



From Philip II to Alexander the Great

Metrological Reforms by the Delphic Amphictyony (336–335 BCE)

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1. Coins in Delphi (4th c. BCE)

2. The “New Amphictyonic” Coinage (Fall 336 – Spring 335 BCE)

3. The ἐπικαταλλαγή (Spring 335 BCE)



Weight and Coin Equivalences during the Classical Period



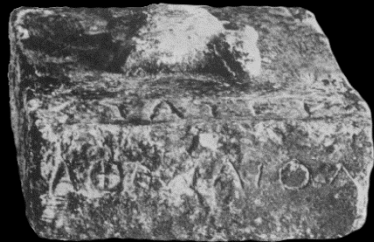
Aeginetic Stater (AE)
1305g = 3 minae

←→
RATIO 105:1

Aeginetic Stater (AR)
12.40g = 1/35th mina



DIDRACHM



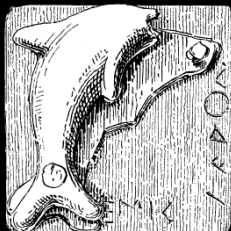
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8.70g = 1/50th mina



DIDRACHM



Attic hemistater (AE)
435g = 1 mina

Attic hemistater (AR)
4.35g = 1/100th mina



DRACHM

Converting Small Amounts in Delphi, 4th c. BCE

Κλεογένης ἀττικοῦ
δραχμὰς τέσσαρας, **τούτου**
αἰγινᾶϊον δραχμαὶ δύο,
ὀβολοὶ τέσσαρες.
Πείσιος ἀττικοῦ δραχμὰς
τέσσαρας, **τούτου** αἰγινᾶϊον
δραχμαὶ δύο, ὀβολοὶ τέσσαρες.
Κτήσων ἀττικοῦ δραχμὰς
τέσσαρας, **τούτου** αἰγινᾶϊον
δραχμαὶ δύο, ὀβολοὶ τέσσαρες.

CID II 4, I, 57–66 (360 BCE)

Attic: 4 dr. = Aeginetic: 2 dr. 4 ob.

Attic: 24 obols = Aeginetic: 16 obols

Attic: 3 obols = Aeginetic: 2 obols

Conversion rate = 3:2

Converting Large Amounts in Delphi, 4th c. BCE

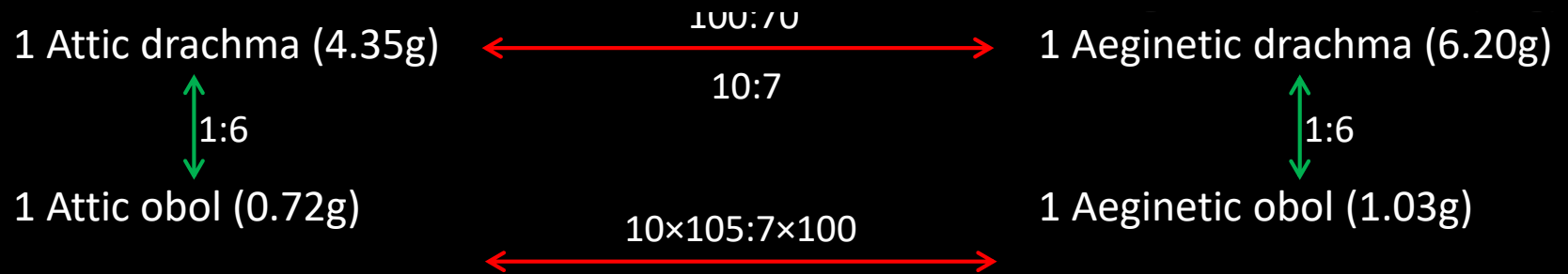
Δημαίνετος Νάξιος ἄπτικὰς
δραχμὰς δέκα· **τούτου**
αἰγινᾶϊον δραχμαὶ ἑπτὰ.

CID II 4, I, 21–23 (360 BCE)

Attic: 10 dr. = Aeginetic: 7 dr.

