

date of 184 would be gained.¹ A further advance of about fifteen years might be justified by one other tangible clue, namely the inclusion in the hoard of a coin of Aegium marked with the full name of Aristodamus. This man is mentioned in history as one of the ambassadors who, after the defeat of Perseus in 168 B.C., was sent by Achaea to convey good wishes to the Roman generals.² To be sure, as Löbbecke points out in using the argument to date his collection,³ establishment of absolute identity is impossible, and, moreover, the work of Aristodamus as mint official may be separated by many years from his activity as ambassador.

Supplementing this meagre historical evidence are some factors which favor a comparatively late date for the burial of the money. Much of the following argument is based on a comparison of our hoard with the Caserta one, remarkably similar in number, proportion, and geographical distribution of coins. On valid grounds Löbbecke⁴ believes that his coins were hidden about 146 B.C., the last year in which the Achaean League could have issued Federal currency. Certain of the pieces he describes as "stempelfrisch" and asserts that they were among the last specimens minted. In our hoard there is a repetition of one-third of these coins, also in good or fairly good condition. If his types were minted shortly prior to 146, then the recurrence of these types in our group would indicate approximately the same period of burial.

The coins of Elis offer still more convincing evidence. Since our hoard contains 79 products of that mint, it seems as if sheer weight of numbers should lend a certain force to any information they provide. A study of the individual pieces clearly brought out a striking evolution of obverse heads. Indeed 45 years⁵ seemed all too short a time to bring about a degeneration from a type like No. 1 on Plate IX to No. 15 on the same sheet. With the thought that the whole series might be arranged in chronological sequence on this basis, the types were shifted about as they showed varying degrees of skill and care in execution. When completed the series followed similar lines to a list compiled by Miss Emily Grace,⁶ representing, as she suggests, an evolutionary process from the simple type with letters and no symbol to the more complex development with several monograms and the thunderbolt. In the catalogue and plates the coins are put in the order outlined above,⁷ so that Nos. 11-15 on Plate IX represent our five most debased and, therefore, presumably our latest types.

¹ Sparta entered the League in 192 B.C.; Elis and Messene in 191. Corone was added about 184. Freeman, *op. cit.*, p. 715.

² Polybius, XXX, 10.

³ *Zeitschrift für Numismatik*, XXVI, 1908, p. 277.

⁴ *Loc. cit.*, pp. 277-278.

⁵ 191-146 B.C. The years between the entry of Elis into the Federation and the Roman conquest of Corinth which ended the life of the League as an independent body.

⁶ Margaret Crosby and Emily Grace, *Numismatic Notes and Monographs*, No. 74, pp. 34-39.

⁷ The only change made was a transfer of the eagle type from fourth to first place for the sake of preserving the continuity of the series without symbols. It will be noted that the development is consistent in all respects except for Nos. 638-40 and 641 which have only one monogram and yet

To make the matter more definite, an attempt was made to link our sequence with the coins in Clerk,¹ following Miss Grace's assumption that the 65 types there enumerated probably represent most of the Elean coinage from 191 to 146 B.C. Without arranging all Clerk's plates in a fashion similar to ours, which did not seem particularly relevant to this problem, we selected his five most barbaric heads and considered them among the latest products of the Elean mint.² Comparison of those numbers with our five latest specimens showed a duplication in two instances.³ Two of our worst coins were among Clerk's poorest examples. Although this is far from certain proof, it nevertheless does make tenable the hypothesis that some of our Elis group were minted late in the 191-146 period.

In consideration of the foregoing points, our general assertion would be that the hoard was buried at some time in the decade preceding the collapse of Achaean autonomy after the Roman invasion and victory of 146 B.C. The fragmentary nature of our evidence makes the choice of one definite restricted year of dubious value. As to why these Peloponnese coins migrated to Cephalonia or Preveza, or why they were buried at all, it is futile to speculate, especially in view of the uncertainty concerning the exact place of discovery. The times were troubled ones in all of Greece, and undoubtedly earth was thrown over many a man's fortune to protect it from a plundering soldiery.

The catalogue on pp. 130-141 has an arrangement as nearly chronological as possible. The Achaean League coins have been placed at the end, and within that group the cities have been listed according to the date when they formally joined the Federation, beginning with the earliest members (See Appendix I). The year 251 B.C. is used as the line of demarcation between the Early Style League coinage and the later types with mint symbols. This follows along the general lines of a suggestion by Cousinéry.⁴ The entrance of Sicyon, the League's first extra-Achaean adherent, with the consequent realization that the Union was destined to be more than a provincial affair, might well have been the occasion for the adopting of a differentiated currency.

An asterisk after a city name indicates that some discussion of the coins from that mint comes at the end of the catalogue.

come in the middle of the double monogram series. Likewise Nos. 626-30 and 631, our only types with obverse names, although poorly executed and relatively late, still do not show the most degenerate heads as one might expect if they belong to the very end of the period. However, Miss Grace herself suggests (*op. cit.*, pp. 34-35, note 20) that these coins may have been issued for special occasions, such as the Olympic celebrations.

¹ *Catalogue of the Coins of the Achaean League*, pp. 15-18.

² Nos. 249, 252, 254, 256, and 260.

³ Clerk's Nos. 254 and 256; our Nos. 642 and 646.

⁴ *Essai sur les Monnaies d'argent de la Ligue achéenne*, p. 21. Weil (*Zeitschrift für Numismatik*, IX, 1882, p. 207) bases his earlier dating in part upon a correspondence of weight between these early League pieces and the old Arcadian triobols. Hence he thinks they should be contemporary coinages. However, as we hope to prove later, there is reason to believe that the Arcadian denominations continued to be minted in the Achaean period, and therefore, on that ground, no need exists for pushing the first Achaean types so far back.

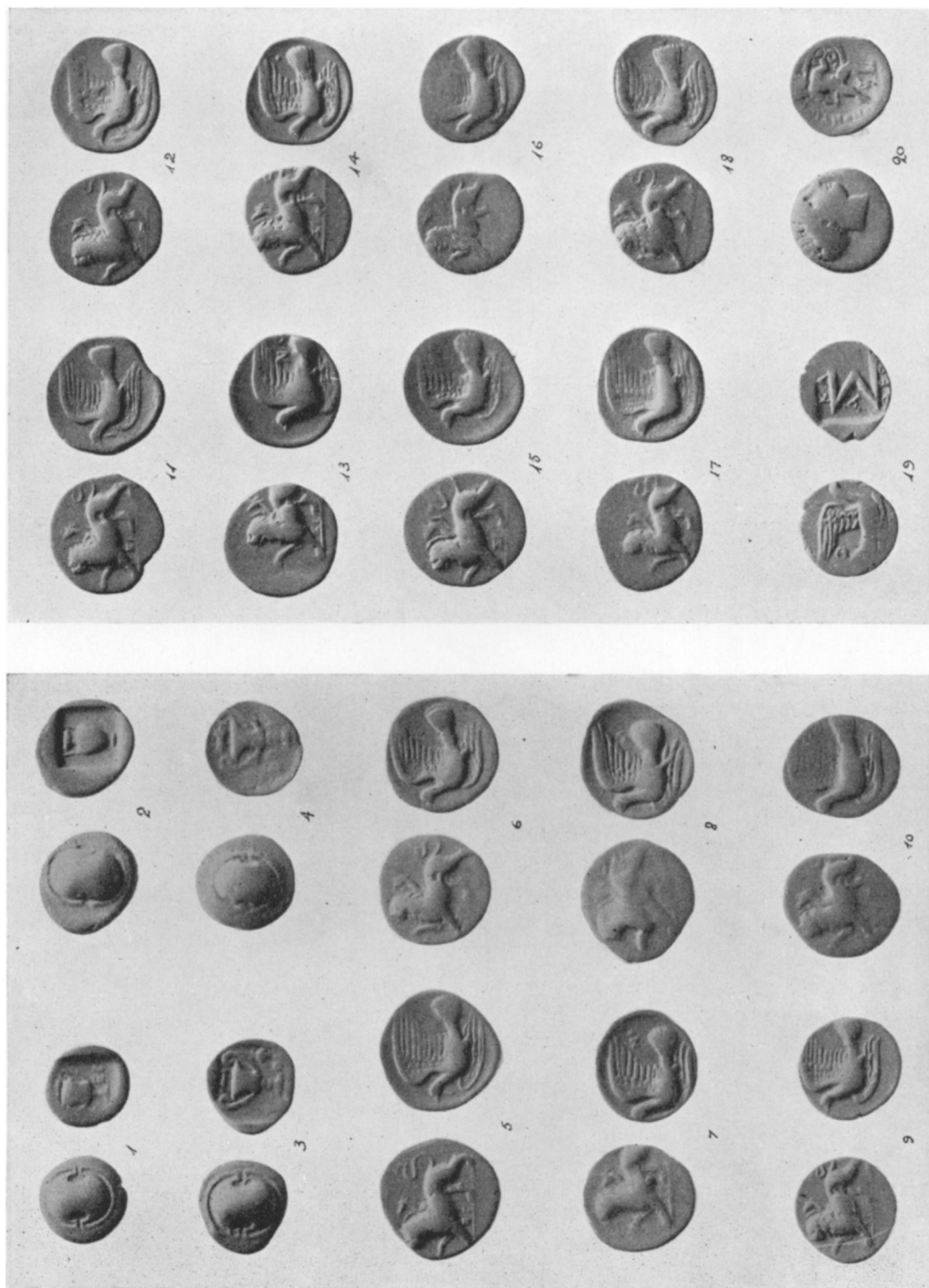


Plate I. Thebes (1), Thespieae (? 2-4), Sicyon (5-19), Locri Opuntii (20)

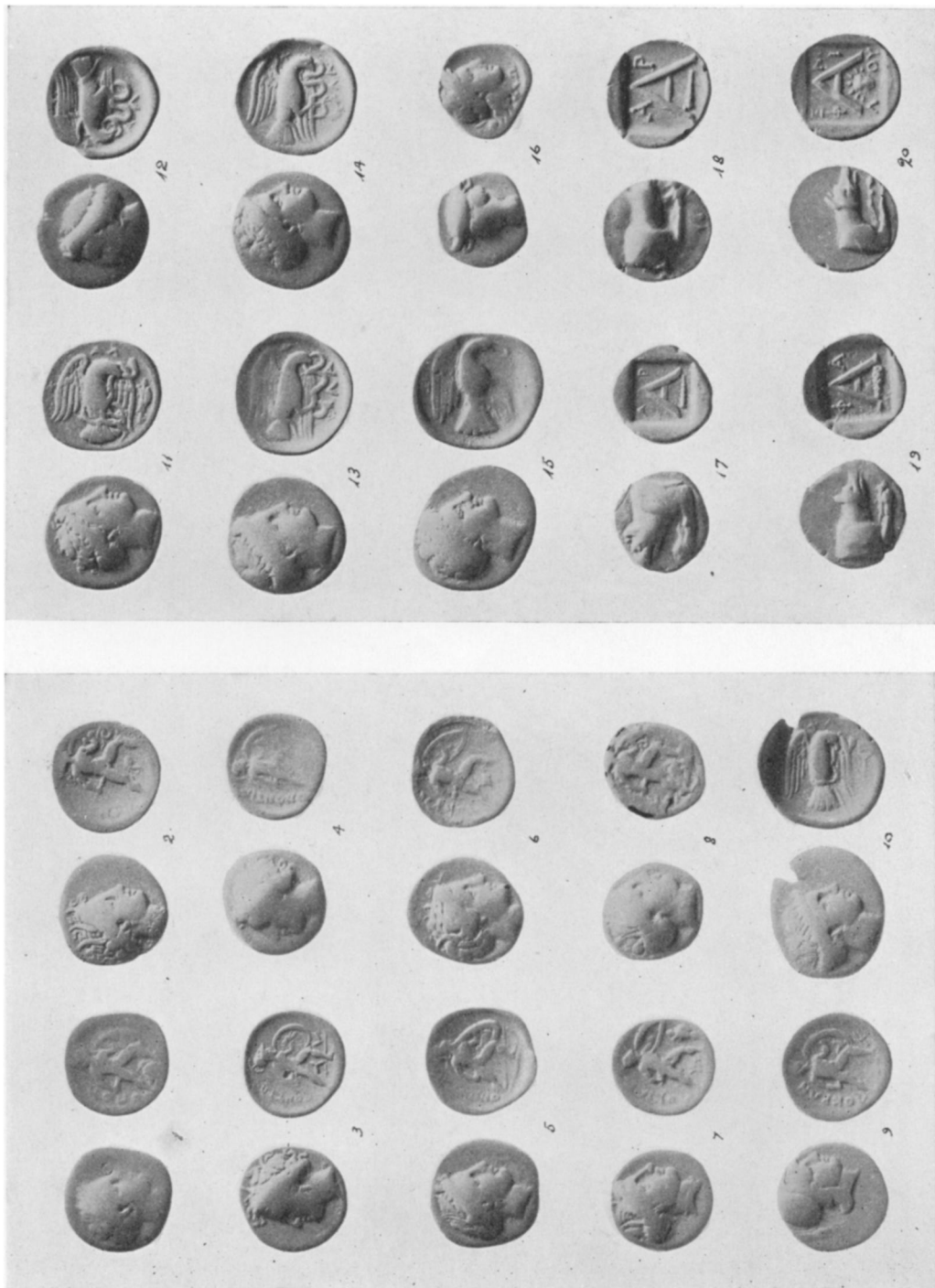


Plate II. Locri Opuntii (1-9), Chalcis (10-15) Phocis (16), Argos (17-20)

