



THE LANGUAGE OF CHARACTER

An Introduction to a Poetics of Monetary Inscriptions

I would have some body put the Muses under a kind of contribution to furnish out whatever they have in them that bears any relation to Coins. – Addison, Dialogue upon the Usefulness of Ancient Medals

INSCRIPTION AND INSCRIBED

Heraclitus's study of signs (*sēmata*) deals with coins as well as words.¹ Numismatics, he knew, concerns both economics and esthetics.² The study of economic and verbal symbolization, and of the relationship between them, begins at the mint, where Greek poet-coinmakers considered the relationship between the writing on coins and that to which the writing refers.

1. See Heraclitus, frag. 93, in Hermann Diels, *Die Fragmente der Vorsokratiker*, 5th ed. (Berlin, 1934) with additions by Walter Kranz. (Epigraph to the Introduction, above.)

2. Marc Bloch, for example, deals with economic concerns ("The Problem of Gold in the Middle Ages," in *Land and Work in Medieval Europe* [Berkeley and Los Angeles, 1967]; originally published in *Annales d'Histoire Sociale* 5 [1933]: 7–16).

On esthetic concerns, see André Malraux (*Psychologie de l'art*, 3 vols. [Geneva, 1947–49], vol. 3: *La Monnaie de l'absolu*, p. 192), who aims to reintegrate Celtic coinage into the general history of art. "Leur nature [i.e., celle des monnaies celtiques dites gauloises], leurs dimensions, semblaient les exclure du domaine de l'art, où l'aggrandissement photographique les fait entrer." Malraux's essay is an analysis of the "régression invincible vers le signe" (p. 193) in the designs of Celtic coinage, of which the ideogram of the coin of Vellocassus is the best example. See also Cornelius Vermeule, *Numismatic Art in America* (Cambridge, Mass., 1971); C. H. V. Sutherland, *Art in Coinage* (New York, 1956); and Kurt Regling, *Die Antike Münze als Kunstwerk* (Berlin, 1924).

Coins were the first widely circulating publications or impressions in history.³ The *charakter* (upper die used by the coinmaker or impressed mark on the coin) and the coin preceded by two millennia the printing press and the printed page (Plate 1). The writing on coins—"vocal monuments of antiquity"⁴—frequently referred to magistrates, political leaders, cities, mints, and denominations; dates and places of minting; and diemakers.⁵ It could also refer to (a) social events or conventions; (b) some other impression in the coin (the type, for instance); (c) the material on which the writing appeared (a piece of metal); (d) the coin, into which the writing helped to transform the material (c); (e) the monetary system of which the coin (d) was a token; and so on.⁶

3. One of the first to recognize the importance of the analogy between the mint and the printing press was the economist and professional etymologist, A.R.J. Turgot. "Que les moindres progrès sont lents en tout genre! Depuis deux mille ans les médailles présentent à tous les yeux des caractères imprimés sur l'airain et, après tant de siècles, un particulier obscur soupçonne qu'on peut en imprimer sur le papier" (A. R. J. Turgot, "Tableau philosophique des progrès successifs de l'esprit humain" (1750) in *Écrits économiques*, intro. B. Cazes [Paris, 1970], p. 57).

4. John Evelyn (*Numismata* [London, 1697]) wrote that coins are "the most lasting and (give me leave to call them) vocal Monuments of Antiquity" (*Coins and Vases of Arthur Stone Dewing, A Memorial Exhibition* [March–April 1971], The Fogg Art Museum, Harvard University, Cambridge, Mass.).

5. C. M. Kraay and Max Hirmer, *Greek Coins* (New York, 1966), pp. 15–16.

In most inscriptions, including those on the monuments of Babylon, the "inscriptions" of Wordsworth, journalistic ballads, and monetary inscriptions, notation of date and place is important. (See Geoffrey Hartman, "Wordsworth, Inscriptions, and Romantic Poetry," in *Beyond Formalism* [New Haven, 1970]), esp. pp. 208 ff.)

The names of artists were rarely important visual features on coins. David Bowers (*Coins and Collectors* [New York, 1964], p. 83) suggests that rulers did not wish such signatures to conflict with their own heraldic devices. However, Cimon sometimes signed both obverse and reverse of the coins he minted (Plate 2), Euaenetus worked for more than one state (Catana and Syracuse) and had no special allegiance to the rulers he served (Plate 3), and Publius Maenius Antiacus engraved a signature larger than the name of the Emperor (Plate 4).

Signed coins are usually of very high artistic quality (as with Euclidas's famous issue, Plate 5). Their makers seem aware of their "poetic" character. For example, on a coin issued at Clazomenae, "*Theodotus epoie*" (Theodotus made it) is inscribed to the left of the face of Apollo. In this instance *poiēsis* can refer to both die-making and to word-writing (Plate 6). (Cf. n. 20, below, on Bowes's heraldic device.)

