

BLACKWELL COMPANIONS TO THE ANCIENT WORLD

A COMPANION TO
GREEK ART

EDITED BY TYLER JO SMITH
AND DIMITRIS PLANTZOS

VOLUME I



 WILEY-BLACKWELL

A COMPANION TO GREEK ART

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Edited by

Tyler Jo Smith
and
Dimitris Plantzos

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CHAPTER 12

Coinages

François de Callataÿ

12.1 Availability

Greek coins were produced literally by the billions and at least a couple of million still exist in private and public hands. More than 400,000 belong to the four major coin cabinets: Berlin, London, Paris, and New York. To venture some numbers which provide a far better illustration than orders of magnitude: that totals about 50,000 for coins in gold or electrum; about 1 million in silver; and several million at least in bronze. Moreover, it has been estimated that more than 50,000 Greek coins are officially sold every year through organized sales (de Callataÿ 1997c: 21–94). These numbers are enough to remind us that ancient coins were truly mass-produced items.

Thus, it comes as no surprise that, even before the onset of art history as a discipline, coins were indeed the most discussed pieces of tangible evidence surviving from the ancient Greek world. At a time when travelling through the Ottoman Empire was a risky enterprise, Greek coins were not as commonly known as Roman coins. Yet they were frantically collected and published. The first Greek numismatic monograph (Goltz 1576) appeared about two centuries before its equivalent volume on Greek vases (Passeri 1767–1775). Before the beginning of the 18th c., approximately 100 books exclusively or partly devoted to Greek coins were already published, and many more concerned with Roman coins. There were 509 books specifically devoted to coins and medals, ancient and modern, out of a total of 3035 18th c. listed works with an interest in numismatic studies (cf. Dekesel 2003: XXXIII).

Coins are probably the most sizeable category of visual art we may study nowadays as they were the most widespread medium in their time, when put into circulation. Although we may discuss the level of monetization reached by different societies forming the Greek world, it seems beyond a reasonable doubt that any single citizen, wherever he or she lived, in a city or in the country, had many more chances to be in contact with a coin than with a statue or a painted vase, not to speak of a mosaic or a cameo.

12.2 Iconography

Although trust lies at the very center of the monetary phenomenon, which means a certain reluctance to modify a well-accepted iconographical type, the Greek world has produced thousands of different types for its coinages. No extrapolated calculation has so far been made, but the total must certainly be over 25,000. Despite how incomplete it may be, Sear's 1978–79 collector's catalogue offers a numbered list of 7957 different entries, which can be multiplied by two since each coin issue carries an obverse and a reverse type.

This richness of coin imagery is in itself of prime value since it often provides the only or best evidence we have for artifacts no longer in existence. Famous buildings and sculptures, such as the Colossus of Rhodes, both chryselephantine sculptures by Pheidias (Zeus at Olympia and Athena Parthenos at Athens), the Temple of Artemis at Ephesos, and the Pharos of Alexandria – to choose only among the canonical 'Seven Wonders' – are here particularly relevant (Clayton and Price 1988 (Wonders); Trell 1942, 1976 and Price and Trell 1977 (architecture); Lacroix 1946, 1949a, 1949b, 1974, 1975 (sculpture)). This provides an interesting contrast with decorated vases, for example, whose interest chiefly lies in daily *realia* and mythological episodes. Coins are definitely the go-to place for heads, either divine or royal. As noticed by many commentators, the proportion of heads represented on coins is higher than in any other medium, including gems. A large majority of monetary issues display a head, generally on the obverse, and an overwhelming proportion is devoted to gods and goddesses (Figure 12.1). Monetary types seem to evolve through time: an animal or an object linked to a cult in the Archaic period; the head of the god on the obverse during the Classical period (standing gods only appear on reverses), replaced by the head of the king on many Hellenistic issues; later more mythological scenes, especially under Roman rule (Vorreiter 1976; Picard 1991: 223–233).

A calculated comparison of types between coins and gems has never been attempted, but databases available on the Internet make it easy to propose some numbers. The British volumes of the *Sylloge Nummorum Graecorum* have been digitalized: with 3022 occurrences (whether as principal or secondary



Figure 12.1 Silver stater of Elis/Olympia. Head of Zeus (obverse). c. 330 BC (All rights reserved. Brussels, Royal Library of Belgium).

type, on the obverse or the reverse), rough statistics put Athena well beyond any other representation (Figure 12.2). Then comes a trio of male divinities: Zeus (2223 occurrences), Herakles (1881), and Apollo (1820). Others follow: Artemis (848), Dionysos (617), Demeter (481), Poseidon (324), Aphrodite (159), and Ares (123). The charming Eros is recorded only 25 times and there is no known representation of a maenad on Greek coins. These numbers are clearly at odds with what gems, discussed by Boardman and Wagner (Chapter 10), have to offer.

