

The Spread of Coins in the Hellenistic World

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Although coinage was first ‘invented’ in the archaic Greek period, and spread to a significant part of the Mediterranean world during the classical period, it remained a marginal element within the economy. At very few cities or mints were coins produced regularly, and the issues of a vast majority of mints were sporadic, small and of coins ill-suited to daily transactions.¹ Moreover there existed in the nature of early coinage inherent impediments to international use. Thus, while coinage can be said to be a financial innovation of the archaic and classical Greek world, it did not radically change economic behaviour. Significant changes in the nature and scale of coinage occurred only in the wake of Alexander’s world conquest, during the Hellenistic period.

The Hellenistic period runs, as usually defined, from the death of Alexander the Great in 323 BC to the Battle of Actium by which Roman superiority over the Greek world was finally established on 2nd September 31 BC. The period is defined by the world conquest of Alexander the Great, and the consequences of the division of his empire upon his death. The name ‘Hellenistic’ derives from the German term for the period, coined by J.G. Droysen in the 1830s in his *Geschichte des Hellenismus* (First edition, Hamburg 1836–1843). For Droysen, who had previously written a seminal study of Alexander the Great, the period of *Hellenismus*, was characterised by the Hellenisation of the world that Alexander had conquered. This world had largely been encompassed by the Achaemenid Persian Empire, but had comprised many different cultures in Asia Minor, the Near East, Egypt, Mesopotamia, Iran and beyond.²

¹ On scale, see further below, section “[Spread and Scale](#)”. Despite recent demonstrations of the existence of some large coinages of small silver denominations (‘fractions’), it remains the case that the majority of such issues were small in quantity and that the overwhelming majority of the monetary value of coinage struck in the Archaic and Classical periods was struck in denominations equivalent to a day’s pay or greater.

² c.f. chapter “[The Changing Pattern of Achaemenid Persian Royal Coinage](#)”.

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But while this picture of the assertion of Greek cultural domination over the barbarian east appealed to the historians and antiquarians of the 19th century, it is not a picture that many modern scholars would endorse. For a generation or more, Greek historians have been paying attention to the work of their colleagues on the documentary and archaeological evidence for regions such as Egypt, the Levant and Mesopotamia, and coming to regard the so-called Hellenistic period as one of negotiation between stable indigenous cultures and institutions and a new ruling elite. It is clear that while the successor kingdoms to Alexander's empire may have had Greek or Macedonian rulers and courts, their administrations, legal systems, religious life and languages to a considerable degree continued in or were adapted from their pre-conquest form. At least this is the picture as far as we can tell from the documents that survive. For one of the characteristics of the Hellenistic period is the relative dearth of literary accounts of the institutions of the new monarchies.

So documents, whether written on stone, clay tablets or papyrus, are one of the major evidentiary bases. These documents have huge potential, of course, for the reconstruction of aspects of the economic regions from which they derive. But the picture they produce is regional, and cannot necessarily lead us to a holistic view of the economy of a given political entity (kingdom). Moreover they are documents. As such they can tell us much about behaviour, but not necessarily a great deal about intent or theory. Among the literary absences from the Hellenistic period is any surviving treatise concerning the monetary policies of the various states that arose at this time. This, of course, is a major obstacle when it comes to analysis of financial innovation.

Documents and theoretical treatises aside, the other major source at our disposal is the coinage. Coinage is not itself new in the Hellenistic period; it had, as we have seen,³ come into being in the late 7th century BC in western Asia Minor, and it spread throughout the Greek and non-Greek peoples bordering the Mediterranean over the next two-and-half centuries. By about 375 BC, coinage was being produced from Spain to Syria on the northern side, and from Phoenicia and Egypt to Carthage in modern Tunisia on the southern side. But if coinage was not new to the Hellenistic period, after Alexander's conquests it certainly did take on new forms and spread into geographic regions it had not previously reached. Moreover it began to be issued into and used within new political and economic constructs, and it arguably started to reach sectors of the economy for which it had previously been unsuited for use.

Within the brief compass of this chapter I cannot hope to offer a full account of all changes in all places. Therefore I will focus on the four types of change I have just outlined: form, geographic spread and an attendant shift in scale, systemic change and manipulation, and diversification of use. I shall try both to offer brief outlines of the evidence for them as it is exhibited by some of the coinage, and also to suggest some of the ways in which numismatists and economic historians of the ancient world have attempted to rationalise or explain them.