Conversion rate = 10:7

Conversion Rules between Attic and Aeginetic Systems





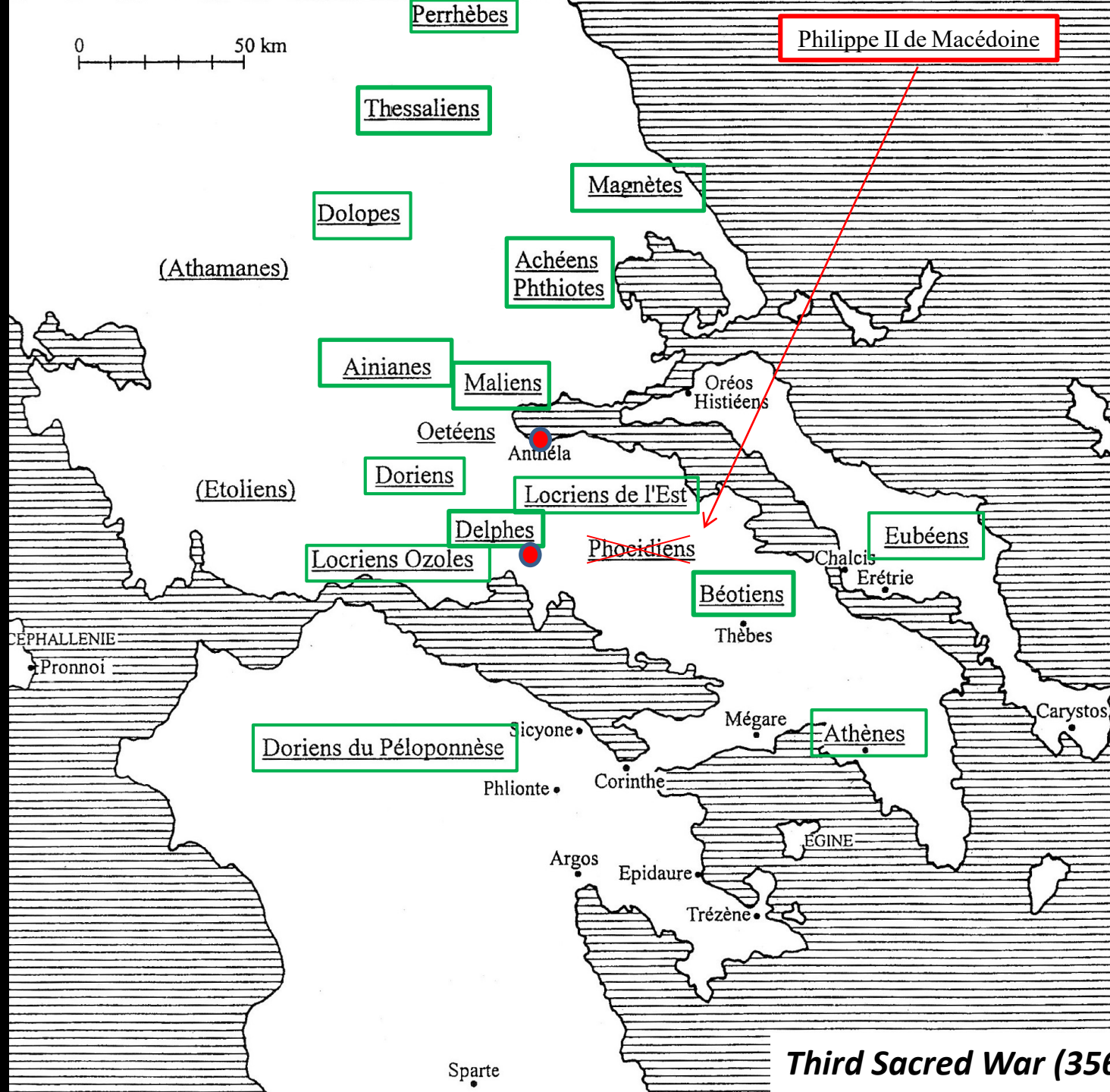
1. Coins in Delphi (4th c. BCE)

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(Fall 336 – Spring 335 BCE)

3. The ἐπικαταλλαγή (Spring 335 BCE)







Third Sacred War (356–346 BCE)



“Old Aeginetic” Coins (παλαιὸν αἰγινάϊον)



Aegina, stater, [— — —] g



Phocis, triobol (c. 2.69g)



Opus, triobol (c. 2.65g)



Larisa, “old” drachma (c. 5.73g)



Sicyon, “new” drachma (c. 5.51g)



Larisa, “new” drachma (c. 5.82g)

“New Amphictyonic” Coins (καινὸν ἀμφικτυονικόν)