Iconographical interpretations may prove tricky. Although much desired and often sought, historical references are very rare, and most connections made between a specific type and a particular event have proved unconvincing. One must also not take for granted the many subtle stories built upon allusive puns on a name or some religious feature of the issuing power. It is not even certain that we should postulate a local cult for every representation of a god or a goddess on a coin (Florenzano 1999). The list of posited reasons why a particular type was chosen is not short. It includes ‘canting badges’ (e.g. a goat for Aigai, an apple for Melos, a wild parsley leaf for Selinus, all place



Figure 12.2 Silver tetradrachm of Syracuse. Head of Athena (reverse). c. 410 BC (All rights reserved. Brussels, Royal Library of Belgium).

names recalling – even merely phonetically – the fruit, vegetable, or animal they supposedly derive from) and fashion, as exemplified by the three-quarters heads of Syracusan nymph Arethusa (copied in Larissa, Tarsus, and Lagaba).

Systematic attempts to explain the diversity of iconographic types exist. For Thomas Burgon, writing towards the middle of the 19th c. AD, the reason behind every Greek monetary device was religious (Burgon 1837). Maria Caltabiano and the Messina school around her have recently launched a new program entitled *Lexicon Iconographicum Numismaticae* (Caltabiano et al. 2004; Caltabiano 1998, 2000, 2007), where, using linguistics as their paradigm, they courageously try to define the grammar and the syntax for each of these types.

12.3 Opportunities

In addition to being abundant and highly informative, coins offer three unique opportunities for the historian of Greek art:

First, we may claim to possess a specimen of all types ever struck in the Greek world. But this is not absolutely true: each year brings new and previously unknown types. At the same time, it is difficult to challenge the idea that our record is mostly complete, making it truly unique among the ancient visual arts. Let us remember that the average productivity for Greek monetary dies is likely to have been in the range of 20,000 pieces per die, and certainly above 10,000. With coins, we may follow the sequence as it was in ancient times, without introducing biases that are subject to the current conditions of available evidence.

Second, it is traditionally thought that coins are the most 'official' form of artistic expression, since they were submitted to political control. Less artistic liberty on the one hand, but more intentionality on the other: such would have been the fate of ancient coinages. In a way, coins help us reconstruct the official identities of cities and kingdoms. Abundant and intentional, coins were the most important medium for the Hellenistic royal image. It should be noted, however, that coins are not the only category for which we may suppose a strict official control; consider also weights and measures, or tiles and bricks; and, if not privately operated, amphora stamps and clay stamps may be added to the list.

Third, with coins, there is internal diversity, since most monetary types were engraved in many versions – hundreds of versions in some cases – through individual dies. This basic fact, long neglected by specialists of sculpture and other arts, offers us a rare opportunity to examine the spectrum of possibilities for a single type. Every die was cut individually. The existence of hubs, postulated by some but never accepted as a likely hypothesis, has recently been dismissed beyond any hope of recovery (Stannard 2011). These dies, similar yet different, witness engravers' styles or skills, as well as specifications ordered to the mint. Temples may not always have the same number of columns; royal portraits may show significant differences. What could, at first sight, embarrass the historian of ancient art, proves on the contrary to be a chance to move beyond a rigid catalogue of attributions, given the range of what was considered acceptable or not. This is particularly true for portraits, such as royal portraits in the Hellenistic period (Smith 1989). Specialists of Greek sculpture have recently been convinced to abandon the unhelpful practice of illustrating a piece of sculpture alongside the coin it most resembles, creating the illusion of a reinforced attribution. It would perhaps be better to proceed in the opposite way: first starting with the numismatic material, taking into account all the existing dies, establishing next the spectrum of physiognomic possibilities for the ruler under consideration, and then turning to the piece of sculpture we would like to attribute.