³ c.f. chapter "[War and Peace, Imitation and Innovation, Backwardness and Development: The Beginnings of Coinage in Ancient Greece and Lydia](#)".

Form

The beginning of the Hellenistic age was set in motion when Alexander the Great crossed the Hellespont into Asia in 334 BC and began his conquest of the Achaemenid Empire. As Alexander began his march eastwards his supply lines back to Macedonia grew ever longer, but this did not matter. He needed food for his troops, which he took from the land as he conquered it, and he needed silver to pay them, which he acquired with each city or Persian administrative centre he captured. By the autumn of 330 BC he was able to assemble at a central treasury at Ecbatana (mod. Hamadan in Iran) some 180,000–190,000 Talents (D.S. 17.80.3; Strabo 15.3.9; Justin 12.1.1.), a figure that accords in scale with the accounts of the various sums he had captured en route (Table 1). Since a talent of silver weighs approximately 26 Kg, at a conservative estimate, Alexander accumulated a value equivalent to around 4,700 tonnes of silver or 470 tonnes of gold.⁴

These seizures provided Alexander with a vast monetary resource with which to finance his campaigns, but also gave rise to a logistical problem. His army was composed of Macedonians, whom he may not have needed to pay on a daily basis, and also of Greek allies, for whom responsibility for payment may have lain with their home cities; but increasingly as his campaign continued, Alexander came to rely upon mercenaries. We have no hard and fast figures, but estimates of his total force by the time of his death have ranged as high as 150,000 men under arms, with perhaps as many as 100,000 of these requiring to be paid. If they were paid at the rate of one drachm per day (possible but not certain), the annual bill for their pay will have been slightly over 6,000 Talents.⁵ And these men were spread out in garrisons and camps from one end of the empire to the other.⁶

The Macedonian kings had traditionally, so long as their kingdom remained essentially Balkan, produced all of their coinage in Macedonia, at mints variously located by modern scholars at Aegae, Pella and Amphipolis. In the larger empire of Alexander this was no longer an option, so his administration was forced to innovate and took three interesting decisions.

First, they chose to completely redesign the coinage. The old designs of Alexander's father's coinage may have been retained for a while back in Macedonia, but a new coinage was also introduced there and spread across the whole empire. There were three principal denominations (Figs. 1, 2 and 3). The

⁴ For the figures and discussion see Price (1991: 25–26), de Callatay (1989: 260–261). The absence of figures for the treasuries seized at Sardis and Babylon is likely to have resulted in considerable underestimate in Table 1 for the total silver seized. Likewise, the figure for the treasure assembled at Ecbatana represents the sum left in the eastern part of the empire after 4 years of campaigning and consequent expenditure and will also be an underestimate of the total silver acquired by Alexander. Moreover, it is an account of booty, not of revenues, which will also have been accumulating: Le Rider (2007: 234).

⁵ For discussion of possible rates of pay see Milns (1987) and Le Rider (2007: 73–77).

⁶ For discussion of the possible figures see for example Milns (1987: 249–251). Figures are a little more secure (and lower) for the earlier part of Alexander's campaigns. See Le Rider (2007: 76).

Table 1 Alexander's Plunder, according to the literary sources

City	Source	Total
Sardis	Persian treasury (Arr. 1.17.3; D.S. 17.21.7; Curt. 3.12.6; Plut. 17.1)	?T
Aspendos	Fine (Arr. 1.26.3 and 27.4)	100T
Soli	Fine (Arr. 2.5.5; Curt. 3.7.2)	200T
Damascus	Persian treasury (Arr. 2.15.1)	3,100T
Tyre/Gaza	3,000 Citizens sold	90T? ^a
Memphis	Persian treasury (Curt. 4.7.4)	800T
Arbela	Persian treasury (Curt. 5.1.10; D.S. 17.64.3)	4,000/3,000T
Babylon	Persian treasury (D.S. 17.64.3; Curt. 5.1.11-23)	?T
Susa	Persian treasury (Arr. 3.167; Curt. 5.2.11)	50,000T
Persepolis	Persian treasury (D.S. 17.71.1; Curt. 5.6.9)	120,000T
Pasargadae	Persian treasury (Curt. 5.6.10)	6,000T
Total (In silver equivalent)		183, 290T +? 4,765 tonnes)