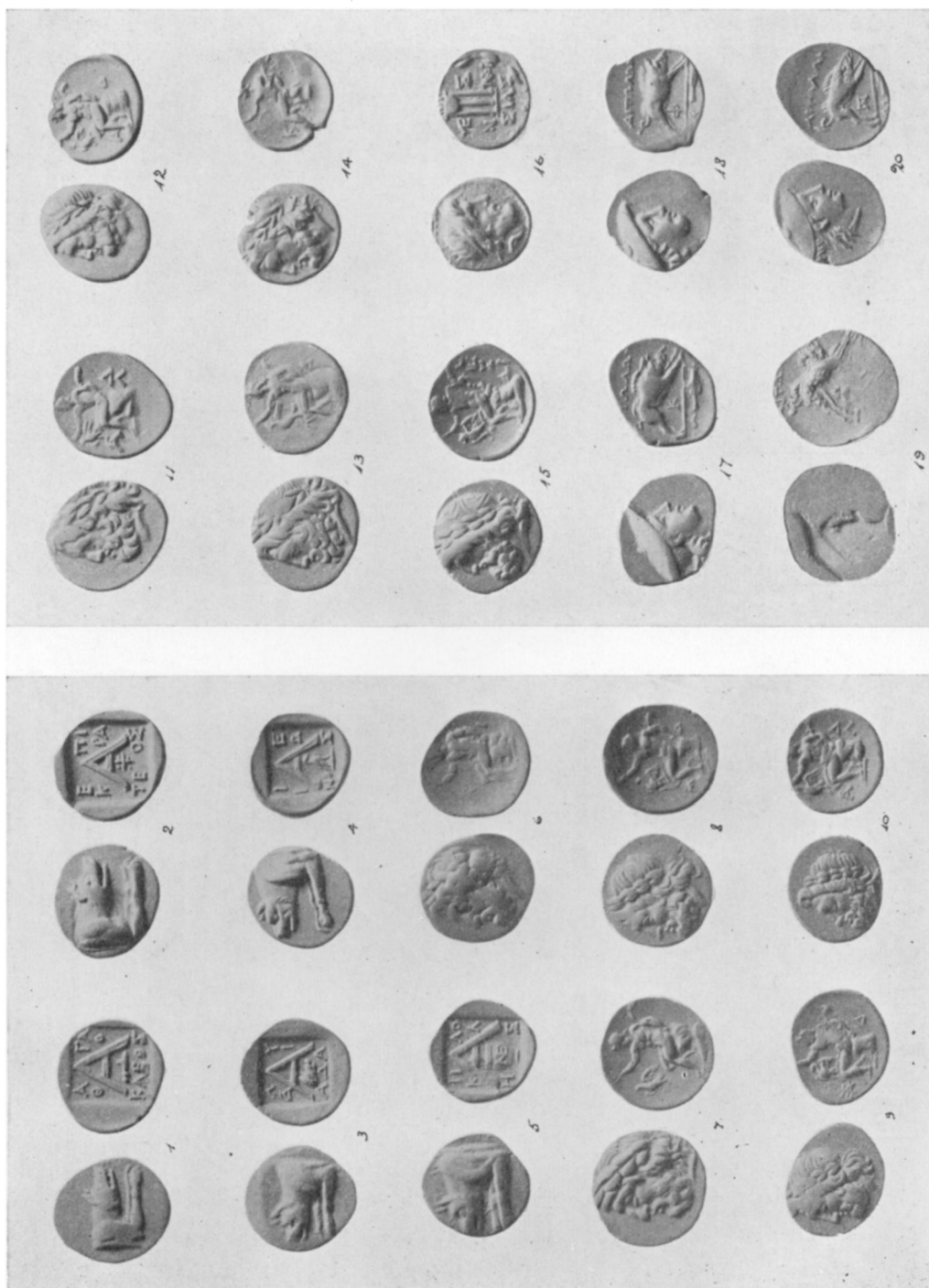


Plate III. Argos (1-5), Megalopolis (6-15), Messene (16), Aetolian League (17-20)

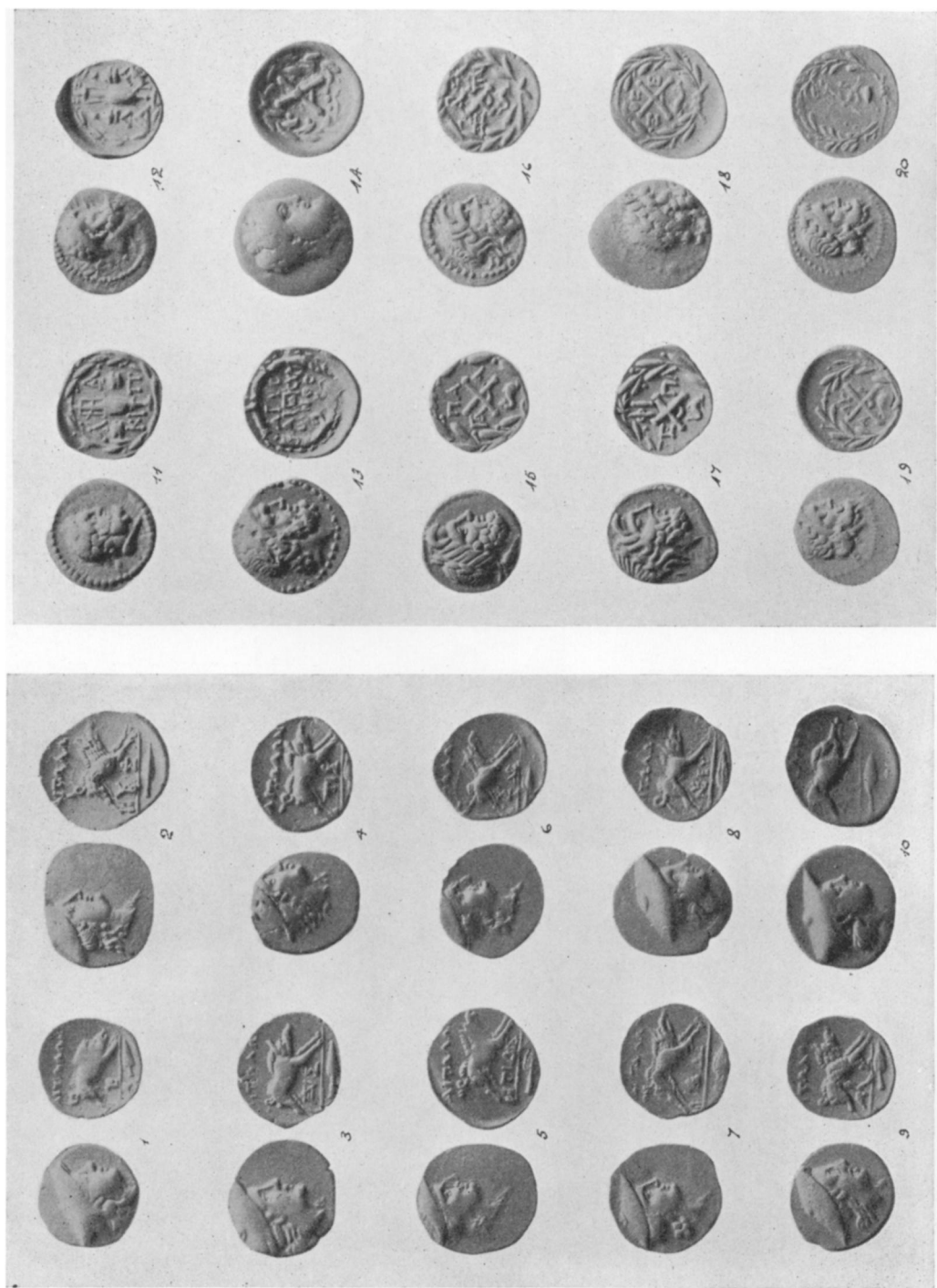


Plate IV. Aetolian League (1-10), Lacedaemon (11-12), Patrae (13), Achaeans (14-15), Patrae (16-18), Dyme (19-20)

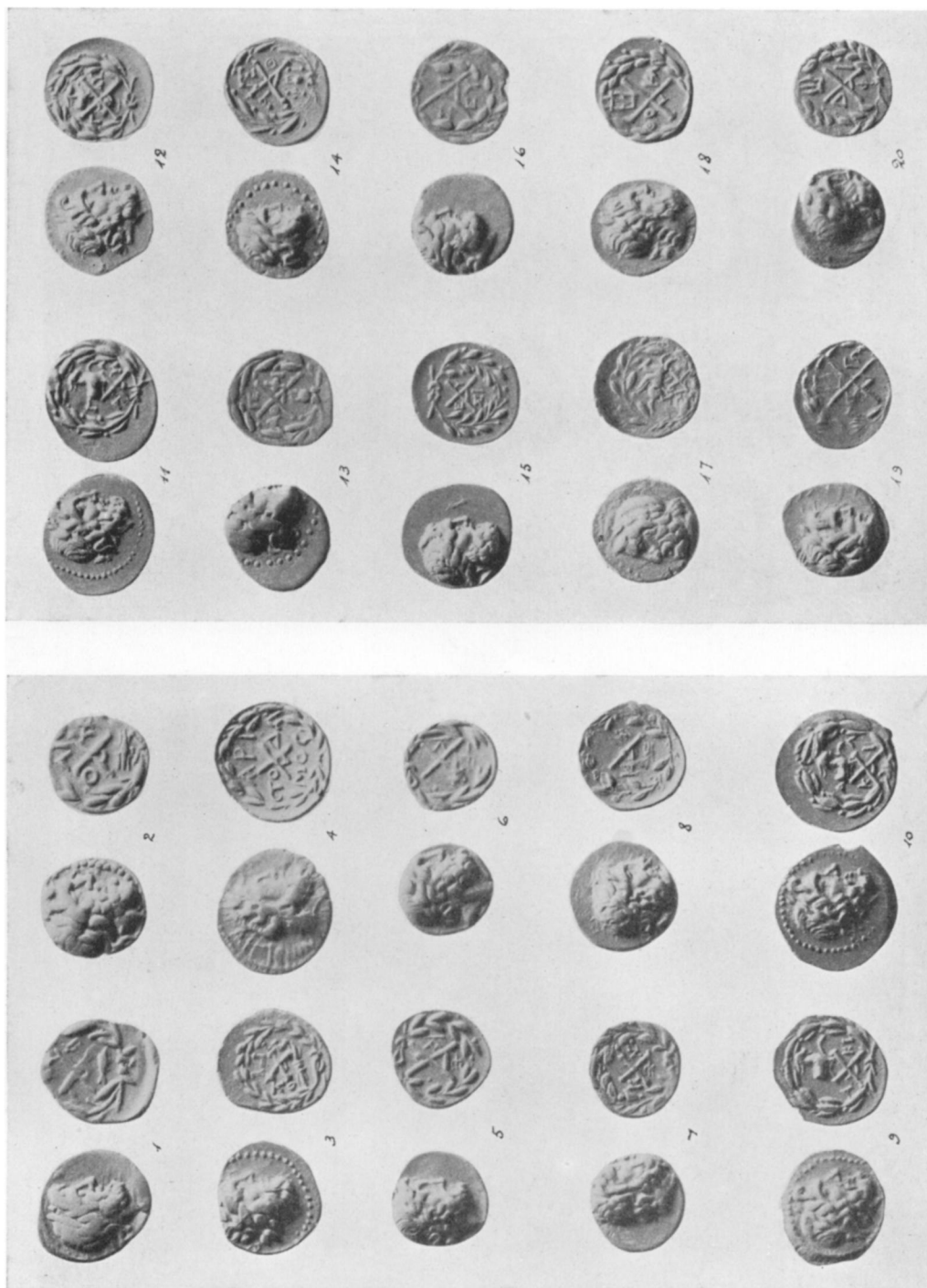


Plate V. Achaean League (Dyme [1], Aegium [2-4], Ceryneia [5-8], Aegira [9-12], Pellene [13-14], Sicyon [15-16], Corinth [17], Megara [18-20])