Delphic Amphictyony, stater: 12.40 g



Delphic Amphictyony, drachma: 6.20 g

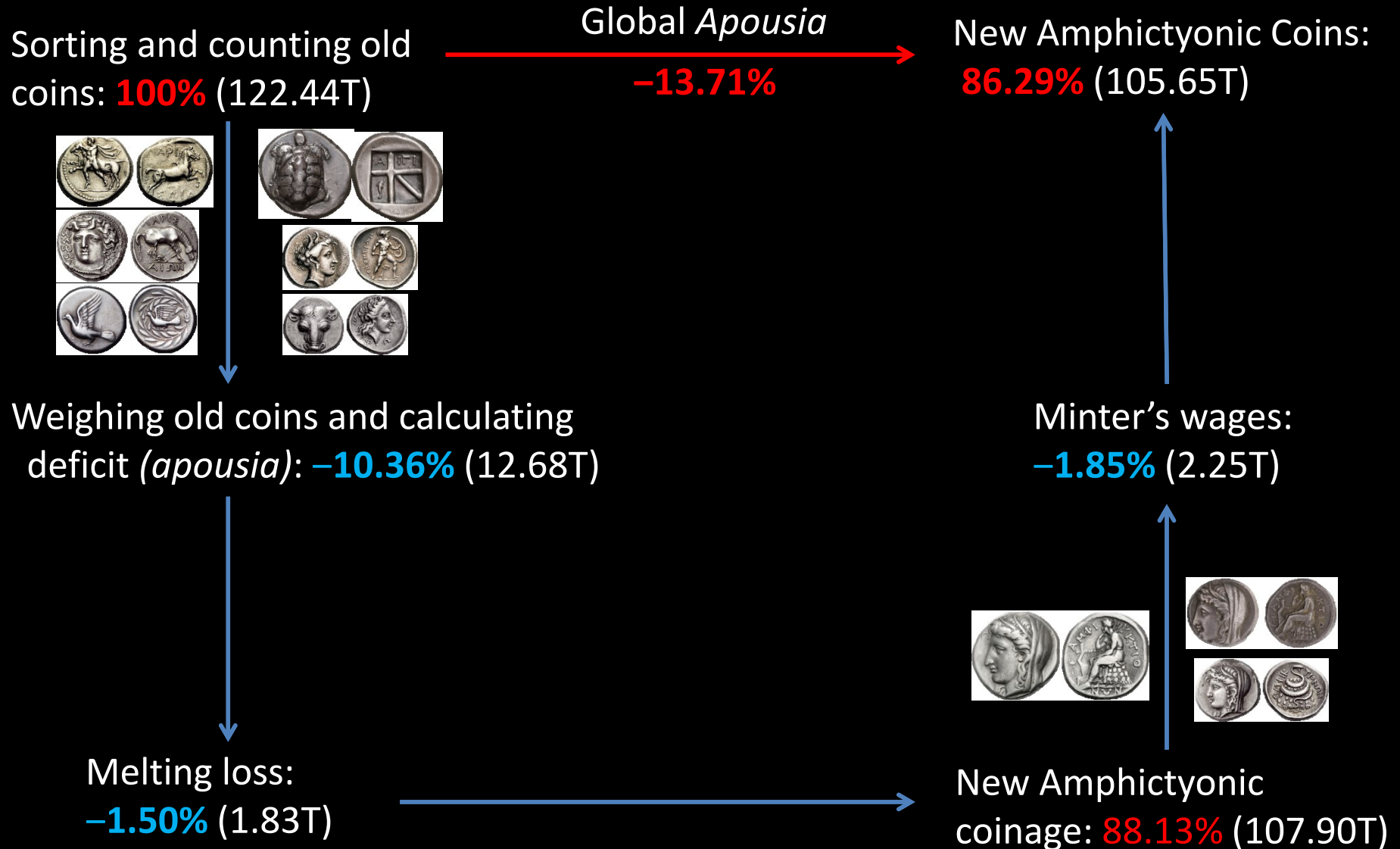


Delphic Amphictyony, triobol: 3.10 g



Cost Estimate of the New Amphictyonic Coinage (CID II 75)

Global Procedure for Producing the New Amphictyonic Coinage



First Accounts in the Amphictyonic Standard (Beginning of Spring 335 BCE)

[Ἐλείπετο τοῖς ταμ]ίαι[ς π]αρά τ[ῆ]ι πόλει [τ]ῶν Δελφ[ῶ]ν,
[ν σύμπαν κεφάλαιον] **σὺν [τῶ]ι καινῶι καὶ [τῶι] παλα[ι]ῶι**·
[ν τάλαντα ἐξήκ]οντα ἔ[ν], μνα[ῖ] εἴκοσι τέσ[σα]ρε[ς],
[ν στατῆρες δέκα] ἐννέα, ὀβο[λ]οὶ ἔνδεκα, [χαλ]κο[ῖ] ἐπτ[ά].