6. For lists of monetary inscriptions, see A. Florance, *Geographic Lexicon of Greek Coin Inscriptions* (Chicago, 1966); Séverin Icard, *Identification des monnaies par la nouvelle méthode des lettres-jalons et des légendes fragmentées* (Paris, 1929) (English translation, *Dictionary of Greek Coin Inscriptions* [Chicago, 1968]); J.-M.-R. Lecoq-Kerneven, *Traité de la composition et de la lecture de toutes inscriptions monétaires . . . depuis l'époque Mérovingienne jusqu'à l'apparition des Armoiries* (Rennes, 1869); Stuart Mosher ("Coin Mottoes and Their Translation," *Numismatist*, April, May, July, September, and December, 1948); and M. N. Tod, "Epigraphical Notes on Greek Coinage," *Numismatic Chronicle* 5

The material or commodity (*c*) on which coin-writing appears is, unlike Gutenberg's paper, an especially valuable one. The pictorial or verbal impression in this material qualitatively changes it (esthetically) from a shapeless piece of metal into a sculptured ingot and, more significantly, qualitatively changes it (economically) from a mere commodity into a coin or token (*d*) of money (*e*). The sometimes beautiful impressions on ingots transform them into always useful tokens.⁷ This transformation distinguishes minting from other kinds of sculpturing (even those that fashion equally valuable metals) and distinguishes monetary inscription from other kinds of inscription.

"The true inscription," writes Gotthold Lessing in *Über das Epigramm*, "is not to be thought of apart from that whereon it stands or might stand."⁸ According to Lessing's definition, we cannot properly consider an inscription (for example, the writing on a coin) without considering the material or thing (for example, an ingot) on which it stands. Yet some inscriptions (like Wordsworth's "Lines Left upon a Seat in a Yew-Tree") are written on one material but might also stand on some other material (a seat in a yew-tree).⁹ To determine whether the writing on some coins might more suitably appear elsewhere is difficult. It is unclear, for example, in what ways coins (*nomismata*) constitute the proper material on which to write about social conventions (*nomoi*) (*a*).¹⁰ However, there are numismatic writings that are

(1945): 108-16; 6 (1946): 47-62; 7 (1947): 1-27; 15 (1955): 125-30; 20 (1960): 1-24. Students of monetary inscriptions include Charles Patin, who tries to show that the ancients "despised all affectation, and dwelt more on the grandeur of the subject they described than on the cadence and the pomp of words, which they deemed unworthy of their attention" (*Thesaurus Numismatum* [Amsterdam, 1672]); and J. Eckhel (*Doctrina numorum veterum*, 8 vol. [Vienna, 1792-98]), who (as S. W. Stevenson suggests) argues that "brevity of inscriptions on medals is the character of a flourishing empire; whilst their loquacity, consequent upon flattery, vanity, and ambition, is, on the contrary, the sign of a state tottering to its fall." (See S. W. Stevenson, C. R. Smith, and F. W. Madden, *A Dictionary of Roman Coins*, s.v. "Inscription" [London, 1889; reprint ed., London, 1964]).

7. *Utile dulce* is a common coin motto (Mosher, "Coin Mottoes").

8. Gotthold Ephraim Lessing, *Zerstreute Anmerkungen über das Epigramm, und einige der vornehmsten Epigrammatisten* (Berlin, 1771); trans. H. H. Hudson, *The Epigram in the English Renaissance* (Princeton, 1947), pp. 9-10.

9. Cf. the paper-money inscription in *Faust* 2(6057 ff.).

10. Metal ingots, like postage stamps, are more suitable than some things for inscribing messages about social events (such as the Olympic games) and conventions or customs, but there is not always a necessary or proper connection between this medium and its messages. A similar difficulty arises in applying Lessing's definition, owing to his reliance on the particularity of the thing to which reference is made. "How specific, how occasional, must the object of the epigram be? If too general and abstract, does not the epigram become an apothegm or a maxim?" (Hudson, *Epigram*, p. 12).

clearly appropriate where they are inscribed. Inscriptions that refer to items (c), (d), and (e) can be considered to be monetary inscriptions *par excellence*. Whether an inscription refers to item (c), (d), or (e), it is evident that it should be thought of together with that into which it is impressed (that is, an ingot [c], which the inscription transforms into a coin or token [d] of the monetary system [e]).

The early poet-coinmakers, who impressed verbal symbols into monetary symbols, wrote about coins, and, as we shall see, they sometimes personified coins so that the coins could speak about themselves. It was ambiguous to these coinmakers whether a monetary inscription should refer to an ingot (c), a coin (d), or the monetary system (e). The ambiguity arises out of an ideological as well as esthetic confusion about the semiology of coins that marks the beginning of monetary theory.¹¹

The *Sēma*: The Beginning of Monetary Theory

The first known inscribed coin (Plate 7) was minted in Ephesus around 600 B.C. On the reverse was punched (in reverse order): "*Phanēos eimi sēma*" (I am the *sēma* of Phanos). The inscription on the reverse calls the coin the *sēma* or token of the man Phanos, or it calls

11. The relationship between a numismatic inscription and the ingots inscribed is like that between a numeral or "number" (*Zahl*) and the group or "number" (*Anzahl*) of things represented or homogenized by it. A coin, like a number, is both a symbol and a thing: as a monetary unit it has symbolical properties, as has a numeral; as an ingot it has material properties, as have all things. The similarity suggests how minting may have affected Greek number theory and mathematical theory of ideas. (Cf. Chapter 1, "Hypothesis and Hypothecation," on *kermatidzein* and *diareisis*, and Chapter 1, n. 107 on the comparison between a unit [monad] and a drachma.)