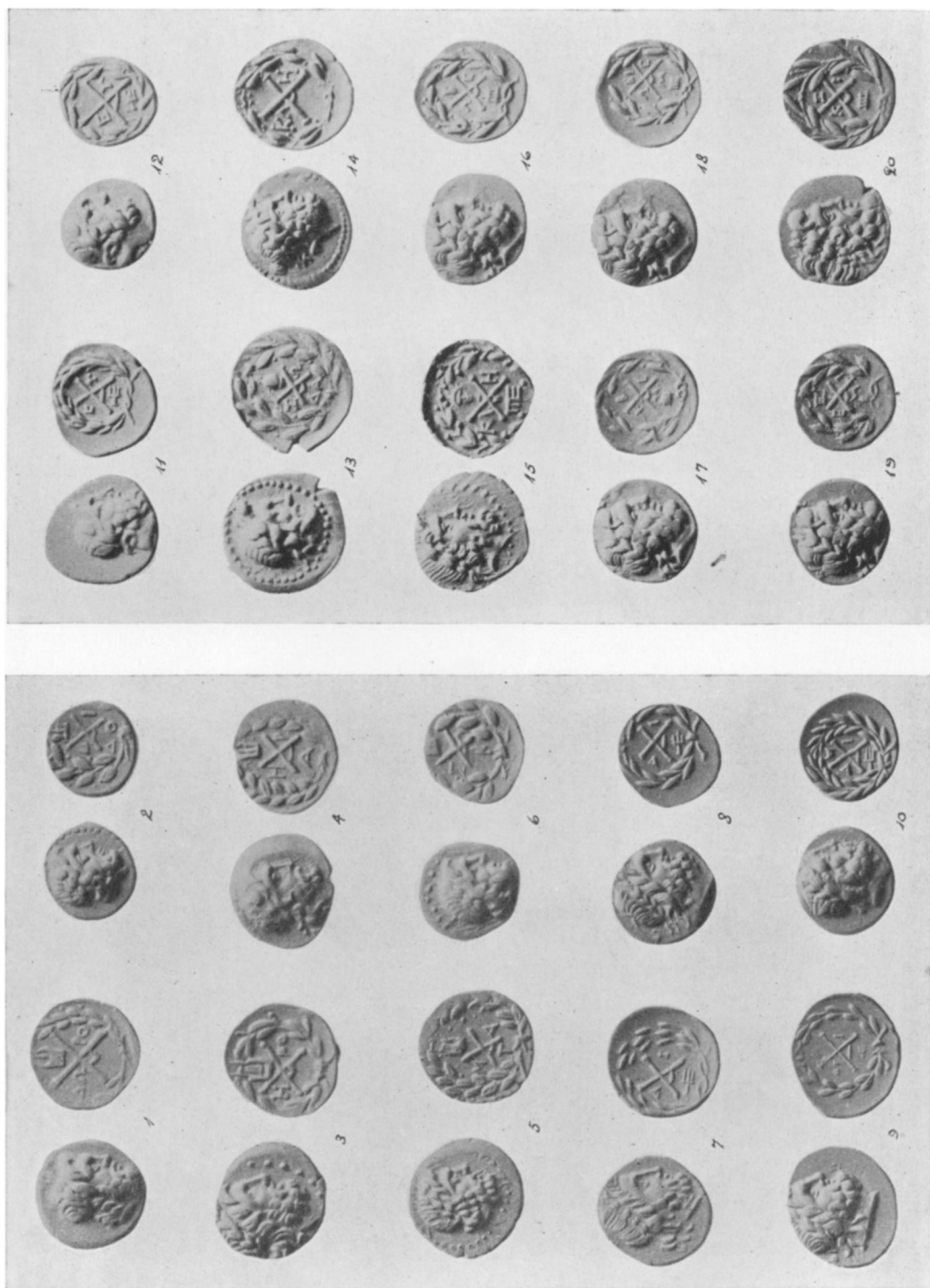


Plate VI. Achaean League (Megara [1-6], Troezen [7-12], Epidaureus [13],
Cleitor [14-15], Megalopolis [16-20])

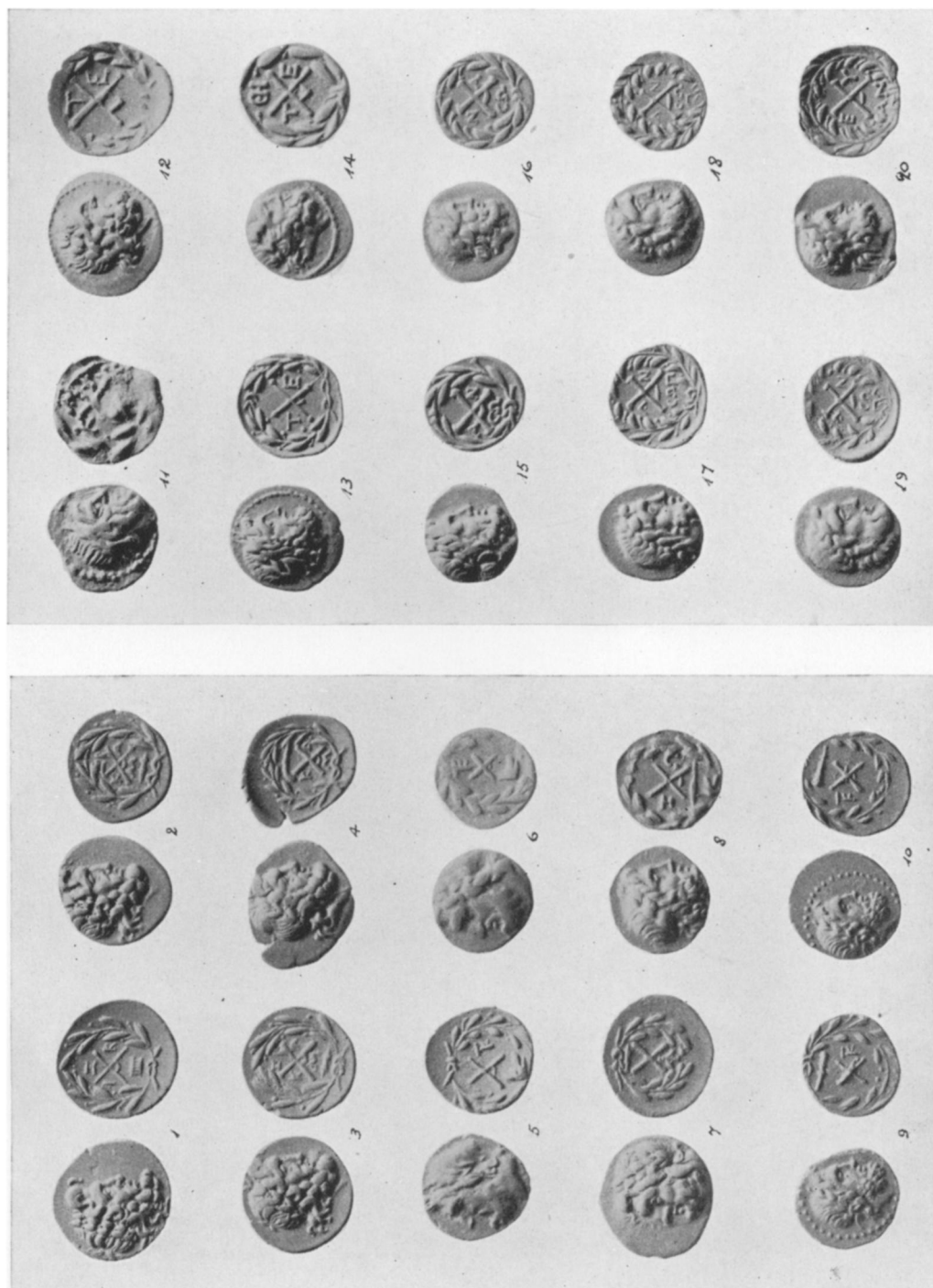


Plate VII. Achaean League (Megalopolis [1-4], Argos [5-10], Caphyae [11], Tegea [12-14], Antigoneia [15-20])

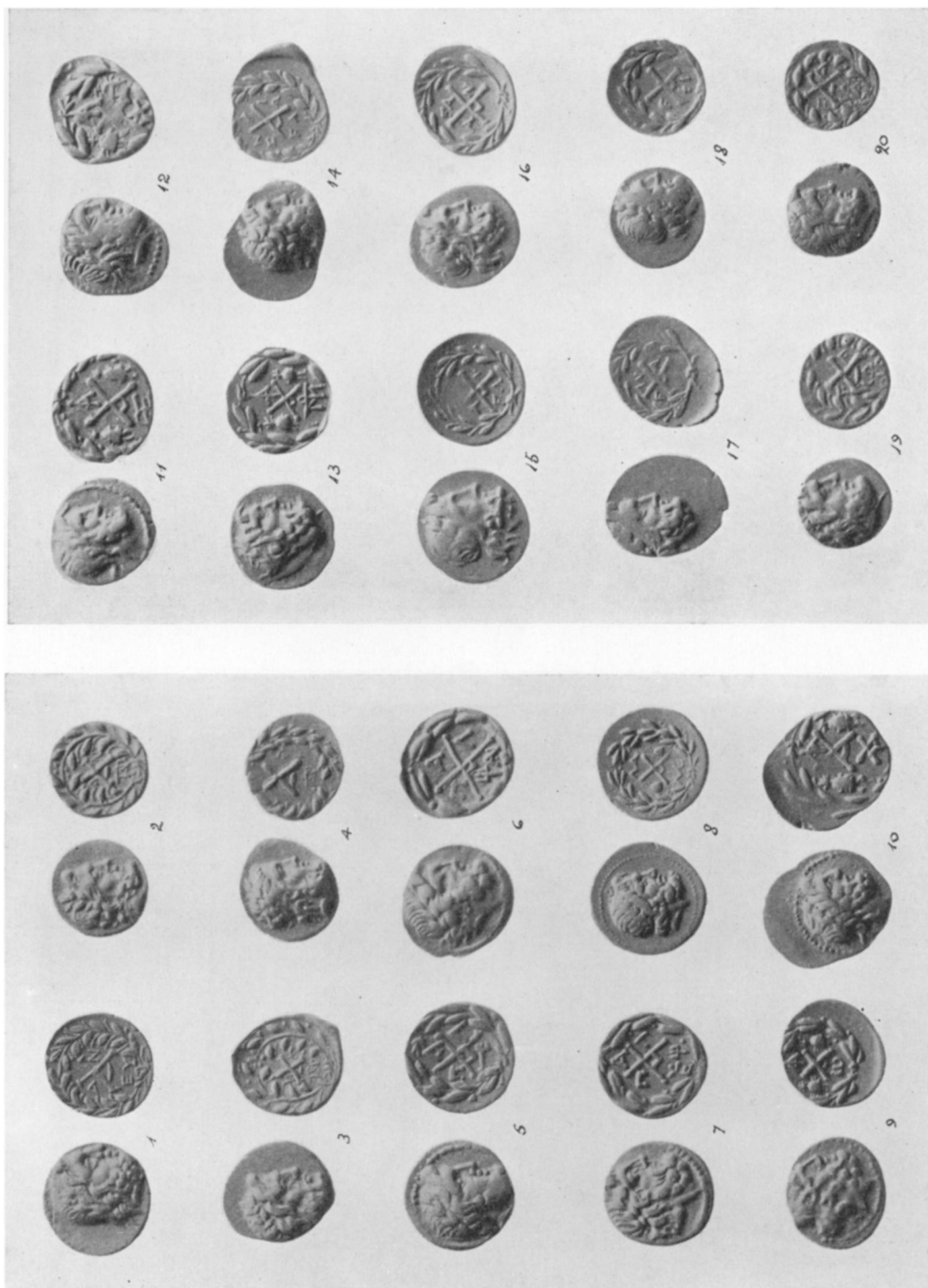


Plate VIII. Achaean League (Antigoneia [1-4], Pallantium [5-7],
Lacedaemon [8-13], Elis [14-20])

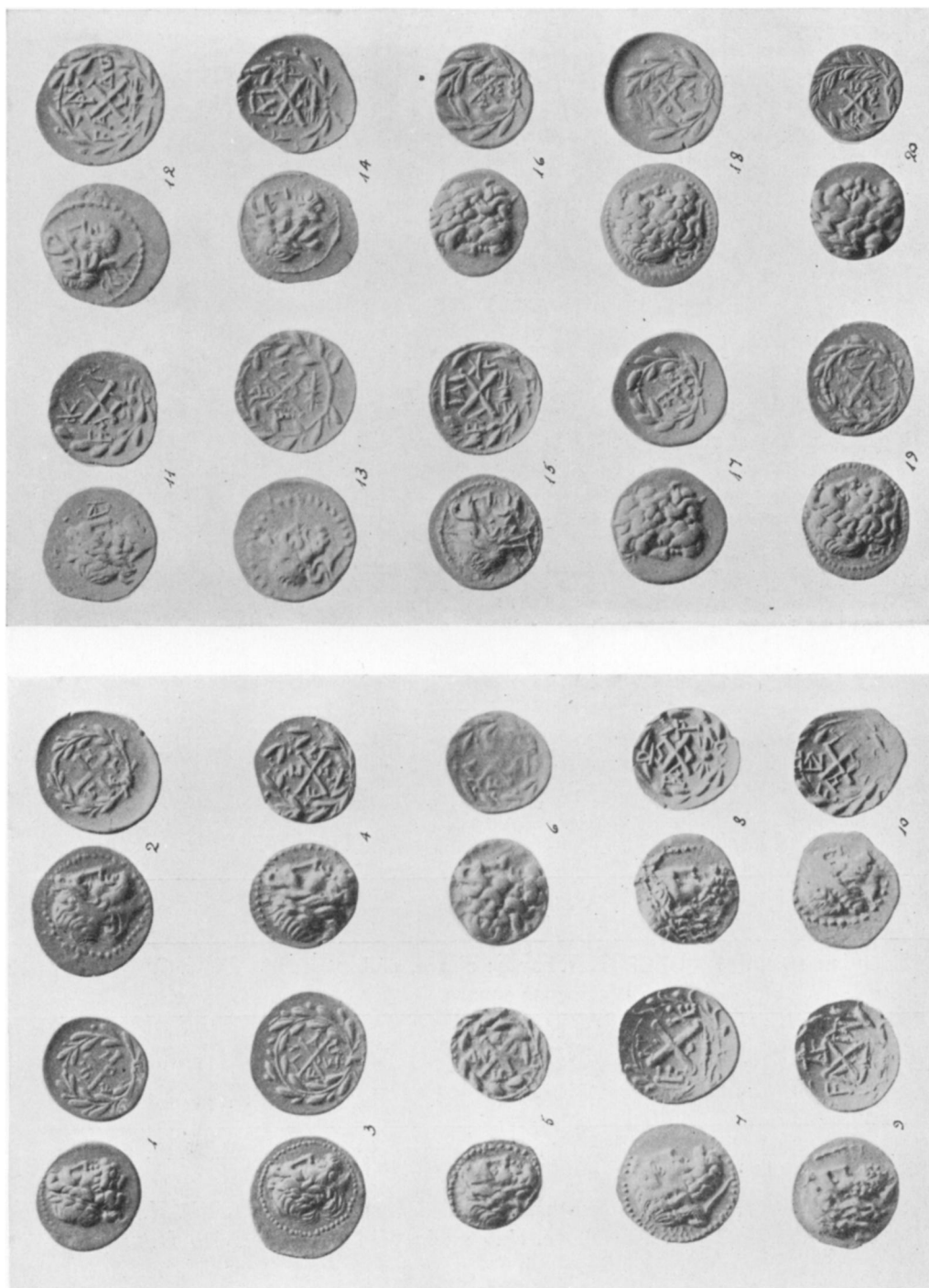


Plate IX. Achaean League (Elis [1-15], Messene [16-20])

