

Monetary Unification in the Ancient World

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La maggior parte dei paesi aderenti all'Unione Europea adotterà, nel corso del 2002, una stessa moneta: l'Euro. L'evento comporterà indubbi vantaggi tanto nel campo pubblico, quanto nel privato. Il processo di unificazione monetaria avviato nel 1969 dal Vertice dell'Aja poi definito dai Trattati di Maastricht nel 1992 è stato perfezionato negli ultimi dettagli nel 1998 e si concluderà nel marzo del 2002, nonostante non siano del tutto cadute le diffidenze che per motivi economici alcuni governi europei e per motivi pratici molti privati continuano a nutrire.

Non è corretto istituire raffronti diretti tra i comportamenti della moneta legale in età antica e quelli della stessa in età moderna, a causa dei tanti mutamenti che essa ha subito dalla sua nascita nel mondo occidentale, c. 600 a.C., condizionata da fattori di varia natura – istituzionali, politici, sociali, amministrativi, commerciali, economici, culturali – modificandosi nella forma e nella sostanza e imponendosi come strumento sempre più indispensabile alla vita dell'uomo. Tuttavia possono ugualmente destare interesse i tentativi e le realizzazioni di unificazione monetaria avvenuti nel mondo antico.

Ho cercato, quindi, di sintetizzare, riducendoli alle loro linee essenziali tre casi del mondo antico: prima il tentativo, fatto dallo stato ateniese nel V secolo a.C., di imporre la propria moneta ad un notevolissimo numero di poleis e comunità alleate, documentato da otto frammenti, rinvenuti in località diverse, che ne hanno consentito la parziale ricostruzione: il provvedimento di carattere soprattutto politico e amministrativo, che aveva probabilmente anche lo scopo non dichiarato di ottenere il riconoscimento informale dell'autonomia, rappresentata eminentemente per i greci dall'emissione di moneta propria, era destinato al fallimento; la realizzazione di un'enorme area di circolazione unitaria in Grecia ed Asia con l'impero di Alessandro Magno e il graduale, relativamente lento, ma duraturo affermarsi della moneta di Roma, il denario, in tutte le regioni dell'impero romano. Segue un breve accenno ad un caso medioevale, l'adozione di una nuova moneta, risultato di una serie di riforme di Carlo Magno, naturalmente unica nell'impero carolingio. Infine il semplice ricordo di alcuni progetti di età moderna non riusciti, quelli di Napoleone Bonaparte e di Napoleone III e uno dei paesi scandinavi; uno fortunato, lo Zollverein, realizzato dalla Prussia e altri venticinque stati tedeschi.

La storia sembra dimostrare che il conseguimento dell'unificazione monetaria non si ottiene senza il concorso di forme di unificazione politica.

La moneta misura astratta di valore, ma con forte pregnanza sociale, la cui esistenza è ritenuta da Platone e Aristotele, che ne sottolinea anche il valore di giustizia distributiva, ritenuta indispensabile alla costituzione di una società formata da cittadini e non di uno stato popolato da sudditi, può, insieme all'acquisizione ed alla consapevolezza di una cultura comune, essere portatrice di un reale sentimento di uguaglianza tra gli Europei, purché inserito nel contesto di un accordo politico, che, custodendo e rispettando le peculiarità nazionali, ne superi i particolarismi.

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The choice of a numismatic subject suitable for a volume centred around the formation of a common European culture and its relationship – both positive and negative – with previous civilizations and state organisations and systems, was suggested by the Euro, the common currency destined to almost completely unify the monetary circulation of Europe in the course of 2002.

“If civilization were to give a single currency to all men on earth, an important step would have been taken in convincing them that they belong to one species”. This phrase, taken from an 1865 issue of *The Economist*, is the introduction to a slim volume which aims at explaining to the Italians the advantages of a single monetary unit and to help them overcome the inevitable discomforts due to its substitution for the old national *lira*. A single currency eliminates the complexity and costs of monetary conversions and the risks of exchange, facilitates knowledge of the real prices of goods, movement of individuals, and also the life of a company, with reduction of dangers and costs of transactions and of financing. The advantages of a unified currency are beyond doubt, in both public and private domains; nevertheless this goal was attained with great difficulty, requiring years of study, experimentation and numerous negotiations. In fact, the operative bases for putting the unification project into practice proposed in 1969 at the summit conference of The Hague, have been defined only recently in 1992 with the Maastricht Treaty; and, finally in 1998, at the beginning of May, the last organizational problems were laboriously resolved. Within a few months many of our countries will have completed the transition to the Euro.

The wariness of both individuals and governments, however, is not completely allayed. This derives from motives of gain, for example that of the closed and sometimes selfish national economies, or from the technical and practical difficulties that necessitate a fixed exchange between the currencies involved during the period of gradual substitution. And there is the inevitable stubborn resistance of individuals to abandoning spontaneous and almost instinctive ways of calculating in everyday use and in familiar denominations, to master new ones. At any rate, I do not believe that one can exclude the participation of other factors. It is not possible to establish direct comparisons between the ancient and modern monetary systems. Coinage has undergone too many changes due to various factors – political, institutional, social, administrative, commercial, economic, cultural – which have acted separately, together or in groups, and have modified it in both form and substance, in time and space, while rendering it ever more indispensable to man’s life. Attempts at unification and actual unifications of currency occurred also in antiquity. Therefore I hope that the situations, ways and motives for which areas of unified currency

in the ancient Mediterranean cultures were attempted or realized, providing the roots of today's European reality, will provoke at least curiosity the reader.

I have attempted to summarize three cases from the ancient world, reducing them to their essentials: the attempt by the Athenian state in the 5th century B.C. to impose its own currency on a number of allied *poleis*; the achievement of an area of unitary circulation by Alexander the Great; and the progressive, relatively slow but long-lasting imposition of the currency of Rome, parallel to the extension of her dominion. I also briefly cite an important medieval case and several from our modern era.

The sentence quoted from *The Economist* emphasizes the social character of money, also ascribing to it a decisive contribution to the formation of a concrete feeling of equality. One function of currency, whether it intervenes materially or whether it only acts as a measure of value, is that of facilitating exchange, which permits the circulation of goods and money in every society, whether they use goods of value, luxury and prestige, which often assume the role of stocks and lasting reserves of wealth or whether "evolved" currency is used, that is, the one of market systems and complex economies.