The semiological similarity between number and coin may help to explain the etymology of "number" from the Latin *nummus* and the Greek *nomisma*, both of which mean "coined money" or "coin." See Oskar Wiedemann, who associates *numerus*, the direct etymon of "number," with cognates meaning "monetary interest" (*Das Litauische Präteritum* 5 [Strassburg, 1889-91]) and "money" (*Geld*) (*Beiträge zur Kunde der indogermanischen Sprachen*, ed. Adalbert Bezzenberger, 30 vols. [Göttingen, 1877-1906], 30: 216 ff.); A. Ernout and A. Meillet (*Dictionnaire étymologique de la langue latine* [Paris, 1967]), who relate *numerus* to *nummus*, which is a Sicilian dialect version of *nomisma*; and Sextus Pompeius Festus, who writes, "Nummus ex Graeco nomismate existimant dictum" (*De verborum significatione*, 176, 35). (Compare how the etymology of *numerus* puzzles Georg Curtius (*Principles of Greek Etymology*, trans. A. S. Wilkins and E. B. England, 2 vols. [London, 1875-76], 1: 389 ff.) and Emile Benveniste ("Trois étymologies latines," *Bulletin de la société linguistique de Paris* 32 [1931]: 85). On the transformation of the Greek *nemō* into the Latin *numerus*, see E. LaRoche, *Histoire de la racine nem- en grec ancien* (Paris, 1949), esp. pp. 260-64.

the figure of a stag impressed on the obverse the *sēma*, or heraldic badge of the goddess Artemis.¹² At the same time, the inscription helps to transform the ingot into a *sēma*, or coin. *Phanēos eimi sēma* is twice semiotic: it is a *sēma* on a *sēma*.

An inscription on a coin of Gortyna shows that the *sēma* to which the inscription of Ephesus refers may be the coin as well as the type: "This is the *paima* (striking) of the people of Gortyna" (Plate 8). *Paima* (a variant of *komma*) refers to the coin itself and not to the type (a lion). On the coins of Ephesus and Gortyna, the inscription refers to the coin itself, which is explained as a *sēma* or *paima*.

Ancient seals were often engraved with messages like those on the coins just mentioned. One gem, for example, is engraved "I am the *sēma* of Thersis. Open me not" (Plate 9). This inscription, which refers to a seal as *sēma*, is like that on the coin of Ephesus.¹³ At the mint (*sēmantērion*) of Ephesus only a part of the political formulas of such seals and signet rings (*sēmeia*) was adopted, since the injunction against opening (as on a letter or vase) can hardly apply directly to a coin.¹⁴ Unlike a sealed letter, a sealed ingot is unopenable, or infinitely circulating. Its valuable contents or powers to exchange are "closed," or made "invisible," to would-be seers. (That God, alone and universal, is "opener," is thus the theme of many monetary legends.¹⁵ As we shall see, God, like money, is supposed to be a universal measure or equivalent.)

A signet ring is put to a new use when it mints coins. The growing consciousness of this new use was the beginning of that semiology, or science of signs, that is monetary theory.¹⁶

12. *Phanos* may be a variant of "phaenō, a possible epithet of Artemis, 'the bright one,' whose association with the deer is well known." It is more likely, however, that by *Phanos* "an ordinary human being is meant, . . . a potentate or 'tyrant' either at Halicarnassus or at Ephesus, . . . the stag being a common type at Ephesus" (George MacDonald, *Coin Types* [Glasgow, 1905; reprint ed., Chicago, 1969], p. 51). *Phanos* probably is a man and not (as others have thought) a city.

13. Cf. Seltman, *Greek Coins*, p. 28. Other analogues to the inscription on the coin of Ephesus include a bronze weight and coins of Thrace and Metapontum (Charles Newton, "On an Electrum Stater, Possibly of Ephesus," *Numismatic Chronicle* [1870], p. 238) and some Byzantine coins (MacDonald, *Coin Types*, p. 242).

14. J. Hangard, *Monétaire en daarmee verwante metaforen* (Groningen, 1963), p. 72. Cf. *sēmansis*.

15. *Aperiet Dominus thesaurum suum* (The Lord will open his treasures). *Aperiet cunctis* (He has opened to all). *Aperuit cunctia apostolorum princeps* (The Prince of the apostles has opened to all). *Aperuit et clausit* (He opened it and he closed it).