There is no shortage of books about Greek art, addressing a large audience. Unfortunately, coinages are not well represented in most of them. An



Figure 12.3 Silver decadrachm of Syracuse. Head of Arethusa (reverse). Signed by Kimon. c. 405–400 BC (All rights reserved. Brussels, Royal Library of Belgium).

exception is J. Boardman, J. Dörig, W. Fuchs, and M. Hirmer's *L'art grec* (Paris, 1966), whose photographs were taken by Max Hirmer (1893–1981), the famous art photographer who developed a thorough interest for coins and wrote several numismatic passages. Some books altogether ignore this category of archaeological evidence (e.g. Woodford 1986). With such abundant material offering such opportunities, we may wonder why coins have been so frequently left aside by modern scholars of Greek art. This general neglect has not always been the case. In earlier times, Johan Joachim Winckelmann, the 'father of art history' himself, made good use of numismatic evidence, and not only for iconographical reasons. He insisted on associating ultimate beauty with the heads of 'Proserpina' (in fact: Arethusa) engraved by Kimon and Evainetos on Syracusan coins from c. 405 to 400 BC (Figures 12.3 and 12.4; de Callatay 2007). (It's true that he preferred gems, perhaps because of his personal involvement with their collection and publication.)



Figure 12.4 Silver decadrachm of Syracuse. Head of Arethusa (reverse). Signed by Evainetos. c. 400–390 BC (All rights reserved. Brussels, Royal Library of Belgium).

We may wonder why decorated vases received such substantial scholarly attention during the second half of the 20th c. (e.g. in Cook 1972: 171–172 there is hardly a page and a half for coins, compared with more than four for mosaics, five for gems, eleven for paintings, twenty-five for vases, seventy-four for architecture, and eighty-six for sculpture). For this, at least, there is apparently a simple answer: a tribute to the classical idea of fine arts, with the established trio of architecture, sculpture, painting. This is the order given by Georg Wilhelm Friedrich Hegel (1770–1831) in his *Aesthetics* (Part III), going from the more material and less emotional form (architecture) to the opposite, with poetry listed as the sixth art. As original Greek painting is nearly completely lost, vases have served as a substitution medium – which they are surely not – for a more monumental and public form of expression. Many handbooks of Greek art have relied on this highly traditional way of organizing chapters: architecture, sculpture, and vases for painting (e.g. Charbonneaux et al. 1970). More thematic approaches have lately been gaining momentum (e.g. Pollitt 1986; Burn 2004).

12.4 Weaknesses

The reasons why coins have featured so little in recent manuals of Greek art are several. Here we list and elaborate on five of them: absence of references in ancient literature, size, overall artistic level, lack of artistic innovation, and current research in numismatics.

12.4.1 *Absence of references in ancient literature*

In contrast with other forms of visual art (but not with Greek vases), ancient literature has not preserved the name of a single die-engraver. Even Pliny is mute about them. Alexander the Great, we are informed, only allowed three artists to reproduce his image: Apelles for painting, Pyrgoteles for glyptic, and Lysippos for sculpture (in that order) (*HN* 7.125: ‘*Idem hic imperator edixit ne quis ipsum alius quam Apelles pingeret, quam Pyrgoteles scalpteret, quae Lysippus in aere duceret, quae artes pluribus inclaruere exemplis*’). As argued by Andrew Stewart, Pyrgoteles, a little-known sculptor, is likely to have been instrumental in finding a noble origin for a Roman contemporary passion (1993: 36). The suggestion that Pyrgoteles also engraved monetary dies conflicts with the fact that, as far as we know, Alexander was portrayed on coinage only posthumously, by his successors; the youthful heads traditionally appearing on Macedonian coinage belong to Herakles (Figure 12.5).

12.4.2 *Size*

Coins are small and round. These constraints restrict considerably the possibilities and forbid ambitious compositions. However, although we have been trained to appreciate size in art, there is no clear relationship between size or value and craftsmanship. For many Greek coinages, we are fortunate to possess a full die-study. We do not detect any difference of ‘artistic level’ between gold and silver, large silver and small silver, or silver and bronze. Facing heads of Apollo in three-quarters view, a sophisticated and spectacular device, may appear on small bronzes, as was the case in Gryneion (Asia Minor, 3rd c. BC).

12.4.3 *Overall artistic level*

It may be tempting to expect that, since coins (especially royal coinages) were mostly struck to pay soldiers, their art was proportioned to these harsh beneficiaries. As with their food, soldiers had to satisfy themselves with what was on offer, namely a rather coarse artistic medium characterized by a lack of



Figure 12.5 Silver tetradrachm of Alexander the Great, possibly struck in Memphis. Head of Herakles (obverse). c. 321 BC (All rights reserved. Brussels, Royal Library of Belgium).

flexibility. In contrast, royal-court glyptic flourished at the best and most sophisticated level. There is no question of denying gem-engravers under royal patronage the first rank of excellence in terms of craftsmanship, but the idea that they or other engravers were less careful as a result of working for soldiers is clearly hazardous.