Plato (*Republic* 11, 371b) [Source 1] and Aristotle (*Politics* I, 12-17, 1257 a-b) [Source 2] indicate the coin as an instrument necessary for the existence of an organized and politically structured community. To practice a fair exchange, one must measure the value of goods and services, referring to a guaranteed, recognized and accepted means of purchase. The guarantee of an official authority consented – it is thought that this happened at the end of the 7th century B.C. – the birth of true coins, which took the form of a metal ingot of an established weight, functioning as a sign or abstract notion of value. This form of coinage, legal tender, was the ancestor of our modern one, and is a phenomenon peculiar to Greek political culture, not used by the great oriental empires and in the civilizations of the pre-Greek Orient, as it was not in keeping with their political and economical administrative structures. The idea of coinage, although not necessarily its function and definition, conceived and carried out in the Ionic-Asiatic environment, was rapidly transmitted to the entire Greek world and several other regions in contact with it, but was not adopted by all state entities; and even when it was adopted in a certain time, it was not always issued uninterruptedly; therefore it was often episodic in nature. Its value and function assumed a local character according to the various contexts; value was established according to units of weight derived from the weight system in local use and constituting the monetary system; the guarantee was expressed by the image, the 'type' (that is, the imaged impressed on the coin) marking the coinage, representing the issuing authority, that, recognizing it as its own, assumed responsibility for it. Therefore the idea of coinage was carried out in a great many productions differing according to guarantees and value. When necessary, the different coins had to be put in relation *a posteriori*, the calculations not always being easy or immediate.

In Greece at any rate there was no lack of small areas of unified currency, often facilitated by the previous use of the same scale of weights; furthermore they concerned territories, federations of various sorts – monetary, political or religious – that connected organisms thus formally recognized and unitarily administrated. Their coinage also had in common the guarantee: in some cases both types are federal, in others one type is federal and the other civic. In a league, covering a vast territory and not geographically united, we find the

attempt by Athens to impose the use of the Athenian currency on its allies. This is known from a legislative measure (IGI3-1435) [Source 3] only partially reconstructed from eight fragments of various origin, unclear in their implications, problematic as to dates and interpretation. I will omit the many related problems. The chronology is not exactly determined, but the decree, which modern historians define “On the unification of currency”, is certainly prior to 414 B.C., the year of the first performance of Aristophanes’ *The Birds*, which contains a parody of it (vv. 1038-41) [Source 4]. This reference of the playwright assures that the decree belongs to the period of the Delio-Attic league, the *symmachia* which was formed after the Persian invasion of Greece, the defeat of Xerxes and the expulsion of his army from Greek soil. At that time Athens assumed the function of leader of a maritime alliance, intended to defend the Greeks from barbarians. At the beginning the seat was on the island of Delos, blessed with a good port, located in the middle of the Aegean, and too weak to feed political ambitions. An assembly of the *poleis* involved, which belonged to the islands of the Aegean and the coast of Asia Minor, took place on Delos in 477 B.C. Some members of the league, organized in districts, agree to furnish ships but most paid a tribute in money, the *phoros*, for the fitting out and maintenance of the fleet. Thucydides writes (I 96/97 [Source 5] and III 9-14) that at the beginning the allies were autonomous and in assembly a formal joint vote occurred and not even the strongest enjoyed special privileges. Athens, in the beginning only apparently a member *primus inter*

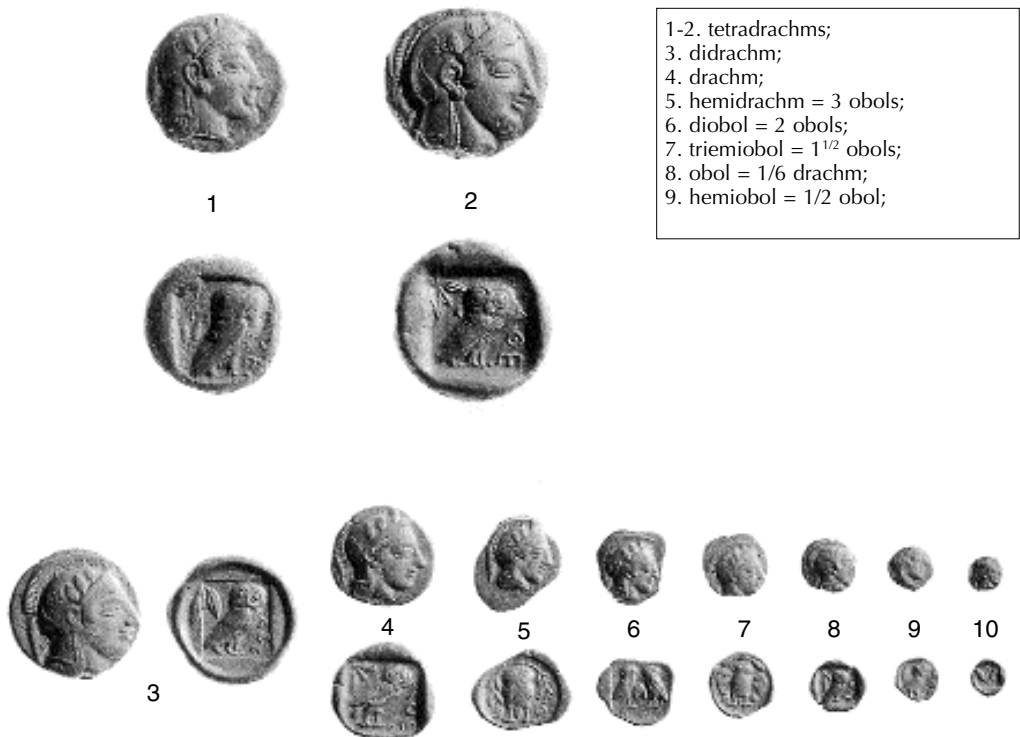


Fig.1
 Athenian coins of the 5th century B.C.