^a Based on Xenophon's (low) price of 180 dr. for a Laurion slave



Fig. 1 The gold stater was the highest value coin. On the obverse this featured the head of the warrior goddess Athena. On the reverse was a standing figure of Nike (Victory), holding a standard from a ship. The legend reads ΑΛΕΞΑΝΔΡΟΥ ('of Alexander') 1965.77.104. © The American Numismatic Society



Fig. 2 The silver tetradrachm was the most common denomination. On the obverse was a head of Herakles in a lion-scalp. Herakles was the mythical founder of Alexander's royal line. On the reverse is a seated figure of Zeus holding an eagle and scepter, the whole forming a symbol of kingship. The legend again reads 'of Alexander' 1944.100.267. © The American Numismatic Society

iconographic programme of this coinage was at one level an attempt to assert Alexander's divine right to kingship and his prowess in war on land and sea.

The power of this message is reinforced by the second decision taken by the administration, which was to issue these same designs of coinage across the entire



Fig. 3 The silver drachm was the smallest denomination issued in quantity (smaller coins are known, but are largely confined to the Levantine region). Its types were identical to those of the tetradrachm 1944.100.298. © The American Numismatic Society



Map 1 Alexander's mints

empire. As Alexander moved eastwards new mints opened in his wake, each producing coins of exactly the same design. By the time of his death in 323 BC, some 25 different mints were producing identical coins (Map 1). To modern eyes this decision seems logical and obvious; but it is in fact without precedent for an area so vast, and probably with few later parallels. The Achaemenid Empire certainly did not unify its coinage in this way, even in the places where coinage was produced; neither did the Byzantine and Ottoman empires, which at times sat in Alexander's geographical footprint.

The iconographic power of this statement is clear and deserves to be stressed, even though it may not immediately appear to be of economic significance. In a world, such as that of Alexander, where there was no print medium, let alone the electronic forms that pervade today, the mass communication of images was nearly impossible. Coinage, as one of the few mass-produced objects of the ancient world, thus occupied a privileged place in the discourse between king and subjects. As a result, coinage became perhaps the pre-eminent tangible sign to many of the inhabitants of Alexander's empire that they were within that empire. But Alexander's empire was both a political and an economic space. So if the

coinage reinforced the fact that he was now the ruler, it also reinforced the fact that he was the guarantor of what would become the principal monetary medium.

But what precisely was he guaranteeing? This brings us to the third of the key decisions taken by the new Macedonian administration. Alexander's new coinage, in gold and silver, was minted on the Attic weight standard. The significance of this point requires some explanation of the nature of Greek silver coinage prior to Alexander. Precious metal coins were of intrinsic value, and thus took their value from their weight. In an ideal, open economic system, this might have created the opportunity for easy exchange of coinage across political boundaries, but matters were not that simple. Different issuing authorities in the Greek world (whether cities, kings or governors) issued coins on different weight standards. That is to say, their base currency units were different. Athens, for example issued a tetradrachm of 17.2 g, Aegina a stater of 12.2 g, Chios a tetradrachm of 15.6 g, Phoenicia a shekel of around 7 g and the Persian Great King a siglos of 5.55 g.⁷ Conversion could take place between these different standards, but the evidence that survives suggests that such exchange incurred a commission fee potentially in the range of 5–7 % of the value of the transaction.⁸

At a single blow, Alexander's new Attic weight currency provided a financial instrument on a single standard across his entire empire. The standardisation of designs made it transparent that this coinage, irrespective of its place of production, was of a single weight standard and thus usable across the cities of the empire without the expense and inconvenience of a visit to the money-changer. The implications of this are clearly profound. The new Alexander coinage provided a 'common currency' usable from Greece to India. For those holding the coins this was clearly beneficial, since their wealth was now portable at minimal cost. For those who had previously made money from the restriction of currency through money changing activities—and this may have included states as well as individuals—this was potentially an attack on a revenue stream.⁹

So the Macedonian administration introduced a common coinage, produced throughout the empire and potentially acceptable throughout. Why did they do this? Again, to our modern eyes, the answer seems obvious. It is in an institution's interests to reduce transaction costs, and the creation of a money supply that contributes to that goal is self-evidently a Good Thing. However, underlying this modern assumption lies perhaps one of the most contested questions about the nature of money and its creation by the state in the ancient world. Did any ancient state ever strike coinage with the primary aim of creating or maintaining a money-supply, or of stimulating trade?

⁷ For a summary of Archaic and Classical weight standards see Kraay (1976: 329–330); for the Hellenistic period, Mørkholm (1991: 7–11).