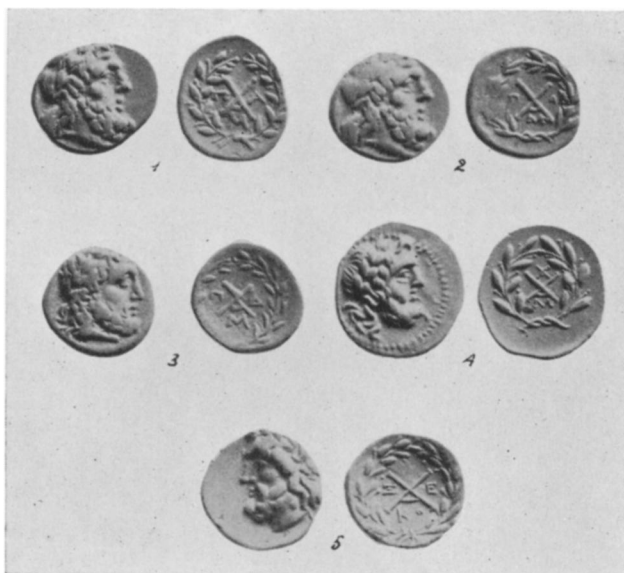


Plate X. Achaean (Messene [1-4],
Corone [? 5])

CATALOGUE

BOEOTIA

(6 coins)

Mint of Thebes

Ca. 426-395 B.C.

<i>Serial No.</i>	<i>Obverse</i>	<i>Reverse</i>	<i>Plate No.</i>	<i>Reference</i>
1.	Boeotian shield.	Θ EB Kantharos; above, club r.; all in incuse square.	I, 1	<i>B. M. C. (C. Greece)</i> , p. 75, no. 64.

Mint of Thespieae ?

Ca. 387-374 B.C.

2.	Boeotian shield.	Amphora in incuse square [in field r. C].	I, 2	<i>B. M. C.</i> , p. 35, no. 29.
3-5.	Same.	B OI Kantharos in ill-defined incuse; above, club r.; in field r., grapes.	I, 3	Cf. <i>B. M. C.</i> , p. 36, no. 36. Also <i>Hunterian Coll.</i> , II, p. 36, no. 2.
6.	Same.	BO ΙΩ Kantharos in ill-defined incuse; above, thunderbolt.	I, 4	<i>B. M. C.</i> , p. 35, no. 30.

SICYON

(53 coins)

400-300 B.C.

<i>Serial No.</i>	<i>Obverse</i>	<i>Reverse</i>	<i>Plate No.</i>	<i>Reference</i>
7.	ΞE Chimaera l.	Dove flying l.; to l.	I, 5	<i>B. M. C. (Pelop.)</i> , p. 42, no. 71.
8-10.	Same.	Same; Ξ to r.	I, 6	<i>B. M. C.</i> , p. 42, no. 76.
11-12.	Same.	Same; Ν ^o to r.	I, 7	<i>B. M. C.</i> , p. 42, no. 72.
13-15.	Same.	Same; ΗΟ to r.	I, 8	<i>N. N. and M.</i> , 74, p. 33, no. 229.
16-26.	ΞI Chimaera l.	Dove flying l.	I, 9	<i>B. M. C.</i> , p. 45, no. 111.
27-29.	Same.	Same; Δ to r.	I, 10	<i>B. M. C.</i> , p. 45, no. 112.
30.	Same.	Same; to l.	I, 11	<i>B. M. C.</i> , p. 46, no. 117.
31.	Same.	Same; K to l.	I, 12	—————
32-33.	Same.	Same; Ν ^o to r.	I, 13	<i>B. M. C.</i> , p. 46, no. 118.
34-40.	Same.	Same; · to r.	I, 14	<i>B. M. C.</i> , p. 46, no. 124.
41-42.	Same.	Same; ·· to r.	I, 15	<i>B. M. C.</i> , p. 46, no. 120.
43-45.	Same.	Same; ·· to r.	I, 16	<i>B. M. C.</i> , p. 46, no. 121.
46-48.	Same.	Same; ·· to r.	I, 17	<i>B. M. C.</i> , p. 46, no. 122.
49.	Chimaera l. (no inscription).	Dove flying l. (no inscription).	I, 18	—————
50-58.	Chimaera l.; letters illegible.	Dove flying l.; symbols illegible.	———	—————

250-146 B.C.

59.	Dove flying r.; Θ above on l.	Σ in shallow incuse; K Λ[E] Α [N] ΔΡΟ[Ξ]	I, 19	<i>B. M. C.</i> , p. 52, no. 195.
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LOCRI OPUNTII

(13 coins)

Ca. 369-338 B.C.

60-63.	Head of Persephone r.	ΟΡΟΝΤΙΩΝ Ajax r. armed with serpent shield; between legs, kantharos.	I, 20	<i>B. M. C. (C. Greece)</i> , p. 2, nos. 9-12.
64.	Same.	ΟΡΟΝ ΤΙΩΝ Same type; crested helmet [and broken spear] be- tween legs.	II, 1	<i>B. M. C.</i> , p. 3, no. 19.

<i>Serial No.</i>	<i>Obverse</i>	<i>Reverse</i>	<i>Plate No.</i>	<i>Reference</i>
65.	Same.	ΟΡΟΝΤΙΩΝ Same type; crest of helmet between legs.	II, 2	Cf. <i>B. M. C.</i> , p. 3, no. 24. (No. 65 seems to be serpent shield.)
66.	Head l.	ΟΡΟΝΤΙΩΝ Same type; γ and spear below.	II, 3	—————
67.	Same.	ΟΡΟΝΤΙΩΝ Same type; griffin in shield; Λ and broken spear between legs.	II, 4	<i>B. M. C.</i> , p. 4, no. 31.
68.	Head r.	ΟΡΟΝΤΙΩΝ Griffin in shield; on ground, spear.	II, 5	<i>B. M. C.</i> , p. 4, no. 29.

Ca. 338-300 B.C.

69.	Same.	ΛΟΚΡΩΝ Ajax r., shield without symbol; between legs small animal's head r.	II, 6	—————
70.	Same.	Same as above; between legs Ψ; in front, trophy.	II, 7	<i>B. M. C.</i> , p. 5, no. 40.
71.	Same.	Same as above; serpent (?) in shield; eagle between legs.	II, 8	—————
72.	Head of Pallas r. with crested Corinthian helmet.	As above; sea-horse in shield; in front, trident.	II, 9	<i>B. M. C.</i> , p. 6, no. 43.

CHALCIS

(31 coins)

Ca. 369?-336 B.C.

73-77.	Female head r.	ΧΑΑ Eagle flying r.; below, caduceus.	II, 10	<i>B. M. C. (C. Greece)</i> , p. 110, no. 53.
78-82.	Same.	Χ ΑΑ Same type; below, trophy.	II, 11	<i>B. M. C.</i> , p. 110, no. 50.
83-85.	Head l.	Χ ΑΑ Eagle l.; beneath, rose (?).	II, 12	<i>B. M. C.</i> , p. 109, no. 39.
86-88.	Head r.	ΛΑ Χ Eagle r.; beneath, kantharos.	II, 13	<i>B. M. C.</i> , p. 110, no. 48.
89-92.	Same.	ΛΑ Χ Same; beneath, wreath.	II, 14	<i>B. M. C.</i> , p. 110, no. 45.
93-95.	Same.	ΛΑΧ Same; above, Ξ	II, 15	<i>B. M. C.</i> , p. 111, nos. 61-63.
96-100.	Same.	ΛΑ Χ Same type; symbols illegible.	————	—————
101-103.	Same.	Eagle r.; letters and symbols illegible.	————	—————

PHOCIS
(5 coins)
Ca. 357-346 B.C.

<i>Serial No.</i>	<i>Obverse</i>	<i>Reverse</i>	<i>Plate No.</i>	<i>Reference</i>
104-108.	Bull's head facing.	Φ Ω Head of Apollo r.; behind, lyre.	II, 16	<i>B. M. C. (C. Greece)</i> , p. 21, no. 79.

ARGOS
(35 coins)
350-228 B.C.

109.	Forepart of wolf l.	A in shallow incuse; below, club l.; in field above, A P.	II, 17	<i>B. M. C. (Pelop.)</i> , p. 141, no. 57.
110.	Type r.; traces of obverse inscription.	Same.	II, 18	Cf. <i>B. M. C.</i> , p. 141, no. 57.
111.	Type r.	Same; letters off flan.	—	Cf. <i>B. M. C.</i> , p. 141, nos. 57 and 62.
112-113.	Same.	Same; club r.; Φ A above.	II, 19	<i>B. M. C.</i> , p. 142, no. 82.

228-146 B.C.

114-116.	Forepart of wolf r.	A in shallow incuse; below, Helios head; in field: Ξ E N ^o Φ I Λ OY	II, 20	<i>B. M. C.</i> , p. 145, nos. 117-118.
117-129.	Same.	Same; below, harpa r.; in field: A Γ A Θ o K Λ E O Σ	III, 1	<i>B. M. C.</i> , p. 144, no. 110.
130.	Same.	Same; below, star; in field: E Π I K P A T E O Σ	III, 2	<i>B. M. C.</i> , p. 145, no. 113.
131.	Type 1.	Same; below, boar's head r.; in field: Λ Y Δ I A Δ A	III, 3	<i>B. M. C.</i> , p. 145, no. 116.
132-142.	Same.	Same; below, eagle r. on thunderbolt; in field: I E P Ω N ^o Σ	III, 4	<i>B. M. C.</i> , p. 145, no. 114.
143.	Same.	Same; below, vase inscribed NE; in field: Φ I Λ O K Λ H Σ	III, 5	<i>B. M. C.</i> , p. 146, no. 124.

MEGALOPOLIS *

(80 coins)

*Before 234 B.C.**Struck for Arcadian League*

<i>Serial No.</i>	<i>Obverse</i>	<i>Reverse</i>	<i>Plate No.</i>	<i>Reference</i>
144.	Head of Zeus l., laur.; l to r.	Pan seated l. on rock; A to l.; l to r.	III, 6	<i>B. M. C. (Pelop.)</i> , p. 173, no. 51.

*After 234 B.C.**Struck for Local Use*

145-160.	Head of Zeus l., laur.	Pan seated l. on rock; before him, eagle flying l.	III, 7	<i>B. M. C.</i> , p. 176, no. 76.
161.	Same.	Same; A to l.; Δ to r.	III, 8	<i>B. M. C.</i> , p. 176, no. 83.
162-173.	Same.	Same; A to l.; Δ to r.	III, 9	Cf. above reference.
174-197.	Same.	Same; A to l.; Δ to r. Λ to r.	III, 10	Cf. <i>B. M. C.</i> , p. 176, nos. 82 and 84; <i>N. N. and M.</i> , 74, p. 30, nos. 179-196.
198-199.	Same.	Same; A to l.; Δ to r. Λ to r.	III, 11	Cf. <i>B. M. C.</i> , p. 176, no. 84.
200-212.	Same.	Same; A to l.; Δ to r.	III, 12	<i>B. M. C.</i> , p. 176, no. 78.
213-214.	Same.	Same; Λ to l.; Δ to r.	III, 13	—————
215.	Same.	Same; K to l.; A to r. l to r.	III, 14	<i>B. M. C.</i> , p. 176, no. 85.
216-222.	Same.	Same; letters illegible or off flan.	———	—————
223.	Same.	MEΓ upward to r. of same Pan type, below Δl in field r.	III, 15	<i>B. M. C.</i> , p. 188, no. 3.

MESSENE

(1 coin)

280-146 B.C.