paes, soon revealed the tendency to transform allied territories into subjects. After a phase of wars against the Persians, concluded in 449-448 B.C. with the “Callian Peace” the danger had apparently ceased but Athens not only blocked the dissolution of the league, but also in fact intensified and hastened the process of transformation of the *symmachia* (alliance) in *archè* (dominion) which until then had been gradual. Around the middle of the century the treasure of the league was transferred from Delos to Athens. The power of the Attic city was based on the fleet which watched over the islands and the Asiatic coast. Garrisons, various forms of political and jurisdictional control, religious and ritual impositions on the allies, all play a role in the politics of subjugation. This imperialistic attitude is revealed also by the tone and language which are sharp, strong and direct in many decrees, including the monetary decree. Of this, few clauses are clear. However, the fundamental legislative dispositions can be summarized in four points:

1. The emission of silver coins and the use of weights, measures and coins differing from those of Athens is forbidden and transgressors are subject to harsh penalties;
2. In the future a formula must be added to the oath of the *bouleutoi* – members of the Athenian city council – forcing them to bring to justice anyone who disobeys this measure;
3. Arrangements are made for dispatch of heralds for notification of the decree in allied districts;
4. Procedures for the collection of “foreign” coins and their conversion into Attic currency are defined.

There are various interpretations of this document. Along general lines the hypotheses, with slight variations, additions and clarifications, can be condensed into two fundamental lines: one predominantly economic, which at one extreme traces sophisticated monetary operations of a modern type in the ancient world, and is not foreign in any case to the vision of an idealized Athens, turned to stimulate general economic progress by the creation of a great “free market zone”; the other purely political, which attributes to the Attic *polis* the will to assert and nearly obtain formal recognition of its empire: the coin is, for the Greeks, a privileged symbol of autonomy.

Recently, it has been justly emphasized that this imposition was not limited to coins; it included both weights and measures of capacity, and could therefore respond to the need to reduce the financial dealings of Athens, which was burdened by military and administrative costs of unprecedented magnitude at a moment when allied tribute constituted the principle source of public funds. Therefore, we cannot exclude an intent both practical and profit-oriented; but at the same time the imposition of its own coin, not the creation of a federal coin, communitarian in value and guarantee, is a political declaration of absolute, despotic predominance, and so it appears to have been understood by the allies. The cities, in fact, seemed to react by temporarily interrupting coinage for more or less ten or fifteen years depending on the city; some, as a sign of protest, after the restoration of the mint abandoned the Attic standard, based on the drachma weight unit of 4.36 grams, which had been used; others, avoided insubordination by minting a different metal, electrum, in place of the forbidden silver. Though of possible advantage for all in areas of common administrative interest, it was not possible to achieve a shared coinage.

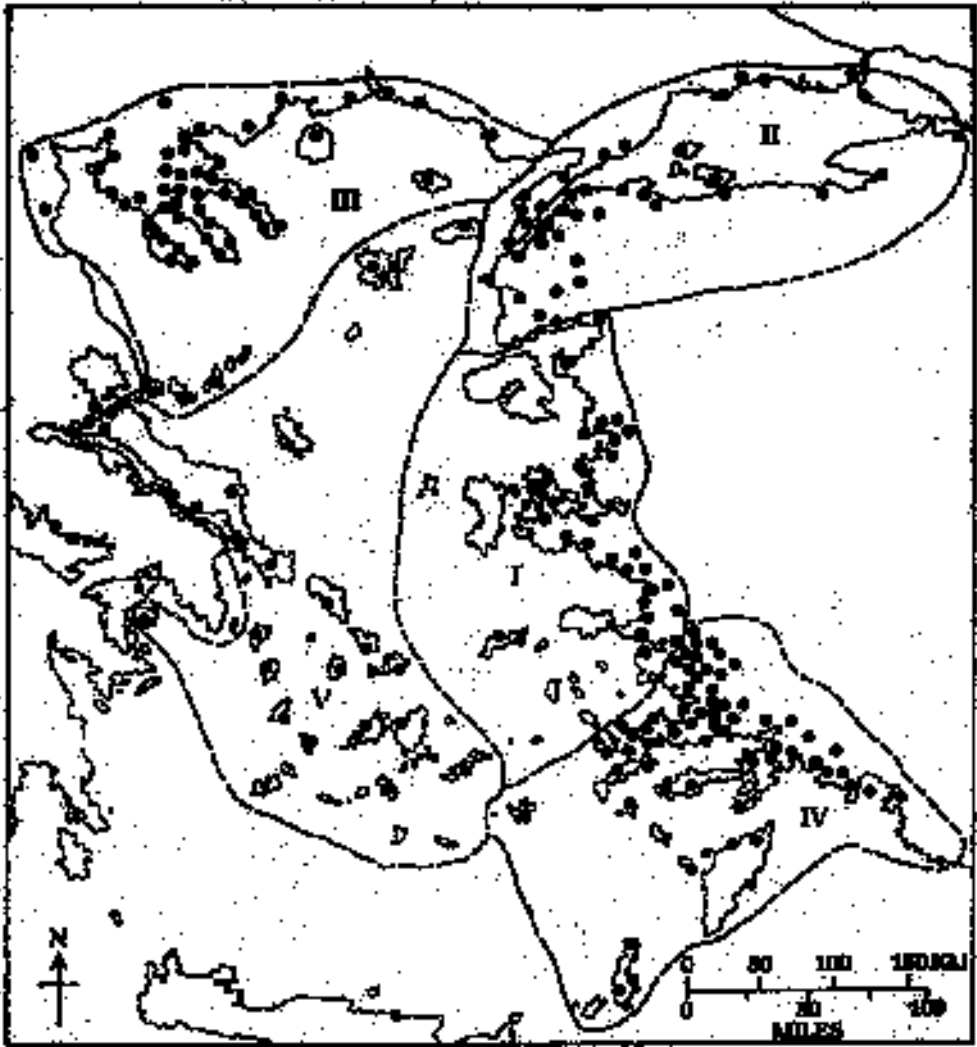


Fig. 2
The states paying tribute to Athens in 441 B.C. The dotted lines indicate five assessment districts.

In the Greek world, the multiplicity of monetary systems and types continued up until Alexander the Great, in spite of the strong credit of the “owls”, the name given to the Athenian coin in ancient sources because one of its two sides displays the image of an owl. “The coin that is accepted anywhere and can be exchanged for a value greater than that which one paid”, Xenophon wrote proudly (*Poroi* III, 2) [Source 6].