The idea that Greek coins, as a mass-produced medium of small format, had a rather coarse mean artistic level is, at the very least, highly debatable. Because they were circulated in antiquity, most coins in our modern coin-cabinets are worn. But we may easily argue that the mean artistic level of monetary dies, as they were cut, is higher than that reached for contemporary gems. The idea that every gem is a unique creation and thus the result of an artistic process, while coins rest more in an industrial category, has nothing to recommend it. First, it confuses dies and coins. Second, it misses what is likely to have been a basic reality: monetary issuing powers, cities, or kings, were in a better position to attract the most skilled craftsmen than private individuals commissioning intaglios for themselves (for a start, cameos have always been

(a)



(b)



Figure 12.6 Silver tetradrachm of Athens. (a) Head of Athena (obverse). (b) Owl (reverse) c. 450–431 BC (All rights reserved. Brussels, Royal Library of Belgium).

rare). This is not a plea for coins only. Hellenistic clay seals, produced by intaglios, also display a high mean quality, inasmuch as they are official by nature (Plantzos 1999: 18–32).

12.4.4 *Lack of artistic innovation*

Trust, it has been said, is essential for monetary matters; and, as a consequence, monetary art does not tend to be very innovative, all the more so since it appears as a highly controlled medium. Not surprisingly, submitted to these formal (small and round), political, and economic-psychological constraints, coinage was only very rarely the place for ‘revolutionary’ expressions of reality (Kousser 2008). As best illustrated by the well-known Athenian owls, unchanging types were a reality, especially for important coinages open to circulation abroad (Figure 12.6). The Athenian tetradrachms struck at the end of the 5th c. display a style distinctive of at least one century earlier, struck on blanks of noticeably irregular shapes. The same kind of pattern (Archaic style and rough fabric, in contrast with what really matters: constancy in good weight and alloy) characterizes also the large 7th c. silver pieces produced from the mines of the Potosi, as a privilege allowed to international currencies exclusively. To interpret it as lack of skill, or as a proof that authorities did not particularly care about what was considered as a medium without artistic significance, would be unfortunate hypotheses. It should be mentioned as well that the few cases for which devices were constantly renewed (the electrum coinage of Kyzikos; the first Athenian coinage, wrongly termed

‘Wappenmünzen’; or the Roman Republican *denarii* after c. 150 BC) point to a particular context with a monopoly of circulation wherein no risk of confusion exists. Again, it is important not to interpret in terms of special artistic creativity what is largely due to political opportunities.

12.4.5 *Current research in numismatics*

I would argue that those truly responsible for coins being so easily overlooked by classical art historians and archaeologists are the numismatists themselves, as made clear by the straight and ingenuous opinion of the vase specialist R.M. Cook: ‘Numismatics is in practice a separate and often self-sufficient branch of Classical Archaeology’ (1972: 172). Long considered highly technical (die-studies appeared on the eve of the 20th c.), numismatics has the not entirely unearned reputation of being a difficult topic reserved for specialists – an area where some scholars and students prefer not to venture. Numismatics, after emerging centuries ago as a discipline devoted to iconography, identification, and establishing a corpus, in recent decades has focused on different themes. Much attention has been directed to historical issues, especially economic ones, with very few contributions dealing with art-historical ones (Cahn 1999: 106). Thus, as the denounced gap with history has slowly been filling, the gap with art history has increased. Indeed, just as coins are poorly used in recent literature on Greek art, historians of that same art have been ignored by most recent general books concerned with ancient coins (an exception is Carradice and Price 1988: 61–63). Long after the now outdated works by Gardner (1883, using chronological terms such as ‘period of finest art’, ‘period of decline’), MacDonald (1905), and Hill (1927), there is little doubt that some research will be again ‘à nouveaux frais’ in that direction.