61T 24M 19S 11O 7Ch

vacat

[Τούτου **καιν]ῶν ἀμφικτυονικῶν** ἀρι[θ]μῶι τάλαντα [τρι]-
[ν ἄκοντα ἕξ, μ]ναῖ τριάκοντα ὀκτώ, σ[τ]ατῆρες τριάκοντα
[ν δύο, ὀβολοὶ] ἐννέα.

36T 38M 32S 9O

vacat

[Κ]αὶ **[παλαιο]ῦ** τάλαντα εἴκοσι τ[έ]σσ[αρα], μναῖ
ν τε[σ]σαράκο[ν]τα πέντε, [σ]τατ[ῆ]ρες εἴ[κ]ο[σι] δ]ύο,
ν ὀβολ[ο]ὶ δύο, χαλκοῖ ἐπτά.
[Τ]αῦτα μὲν τὰ ὑπάρχοντα.

24T 45M 22S 2O 7Ch

First Accounts in the Attic Standard (End of Spring 335 BCE)

Ἐλείφθη, ἀφαιρεθέντος τοῦ ἀναλώματος,
ν παρὰ τῇι πόλει τῶν Δελφῶν **παλαιοῦ** τάλαντα
ν πεν[τ]ήκοντα δύο, μναῖ πεντήκοντα, [σ]τατῆρες εἴκοσι ἕξ,
ν δραχμή, χαλκοῖ ἐπτά. 52T 50M 26S 6O 7Ch

Κ[α]ὶ **ἀμφικτυονικοῦ** τάλαντα ἑκατὸν πέντε,
ν μναῖ τεσσαράκοντα ἑννέα, στατῆρες πέντε,
ν ὀβολοὶ ἑννέα. 105T 49M 5S 9O

Ἀπὸ τούτων ἐγέν[ε]το, ἐκ ταλάντων ἀμφικτυονικοῦ
ν ἀριθμῶι τεσσα[ρ]άκοντα τεσσάρων καὶ μνῶν [δέ]κα ὀκτώ
ν καὶ στατήρων δέκα πέντε, ν **ἀπτικοῦ** ἀριθμῶι
ν τ[άλα]ντ[α] τε[σσ]αράκοντα πέντε, μναῖ δέκα ὀκτώ,
ν δραχμαὶ πεντ[ήκ]οντα τρεῖς, ὀβολοὶ δύο. – 44T 18M 15S
[61T 30M 25S 9O]
45T 18M 53D 20

Σύμπαν κεφάλαιον· ἐλείφθη παρὰ τῇι πόλει τῶν Δελφῶν,
ν τοῖς ταμίαις· ν ν τάλαν[τ]α ἑκατὸν πεντήκοντα ἑννέα,
ν μναῖ τεσσαράκοντα, στατῆρες δύο, ὀβολοὶ τρεῖς,
ν χαλκοῖ ἐπτά. 159T 40M 2S 3O 7Ch

Failure of the New Amphictyonic Coinage

1 – Political Causes

Battle of Chaeronea (Summer 338 BCE) – Appointment of the Treasurers (Spring 337 BCE) – Assassination of Philip II (Summer 336 BCE) – Beginning of the Amphictyonic Coinage (Fall 336 BCE) – Increasing Power of Alexander – End of the Amphictyonic Coinage (Spring 335 BCE)

Oriental Campaigns of Alexander the Great (334–323 BCE)



Coinage of Alexander the Great



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2 – Economic Causes

- a) *Cost of the operation (loss of 13.71%)*
- b) *Unsuitability of the new Amphictyonic coinage with weight and monetary standards of the 2nd half of the 4th c. BCE*



Bronze *Stater* (1305g)

6th c. – early 4th c. BCE
Ratio 105:1



Silver *Stater* (12.40g)



Bronze *Stater* (1305g)

6th c. – early 4th c. BCE
Ratio 105:1

mid 4th c. BCE
Ratio 112:1



Silver *Stater* (12.40g)



Silver *Stater* (c. 11.80g)



Bronze *Stater* (1305g)

6th c. – early 4th c. BCE
Ratio 105:1

mid 4th c. BCE
Ratio 112:1

335 BCE
Ratio 105:1



Silver *Stater* (12.40g)



Silver *Stater* (c. 11.80g)



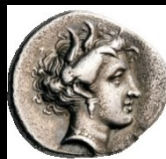
Silver *Stater* (12.40g)



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3. The ἐπικαταλλαγή (Spring 335 BCE)



The “Exchange Revaluation” (ἐπικαταλλαγή)

1 – Modification of the Aeginetic standard

- a) *The actual bronze–silver ratio became the official ratio (112.5:1)*
- b) *The bronze counterpart of a silver coin remained the same*
- c) *The silver coins were reduced (drachma weighing 1/75th of mina)*