At the time when Alexander ascended the throne of Macedonia, in 336 B.C., the minting of silver in the Greek world was flanked also by gold and bronze emissions, these last appearing in Greece in the fourth century B.C. The joint use of three metals denotes a cur-

rency adapted to all types of transactions, large or small. The use of the coin was widespread also among non-Greek zones of the coast of Anatolia, Cyprus, and the commercial centres of the Phoenician coast.

The progressive conquests of Alexander in the East permitted the building of an enormous empire controlled by a single government. The exploitation of old and new mining zones made possible the emission of an impressive mintage of bimetallic regime – gold and silver in a relation of 1:10 – accompanied by bronze emissions for smaller needs, entrusted to the responsibility of local powers, but these also produced in the name of the king and guaranteed by him.

In this way a true imperial currency was created, imposed upon and accepted in an immense territory, produced in various mints in many areas – in Macedonia, Syria, Cyprus, Phoenicia, Babylonia and Alexandria – struck on the Attic weight system and with the king's types, gold: head of Athena/Nike with crown and *stylis*; silver: head of young Herakles with *leon-tè*/Zeus *aetophoros* enthroned; bronze: head of young Herakles/bow and club (Fig. 3).

Monetary unification was implemented and facilitated by the use, up until now partial and occasional, of coins in the oriental regions, where the monetary phenomenon remained untouched by political sentiment and Athenian coins were known, used, and in their absence, imitated.

Alexander's monetary construction survived its creator in part, leaving to the next period the heritage of a generalized, if not exclusive, use of the Attic monetary system. Among the exceptions was Egypt, a region which for various reasons, among which the difficulty in obtaining the necessary silver, adopted various lower values, very close to that of the so-called Phoenician standard, about 7.15 grams.

Unification began to break up, however. Following the fate of the empire, in the period of pretended legitimacy, currency remained the same, in appearance as well, throughout the entire territory; it diversified along with divisions in various kingdoms: all the rulers gradually adopted their own types beginning with bronze for internal circulation, substituting their own portrait for that of Herakles-Alexander.

In the era of Alexander in the non-Greek East, the monetary experiences of the emerging Roman state began. Rome had already spread its dominion over central Italy. Its first coinage of a local use is bronze, and is based on the Italic weight system. The monetary unit was the *as*, equal in weight to one Roman pound, about 325 grams. In the last quarter of the fourth century B.C. the city also began to penetrate southern Italy, colonized by the Greeks and habituated for a long time to the use of silver coins, more flexible and of a greater intrinsic value. In order to act in Magna Grecia the Romans had to adapt themselves to this reality. The native, original bronze coin, created a short time before, was accompanied by a silver production, in the initial phase formally and, weightwise, Greek, sometimes, perhaps, also of Campanian manufacture.

These first silver series were adjusted in time to the weight of the pound and in the period of the 2nd Punic war a Roman system was codified, also for precious metals. This was in form and substance based on the denarius, about 4.55 grams, the unit equivalent to ten asses and equalling 1/72 pound.



- 11. Distater (Au)
- 12. Stater (Au)
- 13. Tetradrachm (Silver)
- 14. Drachm (Silver)
- 15. Bronze coin
- 16. Distater (Au)



Fig. 3
Coins of Alexander the Great.

The denarius, throughout alternate and troubled events, remained the base unit of Roman currency until the 3rd century A.D., even in periods when it was not materially produced. The reform of Augustus, around 27 B.C., adjusting the republican system to the new imperial state, introduced gold in the ordinary coinage, already used by the generals of the civil wars, linking it to silver in a bimetallic system. Twenty-five denarii represent the fixed exchange of an aureus. Gold was the true standard of the empire, but due to its high value was of restricted use and limited circulation. The *aurei*, unlike silver and particularly bronze issued from various mints, were of centralized production. During the reign of Augustus they were issued at Lugdunum, then at Rome.

The achievement of a single monetary area in the entire dominion for silver and bronze as well is instead the result of a long process of progressive adaptation to the Roman monetary system. The establishment of the government of Rome did not imply the contemporaneous exclusive adoption of its currency, which took hold in different ways and times according to the region. It was now introduced to those in the West, which had known the coin only intermittently and in small areas. In those of the East the Romans stimulated and promoted the relationship between the Italian monetary system and the now prevalent



Fig. 4
Roman Coins.

Attic system, also for the nominal bronze coins. The denarius was naturally the dominant means of defining value but when opportune, local coins were allowed to circulate. In the Iberian peninsula, reduced to a province, 197 B.C., the Iberian denarius of Roman weight, but with its own types, was allowed to circulate between the 2nd and the 1st century B.C.

The reign of Pergamus, left by Attalus III as a legacy to the Roman people in 133 B.C. and a good part of its territory constituting the province of Asia, was a closed area of circulation. The basic coin, the tetradrachm – 12.6 grams – of a weight inferior to the Attic coin, called *cistophoros* by the type, equivalent to three denari, was adopted by Rome and continued to be issued also in the Augustan age.

For a certain span of time several local mints were maintained in Syria; the same governors issued tetradrachms after the death of Philip Philadelphus, one of the last Seleucid kings. In nearly all of the East, the parity between drachm and denarius was eventually achieved.

The denarius, which after the wars of Hannibal assumed a virtual monopoly throughout the entire Italian peninsula and Sicily, signifying the end of autonomous mints, in the course of the 1st century B.C. was the currency of the entire conquered western Sardinia, Corsica, the Iberian peninsula, Africa, Tunisia. From the time of Silla it began to arrive in Greece, at the time of the civil wars in Asia Minor; in both regions it was identified ponderally with the drachma in the course of the 1st century B.C.; the same occurred in Syria in the following century.