⁸ The evidence is meagre. See the survey in Le Rider (2001: 260–263).

⁹ The personal wealth that could be accumulated from the profession is exemplified by the career of Pasion at Athens, who began as a slave and ended with a fortune of at least 70 Talents (equivalent to 1.8 tonnes of silver). For his career and likely wealth at death see Trevett (1992: 1–17, 27–31). The evidence for state control of exchange is slim, but suggestive. See the discussion in Bresson (2007–2008: II. 56–58).

Spread and Scale

Before examining the answers to that question, however, it will be as well to consider the second type of innovation: the geographic spread of coinage and the change of scale that it heralded.

We have noted already the huge amounts of precious metal acquired by Alexander in the course of his conquest of the Persian Empire (Table 1). We might set these figures against those more broadly arrived at by Callataÿ in his analysis of the relationship between the Persian royal treasuries and the quantity of coinage issued by Alexander. As we have noted, 180,000 talents were said to have been accumulated by Alexander at Ecbatana; on Callataÿ's latest estimates 50 % of this sum, 90,000 Talents was put into circulation by Alexander's administration and his immediate successors in the period c. 332–290 BC, or around 2,100 Talents per annum.¹⁰ Comparison with earlier coinage is not straightforward, since the evidence for the Archaic and Classical periods is fragmented, and we lack studies of some of the most important coinages, including that of late 5th- and 4th-century Athens. However we can give some indication of the step shift that Alexander's new issues marked by consideration of certain regions and cities before this time. Table 2 provides some estimates of the size of coinages of a number of Greek cities in the earlier period.¹¹

We can see from this, for example, that the geographically important Greek harbour city of Cnidus tended to produce between 0.88 and 3.07 Talents per annum. The more important city of Corinth, with two harbours, which controlled both north-south and east-west routes across the Isthmus between Greece and the Peloponnese tended to produce between 12.38 and 32.80 p.a. At the other end of the scale the major imperial city of Athens, during the period in which it was building its empire (475–449 BC), struck on average 320.51 Talents per annum. The entire, proverbially wealthy island of Sicily struck from the beginning of coinage down to the end of the 5th century a total of less than 13,000 Talents. Three significant mints are missing from these figures (Akragas, Catane and Leontini), but these are unlikely to raise the figure as high as 20,000. The Hekatomnids, dynasts of Caria and prolific builders, struck a total of around 2,400 Talents in a period of 60 years. Against all these figures the 2,100 Talents per annum or 90,000 Talents in total produced by Alexander and his immediate successors in Macedonia and the East over a sustained period of 40 years stands in marked contrast.

As to the geographic extent of this new coinage, we have already noted that prior to the conquests of Alexander, the production and use of coinage essentially hugged

¹⁰ For the methodology and an initial estimate of 180,000 Talents of coin production see de Callataÿ (1989); for the revised figure *id.* (2011: 23).

¹¹ The figures for dies, specimens and estimated output are taken from de Callataÿ (2003), with the exception of those of Segesta, which are taken from Hurter (2008). Denominations are normalized to Attic drachm weight, to facilitate comparison across different weight standards. Absolute figures for quantities of silver struck are obtained by assuming 20,000 coins struck per die. Talents are Attic.