Bronze *Stater* (1305g)

6th c. – early 4th c. BCE
Ratio 105:1

mid 4th c. BCE
Ratio 112.5:1

335 BCE
Ratio 105:1



Silver *Stater* (12.40g)



Silver *Stater* (c. 11.80g)



Silver *Stater* (12.40g)

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2 – Foreign Exchange Revaluation

- a) *Between Aeginetic and Attic drachmae (from 14:20 to 15:20)*
- b) *Between Aeginetic silver drachmae and (Attic) gold stater (from 14:1 to 15:1)*

The “Exchange Revaluation” (ἐπικαταλλαγή)

Aeginetic

7 × 12.40g (14 drachmae)



=

Attic

5 × 17.40g (20 drachmae)



=



8.70g

The “Exchange Revaluation” (ἐπικαταλλαγή)

Aeginetic

7 × 12.40g (14 drachmae)



Attic

5 × 17.40g (20 drachmae)



7.5 × 11.60g (15 drachmae)



8.70g

Converting Coins in Delphi after 335 BCE

[τούτου] χρυσοῖ δι-
ακόσιοι εἴκοσι εἷς· τούτων [οἱ μὲν ἑκατὸν] ἐνενήκο-
[ντα ἐν ἐπτά στατῆρσι λε[λογισμένοι ἦσαν], οἱ δὲ τρι-
[άκοντα] καὶ εἷς ἐν ἐπτά κ[αὶ δραχμῇ]. **γίνεται δὲ τούτ-
[ω]ν ἀργυρίου** μναῖ τεττα[ράκοντα τέτταρ]ες, στατῆρ-
[ες εἴκοσι δύο, δραχμ]ή.

CID II 102, I A, 37–42 (Fall 324 BCE)

Δ[αρ]εικοὶ ἑκατὸν ἐνενή[κοντα ἐν ἐπτά στατῆρσι]
[ῆρι]θμημένοι.

[ἄλ]λοι δαρεικοὶ τριάκοντα ἐν ἐ[πτά καὶ δραχμῇ]
[ῆρι]θμημένοι.

[κ]αὶ δοκιμεῖον ἀπὸ τοῦ περιραντηρίου·

[δ]αρεικὸς ν **ἀριθμεῖται** δὲ ὁ δαρεικὸς **ἐ[ν ἐπτά]**
[κ]αὶ δραχμῇ. τὸ δὲ ἄλλο πᾶν καλόν.

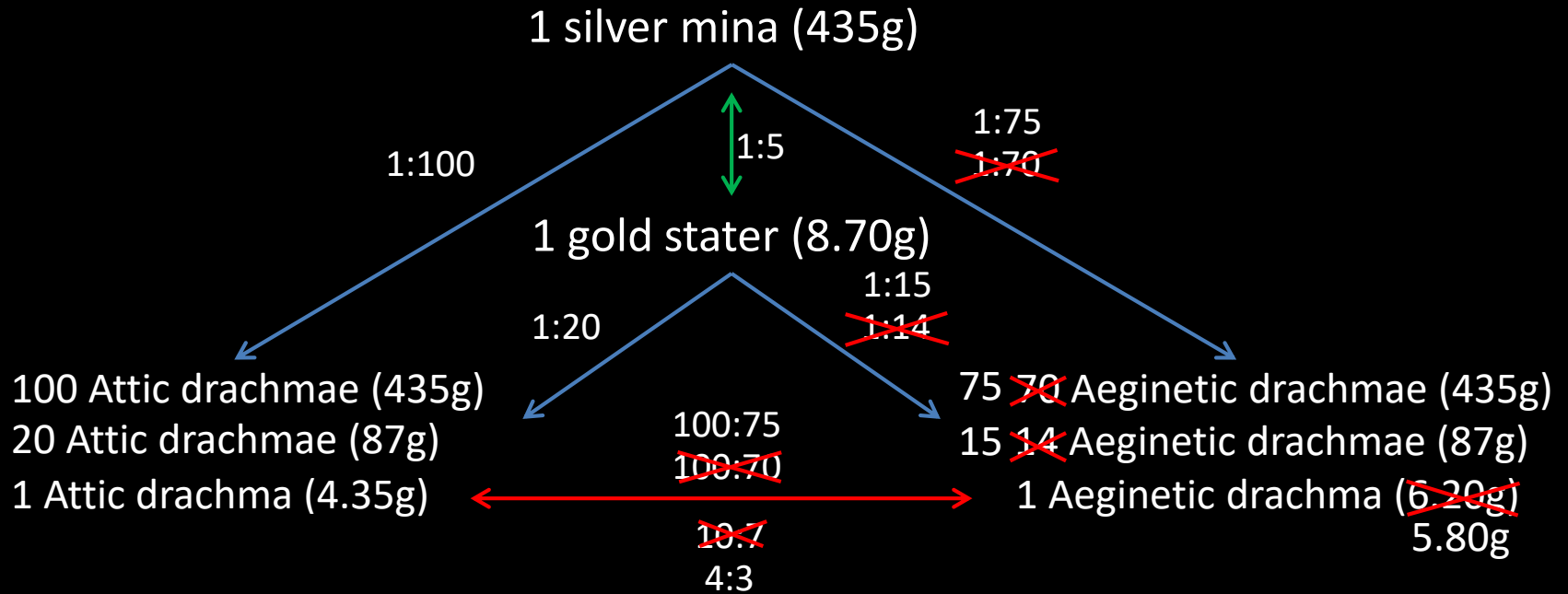
CID II 102, II A, 6–12 (Fall 324 BCE)