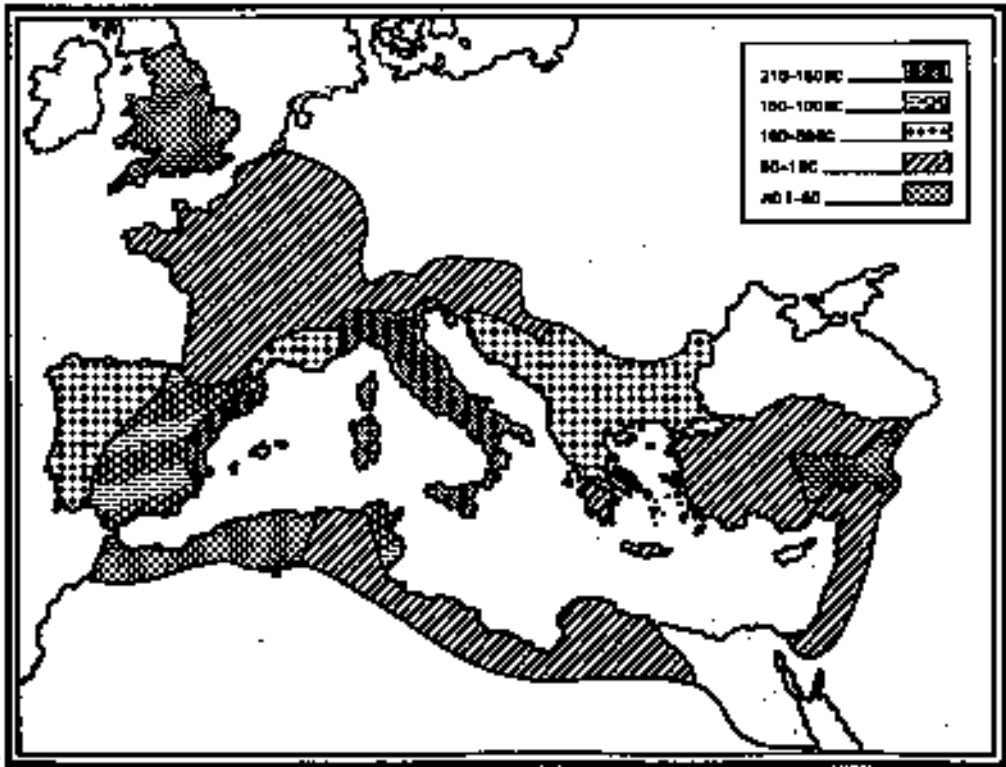


Fig. 5
The Spread of the Denarius.

Only Egypt, where of all the Roman coins only the gold had arrived, remained resistant to the denarius. The region had one area of closed and free circulation, but was also a province directly dependent on the *princeps*, with an unusual structure determined by historical traditions and the unique conditions of the region.

Between the end of the 3rd century B.C. and the first half of the 1st century A.D., the Greek drachm could finally be called denarius, a name by now familiar to the various subject peoples, who gradually became accustomed to it.

The basic Roman silver coin, stable for about four hundred years, began its steep decline in the second century A.D., diminishing in weight and title, until depreciating completely and becoming, with the reforms of the end of the 3rd century A.D., a bronze denomination. These monetary measures, which involve the creation of a true imperial coinage in all metals and aim to restore a solid and lasting silver coin, were instituted by Diocletian. However, neither these nor many subsequent attempts reached this goal. Constantine was obliged to abandon the policy of his predecessors, who with their abundant pseudo-silver coinage created “inflation”, and he transferred the function of base metal to gold, anchoring the divisional coins in silver and bronze; the first have a short and ephemeral life, the second, a necessary auxiliary to the gold coin, adapted only to



- 26. Denarius (Augustus) (Silver)
- 27. Aureus (Augustus) (Gold)
- 28. Denarius (Augustus) (Silver)
- 29. Sestertius (Nero) (Bronze)
- 30. Dupondius (Nero) (Bronze)
- 31. Tetradrachm (Diocletian) (Silver)
- 32. Radiate (Diocletian) (Silver)
- 33. Diocletian (Silver)
- 34. Diocletian (Billon)

Fig. 6
Coins of the Roman Empire.

financial practices of the state and to luxury trade, present a strongly fluctuating exchange with gold. The Constantinian gold unit, the *solidus*, 1/72 of a pound, passed on to the Byzantine empire and remained the “international” monetary unit up until late medieval times.

The tradition of the gold coin, adopted also by barbarian kingdoms established in the West after the fall of the Roman Empire, which had issued with ambiguous authority a fraction



Fig. 7
Denarii of the Carolingian period.

of the solidus, the *tremissis*, remaining anchored to the Byzantine system, was broken by Charlemagne, creator of an empire which occupied a much vaster area of Europe.

Between 781 and 784 the king of the Franks carried out a series of reforms which by establishing a silver monometallism, introduced the denarius as the only legal coin in the entire empire, and whose value was determined by its relation to the weight of the Roman pound. The mints had to deliver 240 denarii for every pound of silver they received.

The Carolingian denarius – 1.3 grams – for which uniform types were established, became once again the recognized state coin, after a period of imitations and extreme uncertainty as to the coinage rights. Therefore, with Charlemagne a new vast area of legally unified currency was achieved. At the same time, a “phantom coin”, the *libra* or pound, appeared, which represented the unit of measure of the entire Christian west, and which has left its name to many European coins – i.e. the franc formerly called the *livre*, the pound sterling (abbreviated £ for *libra*) in England, the Italian *lira*.

Naturally, there is no lack of attempts at monetary union in modern times.

On 28 March, 1803 – 7 Germinal of year XI – a law of Napoleon Bonaparte, First Consul, defined the franc as the European monetary unit at a title of 5 grams of silver, introducing it to the vassal states of the French Empire. The idea was then taken up by Napoleon III, who called an assembly in 1865 in Paris for the purpose of taking the first step towards the creation of a universal coin. In this way the Latin Monetary Union was formed, but there was no economic equilibrium between the countries involved and no state systems were set up to coordinate their respective political economies. The Union continued, suffering highs and lows until it ended in 1929, a year of grave monetary crises.

An analogous failure took place when an attempt was made by the Scandinavian countries in 1873, which ended in 1931.

The *Zollverein*, involving Prussia and 25 other German countries, had better luck during the 19th century, since it was better prepared by a common market and by various monetary conventions; monetary unification preceded political unification.

The experiences of the past can provoke much reflection, but seem above all to witness to the emergence of an unbreakable bond between political and monetary union.