Table 2 Estimated outputs of some Archaic and Classical mints

Mint	From	To	Denom	Dies	Dies pa	Talents	Talents pa	Kg pa	
Athens	545	515	2	52	1.73	346.67	11.56	300.44	
	515	510	4	7	1.40	93.33	18.67	485.33	
	510	475	4	420	12.00	5600.00	160.00	4160.00	
	475	449	4	625	24.04	8333.33	320.51	8333.33	
Totals				1104		14373.33			
Corinth	545	500	2	98	2.18	653.33	14.52	377.48	
	500	430	2	130	1.86	866.67	12.38	321.90	
	400	350	2	246	4.92	1640.00	32.80	852.80	
Totals				474		3160.00			
Syracuse	510	490	4	26	1.30	346.67	17.33	450.67	
	490	485	4	5	1.00	66.67	13.33	346.67	
	465	464	10	3	3.00	100.00	100.00	2600.00	
	485	478	4	147	21.00	1960.00	280.00	7280.00	
	485	478	1	5	0.71	16.67	2.38	61.90	
	485	478	0.16	69	9.86	36.80	5.26	136.69	
	474	450	4	74	3.08	986.67	41.11	1068.89	
	474	450	0.16	85	3.54	45.33	1.89	49.11	
	415	395	4	37	1.85	493.33	24.67	641.33	
	405	380	10	27	1.08	900.00	36.00	936.00	
	Camarina	460	450	0.16	65	6.50	34.67	3.47	90.13
		425	405	4	13	0.65	173.33	8.67	225.33
415		405	2	8	0.80	53.33	5.33	138.67	
415		405	0.16	7	0.70	3.73	0.37	9.71	
Gela	490	480	2	30	3.00	200.00	20.00	520.00	
	480	470	4	19	1.90	253.33	25.33	658.67	
	465	450	4	14	0.93	186.67	12.44	323.56	
	465	450	0.16	87	5.80	46.40	3.09	80.43	
	450	440	4	9	0.90	120.00	12.00	312.00	
	440	430	4	7	0.70	93.33	9.33	242.67	
	430	425	4	3	0.60	40.00	8.00	208.00	
	430	425	0.16	60	12.00	32.00	6.40	166.40	
	425	420	4	4	0.80	53.33	10.67	277.33	
	420	415	4	3	0.60	40.00	8.00	208.00	
Himera	415	405	4	5	0.50	66.67	6.67	173.33	
	530	482	1.33	200	4.17	886.67	18.47	480.28	
	530	482	0.18	64	1.33	38.40	0.80	20.80	
	480	470	2	15	1.50	100.00	10.00	260.00	
	480	470	1		0.00	0.00	0.00	0.00	
	472	409	4	9	0.14	120.00	1.90	49.52	
Zankle/Messina	450	449	2	3	3.00	20.00	20.00	520.00	
	515	493	1	254	11.55	846.67	38.48	1000.61	
	494	490	4	20	5.00	266.67	66.67	1733.33	
	488	481	4	11	1.57	146.67	20.95	544.76	
	480	462	4	139	7.72	1853.33	102.96	2677.04	
	460	426	4	59	1.74	786.67	23.14	601.57	
	460	426	0.16	93	2.74	49.60	1.46	37.93	

(continued)

Table 2 (continued)

Mint	From	To	Denom	Dies	Dies pa	Talents	Talents pa	Kg pa
	425	396	4	29	1.00	386.67	13.33	346.67
	420	413	0.16	27	3.86	14.40	2.06	53.49
Motyra	425	415	2	10	1.00	66.67	6.67	173.33
	415	405	2	10	1.00	66.67	6.67	173.33
	405	397	4	6	0.75	80.00	10.00	260.00
Naxos	530	490	1.28	24	0.60	102.40	2.56	66.56
	530	490	0.16	24	0.60	12.80	0.32	8.32
	460	459	4	1	1.00	13.33	13.33	346.67
	461	430	1	4	0.13	13.33	0.43	11.18
	461	430	0.16	22	0.71	11.73	0.38	9.84
	425	424	4	1	1.00	13.33	13.33	346.67
	413	404	2	4	0.44	26.67	2.96	77.04
	413	404	0.5	6	0.67	10.00	1.11	28.89
	413	404	0.16	11	1.22	5.87	0.65	16.95
Segesta	475	455	2	19	0.95	126.67	6.33	164.67
	455	445	2	10	1.00	66.67	6.67	173.33
	440	420	2	14	0.70	93.33	4.67	121.33
	412	400	2	18	1.50	120.00	10.00	260.00
Totals				1919		12694.13		
Byzantium	411	387	1.25	1188	49.50	4950.00	206.25	5362.50
	411	387	0.62	1630	67.92	3368.67	140.36	3649.39
	411	387	0.31	308	12.83	318.27	13.26	344.79
	357	340	3.5	230	13.53	2683.33	157.84	4103.92
	357	340	0.9	98	5.76	294.00	17.29	449.65
	357	340	0.45	507	29.82	760.50	44.74	1163.12
Totals				3961		12374.77		
Sinope	480	430	1.4	195	3.90	910.00	18.20	473.20
Samos	526	522	0.88	42	10.50	123.20	30.80	800.80
	510	500	0.74	68	6.80	167.73	16.77	436.11
	499	439	3	52	0.87	520.00	8.67	225.33
	400	365	3.5	43	1.23	501.67	14.33	372.67
Totals				205		1312.60		
Kaunos	490	390	2.7	54	0.54	486.00	4.86	126.36
	490	470	0.675	21	1.05	47.25	2.36	61.43
	490	470	0.34	13	0.65	14.73	0.74	19.15
Totals				88		547.98		
Cnidus	530	520	0.4	10	1.00	13.33	1.33	34.67
	520	495	1.44	16	0.64	76.80	3.07	79.87
	490	465	1.44	6	0.24	28.80	1.15	29.95
	465	449	1.44	4	0.25	19.20	1.20	31.20
	449	411	1.44	7	0.18	33.60	0.88	22.99
	411	394	1.44	14	0.82	67.20	3.95	102.78
	360	340	3.4	13	0.65	147.33	7.37	191.53
	390	350	1.72	13	0.33	74.53	1.86	48.45
Totals				83		460.80		