221 gold staters:

- 190 staters rated at 7 silver staters
- 31 staters rated at 7.5 silver staters

Total: 1562.5 silver staters
(44 minae 22.5 staters)

New Conversion Rules between Attic and Aeginetic Systems



The “Exchange Revaluation” (ἐπικαταλλαγή)

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3 – Modification of the Attic Weight System

Mina weighing 112 Attic drachmae = 84 reduced Aeginetic drachmae

Weight and Coin Equivalences during the Classical Period



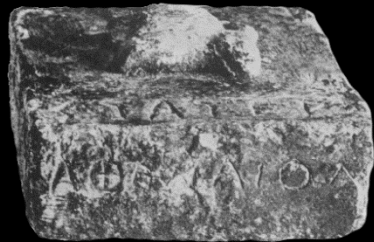
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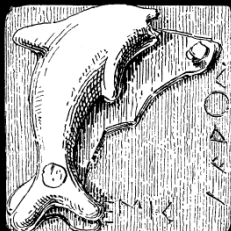
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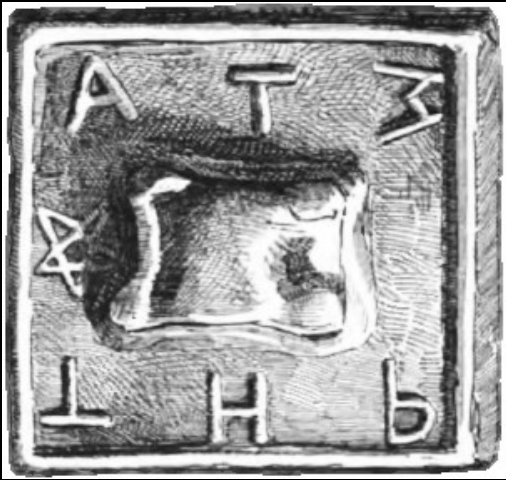
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Attic hemistater (AR)
4.35g = 1/100th mina



DRACHM

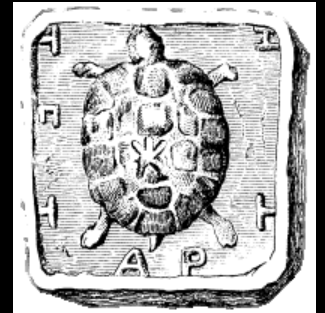
A New Weight System Based on the Ratio 112(.5):1



1 stater: 224 Attic dr.



1/3 stater: c. 75 Attic dr.



¼ stater: 56 Attic dr.



1 mina: 112 Attic dr.



1/6 stater: c. 37.5 Attic dr.



1/8 stater: 28 Attic dr.

MINA = 112 ATTIC DRACHMAE = 84 (REDUCED) AEGINETIC DRACHMAE

A New Weight System Based on the Ratio 112(.5):1



4 minae: 448 Attic dr.



2 minae: 224 Attic dr.



1 mina: 112 Attic dr.



½ mina: 56 Attic dr.



¼ mina: 28 Attic dr.



⅛ mina: 14 Attic dr.