12.5 The Die-engravers

Who were the die-engravers, known as *sculptores* in Latin? How did they work? We are extremely poorly informed on these questions. For the Greek world, we do not even possess an ancient term for the craft. *Argurokops*, literally ‘the one who cuts silver’, is vague and better refers to the silversmith or, in a minting context, to the moneyer – the *malleator* in Latin, the one who strikes coins with his hammer, as in the famous Amphictionic decree in Delphi where the salary of Dexios argur[okops?] is evoked (*CID* II 75 = *FD* III 5, 49, l. 52 – for an English translation, see Melville Jones 1993: 142–143, no. 212, who translates ‘argur[...]’ as ‘mint master’). To be sure, they were skilled craftsmen who were likely to have been trained from a young age, just as was

Doros, who died at the age of 18 and whose tombstone mentions that he was *daktylokoiloglyphos*, a cutter of intaglios (Plantzos 1999: 40; from Roman Philadelphia in Asia Minor). In the absence of magnifying tools, good eyesight was required (Plantzos 1999: 40–41).

Very few Greek dies are preserved and none for which we may be sure of their use as official tools (official dies were normally destroyed when no longer in use). The well-known Athenian reverse die found at Tell el-Athrib in the Egyptian Delta and now kept in the Numismatic Museum of Athens has been analyzed: its composition reveals a proportionally high percentage of tin (25% (well above the average 10/15%), with 67% of copper and 8% of lead), which is not surprising considering that tin increases in hardness. For bronze coins, being more difficult to strike than silver and gold, iron dies are likely to have been engraved. Monetary dies are reported in inventories, such as in Athens (Parthenon) and Delos (Temple of Apollo). Obverse dies were called *akmones* (or *akmoniskoi*, little anvils), while reverse dies were called *charakteres*. In Athens, they were kept together with hammers (*sphurai*), and it is sometimes specified that obverses were made out of iron (*akmones sideroi*).

Were these engravers artists or artisans, assuming that a clear difference could be discerned? Specialists of gems and coins both recognize that engraving a stone and engraving a metallic die are very similar processes. Die-engravers must have taken up the techniques invented for gems. But specialists of gems have been more tempted than numismatists to look for artistry.

Signatures on coins have been avidly collected and commented upon. In 1724, the illustrious Philipp von Stosch published a catalogue of 70 gems on which he thought artists put their names (Stosch 1724), while numismatists, after the pioneering works of the Duke of Luynes, Raoul Rochette, and Sir Arthur Evans, continued to quote the monograph of L.O.Th. Tudeer devoted to Syracusan tetradrachms of the ‘signing artists’ period; that is, the last quarter of the 5th c. BC (Raoul-Rochette 1831; Tudeer 1913; Forrer 1906; de Callataÿ 1995). This interest, and the rather abundant (although not recent) literature, must not disguise the fact that our evidence is actually rather meager for the Greek world. Not even two dozen signatures exist for gems, now that the several illegitimate ones have been identified, and a few dozen signed monetary dies (c. 80–100?) out of the several hundreds of thousands which were produced, and for which one specimen at least survives (Figure 12.7).

Most of these signed monetary dies come from Sicily during the last quarter of the 5th c. BC and, to a lesser extent, from South Italy during the same period and the first half of the 4th c. (Lavva 2002: pl. 22–29). Cases elsewhere are truly exceptional. Even more exceptional are cases of personal names followed by ‘*epoiei*’ (‘made it’), which is a guarantee that we are dealing with an ‘artist’s signature’. Only two dies may be quoted for sure: one for tetradrachms of Kos (‘*Theodotos epoiei*’) and one for didrachms of Kydonia (‘*Neuantos epoiei*’) (for



Figure 12.7 Silver tetradrachm of Syracuse. (a) Quadriga (obverse). Signed by Euth[...]. (b) Head of Arethusa (reverse). Signed by Eum[...]. c. 410 BC (All rights reserved. Brussels, Royal Library of Belgium).

two other cases subject to interpretation, see Leschhorn and Franke 2002: 114). In Aspendos (Pamphylia), a few dies (two?) carry the legend *'elupsa Menetos'* or *'Menetos elupsa'*, which must be understood as 'Menetos, I have engraved' (*'elupsa'* for *'eglupsa'*). This once-debatable reading is now accepted, since another stater struck at Soloi (Cilicia) appears with the legend *'Apatorios eglupsen'* ('Apatorios has engraved'). The name of Apatorios may be found in minute but perfectly legible letters in another die of Soloi and in one at the nearby mint of Issos (Masson 1992: 6–9).