The institution of a vital and long-lasting communitary currency does not leave out of consideration an equilibrium and therefore a harmonic coordination of the economic and social policies of the countries which need to use it. Therefore it appears necessary to institute a connected, adequate and just common administration, in order to ensure that the achievement of the goal of monetary unification be to the concrete and real advantage of all.

Correct measure is itself a symbol of justice. Under a social profile however measure has no significance in itself. Instead the social consensus which encourages its acceptance is of enormous importance. It represents great success on the path to finding a common “language” of reciprocal comprehension and collaboration. The concept is from Kula.

The coin as a measure of value, whose birth was put by the ancient philosophers in relation to the formation of a state constituted by citizens rather than populated by subjects, and indicated by Aristotle as an instrument of social justice, can be, together with the acquisition and awareness of a common culture, the instrument of a true sentiment of equality between Europeans. If fit into the context of a political union, which guards and respects each national character, it overcomes particularism, and is a good omen for Europe.



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1.

Πλάτο, *Κριτείας* II, 371b

Τί δὲ δέη; ἐν αὐτῇ τῇ πόλει πῶς ἀλλήλοισι μεταδώσουσιν ἂν ἢ ἔμποσοι ἐργάζονται; ὅν δὲ ἔνεκα καὶ κοινῶν κοινωθέντες πόλιν φείσομεν.

Ἄλλων δὲ ἢ τῆ δ' ὅς, οἱ καλοῦντες καὶ ὀνομάζοντες.

Ἄρα δὲ ἡμῶν καὶ νόμισμα συμβαλον τῆς ἀλλαγῆς ἔνεκα γενήσεται ἐκ τούτου.

Πάντο μὲν οὖν.

'Well then; in the city itself how will they exchange with one another what they make? It was, after all, for this purpose that we created a community and founded a city.'

'Clearly', he said, 'by buying and selling'.

'And from this there will come into being a market, and coinage as a token for the purpose of exchange'.

'Certainly'.

2.

Ἀριστοτέλης, *Πολιτικός* I, iii, 12-17 (1257a-b)

Ἐν μὲν οὖν τῇ πρώτῃ κοινῆς (κοῖτο δ' ὅστις οἴκῳ) φανερόν ὅτι οὐδὲν ἔστιν ἔργον αὐτῆς, ἀλλ' ἤδη αἰετίνων τῆς κοινῆς αἰτίας. Οἱ μὲν γὰρ τῶν αὐτῶν ἔκγονόντων πάντων, οἱ δὲ κατὰ μέρη πολλῶν πόλιν καὶ ἑτέραν ἂν κατὰ τὰς δεήσεις ἀναγκαίων ποιήσονται τὰς μεταδόσεις, καθάπερ ἔτι καλλὰ ποιεῖ καὶ τῶν βαρβαρικῶν ἔθνη, κατὰ τὴν ἀλλαγὴν. Αὐτὰ γὰρ τὰ χρήσιμα πρὸς αὐτὰ καταλλότανται, ἐπὶ κλέων δ' οὐδέν, οἷον οἶνον πρὸς οἶνον διδόντες καὶ λαμβάνοντας, καὶ τῶν ἄλλων τῶν τοιοῦτων ἔμποσον. Ἐ μὲν οὖν τοιαύτη μεταβλητικὴ οὕτε κατὰ φύσιν οὕτε χρηματιστικῆς ἔστιν εἶδος οὐδὲν (αἰς ἀναγκάσειεν γὰρ τῆς κατὰ φύσιν ἀστυκτικῆς ἦν). Ἐκ μάλιστα πάντας ἔργων ἑκείνη κατὰ λόγον. Συνικουρῶς γὰρ γενομένης τῆς βοηθείας τῆ εὐδοκίμου ἂν ἐνδεῆς <ἔσονται> καὶ ἀποκρίσει ὅν ἐκλεόμενοι, ἐξ ἀνάγκης ἢ τοῦ νομίσματος ἐκρίσεια χρήσις. Οὐ γὰρ εὐδαιμονικῶν ἔμποσον τῶν κατὰ φύσιν ἀναγκαίων· διὰ πρὸς τὰς ἀλλαγὰς τοιοῦτον τι συνίστηναι πρὸς σφῶς αὐτοὺς διδόναι καὶ λαμβάνειν, ὅ τῶν χρησίμων αὐτῶ ἢ εἴη τὴν χρῆσιν εὐμεταχειρίστον πρὸς τὸ ζῆν, οἷον σίδηρος καὶ ἄργυρος κτλ ἢ τι τοιοῦτον ἔμποσον, τὸ μὲν κριτικὸν ἀεὶ ὀρισθῆναι μετῆσαι καὶ σταθμῆναι, τὸ δὲ τελευταίων καὶ χαρακτηριστῶν ἀπὸ ἀλλήλων, ἵνα ἀσφαλῶς τῆς μετρήσεως αὐτῶν· ὃ γὰρ χαρακτηριστῶν ἐπιπέτῃ τοῦ ποσοῦ σημείων.

In the primary form of association (the household), it is clear that there is no need of it (i.e. trade), but only when the association includes a greater number of persons. For at first all

shared the same things, but then they became separated and then again used a great variety of other things; and they had to give these to each other through exchange, as many of the barbarian nations do even now, going no further than exchanging useful objects, for example giving and receiving wine for grain, and other such things. Such interchange is perfectly natural and is not a form of gaining wealth; its purpose is to replenish a natural self-sufficiency. But wealth quite understandably grew out of it.

When they began to help themselves more from foreign sources, by importing what they lacked and exporting what they had in plenty, the use of money was necessarily a product of this. Not all natural necessities are equally portable. So for the purpose of exchange, they agreed to give and receive from one another the sort of thing that was in itself useful and was also easy to handle for the requirements of life, such as iron and silver and other similar things, defined at first simply by size and weight, but finally by placing a stamp on them to save them from having to be measured; for the stamp was put there as a sign of value.