224.	Head of Zeus r., diademed; border of dots.	ME ξ Tripod, all in wreath; in field: Α Ν ξ ξ	III, 16	<i>B. M. C. (Pelop.)</i> , p. 110, no. 16.
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AETOLIAN LEAGUE

(21 coins)

279-168 B.C.

225-227.	Head of Atalanta r., wearing causia.	ΑΙΤΩΛΩΝ Boar r. at bay; K below; A and spear r. in exergue.	III, 17	<i>Hunterian Coll.</i> , II, p. 30, no. 7.
228.	Same.	Same; Φ below; A and spear r. in exergue.	III, 18	Cf. <i>N. N. and M.</i> , 74, p. 29, no. 157.

* Discussion of this coinage is given at the end of the catalogue under "Arcadian League."

<i>Serial No.</i>	<i>Obverse</i>	<i>Reverse</i>	<i>Plate No.</i>	<i>Reference</i>
229.	Same.	Same; Λ below; rest blurred.	III, 19	—————
230–232.	Same.	Same; Ϙ below; ΔI and spear r. in exergue.	III, 20	<i>B. M. C. (Thessaly)</i> , p. 196, no. 26.
233–234.	Same.	Same; Υ below; Α and spear r. in exergue.	IV, 1	Cf. <i>Hunterian Coll.</i> , II, p. 30, no. 6.
235–236.	Same.	Same; Ϙ Σ below; spear r. in exergue.	IV, 2	—————
237.	Same.	Same; Α Σ below; spear r. in exergue.	IV, 3	—————
238.	Same.	Same; TΙΣ below; spear r. in exergue.	IV, 4	Cf. <i>B. M. C.</i> , p. 196, no. 23.
239.	Same.	Same; TΙΔΕ below; spear r. in exergue.	IV, 5	—————
240.	Same.	Same; Ε ΔΕ below; spear r. in exergue.	IV, 6	—————
241.	Same.	Same; Α(?) ΔΕ below; spear r. in exergue.	IV, 7	Cf. <i>N. N. and M.</i> , 74, p. 29, no. 160.
242.	Same.	Same; ΝΕ ΕΥ below; spear r. in exergue.	IV, 8	—————
243–244.	Same.	Same; Α Ξ below; spear r. in exergue.	IV, 9	Cf. <i>N. N. and M.</i> , 74, p. 29, no. 158.
245.	Same.	Same; Α Π (?) below; spear r. in exergue.	IV, 10	—————

LACEDAEMON

(2 coins)

250–146 B.C.

246.	Head of Herakles bearded r.; border of dots.	Λ Α Amphora between caps of Dioscuri (serpents twined about it); ΚI to l., Π to r.; the whole in a wreath.	IV, 11	<i>B. M. C. (Pelop.)</i> , p. 122, no. 10.
247.	Same.	Same, but Λ Α beneath caps; Δ to l., ΜΕ to r.	IV, 12	Cf. <i>B. M. C.</i> , p. 122, no. 6.

PATRAE

(1 coin)

250–146

248.	Head of Zeus r., laur.; border of dots.	Ϙ; around it ΑΓΥC ΑΙ CXP ΙC WNOC All in wreath.	IV, 13	Cf. <i>B. M. C. (Pelop.)</i> , p. 22, no. 1.
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ACHAEAN LEAGUE

Before 251 B.C.

(2 coins)

Serial No.	Obverse	Reverse (Wreath tied)	LEAGUE MONOGRAM				Plate No.	Reference
			Above Mon.	Below Mon.	Left Mon.	Right Mon.		
249-250.	Head of Zeus r.	Above.	—	—	—	—	IV, 14	<i>Clerk</i> , p. 1, no. 1.

After 251 B.C.

Patrae

(14 coins)

251.	Head of Zeus r.; border of dots.	Below.	ΠΑ	Dolphin r.	ⲡ	Α	IV, 15	<i>Clerk</i> , p. 5, no. 63.
252-256.	Same.	Same.	Α	Same.	Ξ	ΠΑ	IV, 16	Cf. <i>B. M. C. (Pelop.)</i> , p. 4, no. 42.
257-263.	Same.	Same.	ΦΙ	Same.	ΞΕ	ΠΑ	IV, 17	<i>Clerk</i> , p. 5, no. 73.
264.	Same.	Same.	ΘΕ	Type 1.	Ξ	Ε	IV, 18	<i>Clerk</i> , p. 5, no. 80.

Dyme *

(8 coins)

265-270.	Head of Zeus r.; border of dots.	Below.	ΛΥ	Fish r.	Α	Ρ	IV, 19	<i>Clerk</i> , p. 20, no. 329, "Uncertain mint."
271.	Same.	Same.	ΔΥ, ΛΥ?	Same.	Α	Ρ	IV, 20	Cf. above. This coin restruck.
272.	Same.	Same.	Μ	Same.	—	Δ	V, 1	<i>Clerk</i> , p. 4, no. 59.

Aegium

(7 coins)

273.	Head of Zeus r.; border of dots.	Below.	ΑΙ	Fulmen.	Ο	ΤΕ[Ι]	V, 2	<i>Clerk</i> , p. 3, no. 30.
274-276.	Same; Α behind.	Same.	ΙΙ	Same.	Ⲟ	Ⲛ	V, 3	<i>Clerk</i> , p. 3, no. 32.
277-279.	Same; ΑΙΓΙΕΩΝ behind.	Same.	ΑΠΙ	ΜΟC	CΤΟ	ΔΑ	V, 4	Cf. <i>Clerk</i> , p. 3, no. 44. (Plate shows our read- ing.)

Ceryneia

(11 coins)

280-286.	Head of Zeus r.	Above.	—	Trident l.	—	ⲡ	V, 5	<i>Clerk</i> , p. 4, no. 51.
287.	Same.	Same.	—	Same.	—	ⲡ	V, 6	<i>N. N. and M.</i> , 74, p. 22, nos. 8-9.
288-289.	Same.	Below.	—	Same.	ⲡ	Ⲛ	V, 7	<i>Clerk</i> , p. 4, no. 46.
290.	Same.	Same.	—	Type r.	ⲡ	Ⲛ	V, 8	Cf. above reference.

Aegira

(16 coins)

Serial No.	Obverse	Reverse (Wreath tied)	LEAGUE MONOGRAM				Plate No.	Reference
			Above Mon.	Below Mon.	Left Mon.	Right Mon.		
291-298.	Head of Zeus r.; border of dots.	Below.	Fore- part of goat r.	———	AΛ	KI	V, 9	<i>Clerk</i> , p. 2, no. 16.
299-300.	Same.	Same.	Same.	———	A K	Λ I	V, 10	<i>Clerk</i> , p. 2, no. 17.
301-305.	Same.	Same.	Same.	———	Γ A	Λ Y	V, 11	Cf. <i>Clerk</i> , p. 2, no. 20. (Plate shows our read- ing.)
306.	Same; A? behind head.	Same.	Same.	———	ΓΛ	AY	V, 12	Cf. <i>Clerk</i> , p. 2, no. 19.

Pellene

(2 coins)

307.	Head of Zeus r.; border of dots.	Below.	ΓΕ	Vase.	AΘ	ΦI	V, 13	<i>Clerk</i> , p. 6, no. 90.
308.	Same.	Same.	ΓΕ	Vase, Φ to l.; I to r.	A	Θ	V, 14	Cf. above reference.

Sicyon

(6 coins)

309-313.	Head of Zeus r.	Above.	———	ΞI	E	Y	V, 15	<i>Clerk</i> , p. 7, no. 108.
314.	Same.	Same.	———	EY	Ξ	I	V, 16	<i>Clerk</i> , p. 7, no. 109.

Corinth

(1 coin)

315.	Head of Zeus l.; border of dots.	Left side.	Pegasus r.; K beneath.	———	A	Ξ	V, 17	<i>Clerk</i> , p. 7, no. 111.
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Megara

(30 coins)

316-317.	Head of Zeus r.	Below.	Lyre.	———	ΘO	KΛ	V, 18	<i>Clerk</i> , p. 8, no. 124.
318-320.	Same.	Same.	Same.	———	ME	ΓΩ	V, 19	<i>Clerk</i> , p. 8, no. 125.
321.	Same.	Same.	Same.	Φ	Δ	I	V, 20	<i>Clerk</i> , p. 8, no. 119.
322-330.	Same.	Same.	Same.	———	ΔΩ	PO	VI, 1	<i>Clerk</i> , p. 8, no. 120.
331-332.	Same; border of dots.	Same.	Same.	ΔO	Δ	I	VI, 2	<i>Clerk</i> , p. 8, no. 118.
333-340.	Same.	Same.	Same.	———	H	PO	VI, 3	<i>Clerk</i> , p. 8, no. 121.
341.	Same.	Same.	Same.	A	H	P	VI, 4	<i>Clerk</i> , p. 8, no. 122.

Serial No.	Obverse	Reverse (Wreath tied)	LEAGUE MONOGRAM				Plate No.	Reference
			Above Mon.	Below Mon.	Left Mon.	Right Mon.		
342-343.	Same.	Same.	Same.	T	M	A	VI, 5	<i>Clerk</i> , p. 8, no. 127.
344-345.	Same.	Same.	Same.	κ	ξ	Ω	VI, 6	<i>Clerk</i> , p. 8, no. 130.
Troezen *								
(33 coins)								
346-359.	Head of Zeus r.	Below.	—	Trident r.	Δ	I	VI, 7	<i>Clerk</i> , p. 12, no. 187 under Mantinea.
360-361.	Same; Δ I(?) behind.	Same.	—	Same.	Δ	I	VI, 8	Cf. above reference.
362-364.	Same; Δ I behind.	Same.	—	Same.	Δ E	I	VI, 9	<i>Clerk</i> , p. 12, no. 189.
365-372.	Same; no letters.	Same.	Μ	Same.	Δ	I	VI, 10	<i>Clerk</i> , p. 12, no. 185.
373-376.	Same.	Same.	—	Same.	⊥	Υ	VI, 11	<i>Clerk</i> , p. 12, no. 190.
377-378.	Same.	Same.	—	Same.	E	Υ	VI, 12	<i>B. M. C.</i> , p. 9, no. 99.
Epidaurus								
(1 coin)								
379.	Head of Zeus r.; border of dots.	Below.	Cupping vase.	Δ A	ξ	Ω	VI, 13	<i>Clerk</i> , p. 10, no. 167.
Cleitor								
(2 coins)								
380.	Head of Zeus r.; border of dots.	Below.	—	—	Κ Λ	H	VI, 14	<i>Clerk</i> , p. 11, no. 181.
381.	Same.	Same.	Helios head.	Π Ε	Κ Λ	H	VI, 15	<i>Clerk</i> , p. 11, no. 179.
Megalopolis *								
(28 coins)								
382-383.	Head of Zeus r.	Below.	B	Syrinx.	Λ	E	VI, 16	<i>Clerk</i> , p. 13, no. 211.
384-385.	Same.	Same.	B	M	Λ	E	VI, 17	<i>Clerk</i> , p. 13, no. 207.
386.	Same.	Same.	BI	Syrinx.	Λ	E	VI, 18	<i>Clerk</i> , p. 13, no. 210.
387.	Same.	Same.	Syrinx.	M	E	Λ	VI, 19	<i>Clerk</i> , p. 13, no. 208.
388-392.	Same; BI below.	Same.	Ξ	Syrinx.	K	I	VI, 20	<i>Clerk</i> , p. 13, no. 212.
393-394.	Same; BΞ below.	Same.	Ξ	Same.	I	K	VII, 1	<i>Clerk</i> , p. 13, no. 214.
395-403.	Same; no letters.	Same.	Ξ B	M	K	A	VII, 2	<i>N. N. and M.</i> , 74, p. 26, no. 111.
404-406.	Same.	Same.	Ξ B	Fulmen.	K	A	VII, 3	<i>B. M. C. (Pelop.)</i> , p. 7, no. 76, under Messene.
407-409.	Same.	Same.	Pedum 1.	M	K	Δ	VII, 4	<i>Clerk</i> , p. 13, no. 204.

Argos

(15 coins)

Serial No.	Obverse	Reverse (Wreath tied)	LEAGUE MONOGRAM				Plate No.	Reference
			Above Mon.	Below Mon.	Left Mon.	Right Mon.		
410-411.	Head of Zeus l.	Above.	—	Wolf's head r.	—	Ɔ	VII, 5	Cf. <i>Clerk</i> , p. 9, no. 142. <i>B. M. C.</i> , p. 8, no. 87, has this monogram.
412-414.	Same.	Same.	Ɔ	Same.	—	—	VII, 6	Cf. <i>Clerk</i> , p. 9, no. 141.
415-416.	Same.	Same.	Harpa r.	⌘	—	—	VII, 7	<i>Clerk</i> , p. 9, no. 149.
417-418.	Type r.	Below.	—	Harpa l.	⌘	Ω	VII, 8	<i>Clerk</i> , p. 9, no. 148.
419-421.	Same; border dots.	Above.	Club r.	—	—	Ɔ	VII, 9	Cf. <i>Clerk</i> , p. 9, no. 143.
422-424.	Same.	Same.	Club l.	—	Ɔ	—	VII, 10	Cf. <i>Clerk</i> , p. 9, no. 144.