Besides these truly exceptional cases, there is no obvious association of names with engravers. After all, most of the thousands of names we see on Greek coins, especially on Hellenistic ones, are of mint controllers, rather than magistrates. These names generally appear on the reverse in large letters in the field. By contrast, we tend to recognize engravers' signatures when names are cut in tiny letters in unusual locations, as under the truncation of the neck on the obverse (for which there is a clear parallel with the classical tradition in modern times). But this connection remains somewhat tenuous, and can be disproven in some cases, as with the full legend *'Nikokleous'* appearing in minute letters hidden in the lion's scalp of Herakles on tetradrachms struck at Paphos (Cyprus), and surely referring to the king Nikokles ruling at that time (Newell 1919: 64–65; Figure 12.8).

I know of no figure for the total number of preserved Greek gems, but we may propose extrapolations for the total number of monetary dies. Knowing that 21,973 obverse dies are attested by the 608 die-studies gathered in the



Figure 12.8 Silver tetradrachm of Alexander the Great, struck by Nikokles of Paphos. Head of Herakles (obverse). c. 320 BC (after E.T. Newell 1919) (All rights reserved. Brussels, Royal Library of Belgium).

Recueils quantitativs (for a total of 92,550 coins), and that these 608 coinages cover c. 12% of the total number of issues ever struck, we will estimate the total of obverse dies to c. 180,000, to which we have to add the more numerous reverse dies (c. 400,000?) (de Callataÿ 1997b, 2003). It is thus likely that the total number of Greek monetary dies was between 500,000 and 1,000,000. As a result, it turns out that signed dies are of the utmost rarity (1 out of 5000 or 10,000?).

For Syracusan tetradrachms, Tudeer listed 45 signed dies (including those with only two letters): 12 obverses and 33 reverses (Tudeer 1913: 79–80). This is all that we have for Euainetos, Euarchidas, Euklaidas, Eumenos, Kimon, Parme(-n[i]on or -niskos?), Phrygillos, and Sosion, to quote only names given with more than three letters. Actually, the signatures of the much-celebrated Kimon (Figure 12.9) and Evainetos are not attested on more than three dies for each of them. It cannot be doubted that such skillful engravers cut many more dies during their lives. Only a few were signed, and it would be hard to argue that these were only the most successful or the most prestigious for their authors or for modern critics. Unsigned dies of the

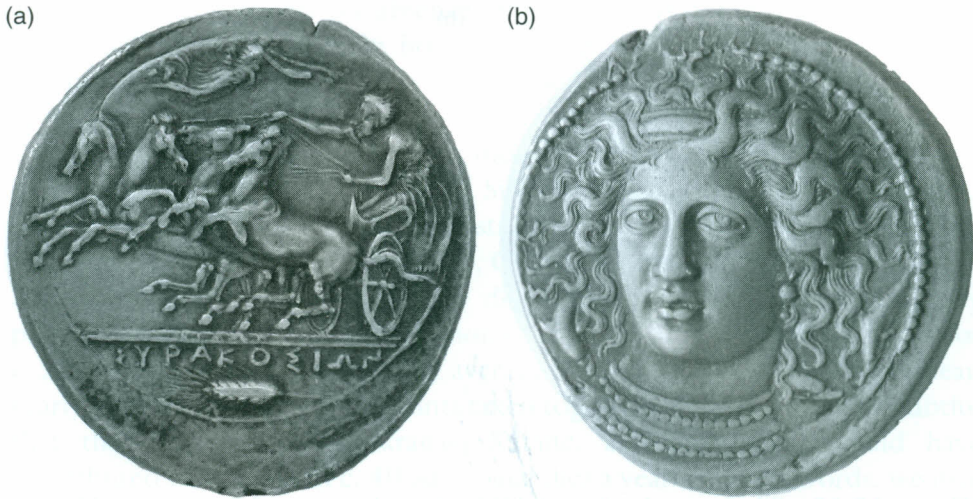


Figure 12.9 Silver tetradrachm of Syracuse. (a) Quadriga (obverse). Signed by Kimon. (b) Head of Arethusa (reverse). c. 410 BC (All rights reserved. Brussels, Royal Library of Belgium).

same period do not look less artistic, and names appear on tiny *litrae* in silver or even in *hemilitra* in bronze (as for Phry[gillos]). As a matter of fact, there are more dies signed by ‘Phry’ for bronzes than for silver, and an examination of these does not lead to the sure conclusion that all were cut by the same hand.