16. *Sēmeion* is used by Greek writers to refer to the stamp (*charaktēr*) on a coin as a symbol of its size and weight. See Aristotle, *Pol.* 1257a.

Conundrum: The Canting Badge

Into the surfaces of many of the earliest coins were impressed images intended to suggest the sounds of words not actually imprinted. These pictures, which seem to recall an oral or hieroglyphic culture, are usually called *types parlants*, canting badges, or *redende Zeichen*.¹⁷ Although they make writing itself unnecessary, they often depend (like conundrums) upon language and its homonyms. The sound of the name of the image sculpted into the surface of the coin is like that of the name of the issuing city. This sound yokes together two *signifiés*: the type and the city. It is often ambiguous what kind of linguistic relation exists between them. In the case of the coins of Selinus (Plate 10) and Rhodes (Plate 11), the types are plants that grow abundantly in the areas of their issuing cities. From these plants, as folk etymology might teach us, the cities were named. (Moreover, the types represent the surrounding environment of the city, and hence perhaps the city itself, without the need of intermediating language.) A coin (*nomisma*), however, is as conventional (nomic) as language and its puns. Many canting badges took advantage of purely linguistic or conventional homonymic relations between type and city. They are punning badges that purposely do not rely on images of things native to the region of the issuing city. A coin of Melos (Plate 12), for example, employs such a pun: *mēlon* means apple, but apples did not grow in the area of Melos. Similarly, the coins of Euboea (Plate 13), which means "rich in cattle," and those of Side (Plate 14), which means "pomegranate," are conventional canting badges. The unwritten puns of such coins play the same role with regard to the two *signifiés* they yoke together (type and city) that the coins (into which they are impressed) play with regard to the commodities they exchange on the basis of a conventional measure.

Most early canting badges were not impressed with inscriptions that helped the reader interpret the type.¹⁸ In a canting badge of Phocaea (Plate 15), however, the letter ϕ is such an inscription. It is the first letter of the name of the issuing city, Phocaea (*Phōkaia*), and also the first letter of the type, a seal, (*phokē*), that appeared on earlier canting badges of Phocaea without any inscription. On this coin, then, the letter ϕ serves the same purpose of linking type and city as did the unwritten puns on the canting badges previously considered (Plates 12–14). The relationship between the widespread use of writing and the development of sophisticated numismatic semiology,

17. See Wilhelm Fietze, "Redende Abzeichen auf Antiken Münzen," *Journal International d'Archéologie numismatique* 15 (1913): 11 ff.

18. See MacDonald, *Coin Types*, pp. 51–52.

which this coin might suggest, is not part of the present inquiry. The short inscription of this coin, however, suggests a historical transition from the ordinary canting badge with no inscription to the long punning inscriptions that often explain much later coin types.

One coin with such a canting badge and long explanatory inscription is the fiorino d'oro (florin) of Florence (Plate 16). "There was no motto on the [original] fiorino, but only a lily or flower blossom (*fiore*) to indicate the city of Florence (*Firenze*)."¹⁹ The silver piece issued after the fiorino d'oro, however, did have an explanatory running Leonine hexameter: "*Det tibi florere, Christus, Florentiam vere.*" The Florentines developed a whole series of short epigraphs that imitate the canting badge. Such poems were widely circulated as the first printed verse poems in the West.²⁰

The Canting Ducat

Venetian ducats minted after 1284 bear an inscription that surrounds a mandorla of stars. Inside the stars is the figure of Christ, to whom the inscription seems to be addressed.

Impression: SIT. T. XRE. DAT. Q. TV. REGIS. ISTE. DUCAT

Reading: *Sit tibi Christe datus, quem tu regis, iste ducatus*

Translation: Let this duchy, which thou rulest, be dedicated to thee, O Christ

(Plate 17)

An unscientific etymology based on a pun has it that the name of the coin is derived from the last word of the legend.²¹ "The word *ducat* was first applied to the silver grossi of Venice before any appearance in monetary [inscriptions].²² The poet of the first inscribed ducat (1284) was aware of the linguistic affiliation of *ducat* (the political state) with *ducat*, and of the way in which the type (a doge [*dux*] pictured on the coin) made the ducat a canting badge. *Ducatus* is the

19. It is unclear whether *fiore* and *Florence* are related by folk or scientific etymology. See MacDonald, *Coin Types*, pp. 254 ff.

20. Canting badges also play an important role in the Renaissance. In England, for example, "Sir Martin Bowes, master of the mint under Henry VII and Edward VI, sometimes placed a bow as a symbol on coins for which he was responsible" (MacDonald, *Coin Types*, p. 257). The canting badges of Granada portrayed a pomegranate (as did those of Side).