Caphyae

(1 coin)

425.	Head of Zeus r.; border of dots.	Below.	⌘	Pallas head, ⌘	K	A	VII, 11	Cf. <i>Clerk</i> , p. 11, no. 177. (Plate shows ⌘.)
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Tegea

(8 coins)

426.	Head of Zeus r.; border of dots.	Below.	⌘	—	—	E	VII, 12	<i>Clerk</i> , p. 14, no. 224.
427-429.	Same.	Same.	—	—	⌘	E	VII, 13	<i>Clerk</i> , p. 14, no. 223.
430-433.	Same.	Same.	⌘	—	⌘	E	VII, 14	<i>Clerk</i> , p. 14, no. 226.

Antigoneia

(109 coins)

434-481.	Head of Zeus r.	Below.	—	CΩ	A	N	VII, 15	<i>Clerk</i> , p. 12, no. 197.
482-483.	Same.	Same.	—	CΩ	N	A	VII, 16	<i>Clerk</i> , p. 12, no. 198.
484-485.	Same.	Same.	—	CΩΠ	Δ	N	VII, 17	Cf. <i>Clerk</i> , p. 13, no. 201.
486.	Same.	Same.	—	CΩ	A	N	VII, 18	<i>Clerk</i> , p. 13, no. 200.
				Π				
487.	Same.	Same.	—	CΩ	A	N	VII, 19	Cf. <i>Clerk</i> , p. 12, no. 199.
				ΠΔ				
488-492.	Same.	Same.	—	AN	E	Y	VII, 20	<i>Clerk</i> , p. 12, no. 193.
493-527.	Same.	Same.	—	EY	A	N	VIII, 1	<i>Clerk</i> , p. 12, no. 192.
528-540.	Same.	Same.	—	⌘	Δ	N	VIII, 2	Cf. <i>B. M. C.</i> , p. 9, no. 104.
541.	Same.	Same.	—	⌘	⌘	Δ	VIII, 3	<i>B. M. C.</i> , p. 9, no. 106.
542.	Same.	Above.	—	⌘	—	A? N	VIII, 4	—

Pallantium (14 coins)								
Serial No.	Obverse	Reverse (Wreath tied)	LEAGUE MONOGRAM				Plate No.	Reference
			Above Mon.	Below Mon.	Left Mon.	Right Mon.		
543.	Head of Zeus r.; border of dots.	Below.	Α	Trident r.	Π	Λ	VIII, 5	<i>Clerk</i> , p. 14, no. 218.
544-546.	Same.	Same.	Α	Trident up, Α	Π	Λ	VIII, 6	Cf. <i>Clerk</i> , p. 14, no. 220.
547-556.	Same.	Same.	Α	Υ, Trident up.	Π	Λ	VIII, 7	<i>Clerk</i> , p. 14, no. 219.
Lacedaemon (11 coins)								
557-559.	Head of Zeus r.; border of dots.	Below.	ΛΑ	Μ	Caps of Dioscuri.		VIII, 8	<i>Clerk</i> , p. 20, no. 324.
560-562.	Same.	Same.	Α	Ω	Same.		VIII, 9	<i>Clerk</i> , p. 20, no. 320.
563.	Same.	Same.	Α	Χ	Same.		VIII, 10	<i>Clerk</i> , p. 20, no. 323.
564.	Same.	Same.	Α	Ξ	Same.		VIII, 11	<i>Clerk</i> , p. 19, no. 315.
565-566.	Same.	Same.	Α	Φ	Same.		VIII, 12	<i>Clerk</i> , p. 19, no. 316.
567.	Same.	Same.	Α	Ψ	Same.		VIII, 13	<i>Clerk</i> , p. 20, no. 319.
Elis (79 coins)								
568.	Head of Zeus r.	Below.	Eagle r.	FA	N	I	VIII, 14	<i>Clerk</i> , p. 15, no. 229
					Ξ	Ω		
569-572.	Same.	Same.	—	FA	A	N	VIII, 15	<i>Clerk</i> , p. 18, no. 291.
573-583.	Same.	Same.	FA	—	A	N	VIII, 16	<i>Clerk</i> , p. 18, no. 290.
584.	Same.	Same.	AN	—	F	A	VIII, 17	<i>Clerk</i> , p. 18, no. 292.
585.	Same.	Same.	—	ΦI	F	A	VIII, 18	<i>Clerk</i> , p. 17, no. 283.
586.	Same.	Same.	—	CΩ	F	Λ	VIII, 19	<i>Clerk</i> , p. 18, no. 284.
								(Plate shows CΩ.)
587.	Same.	Same.	—	CΩ	F	A	VIII, 20	Cf. <i>Clerk</i> , p. 18, no. 286.
				C ΔI				(Plate shows CΩ C ΔI.)
588-608.	Same; border dots.	Same.	AY	—	F	A	IX, 1	<i>Clerk</i> , p. 17, no. 280.
609-611.	Same.	Same.	—	FA	Λ	Y	IX, 2	<i>Clerk</i> , p. 17, no. 282.
612-618.	Same.	Same.	AY	ΞΩ	F	A	IX, 3	<i>Clerk</i> , p. 17, no. 281.
619-623.	Same.	Same.	Ξ	A	F	A	IX, 4	<i>Clerk</i> , p. 15, no. 232.
				Fulmen.				
624.	Same.	Same.	Ξ	Γ	F	A	IX, 5	<i>Clerk</i> , p. 15, no. 233.
				Fulmen.				
625.	Same.	Same.	IA	X	F	Η	IX, 6	Cf. <i>Clerk</i> , p. 15, no. 238.
				Fulmen.				
626-630.	Same; ΘΠΑΚΥΛΕΩΝ behind.	Same.	ΝΞ	Fulmen.	Ε	Χ	IX, 7	<i>Clerk</i> , p. 17, no. 272.

Serial No.	Obverse	Reverse (Wreath tied)	LEAGUE MONOGRAM				Plate No.	Reference
			Above Mon.	Below Mon.	Left Mon.	Right Mon.		
631.	Same head r.; border of dots. Letters off flan.	Same.	⌘	Same.	⌘	ϣ	IX, 8	<i>Clerk</i> , p. 17, no. 266.
632-635.	Same; no letters.	Same.	⌘	Same.	FA	⌘	IX, 9	<i>Clerk</i> , p. 16, no. 247.
636.	Same; monogram off flan.	Same.	⌘	Same.	FA	⌘	IX, 10	<i>Clerk</i> , p. 16, no. 261.
637.	Same; ϣ in front.	Same.	⌘	Same.	FA	⌘	IX, 11	<i>Clerk</i> , p. 16, no. 262.
638-640.	Same; no mono- gram.	Same.	⌘	Same.	FA	ΔΩ	IX, 12	<i>Clerk</i> , p. 15, no. 243.
641.	Same.	Same.	⌘	Same.	FA	ΛA	IX, 13	Cf. <i>Clerk</i> , p. 16, no. 246.
642-645.	Same.	Same.	⌘	Same.	FA	ϣ	IX, 14	Cf. <i>Clerk</i> , p. 16, no. 254. (Plate shows this mono- gram.)
646.	Same.	Same.	⌘	Same.	FA	ϣ	IX, 15	Cf. <i>Clerk</i> , p. 16, no. 256. (Plate shows this mono- gram.)

Messene *

(28 coins)

647-649.	Head of Zeus l.	Below.	—	M	N	Φ	IX, 16	<i>N. N. and M.</i> , 74, p. 25, no. 104.
650-652.	Same.	Same.	—	⌘	N	Φ	IX, 17	<i>Clerk</i> , p. 13, no. 216 under Megalopolis.
653.	Type r.; border of dots.	Same.	OP	M	O	N	IX, 18	<i>Clerk</i> , p. 19, no. 304.
654.	Same.	Same.	ΞE	M	O	P	IX, 19	<i>Clerk</i> , p. 18, no. 300.
655.	Same; no dots.	Same.	—	⌘	Ξ	E	IX, 20	<i>Clerk</i> , p. 19, no. 306.
656.	Same.	Same.	—	M	Π	A	X, 1	<i>Clerk</i> , p. 9, no. 135.
657.	Same.	Same.	—	⌘	Π	A	X, 2	Cf. above reference.
658-660.	Same.	Same.	—	M	Π	Δ	X, 3	Cf. <i>Clerk</i> , p. 19, no. 311.
661-674.	Same; border dots.	Same.	⌘	M	—	—	X, 4	<i>Clerk</i> , p. 18, no. 297.

Corone ? *

(3 coins)

675-677.	Head of Zeus l.	Below.	—	K ^o	Ξ	E	X, 5	<i>Clerk</i> , p. 19, no. 312.
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In preparing the hoard for publication the writer was constantly struck by the measure of uncertainty which surrounds the whole question of the League's silver coinage. Absence or ambiguity of mint markings often makes possible for the same coin a variety of attributions, all supported by authoritative opinion. Nos. 656 and 657 in the catalogue Clerk assigns to Pagae and Megara but would impute to Messene as second choice,¹ while Weil² gives a very similar type to Megalopolis. The trident coins find almost equal support among numismatists for either a Troezenean or Mantinean ascription. Leake and Gardner favor the first mint; Löbbecke, Weil and Clerk the second.³ So the instances could be multiplied. What may seem presumption on our part in venturing to reassign certain groups and advance new arguments for others is occasioned by the large number of Achaean coins at our disposal, making almost imperative some attempt to extract information from them.

"ARCADIAN LEAGUE"

The problem raised by the coins traditionally called Arcadian League is primarily one of dating. That Megalopolis minted these issues of the seated Pan with the Zeus head obverse seems beyond question. The identical type with the letters ΜΕΓ, significant of the city name, is well known⁴ and there is no reason for supposing that the League coins originated anywhere else but in the same city. It is far harder to say when they were issued.

Gardner⁵ attributes them to the period preceding the incorporation of Megalopolis in the Achaean League body and, therefore, sets 234 B.C. as the terminal date for their minting. Miss Grace, in reviewing her hoard, expresses the belief that they continued beyond that date. Admitting the strange circumstance of contemporary issues of Arcadian and Achaean money in the same city, she suggests that there may, however, have been a temporary revival of the Arcadian League some time after 234 or that these pieces may represent a survival of the spirit of Arcadian unity finding expression in the coinage of the old League's most important city.⁶

Certainly the condition of our coins supports the view that the minting of them cannot have stopped in 234. In general, they are scarcely more worn than the issues of the Achaean League which traditionally fall in a later period. Some of the coins are very well preserved; Miss Grace describes an occasional piece of her group as

¹ *Coins of Achaean League*, p. 9 and Introduction, p. v.

² *Zeit. f. Num.*, IX, 1882, p. 262.

³ In order of the text: *Numismata Hellenica* (Europe), p. 5; *B.M.C. (Pelop.)*, pp. 8-9; *Zeit. f. Num.*, XXVI, 1908, p. 293; *ibid.*, IX, 1882, p. 260; *Coins of Achaean League*, p. 12.

⁴ *B.M.C. (Pelop.)*, pp. 188 and 189.

⁵ *Ibid.*, pp. lxi-lxii.

⁶ *N. N. and M.*, 74, pp. 6 ff.

“recently minted.”¹ The combined evidence of the two hoards would seem to make inescapable the conclusion that these Arcadian types continued to be coined well after 234 B.C.

A simple and plausible explanation, in view of the above-mentioned facts, would be the hypothesis, similar to that of Miss Grace, that Megalopolis continued to issue these coin types after she joined the Achaean League, that she issued them in the tradition of the Arcadian Federation to serve as her standard municipal currency. Megalopolis was created for the sole purpose of being the capital of the Arcadian League and as such she used the Federal coin type. Since, therefore, the League was the reason for her existence and she had no other earlier traditions, she would have sought to perpetuate a coin type that was symbolical of her greatness even though the League had long since been dissolved. Her claim to fame was her prominent position in the Arcadian League. From the time of her founding in 370 B.C. she had used, for the most part, two reverse types, the seated Pan and the large syrinx, both designated as Arcadian coinage by the Α monogram. How frequently or how abundantly these types were minted we do not know, but there is no reason to doubt that Megalopolis continued them in the League tradition even after that body had ceased to function politically. Then in 234 she joined the Achaean League and found her identity submerged in that of a highly organized *πολιτεία* whose communal functions included the issuing of a standardized currency. There is every evidence, in the form of coin types with the ΜΕΓ lettering, to prove that Megalopolis, as well as Argos, Sicyon, Corinth and other cities, exercised the privilege of independent coinage even after she gave allegiance to the League. Not impossible is the conjecture that at that time she decided to keep the Pan type for her local uses, adopting the syrinx as her city symbol on the League denominations. One change she made to differentiate the issues following 234 from those which had preceded it, by adding an eagle on the knee of the seated Pan, possibly as a symbolical reminder of her former power and importance in Arcadian affairs. Perhaps the modified APK monogram was left for the same reason. As time went on, the monogram changed gradually from the elaborate Α to Α and finally to Α, which might indicate a growing carelessness and indifference to something no longer considered of paramount importance.² Finally the monogram disappeared entirely, the coins bearing only the combinations ΑΔ, ΑΔΛ, ΛΔ, ΚΑΙ. The fact that ΚΙ and ΚΑ occur commonly on the Achaean League coins of Megalopolis would seem to lend some measure of support to the theory that we have here two series of contemporary issues.