How long did it take to engrave a ‘beautiful’ die? Commissioned modern artists ask for a long time (sometimes months), but such a comparison is irrelevant and may have influenced our views. The famous forger Karl Wilhelm Becker (1772–1830) noted in his diary, without special pride, that it took him 18 hours to achieve one of his largest and most spectacular forgeries: the reverse of the Akragas decadrachm (Hill 1924: 47–48). The notoriously boastful and swanky Benvenuto Cellini (1500–1571) reported that he made two steel dies for the pope in ‘almost no time at all’ (Cellini 1998: 83). It took Jean Blancpain two days to engrave seven pairs of Medieval dies in Bruges, though, admittedly, these types would have been easier to produce than Greek ones (Bompaire and Dumas 2000: 502). For the Late Roman Empire, some numismatists, taking advantage of very short reigns abundantly documented, claim that several dies were produced daily by each engraver (at that time, for more schematic types). But the best evidence is provided by well-dated Greek coinages, such as the late Athenian tetradrachms called *stephanephoroi* or the tetradrachms of Mithridates Eupator, King of Pontos (Figure 12.10). In both cases, coins are dated by month, and we do not detect several hands at work at the same time. It turns out that in both cases, in times of heavy production,



Figure 12.10 Silver tetradrachm of Mithridates Eupator of Pontos. (a) Head of Mithridates (obverse). (b) Pegasus (reverse). 89 BC (All rights reserved. Brussels, Royal Library of Belgium).

we do have four or five obverse dies (and many more reverse dies) cut by the same engraver used within a month (de Callatay 1997a: 40, 47–48). We do not know whether these numbers are dependent on the maximal capacities of the mint (which is likely) or of the engraver (which is less likely). In any case, they seem to indicate that, at a strict minimum, engravers were able to produce monetary dies in one week each, and possibly in one day, if we attribute all the reverses as well as the obverses to the same artisan.

The immediate consequence of all this is that engravers could not earn a living working only for one specific mint. With a calculated average of c. 23 new dies every year (both obverses and reverses for all known denominations) for the period c. 485–450 BC, even the large coinage of Syracuse, the most prolific mint of that time for Sicily, is likely to not have been substantial enough to provide constant work for a single engraver (de Callatay 2004: 43–45). Most averages we may estimate for Greek monetary mints, including large Hellenistic ones, fall well below the Syracusan case. Minting was a discontinuous process in the Greek world and it cannot be doubted that, apart from in exceptional circumstances, engravers could not have been regularly employed by any specific mint. The two basic scenarios are either that die-cutters worked in other media (primarily, in most cases) or that they travelled from one mint to another. A combination of both seems most likely.

That die-cutters were also gem-cutters has been postulated by many, but thus far the evidence remains scanty in the extreme. Attempts to associate or identify the rare same individuals with the products of both materials have proved unconvincing (Casson 1936; cf. de Callatay 1997d and Plantzos

1999: 64–65). Certainly the absence of proof is no proof of the absence. This is especially true considering how difficult it is to identify the same hand behind different monetary types, not to mention between media as different as gemstones and metallic dies.

Traveling engravers are, it seems, more than a simple working hypothesis: they appear to have been a necessity. Sicilian mints of the 5th c. have received particular attention from numismatists. Die-studies exist for most of them: Messina, Naxos, Syracuse, Kamarina, Gela, Selinus, and Himera. Taking into account the results of these seven die-studies and the chronologies they propose, it turns out that the addition of all these data gives c. 2400 dies for c. 281 years, which means a yearly average per mint of c. 8.5 dies and a mean yearly production for all seven mints taken together of c. 60 dies. It is doubtful that the missing mints (Akragas, Katane, and Leontinoi) would have contributed to more than c. 40 additional dies a year. In other words, we may be confident that no more than 100 dies, whatever the denomination, were engraved in Classical Sicily every year. Even with the possibly high figure of two weeks per die, this does not leave room for more than four engravers to be kept constantly busy at work. While these calculations should not be taken to imply that all Sicilian coin dies were cut by such a limited number of die-cutters (though it is doubtful that the number was very large), they should encourage us not to be too reluctant to recognize the same hands at different mints well beyond attested die-links (de Callatay 2004: 44–46).

Issues with the same types may have been produced in different mints. Die-links between these different places are indeed not a rare phenomenon, as best exemplified by Hellenistic royal coinages. Coins of Alexander the Great or Lysimachos; coins struck in Asia Minor under Antiochos II or *cistophori*: they all provide several examples of these dies' transfers between one mint and another (for an illustrative list of these die-links, see the index Le Rider 1999: 1397, s.v. '*Coins (liaison de -)*').