MINA = 112 ATTIC DRACHMAE = 84 (REDUCED) AEGINETIC DRACHMAE

The “Exchange Revaluation” (ἐπικαταλλαγή)

1 – Modification of the Aeginetic standard

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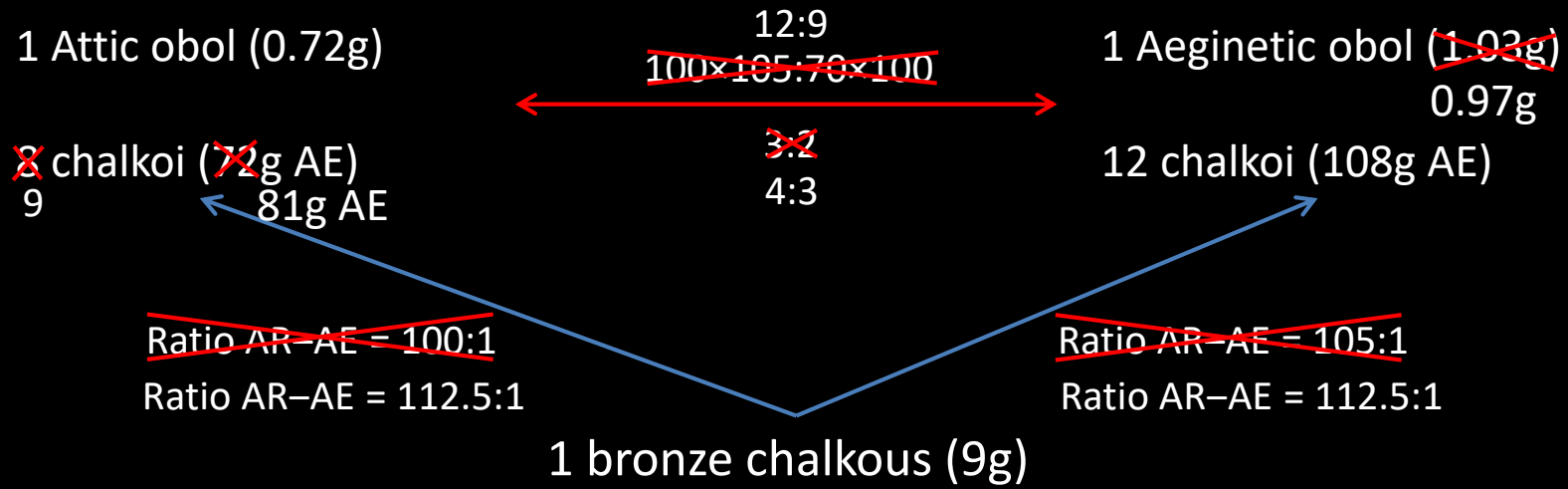
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3 – Modification of the Weight System (Mina = 112 Attic drachmae)

4 – Recalculation of the Number of Chalkoi per Attic Obol

New Conversion Rules between Attic and Aeginetic Systems



Describing an Insane Profiteer

[...] καὶ παρὰ παιδὸς κομιζόμενος ἀποφορὰν τοῦ χαλκοῦ τὴν ἐπικαταλλαγὴν
προσάπαιτεῖν, καὶ λογισμὸν δὲ λαμβάνων παρὰ τοῦ χειρίζοντος < — — — >.

“[...] when he receives an *apophora* from his slave, he requires the *epikatallagê* of
the bronze, as also when he settles accounts with his steward <he requires the
epikatallagê of the silver (?)>.”

The “Foreign Exchange Revaluation” (ἐπικαταλλαγή)