Where in the series the type without letters belongs is rather hard to decide. In appearance it is among the best preserved groups and may, perhaps, have been

¹ *Ibid.*, p. 9.

² Or since similar combinations occur in other cities (Dyme, *B. M. C.*, p. 3, and Lacedaemon, *ibid.*, p. 122), these monograms may simply stand for mint officials.

used for a time before the currency was changed once more and the MEΓ added to the reverse as indisputable proof of the mint.

Argument supported by insufficient material is always hazardous, and where groups contain only a few coins, we are hesitant about drawing conclusions based on relative wear and style, but insofar as these things have been noted they tend to support the points made above, indicating a change from monogram to letters and finally to the MEΓ form. Without doubt the one MEΓ coin present is among the best preserved in the whole hoard and in style of obverse head seems of a later and less fine technique.

Classifying some of its types as purely local issues would make less remarkable the abundance of the so-called Arcadian League currency. In Miss Grace's hoard 37 from a total of 231 coins belong to this group,¹ in our hoard there are 79 out of 677, while in the Zouggra collection 1,185 of the 9,171 specimens are classed as Arcadian.² These proportions are amazing if one considers the money under discussion as federal issues of a League which sprang into being a century before its Achaean successor and which may be supposed to have ceased minting about the time the later Federation adopted its varied coinage. Why should one-ninth of the coins in our hoard be attributable to this early League during the last 47 years of its minting activity when the rest of the Peloponnese contributes only 5 pieces which can be definitely assigned to the same period? Moreover, the fact that our hoard was buried nearly a hundred years after the official Arcadian money stopped would make the chance of its surviving in such abundance and in such good condition a slim one. However, if we suppose the eagle types to be the standard municipal money produced concurrently with the Achaean triobols over a period of nearly 100 years, the matter becomes clearer. Most of the important cities coined copiously their autonomous issues after adherence to the League. In our hoard there are 30 independent pieces of Argos dated between 228 and 146 B.C., while of the Federal types there are only 15. Löbbecke shows the same tendency with proportions of 49 to 5.³ Corinth is notoriously ill-supplied with League coinage, but continues to produce many specimens with the usual Pegasos on the obverse. Without pushing the point too far, it is possible at least that somewhat the same state of affairs existed in Megalopolis. Undoubtedly her rôle in League matters was a prominent one, and it would cause no great strain on the imagination to suppose that the city of Lydiadas, Philopoimen and Diophanes required for her local needs a coinage as abundant as that customarily assigned to the latest period of the Arcadian League.

DYME

Numbers 265-271 in our catalogue, with ΛΥ above and A-P to left and right of the League monogram, represent a type listed by Gardner and Clerk as coming from

¹ *Op. cit.*, pp. 29-30 and 33.

² *Revue numismatique*, VII, 1862, pp. 170-171.

³ *Zeit. f. Num.*, XXVI, 1908, pp. 279 and 292-293.

an uncertain mint, possibly Lycoa or Lyrceia.¹ This tentative classification assumes that the ΛY supplements the fish symbol as an indication of the coining city. There are, however, two objections to the attribution. In the first place, as far as we know, no Peloponnesian town whose name begins with ΛY (Lycoa, Lyrceia, Lycuria, Lycosura) had a local mint. All were places which apparently, in the light of existing numismatic evidence, issued no municipal currency. This does not preclude the possibility of Federal coinage except that a census of League cities reveals no ΛY name.² Another consideration makes it doubtful that these coins had their provenience in a town hitherto unknown, numismatically speaking; namely the fact that all extant examples marked with the ΛY and the fish answer to identically the same description. There is no deviation in combination or position of the letters. Like the coins in our group, all have ΛY above, $A-P$ to the left and right, and a fish below. Even conceding a hypothetical mint to Lycoa or any of the other towns mentioned, we are still reluctant to believe that such a mint would have only one isolated issue traceable to it. Either the town coined for only an extremely limited period, which seems contradicted by the number of coins found and their recurrence in various hoards, or else here was an outstanding exception to the general rule of monetary variety.

One coin from our hoard confirms the distrust of the Lycoan attribution and furnishes some degree of proof for the assignment of this type to Dyme. The piece has been either doublestruck or restruck and is not in good condition, but in the author's opinion the combination ΔY occurs above the League monogram. Immediately below these letters are traces of two others, either A or Λ and Y . The interesting fact is that the obverse head is unquestionably an integral part of our ΛY series, seeming indeed to be from the same die as one coin in that group.³

Weil⁴ gives a Dyme type with ΔY above, $A-P$ to left and right, and the fish below, but his examples are only illustrated by line drawings of the reverses. Clerk, who gives photographs of his Dyme coins, does not find that particular one in his collection. However, a comparison of his illustrations and our ΛY series definitely links the latter with No. 56 in his group, which shows ΔY above, $\Lambda-N$ to left and right, and the fish below. Not only are the obverse heads strikingly related in style, but the fish, which are of an unusual type, are graphically similar.

Our conclusion is that this ΛY series represents an issue chronologically close to the three ΔY types with $A-P$, Λ^2 , and $\Lambda-N$ in central position. Since our coins show pronounced signs of wear, they may be from an early Dyme group issued before continued League expansion made absolute identification necessary for all save the

¹ *B. M. C.*, p. 10, and *Coins of Achaean League*, p. 20.

² Freeman, *History of Fed. Gov't.*, p. 713.

³ Compare Nos. 19 and 20 on Plate IV.

⁴ *Zeit. f. Num.*, IX, 1882, p. 243.

most important cities, or in this instance the fish alone may have been accounted sufficient mark of the mint.¹

TROEZEN

The series of trident coins listed in this catalogue under Troezen have been variously ascribed. Weil and Clerk assign them to a Mantinean mint functioning in the period previous to 222 B.C. Miss Grace, while concurring in the Mantinean attribution, dates the issue at the beginning of the second century. On the other hand the British Museum places them under a Troezen? heading and Leake gives them the same origin. A consideration of both historical and numismatic factors inclines us toward the Troezenian classification.

Mantineia's checkered political history in the period between her first alignment with Achaean League interests and her destruction at Achaean hands in 222 B.C. makes it dubious that the trident coins belong to that date. The exact year of her entry into the League is open to question. Freeman believes it occurred prior to the admission of Megalopolis in 234. Certain it is that she very quickly exchanged her Achaean ties for Aetolian ones, possibly in displeasure when her old rival joined the Federation. The Aetolian bond continued until 228 when Mantineia along with Tegea and Orchomenos was induced by Kleomenes to join the cause of Sparta. In 226 she was recaptured by Aratus, but in the course of the next year revolted again to Sparta, murdering her Achaean garrison. Finally in 222 the city was sacked by the Achaeans, and in revenge for the earlier spilling of Achaean blood, her inhabitants were slain or sold into slavery. The new masters established another colony on the same site and gave it the name Antigoneia in honor of Antigonos Doson, then the ally of the Achaeans.²

Such a concatenation of political upheavals renders exceedingly improbable the issuance of a continuous series of League coins on the part of the old Mantineia. Equally improbable it is that the coins were minted at Antigoneia. The history of the period gives no record of any event which would account for a break in the AN series of that city.³ Miss Grace's hypothesis that a Mantinean faction temporarily gained control of the city and changed the currency (*N.N. and M.*, 74, pp. 16 ff.) is based upon a Delphic inscription listing the proxenoi from various Greek cities among which the name *Mantineia* occurs (*I.G.*, V, 2, p. xxxvii). This inscription must be dated after 176 B.C. since the proxenos of Elea was selected in that year.⁴ Yet the

¹ Reattribution of these coins would correct the relative proportions of our hoard in which only one other coin from Dyme, an important mint, is included.

² Freeman, *History of Fed. Gov't.*, pp. 403-404, 439, 446-447, 454, 495.

³ Both Plutarch (*Aratus*, 45) and Pausanias (VIII, 8, 11) record the change of name and imply that it continued until Roman times.

⁴ Haussoullier (*B.C.H.*, VII, 1883, p. 190) says the inscription dates from the first half of the second century B.C.; Hiller von Gaertringen (*I.G.*, V, 2, p. xxxvii) places it *ca.* 175 B.C.; B. Latichoff (*B.C.H.*, VI, 1882, p. 585) remarks that according to the calculation of M. Haussoullier the inscription falls between 176 and 171 B.C.

burial date of Miss Grace's hoard (185-182 B.C.) seems well substantiated by evidence of the coins themselves, which means that if we assume that the trident types included in her hoard and the inscription cited above are official expressions of a reversal of power in Antigoneia, then that change must have lasted nearly fifteen years.¹ While historical sources might have been ignorant or disregarding of a temporary *coup d'état* of strictly local significance, it is incredible that they would have been silent concerning such a protracted change of government. It is possible, of course, that a burial date of 182 B.C. is too early for Miss Grace's hoard and that an uprising of short duration did take place about 175 B.C. On this point, however, our own hoard offers evidence, for if such an event had occurred at that late date in League history, the trident types should be not only in finer condition than the Antigonean coins but among our best-preserved pieces. This is decidedly not the case; they are on the whole more worn than the AN specimens.

The use of the name Mantinea on a state document of *ca.* 175 B.C. may seem mystifying, but the explanation would seem to lie in the suggestions of Beloch and Fougères² that officially substituting the word Antigoneia for Mantinea is a totally different matter from stamping the old name out of daily use. It is not impossible that the ancient traditions, kept alive by Mantinean survivors, captured the imagination of the new inhabitants until they too began to feel themselves linked to the history of the old city. Officially they were Antigoneans, but any significance the title may have had in earlier times gradually died away; in their speech, even in their habits of thought they began to consider themselves as Mantineans. May not the inscriptional language bear witness to the prevalence of this feeling, being the outgrowth of a vocal slip unnoticed by both the proxenos himself and his fellow representatives. Certainly if the repetition of the ancient name by writers of the same or somewhat later periods³ is any indication of general usage, the Macedonian Antigoneia would fall more strangely upon Greek ears than the well-known Mantinea.

Two factors linking the coins with Mantinea remain, the M and Μ monograms on some issues and the trident symbol. Regarding the first, similar signs appear on the coinage of other cities (Μ on a Sicyonian copper piece, M on an Epidaurus, and Μ on a Tegea coin).⁴ Our belief is that the lettering is simply a magistrate's name or a mark used to differentiate the Δ-I issues.⁵ As for the trident, it is used on the

¹ The number and variety of the trident coins postulates a coining period of several years prior to the burial of the hoard.

² Beloch, *Griechische Geschichte*, IV², 1, p. 714 and Fougères, *Mantinee et l'Arcadie orientale*, pp. 504, 514-515.

³ Polybius (IV, 21, 9; XI, 11); Strabo (VIII, 388) and Plutarch (Philop. XI) all use the term *Mantineia*.

⁴ *B. M. C. (Pelop.)*, pp. 13, 158 and 202-203.

⁵ If a M form is indicative of the city name, it seems strange that the same issue should appear once without any sign, once with M, and once with Μ (Clerk, *op. cit.*, p. 12).

pre-League money of Mantinea, but the British Museum Catalogue lists it only three times—once as the main reverse type and twice as an attribute of Poseidon. It is not a predominant symbol in all periods of Mantinean coinage.

One other consideration should be taken into account in connection with this trident sign. On some of the coins, or on all if we accept the *M* as a magisterial mark, the trident is the only clue to the city issuing the money. It is almost impossible to systematize the various practices followed by municipalities in designating their currency. Some places use a symbol, others have letters, while still others combine the two.¹ However, it is noteworthy that in no case is the symbol used alone unless it is a fairly unique type definitely associated with the city using it, such as the Sicyonian dove or the Aegira half-goat. Now the trident is not a rare device, being used by Patrae, Mantinea, Troezen, Pallantium, Ceryneia, and possibly Corone among the Peloponnesian towns. Hence, it would follow as a matter of course that a city using that symbol without any other indication of mint should be one of some prominence with whose coinage the trident had had a long and close connection.

This line of reasoning would require then as a source of the trident coins a mint of importance, one accustomed to issuing trident types and one connected with Achaean affairs prior to or approximating the time of the sack of Mantinea. From the group of cities cited above, Troezen is a logical choice.² She joined the League in 243 B.C. and thus her coins could conceivably be more worn than those of the new Antigoneia. With her money the trident is undoubtedly closely connected as is natural for a city to whom Poseidon once lent his name.³ His peculiar attribute figures as the reverse type on every coin except one, listed in the British Museum Catalogue from 431 B.C. on. Nothing else is used. Finally Troezen seems to have been historically of great enough importance to have had her continuance of the age-old trident symbol sufficient indication of her mint.

MEGALOPOLIS—MESSENE

Even the most superficial study of the coins attributed to these two cities impresses one with (1) the divergence of numismatic opinion regarding the place of origin of individual issues and (2) the paucity of coinage generally assigned to Messene. Clerk divides the types with *M* or some form of an *ME* monogram fairly

¹ An attempt was made to discover a set of underlying rules, but nothing more definite could be formulated than the statement that, generally, unimportant towns like Ceryneia, Pellene, and Pallantium tend to have both symbol and letters, while more important places like Sicyon, Messene, and Megara are content with one or the other. But the examples of Elis, Sparta, and Megalopolis discredit even this broad assertion.