21. MacDonald, *Coin Types*, p. 254. Similar false etymologies exist for the noble and the angel.

22. Herbert E. Ives, *The Venetian Gold Ducat and its Imitations*, ed. and annotated Philip Grierson (New York, 1954), p. 6.

culmination of the sounds of *datus* (the last word of the first phrase) and *regis* (the last word of the second phrase). As *ducatus* follows *iste* (the word that modifies it), so *datus* follows *Christe* (to whom the *ducatus* is given). The coin maker seems to put the words of his inscription into the mouth of the doge (*dux*), who kneels before Saint Mark. The doge offers to Christ either his duchy or his ducat or both. Christ had warned against offering Him the coins of secular political rulers.²³ To many pseudosecularized men, however, money appeared as abstract and limitless as the holy grail and as infinitely desirable as the grace of God. (Aristotle comments that sometimes money and grace may be infinitely desired in similar ways.)²⁴ Perhaps the supposedly merciful merchants of Venice did not so much wish to give ducats to God as they wished Him to give (ducats of) grace to them. The posture of the doge, perhaps, is like that of the devil when he offered Christ all the riches of the material world with the words "*tibi dabo.*"²⁵ Ducat is the gift that the *dux* would give to Christ; grace is that which he would receive from Him. "*Pro gratia gratis*" and "*Dat accipit reddit*" are favorite Christian mottoes for coins.²⁶

The Noble

One of the great numismatists, John Ruskin, writes that the English noble is "the most important in all English history, having been struck to commemorate the first great naval victory over the French [at Sluys] on Midsummer day, June 24th, 1340."²⁷ Ruskin finds the motto on the noble ambiguous.

Impression: I H C AUTEM TRANSIENS PER MEDIUM ILLORUM IBAT

Translation: He, however, passed through the middle of them

(Plate 18)

He interprets this motto (from Luke 4) by clever references to Sir Edward Creasy's *History of England*, in which a naval victory at Sluys is chronicled.

23. See Chapter 2, "Literature about Coins."

24. Aristotle, *Politics*, 1256b.

25. "All this dominion will I give to you and the glory that goes with it" (Luke 4.6).

26. Mosher, "Coin Mottoes."

27. *The Works of John Ruskin*, ed. E. T. Cook and A. Wedderburn, 39 vols. (London, 1903-12), 30: 272-77. Ruskin is fond of showing the supposed relationship between monetary inscriptions and the political events that inspired them. See John Ruskin, "Catalogue of Coins in St. George's Museum" (*Works*, 30: 268 ff.), where he interprets inscriptions as symptoms of political and economic reality, but does not consider that the coin maker was aware of this role.

Wroth proposes a similar passage from Thomas de Burton's chronicle of the battle to explain the popular legend.

Quod videns Edwardus rex, ordine disposito per medium ipsorum transibat, et de illis victoriam . . . adeptus est. Quapropter ipse rex Edwardus impressionem monetæ suæ aureæ fecerat commutari. Unde in suo nobili . . . ex una ejus parte navem cum rege armato in eo contento, regio nomine circumscripto, et ex altera ejus parte crucem imprimi constituens, hanc circumscriptionem adhibuit "Jesus autem transiens per medium illorum ibat."²⁸

The king passed through his enemies just as Jesus passed through his enemies. If this were the only interpretation of the legend, the inscription would not bear the relation to that on which it is impressed that makes it a true monetary inscription. The inscription, however, was supposed to have a power in its own right apart from its impression on Edward's coins. It was commonly impressed into many magic objects of the fourteenth century and especially into rings.²⁹ A fourteenth-century version of the ring of Gyges, for example, was impressed with the same words as the noble: "An elegant method [to become invisible] is to wear the Ring of Gyges on your finger; you can then become visible or invisible at will simply by turning the stone inward or outward. . . . Round the stone must be engraved the words, 'Jesus passant par le milieu d'eux s'en allait.' You must put the ring on your finger, and if you look at yourself in a mirror and cannot see the ring it is a sure sign that it has been successfully manufactured."³⁰ At the battle of Sluys, the king passed through his enemies. He was as invisible as Plato's Gyges, who had a ring that made him invisible and who was said to have been the first minter of coins.

Longer Monetary Inscriptions

Speculation such as that about nobles is not necessary to understand most monetary inscriptions, which state explicitly their relation to that on which they are impressed. Sometimes the topic is the monetary system: "*Sans changer*" (Without changing) or "*Dedit pig-*

28. W. Wroth, "The First Gold Noble," *Numismatic Chronicle* 2 (1882): 299.

29. The quote from Luke is known "as the inscription of a gold ring of the fourteenth century, found at Montpensier in Auvergne; . . . [as] occurring in treatises of alchemy; . . . [as] the text carved upon the wooden front of a druggist's shop . . . attached to a house of the Templars in Toledo; . . . [as being] mentioned in the well-known passage of Maundeville [*Travels*, ch. 10]" (ibid).