IGI², 1458 (GEI² no. 45)

[1. -- --]αι τὰ γ[...32... κ]όλασι ἢ ἀργ[...27... 2. Οἱ] δὲ Ἑλληνοπολιτ[...24... ἀ]ναγραφόντων· ἐὰν δὲ μὴ ἄρθως ἀναγράψωσι τὸ τῶν κ[...κόλασι] εἰνος, ἔσται [ἡ] γὰρ ὁ βουλομένους αὐτίκα μάλιστ' ἐς τὴν ἡλικίαν τὴν τῶν θεομοθετικῶν κατὰ τὸν νόμον· οἱ δὲ θεομοθετ[...καὶ π[...7... ἡ]μέρων [ἡ] δὲ [ἡ]μέρας ταῖς φ[...]σαι ἑκαστον. 3. Ἐὰν δὲ [τις ἄλλος τ]ῶν ἀρχόντων ἐν τῆσιν κόλασι μὴ ποιῆι κατὰ τὰ ἐψηφισμένα ἢ τῶν [καλι]τῶν ἢ τῶν ἕξων, [ἀ]τιμ[...ος] ἔσται καὶ τὰ χρήματα δημόσια [β]α[...τω] καὶ τῆς θεῶ τ[...δ] ἐπιδέκτων. 4. Καὶ εἰ μὴ εἰσι ἄρχοντες Ἀθηναίων, [ἐ]πι...18... ἐν τῶν] ψηφισματι οἱ ἄρχοντες [οἱ ἐκείνης] τῆς κόλασι· καὶ ἅμ[...α] μὴ κοιῶσι κατὰ τὰ ἐψηφισμένα, ἔσται κατὰ τῶν ἀρχόντων τούτων περὶ [ἡ]τάτιμ[...ας] δ[...ωξ]ις Ἀθήνησι. 5. Ἐν δὲ τῶν] ἀργυροκοκίαι τὸ ἀργύριον [ἡ]δεξαμένους κόψαι μὴ Ἑλλ[...α]των ἢ ἡμισυ καὶ ἀ[...28...]ι οἱ κόλασι· κράτε[...]σθαι δὲ ἀπὸ τούτων ἐπιστάτας πάντες [ἡ] τρεῖς] δραχμῶν ἀπὸ τῆς μ[...ας]... 23... καὶ]αλλόττων ἢ ἐνόχως εἶναι κατὰ τὸν νόμον. 6. Ὁ δὲ ἂν κερ[...]γινῆται ἀργυρία [...21... τ[...α]σθ[...]σθαι ἢ ταῖς στρατηγ[...]οῖς ἢ τοῖς ...15... 7. Ἐπερὶ δὲ ἀποδοθῆναι, [...28...]λαι καὶ τῶν ἡρασι[...ται] ...13... 8. Καὶ ἂν τις εἰσ[...] ἢ ἐπιψηφισ[...] περὶ τούτων [ἡ]ξέσθαι ἐπιψηφισ[...] νομισμα[...]ι χρ[...]σθαι ἢ δανε[...]σθαι, ἐπαγέσθαι αὐτίκα μάλιστ' ἀπὸ τῶν ἐνδεκα· οἱ δὲ ἐνδεκα θαν[...]σθαι [ἡ]μισυσάντων· ἀν[...] δὲ ἀμ[...]ωσθησ[...], εἰσ[...]σθ[...]ντας εἰς τὸ δικαστήριον. 9. Κήρυκας δὲ ἐλέσθαι τῶν δήμων καὶ πέμψαι ἐπαγγελόντας τὰ ἐψηφισμένα, ἓνα μὲν ἐπὶ Νή[...], ἓνα δὲ ἐπὶ Ἰωνίων, ἓνα δὲ ἐπὶ Ἑλλήσπο[...], ἓν[...] δὲ ἐπὶ τῶν ἐκ[...] Θράκης· ταύταις δὲ τὴν κερσίαν ἐκείνησιν συγγράψαντες οἱ στρατηγοὶ ἀποστελλάντων αὐτίκα μάλιστ'· εἰ δὲ μὴ, εὐθύ[...] νόσθε μωρ[...]σθαι δραχμῶν. 10. Ἀναγράφαι δὲ τὸ κήρυγμα τ[...]δε τῶν ἀρχοντα[...]ς τ[...]ς ἐν ταύταις κόλασι [καὶ θεῖναι ἐν στήλῃ] λιθίνῃ ἐν τῇ ἀγορᾷ [ἐκείνης] τῆς κόλασι καὶ τῶν ἐπιστά[...], ἐμπεροσθ[...], τὸ ἀργυροκοκίον· ταῦτα δὲ ἐπιτελέσθαι Ἀθηναίους, ἀ[...] μὴ αὐτοὶ βόλωνται. 11. ἀπεθῆναι δὲ αὐτῶν] τὸν κήρυκα τὸν ἰόντα ὅσα [ε]λετ[...]. Ἀθηναῖοι. 12. Προσγράψαι δὲ ἐπὶ τῶν δ[...], τὸν τῆς βολῆς τὸν γραμμα[...], τῆς βολῆς τα[...], ἀν[...] τις κόλασι νόμισ[...], ἀργυρία ἐν τῆσιν κόλασι κ[...], μὴ

χρηται νομισμασιν τοις Ἀθηναίων ἢ σταθμοῖς ἢ μέτροις, ἀλλὰ ξενικοῖς νομισμασιν καὶ μέτροις καὶ σταθμοῖς, (τιμωρήσομαι καὶ) ἰζημιόσω κατὰ τὸ πρότερον ψήφισμα ἢ Κλέαρχος εἶπεν. 18. ...ε.28... καὶ τὸ ξενικὸν ἀργύριον [...ε.29... ἔ]σται βόληται· τὴν δὲ πῶ[λιν - - -]· αὐτὸν δὲ τὰ [ἐ]σσοτὸ ἕκαστον - - - τὸ ἀργυροκόπιον. 14. Οἱ δὲ ἐπιστάται [...ε.33... ἀνα]γράφαντες καταθέστων ῥατήλην λιθίνην ἔμψασθαι τὸ ἀργυροκόπιον σκοπὴν τῆς βολομένης ἀναγραφάντων δὲ καὶ ἕομεαν τὸ νόμισμα τὸ ξενικόν, χαίρεις τὸ εἶ ἀργύριον καὶ τὸ χρυσίον, καὶ ἕομεαν τὸ ἡμεδακόιν ἀργύριον - - -].