(continued)

Table 2 (continued)

Mint	From	To	Denom	Dies	Dies pa	Talents	Talents pa	Kg pa
Hecatomnus	392	377	1	60	4.00	200.00	13.33	346.67
	392	377	3.4	8	0.53	90.67	6.04	157.16
Mausolus	377	353	3.55	80	3.33	946.67	39.44	1025.56
	377	353	0.88	86	3.58	252.27	10.51	273.29
Idrieus	351	344	3.55	23	3.29	272.17	38.88	1010.90
	351	344	1.76	12	1.71	70.40	10.06	261.49
	351	344	0.88	15	2.14	44.00	6.29	163.43
Pixodarus	341	336	1.76	62	12.40	363.73	72.75	1891.41
	341	336	0.88	8	1.60	23.47	4.69	122.03
Roontopates	336	334	3.55	10	5.00	118.33	59.17	1538.33
Totals				364		2381.70		
Overall totals				8,393		48,215.32		

the shore of the Mediterranean. As Map 1 shows, Alexander's conquests drove the production of coinage much further east, as mints were opened at the administrative and religious centres of Damascus, Bambyce, Babylon and Susa. Under Alexander's successor Seleucus I, mints would also be opened certainly at Carrhae, Seleuceia ad Tigrim (near the ancient city of Opis), Ecbatana, Nisa, Ai Khanoum and perhaps Bactra. There are a further eight mints in the East that can be identified from the coinage, but which we cannot place firmly on the map (Map 2).¹²

For the first time, coinage was now struck in Mesopotamia, Media and Persia itself, as well as further east in Bactria. Production was substantial. The mint of Babylon from c. 333–318 BC probably used just over 200 tetradrachm obverse dies.¹³ At 20,000 coins struck per die that is 4 million tetradrachms (2,600 Talents or 70 tonnes of silver) entering circulation within a period of 15 years. To these figures we must add those for the gold. Using Callataÿ's methods and figures, it seems likely that approximately 14 % of all Alexander's gold coin was produced at Babylon, using approximately 140 obverse dies. At 10,000 coins per die this equates to a production of 1.4 million gold staters, 12 tonnes of gold, equivalent in value to almost 4,666 Talents (120 tonnes) of silver. These two denominations—tetradrachm and stater—alone, therefore, may have put some 7,266 Talents into circulation in the new monetary medium of coinage.

The sudden appearance of this coinage ought, we might suppose, to have had a profound effect on the marketplace in Babylon. Remarkably, Babylon is one of the few cities in the ancient world to have left us a set of price information for this period in the famous astronomical diaries. The prices have been analysed by

¹² For a survey of the mints of Seleucus I and their product see Houghton and Lorber (2002: 10–110).

¹³ This figure is based on the evidence of the Demanhur hoard. For discussion of its use see de Callataÿ (1989: 265–266).



Map 2 Mints of Alexander's successors in the east

various scholars¹⁴ and, while they do not present a uniform picture, they do seem to suggest a clear trend for the principal staples of the Mesopotamian diet, barley and dates. For both of these commodities, prices were broadly stable or decreasing in the Achaemenid and Seleucid periods,¹⁵ with the very clear exception of a spike occurring at precisely the point of the Macedonian conquest (see Fig. 4).^{16,17}

Thereafter, as Temin has demonstrated, there appears to be a period of instability of some 20 years before prices resumed their prior trend. Certainly the disruption seems to be longer than that which might be attributed to a brief period of war and conquest, and may, as Temin suggests, be the result of the pumping of coinage into the economy by Alexander's immediate successors.¹⁸ So we have at once a massive expansion of coinage under Alexander and his successors, in size and geographic spread, combined with transformation in form that allowed for the smoother flow of coinage across markets. But at the same time we appear, in one market place at least, to see a resultant disruption of economic activity caused by this sudden flood of

¹⁴ See for example Slotsky (1997), Grainger (1999), Vargyas (2001), Temin (2002), Van der Spek (2000) and n.d.