30. Grillot de Givry, *Witchcraft, Magic, and Alchemy*, trans. J. Courtenay Locke (London, 1931), p. 185.

nus" (He has given a pledge).³¹ The subject can be the manufacture of money, as when coins explain pictorially or verbally their own minting.³² Sometimes the theme is wealth: "*Die menschen der welt trachtn also nack gelt*" (The men of the world aim thus for money), or "*Crescite et multiplicamini*" (Increase and multiply).³³ Often the topic may be the relationship between the coin as commodity and the coin as medium of exchange: "*Non aes sed aere*" (Not money, but the things it will buy), or "*Det klipperne yder vor bergmand vnderyder vyadhytten da gider af mynter vinyder*" (What the mountains hide the miner brings up; from that we get money for our use).³⁴

Among the longer monetary inscriptions are the legends in verse (usually distich) published on Muslim coins. The topics of these inscriptions often include coin and money.

To the Shah Jahangir belongs the whirligig (circle or passing) of time;
 In Agra by his name gold shines brightly:
 So long as the pomp (ceremony or ritual) of the Five Guards (the five daily prayers) lasts in the world.
 May the stamp of his Five Muhrs (stamps) be current.³⁵

The only other mark on this riddling coin is the number 5. The reader must guess what unit is being numbered.

Minting itself is an important topic in many Persian monetary inscriptions.

I make madness till on my head a tumult (noise) falls.
 Coin I strike on metal (gold), till its master (owner) be found.³⁶

This legend, beautiful and riddling, suggests the full potential of poems on coins.

Similar monetary inscriptions include the following:

Since on my soul I struck the stamp of Ali's love,
 The world obeyed my rule by grace of God above.³⁷

31. Mosher, "Coin Mottoes."

32. A coin of Paestum, for example, illustrates pictorially the process of coin manufacture. (Cf. MacDonald, *Coin Types*, p. 4.)

33. Mosher, "Coin Mottoes."

34. Ibid.

35. Coin of Jahangir (Hindustan) (Oliver Codrington, *A Manual of Musalman Numismatics* [London, 1904], p. 107). Cf. C. J. Rodgers, "Couplets on Coins of Jahangir," *Journal of the Asiatic Society of Bengal* (1888) and "Couplets on Coins of Kings after Jahangir," *Journal of the Asiatic Society of Bengal* (1888).

36. Coin of Muhummad Jan. Codrington, *Musalman Numismatics*, p. 106.

37. Coin of Safi II, Sulaiman (Persia). Ibid., p. 96.

Ashraf laid hold on majesty;
Let his coin's legend read "Requited by unright."³⁸

Silver and gold through all the world have now become the moon and sun,
Thanks to the true Imam's imprint, the Age's Lord (the rightful one).³⁹

The order proceeded from the Incomparable Creator to Ahmad the king:
"Strike coins in silver and gold from the ascension of Pisces up to the
moon."⁴⁰

The revolution (of the heavens) brings gold and silver from the sun and
moon, that it may make on its face the impression of the coinage of Taimur
Shah.⁴¹

The explicit topic of these lengthy inscriptions is the coined money of
which they are part and into which they are impressed. These widely
published and circulated verses are about and on reverse and ob-
verse.

LETTER AND LETTERED

One problem facing Muslim and other inscribers of coins is the
small number of words to which they are limited by technique, space,
and state regulations.⁴² Attempts to overcome spatial limitations led

38. Coin of Ashraf (Persia). *Ibid.*, p. 98.

39. Coin of Karim Khan, Abu Al-Fath, Sadik, Ali Murad, and Aka Muhammad
(Persia). *Ibid.*, p. 101.

40. Coin of Ahmad Shah (Duranni). *Ibid.*, p. 102.

41. Coin of Taimur (Persia). *Ibid.*

42. "Consider the limitations and difficulties that beset the [American] designer. Artistic rendering and a super-abundance of lettering do not go hand in hand towards the best results. Our artists at the start are handicapped by having to place on the coin 'United States of America,' 'E Pluribus Unum,' 'Liberty,' 'In God We Trust,' the date, and the denomination" ("The New Dime," in *Selections from the Numismatist*, p. 155. Cited by Vermeule, *Numismatic Art in America*, pp. 13-14).

With the development of printed paper monies, of course, long and elaborate inscriptions were made possible. The difference between these impressed objects (economically valuable gold and economically worthless paper) made one especially serious concern of paper-money inscriptions the explanation and prohibition of counterfeiting. Persian paper money contemporaneous with that described by Marco Polo in China (see Ch. 1, n. 10) and bearing lengthy inscriptions is described by Colonel Sir Henry Yule (*The Book of Ser Marco Polo*, ed. and trans. Yule [London, 1929], p. 428n). Among the first modern paper monies is the famous issue of Georgia (1769), with an acrostic puzzle: "At the base of the note the comical counterfeiting warning is upside down, the words read from right to left like Hebrew, the words are in both English and Latin, and the word order is scrambled. Reconstructed, the warning reads "TO COUNTERFEIT IS

to the employment of symbolic dots and dashes, impressions into the perimeters or edges of coins, canting badges, and calligraphy.⁴³ Calligraphy, which would make beautiful designs out of letters of the alphabet and the words they compose, appears particularly suited to coin-writing because coins and letters are similar to each other and lend themselves to similar kinds of interpretation. Both coins and letters may be understood as symbols and also as material things: coins, for example, as commodities interpreted apart from any "symbolic" mediation of economic exchange, and letters as designs without phonetic meaning.⁴⁴

Theorists of calligraphy, such as Emilio Marinetti, believe that the fetishization of letters into designs is the "liberation of the letter" that the spatialist poets defended.⁴⁵ Their analogy from coin to letter is misleading because commodity and design are fundamentally different. Yet such an analogy, and the corresponding theory of letter as design (image) and also as symbol, influenced numismatic calligraphers who impress well-designed literal symbols (letters) into the symbols of the economic exchange system (coins). In numismatic calligraphy, lettering may seem to imitate on a coin, which is a commodity, the objectification or fetishization of the coin as mere symbol.