Athenian decree concerning weights, measures and currency

1. ... ?archons in the cities or archons ... 2. the Hellenotamiae ... shall make a list; and if they do not list correctly the funds of any of the cities, anyone who wishes may at once bring them before the court of the Thesmothetae according to the law, and the Thesmothetae shall grant a decision ?within five days to those who bring forward each case. 3. If anyone else, whether citizen or foreigner, holding office in the cities, does not act in accordance with what has been voted, he shall lose his civic rights, his property shall be taken by the state and the goddess is to have one tenth. 4. If there are no Athenian archons, the archons of each city ?shall enforce the provisions of the decree. If they do not act in accordance with the decree, a prosecution is to take place at Athens of these archons with ?a penalty of loss of civic rights. 5. They shall receive the silver coinage in the mint and strike not less than half, and the cities ...; and ?the overseers on each occasion shall charge five (?three) drachmas in each mina ... exchange or be liable according to the law. 6. Any silver coinage remaining ... handed over either to the generals or to the ... 7. And when it is handed over to ... and to Hephaestus ... 8. And if anyone proposes or approves by a vote concerning these matters that it should be permitted to use or lend foreign coinage, he shall be denounced at once before the Eleven, and the Eleven shall condemn him to death, and if there is doubt in the matter, they shall bring him to court. 9. The people shall choose heralds and send them to promulgate the decree, one to the Island, one to Ionia, one to the Hellespont and one to the region of Thrace; the generals shall approve travelling expenses for them and arrange for their departure at once, and if not, they are to be fined ten thousand drachmas. 10. The archons in the cities are to inscribe this decree, and set it up on a marble tablet in the agora of each city, and the overseers are to do the same before the mint. If they are unwilling to do so, the Athenians shall undertake it for them. 11. The herald who goes there is to require them to carry out the commands of the Athenians. 12. The scribe of the Boule shall add to the oath of the Boule in future the following: 'If anyone strikes coinage of silver in the cities, and does not use the coinage or the weights or the measures of the Athenians, but uses foreign coinage and measures and weights, I shall exact a penalty and punish him in accordance with the ?previous decree which Clearchus proposed'. 13. ... the foreign silver ... whenever he wishes, and the city ... each person is to ... his own... the mint. 14. The overseers are to keep a record ... and set up a marble tablet before the mint for anyone who wishes to see it and they are to record all the foreign coinage, ?the silver and the gold separately, and all of our silver coinage ?which they issue...

4.

Aristophanes, Birds 1038-41

**ΨΗΦΙΣΜΑΤΟΠΩΛΗΣ. Ψηφισματοπώλης εἰμι καὶ νόμους νέους
ἦκα παρ' ὑμῶν δεῦρο πωλήσον. ΠΙΣΘΕΤΑΙΡΟΣ. Τὸ τί;
ΨΗΦ. Χρησθεὶς Νεφέλουκουαγιάς ἀποθε τοῖς μέτροισι καὶ
σταθμοῖσι καὶ ψηφίσμασι καθήκεν Ὀλοφύξιοι.**

Seller of Decrees. I am a seller of decrees, and I come to you here to sell new laws.

Pisthetaerus. Such as?

Seller of Decrees. That the Cloudcuckoolanders are to use these measures and weights and... votes, like the Olophyxians.

5.

Thucydides, I 96/97

**Παραλαβόντες δὲ οἱ Ἀθηναῖοι τῆς ἡγεμονίας ταύτης τῷ
τρόπῳ ἐκείνῳ τῶν συμμάχων διὰ τὸ Πausανίας μῆτος,
ἐταξον ἅς τε εἶδει παρέχων τῶν πόλεως χροῖματα πρὸς τὸν
βάρβαρον καὶ ἅς εὐαθεῖ πρόσχημα γὰρ ἦν ἀμύνεσθαι ἐν
ἑσθίας ἀποθέτας τῆς βασιλείας χώραν. καὶ Ἑλληνοταμίαι
τότε πρῶτον Ἀθηναῖοι κατέστη ἀρχή, οἱ εὐδέχοντο τὸν
φόρον. οὕτω γὰρ ἀνομιέσθη τῶν χρημάτων ἢ φορέ. ἦν
δ' ὁ πρῶτος φόρος ταχθεὶς τετρακίσια τάλαντα καὶ ἑξή-
κοντα. ταμίαι δὲ τὸ Δῆλος ἦν αὐταῖς, καὶ αἱ ἐσθιαὶ ἐν τῷ
ἑρῶν ἐγίνοντο.**

The Athenians having thus succeeded to the supremacy by the voluntary act of the allies through their hatred of Pausanias, fixed which cities were to contribute money against the barbarian, which ships; their professed object being to retaliate for their sufferings by ravaging the country of the king of Persia. Now was the time that the office of "Treasurers for Hellas" was first instituted by the Athenians. These officers received the tribute, as the money contributed was called. The tribute was first fixed at four hundred and sixty talents. The common treasury was at Delos, and the congresses were held in the temple.

6.

Στασφόριαι, Ψαμα από Δέσποιν (Ρουσό) III, 2

Ἄλλὰ μὲν καὶ τοῖς ἑσπερίοις ἐν μὲν ταῖς κλειστοῖς τῶν πόλεων ἀντιφορτιζοῦσθαι π ἀνάγκη· νομισμοὶ γὰρ οὐ χρησταί· ἔξω χρῶνται· ἐν δὲ τοῖς Ἀθήναις κλειστοὶ μὲν ἔστιν ἀντελῆγειν ἐν ἢν εἰσίναι ἀνθρώποι, ἢ δὲ μὴ βούλωνται ἀντιφορτιζοῦσθαι, καὶ ἀργύριον ἐξάγοντες καλὴν ἑκαστοῖαν ἐλάττωσιν. Ὅμοιο γὰρ ὅτι καλῶσιν αὐτό, πανταχοῦ κλειὸν τοῦ ἀργυρίου λαμβάνουσιν.

In most cities (foreign) merchants must seek a return cargo, since they use coinage which is not acceptable elsewhere. But at Athens, while it is possible to export a great amount of material which is needed elsewhere, if they do not wish to take on a return cargo they can still make a good profit by taking away silver; for wherever they sell it, they always get more than the original (investment).