² Assignment of these coins to Troezen settles the incongruity of having no currency attributable to a fairly important League member of almost a century's standing.

³ "Troezen is sacred to Poseidon after whom it was once called Poseidonia." Strabo, VIII, 6, 14.

evenly between the two mints, but his method is rather erratic. He leaves Megalopolis the syrinx and pedum, assigns the fulmen specimens to Messene, but seems to have no particular reason behind his classification of the remaining coins.¹ Weil's catalogue on the other hand is decidedly partisan, listing all types with symbols and most of those without under the heading of the Arcadian city. Two reverses alone suffice for Messene.² Most surprising of all is the review of Löbbecke's Caserta hoard³ in which that author ascribes not one of his 322 Achaean League triobols to a Messenian mint. Nor does he find it strange that no other city of any importance is missing from his list save Corinth, whose League coinage is sparsely represented in all collections. In this respect geographical situation might explain the lack of Corinthian pieces since no autonomous currency of that city is included in the group, whereas there are thirteen Messenian independent issues of the same period as the League coinage.

No historical evidence regarding Messene is available to account for a numismatic inarticulateness of 45 years. Freeman⁴ tells us that, along with Elis, she became a League constituent in 191 B.C., albeit an unwilling one at first. For a few years following her admission, a measure of discontent and political restlessness may have interfered with the functioning of an orderly monetary system. In 183 an oligarchic group caused the city to revolt from the Federation and brought about the capture and death of Philopoimen. But as Freeman records, "It was soon evident that the revolt of Messene and the death of Philopoimen were the work of a mere faction and that the guilt was in no way shared by the mass of the Messenian people. In the course of the next year popular feeling compelled Deinokrates to sue for peace." This does not sound like a universal aversion to the League as a body politic, and subsequent favors, such as exemption from taxes for three years, must have given a silken cast to the ties of Federal allegiance. Certainly there is no reason to imagine that this minor disaffection of one Messenian group disrupted her League currency for almost half a century. Nor does it seem likely that political unimportance after 182 caused her to stop minting.⁵ She continued to coin autonomous issues after joining the League, and the exercise of such a privilege presupposes a degree of importance on the part of the favored city.

Owing to the number of disputed types in this hoard, a careful study was made of the individual coins to see if some underlying system of differentiation might not be discernible. As a beginning it was assumed that the syrinx and pedum were unquestionable Megalopolitan symbols, hence that all coins so marked had their origin

¹ *Coins of Achaean League*, pp. 13 and 18.

² *Zeit. f. Num.*, IX, 1882, pp. 262 and 268. Weil (pp. 221-2) admits the peculiar scarcity of currency from the Southern mint and suggests a possible misattribution of one type.

³ *Zeit. f. Num.*, XXVI, 1908, pp. 275 ff.

⁴ *History of Fed. Gov't.*, pp. 636, 647 ff.

⁵ Crosby and Grace, *N. N. and M.*, 74, p. 5.

in that city. Further study fostered the belief that Weil's attribution of the fulmen type was correct—that it belonged not to Messene but to Megalopolis. The symbol itself was used on independent issues of both places and can thus be linked with either locality, but other considerations favor an Arcadian source. First, the obverse heads found on some of the syrinx coins are of an unusual style—a large head, sharply chiselled and raised only slightly above the face of the coin. No other mint seems to have worked with quite the same technique. On the fulmen coins these stylistic qualities, although not so emphasized, are obviously similar to those of the syrinx group and argue for a common tradition. Moreover, the recurrence of reverse letters makes the case stronger. The syrinx types use repeatedly the letters Λ, Β, Κ, and Ξ. Our thunderbolt issue with ΞΒ above and Κ-Α to left and right dovetails very neatly into the series.¹

Among the remaining pieces, all without symbols, there is a group of somewhat flatter coins with the obverse heads encircled by dots. These appear to represent a slightly different type from the Megalopolis issues and since there is no similarity of lettering arrangement to connect them with that mint, they have been tentatively attributed to Messene. Another coin with Π-Δ to left and right has an obverse head similar to that on an autonomous piece of Messene.² The repetition of letters, coupled with a certain stylistic affinity among members of the group, gives in the author's opinion some basis for believing that Messene minted the whole series which lacks symbols.³

In separating the coins on the bases of style and lettering, more weight was given to the latter point, as admittedly there is no marked difference (with the exception of the fulmen and some of the syrinx coins) between many Megalopolitan and Messenian types.⁴ The letters themselves have only a face value. It is impossible to link them definitely with magistrates from either city, whose names are revealed on League bronze and autonomous silver issues. When a Messenian official's name tallies with the coin markings, there is apt to be a Megalopolitan with similar initial letters, or else letters on a coin obviously from Megalopolis begin the name of a Messenian magistrate.⁵

¹ Cf. p. 138 in the catalogue and Nos. 16-20 on Plate VI and Nos. 1-3 on Plate VII.

² Cf. No. 3 on Plate X with No. 16 on Plate III.

³ Study of the coins catalogued under Messene brings out the recurrence of letters very clearly. The only break in the series comes between the Ξ-Ε and Π-Α types, yet the latter, which Clerk assigns to a dual Megara and Pagae mint and Weil to Megalopolis, has an obverse head executed in similar style to the Ξ-Ε issue (Nos. 20 on Plate IX and 1 on Plate X).

⁴ Leake (*Num. Hell.*, Eur., p. 74) notes the same tendency when he says that one of his ΜΕΞΞΑΝΙΩΝ coins is remarkably similar in style, size, and weight to an Arcadian League piece of certain Megalopolitan mintage. Perhaps geographical proximity explains the influence of one type on the other.

⁵ Reasonable doubt may be entertained that the two letters taken together begin the name of a magistrate. As Weil (*Z. f. N.*, IX, 1882, p. 263) points out, combinations like ΝΦ, ΠΔ, and ΞΒ

This arbitrary division of symbol and no-symbol types as representative of Megalopolitan and Messenian money does, however, introduce a touch of logic into a haphazard system. If the reason for the existence of the letters and symbols centred in their value as distinguishing marks of the various cities, then to be of any use at all they must perform that service beyond question. Especially necessary would be a decisive difference between the coinages of these two cities, geographically close, possessing the same monogram, and sharing at least one symbol, the thunder-bolt. Messene entered the League in 191 and found in it at that time only two other cities beginning with the letter M of whose silver currency we have any record: Megara with her lyre symbol and Megalopolis, using—if our surmise be true—one or another of her three signs. Since Megara never used the M and Megalopolis only in conjunction with a symbol, there would be nothing to hinder Messene's adoption of the letter alone below the League monogram as the mark of her coinage.

CORONE?

Clerk's assignment of our Coronean coins (Nos. 675-677) to Messene seems based solely upon coincidence of the ΞE , one of the commonest combinations in the League coinage.¹ Since no symbol is present and the ΞE cannot stand for the city, the K^o is our only clue. Excluding Corinth, naturally an impossible choice, the only League members whose names begin in such fashion are Corone and Gortys (Cortys).² Both use the peculiar combination of large kappa and small omicron and both are known to have issued Federal copper. Gortys, however, seems never to have been of sufficient importance to mint silver, which gives some slight preference to Corone for whom autonomous silver denominations are recorded.

Except for the reattributions discussed in the preceding sections, the coins of our hoard fit definitely into the categories of Clerk and the British Museum. No

cannot thus be explained. Warren (*Essay on Greek Federal Coinage*, p. 45) says the name of the town's head magistrate is on the coins, while Gardner (*B. M. C.*, p. xxv) believes it is the name of a subordinate mint official. Perhaps both are correct, the first letter of each magistrate's name being used. The possibility of re-election or of varying terms of office would make it natural to find the same letter occurring in diverse combinations as NΦ, ON, KI, and KA. Or it may be that one of the letters is a mark used to differentiate the issues of a certain series. In either case recurrence of the same letter, if accompanied by other linking factors, would be partial proof of a common provenience for coins so designated.

¹ Clerk suggests (*Coins of Achaean League*, Introduction, p. v) that the type may be Coronean and Löbbecke (*Z. f. N.*, XXVI, 1908, p. 291) ascribes it to that place with some doubt ("Corone?").

² The inscription on a bronze coin listed by the *B. M. C.* (p. 14, no. 162) reads AX AIΩN KOPTYNIΩN.

entirely new type is apparent. Occasionally, as in the case of the Arcadian and Aetolian pieces, there is a variation from recorded letter combinations, but this entails no question of mint attribution. Where a divergence from Clerk's grouping has been made, it is, in all cases except that of the ΛY coinage, supported by some numismatic authority and is here advanced not as established fact but as the hypothesis which the contents of this hoard render most probable.

APPENDIX I

The cities of the League whose coins are represented in this catalogue and the dates of their admission are as follows:

Patrae	280 B.C.	Cleitor	?
Dyme	280	Megalopolis	234
Aegium	275	Argos	228
Ceryneia	275	Caphyae	227
Aegira	274 ?	Tegea	222
Pellene	274 ?	Antigoneia	222 or later
Sicyon	251	Pallantium	193 ?
Corinth	243	Lacedaemon	192
Megara	243	Elis	191
Troezen	243	Messene	191
Epidaurus	243	Corone	184 ?

APPENDIX II

Table of Weights

1.	2.21	60-63.	2.32, 2.39, 2.30, 2.35
2.	2.54	64.	2.40
3-5.	2.29, 2.25, 2.12	65.	2.18
6.	2.24	66.	2.64
7.	2.71	67.	2.40
8-10.	2.50, 2.48, 2.61	68.	2.49
11-12.	2.73, 2.49	69.	2.20
13-15.	2.50, 2.41, 2.73	70.	2.65
16-26.	2.82, 2.68, 2.61, 2.61, 2.65, 2.81, 2.84, 2.66, 2.75, 2.72, 2.76	71.	2.50
27-29.	2.72, 2.57, 2.50	72.	2.52
30.	2.67	73-77.	3.42, 3.41, 3.50, 3.32, 3.50
31.	2.80	78-82.	3.50, 3.20, 3.34, 3.59, 3.41
32-33.	2.74, 2.70	83-85.	3.31, 3.40, 3.41
34-40.	2.66, 2.73, 2.60, 2.79, 2.61, 2.77, 2.64	86-88.	3.40, 3.45, 3.39
41-42.	2.63, 2.74	89-92.	3.49, 3.52, 3.32, 3.31
43-45.	2.55, 2.70, 2.63	93-95.	3.41, 3.15, 3.30
46-48.	2.42, 2.72, 2.60	96-100.	3.51, 3.36, 3.02, 3.83, 3.40
49.	2.61	101-103.	3.15, 3.13, 3.11
50-58.	2.44, 2.72, 2.70, 2.50, 2.52, 2.64, 2.43, 2.56, 2.53	104-108.	2.48, 2.51, 2.50, 2.72, 2.63
59.	1.91	109.	2.73
		110.	2.21
		111.	2.25
		112-113.	2.40, 2.42

Table of Weights

114-116.	2.53, 2.25, 2.34	271.	2.39
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130.	2.61	273.	2.54
131.	2.32	274-276.	2.33, 2.43, 2.43
132-142.	2.38, 2.12, 2.31, 2.10, 2.50, 1.89, 2.29, 2.10, 2.12, 2.47, 2.09	277-279.	2.22, 2.34, 2.21
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144.	2.43	287.	2.50
145-160.	2.20, 2.51, 2.38, 2.41, 2.40, 2.46, 2.35, 2.50, 2.35, 2.42, 2.42, 2.13, 2.12, 2.50, 2.32, 2.31	288-289.	2.30, 2.39
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162-173.	2.26, 2.50, 2.27, 2.32, 2.13, 2.34, 2.20, 2.31, 2.47, 2.43, 2.22, 2.60	291-298.	2.49, 2.21, 2.42, 2.30, 2.54, 2.13, 2.04, 2.40
174-197.	2.35, 2.25, 2.40, 2.23, 2.29, 2.30, 2.61, 2.43, 2.60, 2.34, 2.28, 2.20, 2.26, 2.43, 2.20, 2.47, 2.42, 2.30, 2.41, 2.19, 2.29, 2.11, 2.29, 2.22	299-300.	2.32, 2.53
198-199.	2.58, 2.31	301-305.	2.50, 2.29, 2.37, 2.25, 2.30
200-212.	2.49, 2.24, 2.20, 2.32, 2.52, 2.48, 2.21, 2.44, 2.20, 2.20, 2.41, 2.59, 2.20	306.	2.45
213-214.	2.49, 2.35	307.	2.50
215.	2.30	308.	2.39
216-222.	2.42, 2.44, 2.25, 2.28, 2.50, 2.31, 2.40	309-313.	2.41, 2.35, 2.48, 2.29, 2.43
223.	2.41	314.	2.34
224.	2.35	315.	2.42
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229.	2.25	321.	2.42
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235-236.	2.53, 2.42	333-340.	2.36, 2.44, 2.25, 2.13, 2.20, 2.25, 2.24, 2.47
237.	2.40	341.	2.38
238.	2.68	342-343.	2.34, 2.30
239.	2.40	344-345.	2.15, 2.40
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241.	2.56	360-361.	2.32, 2.30
242.	2.22	362-364.	2.59, 2.42, 2.35
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248.	2.43	380.	2.49
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264.	2.33	387.	2.50
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