A simple but embarrassing question is whether the die-engraver was also responsible for the monetary type, in the sense of a true artist. The answer is likely to be negative. When the Seleucid king Antiochos VII (138–129 BC) granted the right to strike coins to Simon Maccabeus, he wrote: 'I give you leave also to coin money for your country with your own stamp' (*First Book of Maccabees*: 1.15). Even if recent numismatic research has played down the pivotal role traditionally attributed to coins as the best medium to convey official propaganda, it does not look realistic that the choice of the civic or royal device could have been left to an artisan, however skillful he might have been.

Despite the abundance of Greek monetary types, we do not possess any preparatory designs made on another material. We do have some pieces in lead which have been seen as test-pieces by several scholars (Houghton 1997; Fischer-Bossert 2002; Meyer 2006), just like those used by modern medalists.



Figure 12.11 Silver tetradrachm of Aitna. (a) Head of Silenos (obverse). (b) Zeus (reverse). c. 465 BC (All rights reserved. Brussels, Royal Library of Belgium).

A close examination of this material, however, shows it is more likely that most of these lead pieces were cast from actual coins.

The so-called ‘Master of Aitna’ provides a good case study (for Greek coins, it does not seem that any new ‘master’ was created in scholarly literature after World War II). Two highlights of Greek monetary art are attributed to him: the unique tetradrachm of Aitna (Figure 12.11), considered by many the most precious surviving ancient coin (once in the collection of Lucien de Hirsch and now kept at the Royal Library of Belgium in Brussels), and the spectacular tetradrachms struck in the nearby Naxos at about the same time (c. 465–450 BC) (de Callataÿ and Gitler 2004) (Figure 12.12). Beyond a general similarity of types, two features are especially noteworthy, since they appear to be true innovations which break with the artistic conventions of the time: first, in both cases, the head’s beard on the obverse seems to expand beyond the circle of border dots; second, the truncation of the neck is not a straight or slightly curved cut, as found on all other contemporary coins, but a more sophisticated line with two angles. An audacious rule-breaker, the Master of Aitna fulfills the criteria of a great artist under modern standards. But who cut the dies? A close examination of the engravings shows both similarities (the rendering of border dots and of the lines of the beard) and dissimilarities (the rendering of eyes and letters). Based on the careful study of technical know-how, this analytical approach, rarely attempted in Greek numismatics, clearly deserves to be expanded in order to reach general conclusions. Still, the case of the Master of Aitna lends no firm support to the idea that engravers were also responsible for the device.



Figure 12.12 Silver tetradrachm of Naxos. (a) Head of Dionysos (obverse). (b) Silenos (reverse). c. 460 BC. (All rights reserved. Brussels, Royal Library of Belgium).

12.6 Conclusion

Greek coins were the widest-spread medium for visual arts of their times, and they certainly continued to play that role from the Renaissance onwards. As such, and despite the silence about them in ancient literature, they have been instrumental in shaping our modern ideas about what Greek art was. By specializing in portraying the heads of deities, for example, they promote by nature a form of serene classicism which has so enchanted art historians in modern times. More hieratic, less emotional, and more rigid than those found on gems, monetary devices fit very well, and for a long time, the ideal and embellished image of the 'Greek miracle', the 'noble simplicity and quiet grandeur' advocated by Winckelmann. The special attention recently paid to Hellenistic 'peripheral' portraiture (Ptolemy Soter, Philetairos, kings of Pontos, or Greco-Bactrian rulers), clearly departing from this tradition, is in itself symptomatic of the ever-changing ways we opt to approach Greek art.

FURTHER READING

There is a serious lack of recent literature dealing with Greek coins from an artistic perspective (or books on Greek art taking real advantage of coins). This is all the more unfortunate since the old literature, such as Gardner (1883), MacDonald (1905), and Hill (1927), is now unsatisfactory. To understand how Greek coins were masterly engraved, the most celebrated book remains Kraay and Hirmer (1966);

though see also www.coinarchives.com. Otherwise, interested readers will need to combine several sources, such as de Callatay (2004) and Fischer-Bossert (2002). Meadows and Shipton's (2001) *Money and its Uses in the Ancient Greek World* focuses on the social and economic use of coins (and money) in the Greek world, whereas Howgego's (1995) *Ancient History from Coins* demonstrates the ways in which coins may be used in the study of ancient history.