1 – Modification of the Aeginetic standard

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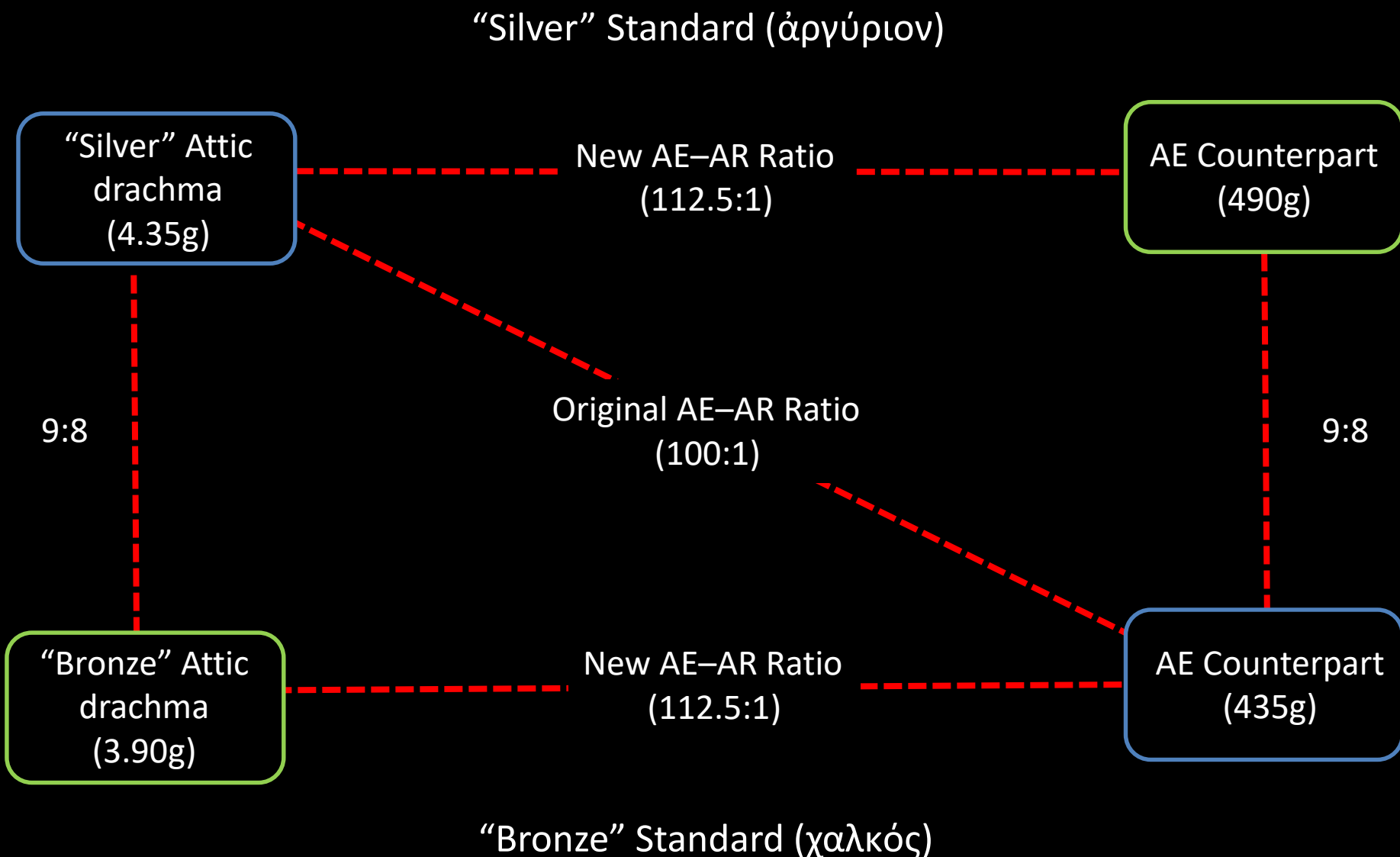
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4 – Recalculation of the Number of Chalkoi per Attic Obol

5 – Creation of a Reduced Attic Drachma

“Silver” and “Bronze” Attic Drachmae in Greece and Aegean Sea



Reduced Attic Drachmae in Aegean Sea



Chalcis (dr.)



Euboean Koinon (dr.)

νόμισμα <ἀ>ττικὸν ἢ ἀλε|[ξάνδρειον ἢ δημητ]ρίειον **ὀλοσχε[ρέ]ς**, δόκιμον,
[ἄ]συλον, ἀνέπαφον, ἀτε|[λές πάντων]

L. MIGEOTTE, *Emprunt* 50, 21–23 (c. 325–275 BCE)

ταῦτα ἐστήσαμεν ἐν τῷ ζυγῷ τῷ ἐλάττονι τῷ ἐν ἀγορανομίῳ **πρὸς ἀργύριον**
ἀτ<τ>ικὸν ὀλοσχερές, καὶ ἤλκυσεν σὺν τοῖς πυθμέσι καὶ τοῖς ὡσὶν τοῖς ἀποπεπτω-
κόσιν δραχμὰς Ϟ'ΗΗΗΔΔΓΓΓΓ

IG XI 2, 287, 142–143 (c. 250 BCE)

“Silver” and “Bronze” Attic Drachmae in Greece and Aegean Sea

“Silver” Standard (ἄργύριον)

“Silver” Attic
drachma
(4.35g)

New AE–AR Ratio
(from 112.5:1 to 150:1)

AE Counterpart
(from 490g to 652g)

from 9:8
to 4:3

Original AE–AR Ratio
(100:1)

from 9:8
to 4:3

“Bronze” Attic
drachma
(from 3.90g to 2.90g)

New AE–AR Ratio
(from 112.5:1 to 150:1)

AE Counterpart
(435g)

“Bronze” Standard (χαλκός)



From Philip II to Alexander the Great

Metrological Reforms by the Delphic Amphictyony (336–335 BCE)

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