¹⁵ Note Slotsky (1997: 105) for the conclusion 'that the long-term trend in the prices of the six commodities over the course of the Achaemenid years in the study, and again during the Seleucid period at least up to the end of the reign of Antiochus III, is clearly downward'.

¹⁶ Van der Spek's figures and tables are based in part on re-readings of the tablets, and differ slightly from those used by Slotsky and Temin.

¹⁷ See Van der Spek (2000) for the observation that there were noticeable spikes in prices in 323 and 309 BC, both of which he connects to specific military conditions in the city (p. 301).

¹⁸ Temin (2002: 55–56 and 59).

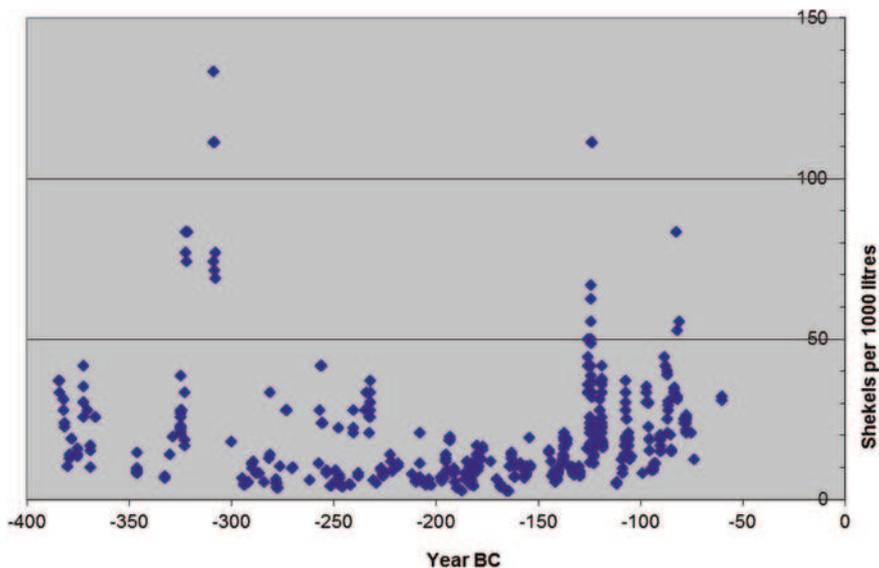


Fig. 4 Barley Prices at Babylon (from Van der Spek n.d.)

coined money into the market. “People living in Babylon during this transition must have had a very difficult time.”¹⁹ Given that there were multiple administrative centres to which the Macedonian rulers could have devolved the production of coinage, this flooding of the Babylonian market and resultant disruption of the market seems remarkably careless if the production of coinages was motivated by the needs of the ‘money supply’. This brings us back to our question of the intention behind the issuing authorities’ decision to innovate in this way. Was this a conscious attempt to introduce and maintain a new monetary system?

For the majority of ancient numismatists today, the answer to this question is probably ‘no’. For a classic statement of this view we can turn the British scholar Michael Crawford, who famously stated in 1970 (p. 46):

Coinage was probably invented in order that a large number of payments might be made in a convenient form and there is no reason to suppose that it was ever issued by Rome for any other purpose than to enable the state to make payments, that is for financial reasons.... And we have seen that in the cities of the Roman Empire, in striking contrast to the cities of the pre-Greek East, [coinage] acquired an important role as a means of exchange. But this monetary, economic function, like the other monetary functions of coinage, was an accidental consequence of coinage, not the reason for it.

Crawford was concerned, of course, principally with Rome, but his conclusions extend implicitly to the Hellenistic period. Here, one of the strongest voices in support of this view of the issue of coinage has been François de Callatay, whose

¹⁹ Temin (2002: 59).

work in the last three decades has moved to demonstrate the heavily military and generally expenditure-driven nature of coinage. As he puts it: ‘most coins (if not all) were produced to match military expenses but these military expenses were not mainly paid by coins.’²⁰ For brevity’s sake, and at the risk of oversimplification we might highlight here just two strands of his approach. First is the use of detailed study and quantification of coin issues to demonstrate strong correlations between periods of productivity on the parts of coin-issuing authorities and periods of high military activity.