Religion also helps to explain widespread calligraphy on coins. Calligraphy enables Muslim minters, many of whom are prohibited from making pictures, to produce beautiful and lengthy inscriptions.⁴⁶ For example, in Persia, the obverse of a dinar of the seventh

DEATH WITHOUT BENEFIT OF CLERGY VIDE ACT" (Eric P. Newman, *The Early Paper Money of America* [Racine, Wisconsin, 1967], p. 93).

43. "The 'Tombac' nickel of 1943 had an arrangement of Morse Code dots and dashes around the perimeter, instead of the usual beading or denticles. Decoded, the dots and dashes read: WE WIN WHEN WE WORK WILLINGLY" (Bowers, *Coins and Collectors*, p. 198). Warnings to counterfeiters often were printed in the perimeter or edge of coins. One well-known coin, for example, reads: RODAT AVARA MANUS NE ME FALSIFICANS (The greedy hand cannot betray by clipping me).

44. Massin (*Letter and Image*, trans. Caroline Hill and Vivienne Menkes [New York, 1970], p. 19) writes that "the essential job of the letter is to be as unobtrusive as possible." Letters, he suggests, are hardly sensible (material). "Perceptible, but invisible, silent, and yet a mental projection of speech, a letter has only the weight of ink" (p. 19). Similarly it might be argued that a coin as money is a weightless or nonmaterial symbol. Massin also writes that "one has only to pause in the slightly illogical process of reading, dissect the construction of the sentence and untie the links of a word, to get at the letters" (ibid.). By such dissection, the letter may be fetishized as mere design. Similarly, one has only to pause in the process of economic exchange, sale, and purchase of commodities to get at the commodity aspect of money.

45. Ibid.

46. "The Muhammadan coinage, with some few exceptions, avoids, in accordance with religious tenets, the representation of living objects or indeed of any objects at all

century fitted circles of writing (adapted from the Koran) to a square. "There is no god but Allah alone. He has no partner. Muhammad is the Apostle of Allah whom He sent with guidance and the religion of truth that He may make it victorious over every other religion."⁴⁷ Square calligraphy (Plate 19), circular calligraphy (Plate 20), monogrammatization (Plate 21), and simple script (Plate 22) played the principle roles in Muslim coinage.

Calligraphy on European coins is rare. Nevertheless, such coins do appear from time to time, during the reigns of Charlemagne (Plate 23) and, as Ruskin notes, William the Conqueror.⁴⁸ In 1643, moreover, the artist Nicholas Briot minted a famous calligraphic coin (Plate 24). "The reverse of these noble coins," writes C. H. V. Sutherland, "is movement pure and simple: by a conception unique in English monetary history a banner floats, fold upon fold, across the field of the coin, proclaiming the king's adherence to the Protestant religion, the laws of England and the liberty of Parliament. It is doubtful if English designers have ever achieved anything more fluid or more original."⁴⁹ Briot's coin, however, is not entirely calligraphic, since the banner is more important to the design than the letters that fill it.

Calligraphic design and similar techniques would eliminate that conflict between design and lettering on which John Ruskin based his theory of numismatics. In *Modern Painters*, he emphasizes the importance of images for Greek minters and de-emphasizes that of letters.

and both sides of the coins are devoted to inscriptions" (R. A. G. Carson, *Coins of the World* [New York, 1962], p. 475). Cf. Codrington, "Ornamentation," in *Muselman Numismatics*, pp. 17 ff.; and Oleg Grabar, *The Formation of Islamic Art* (New Haven, 1973), p. 95 ff.

47. Gold dinar of Umayyad Caliphate (696-97 A.D.), trans. Carson, *Coins of the World*, p. 478. Other purely religious inscriptions are recorded by Codrington (*Muselman Numismatics*), for example: "Allah is One, Allah is the Eternal; He begets not, neither is he begotten."

48. Ruskin, *Works*, vol. 30, plate 37.

Philip Grierson ("Note on the Stamping of Coins," in *History of Technology*, ed. Charles Singer, E. J. Holmyard, and A. R. Hall, 5 vols. [Oxford, 1954-58] 2: 490) points to technical aspects of the minting process that necessarily affected the reproduction of letters. He suggests that "in Carolingian times... both device and letters could be formed by a limited range of punches capable of producing straight lines, large and small crescents and curves, annulets, pellets, triangles, and so forth." He also remarks that "the lettering on the coins of eleventh- and twelfth-century France was often produced by the use of little more than a small selection of wedge-shaped punches, which yielded patterns that bore only the vaguest resemblance to the letters they were intended to represent."

49. Sutherland, *Art in Coinage*, p. 182.

He seeks to explain why "in the finest Greek coins the letters of the inscriptions are purposely coarse and rude, while the *relievi* are wrought with inestimable care" (7: 356). Ruskin's first observation (about the Greek sculptor's unwillingness to engage in difficult and time-consuming work) is hardly a convincing explanation of the supposed crudeness of letters on Greek coins.⁵⁰ His second explanation of the supposed crudeness of the letters is more convincing.

'Letters are always ugly things. . . .' Titian often wanted a certain quantity of ugliness to oppose his beauty with, as a certain quantity of black to oppose his colour. He could regulate the size and quantity of inscription as he liked; and, therefore, made it as neat—that is, as effectively ugly—as possible. But the Greek [sculptor of coins] could not regulate either size or quantity of inscription. Legible it must be, to common eyes, and contain an assigned group of words. He had more ugliness than he wanted, or could endure. There was nothing for it but to make the letters themselves rugged and picturesque; to give them, that is, a certain quality of organic variety. (7: 356)

Ruskin suggests that the Greek coin maker can make something unnatural or inorganic (letters) appear natural or organic. A mere symbol of a sound, he says, can look like an organ. In "Athena Ergane" (in *The Queen of the Air*), Ruskin explains the verbal unimportance and organic importance of the letters in the inscription of "The Hercules of Camarina" (Plate 25).

Look, for instance, at the inscription in front of this Hercules of the name of the town—Camarina. You can't read it, even though you may know Greek, without some pains; for the sculptor knew well enough that it mattered very little whether you read it or not, for the Camarina Hercules could tell his own story; but what did above all things matter was, that no K or A or M should come in a wrong place with respect to the outline of the head, and divert the eye from it, or spoil any of its lines. So the whole inscription is thrown into a sweeping curve of gradually diminishing size, continuing from the lion's paws, round the neck, up to the forehead, and answering a decorative purpose as completely as the curls of the mane opposite. (19: 415)

Of course, letters (however crudely made) play a fundamental role in the design of many coins. In an "owl" of Athens (Plate 26), the eyes

50. "In an English coin, the letters are the best done, and the whole is unredeemably vulgar. In a picture of Titian's, an inserted inscription will be complete in the lettering, as all the rest is; because it costs Titian very little more trouble to draw rightly than wrongly, and in him, therefore, impatience with the letters would be vulgar, as in the Greek sculptor of the coin, patience would have been. For the engraving of a letter accurately is difficult work, and his time must have been unworthily thrown away" (Ruskin, *Works*, 7:356).

(which see at night, when things are invisible to other animals) are massed on the coin like two letters: *OO*. Plain letters become beautiful eyes.

In his discussion of "The Hercules of Camarina," Ruskin argues that the legibility of numismatic inscriptions is unimportant to the art of minting. Elsewhere, however, he asserts that the esthetics of a great coin (including its literary aspect) must be as pure as its metal. Metallic purity is costly "since there is a loss by wear" but "if a nation can afford to pay for the loyal noise and fancies in fire [salutes and fireworks], it may also, and much more rationally, for loyal truth and beauty in its circulating signs of wealth" (28: 430-31). In *Fors Clavigera* Ruskin offers a detailed proposal, for coins for the Companions of Saint George, that includes consideration of the inscription "*Sit Splendor*" from Psalm 90 (28: 430-31). Part of the "truth and beauty" of this inscription lies in its relation to other impressions in the coin and to Ruskin's crucial definition of the work of the Companions and their "Economy of Life" (28: 541). The seriousness with which Ruskin considers his own inscription belies his argument that inscriptions are necessarily unimportant and "irredeemably vulgar" (7: 356). "*Sit splendor*" plays no small part in his thinking, and he intended his coin to have literary and philosophical beauty. The relation that Ruskin notices, between the truth and beauty of an inscription and the purity of the material upon which it is inscribed (28: 430-31), aids in understanding both his proposed coinage and the "Economy of Life" of which it is the visible and legible symbol.

SCULPTURE AND SCULPTED

A monetary inscription can be defined by its relationship to that upon which it is inscribed and together with which it forms an integral, whole coin. This coin is a work of sculpture, whose economic value is defined by the supposed commodity value of the material sculpted and whose beauty derives in part from its formal relationship to the physical properties of the material sculpted. The form or architecture of coins is important to the specific study of monetary inscriptions only insofar as the inscription itself suggests consideration of the material problems of design, value, or meaning. The unique shape of some coins, however, does make their architecture significant. For example, incuse coins (Plates 27-29) are different in appearance from any other Greek money: "Each piece displayed in relief the state's blazon and some letters of its name, all within a