A powerful example is provided by Callataÿ’s detailed examination of the coinage of Mithridates VI of Pontos.²¹ In Fig. 5 we can see how his analysis of the coinage, which is dated by regnal year, shows spikes in production in the early 80s and mid 70s BC. These spikes coincide with the First and Second Wars fought by Mithridates with Rome.

And second has been an assault on the concept of ‘frappes d’entretiens’ (‘replacement coinage’), the supposed practice of striking to replace coins that had been removed from circulation, to maintain a money-supply. This latter line has led him to a full-scale attack on the notion that the states of the Greek world had any concept of a money-supply as we would define it, or a need to create or sustain it.²² It may be the case, as others have suggested, that Greeks and Romans were capable of noticing the effects of dramatic increases of money on prices, but there is no surviving ancient Greek analysis of this phenomenon. Indeed the one text that does seem to deal with the question, Xenophon’s *Poroi*, is famously confused.²³ There is certainly no indication in any source that any state took it upon itself to monitor and adjust the money-supply to, for example, stabilise prices or stimulate trade.

On this line of explanation, the reasons for the innovation in appearance, weight and devolved production of Alexander’s coinage are linked to the military nature of the payments it was struck to make, and the mobile nature of its recipients. The coinage had to be consistent across the empire in order to be acceptable to mercenaries and other soldiers who would wish to move with their money upon demobilisation. This applied to weight standard, of course, since difference in weights gave rise to expensive problems of exchange. But it applied also to design, since design was both a marker of weight standard, and another potential barrier (in the form of unfamiliarity) to exchange. Multiple mints were necessary, and some of those in places hitherto devoid of coinage, since it was most practical to strike the coinage where the troops were. But the places chosen for mints were

²⁰ de Callataÿ (2011: 18). He is not, of course, alone. Compare Bresson (2005: 50) who, while noting exceptions, concludes that ‘the bulk of coinage was minted not for trade, but for war or other public expenses.... As far as output was concerned, most issues were not intended to facilitate exchange as such, but to provide cash for the immediate needs of the state’.

²¹ E.g. de Callataÿ (1997, at book length) for the case of the Mithridatic kingdom of Pontos; for an overview see id. (2000).

²² See especially de Callataÿ (2005: 125–129) à propos of the Ptolemaic realm and Le Rider and de Callataÿ (2006: 217–221) for the Seleucid kingdom.

²³ See the discussion in Bresson (2005: 51–56).

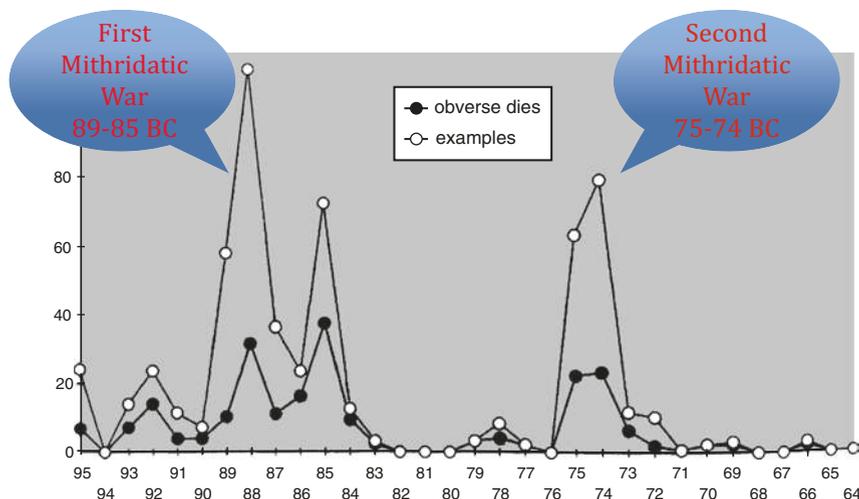


Fig. 5 Coinage of Mithridates VI of Pontos (size and survival). From de Callatay 2000

not, it would seem from the map, chosen to provide an even distribution of coinage across the kingdom geographically, with potentially woeful results, as we have seen in the case of Babylon. At the same time the denominations chosen, particularly the gold stater, which represented perhaps a month's pay to an average soldier, was poorly suited to the monetisation of the market place.²⁴

Systemic Change and Manipulation

While there was arguably no economic grand scheme underlying the innovation of Alexander, innovation nonetheless took place. The vast amounts of coinage placed into circulation by his conquests, as well as the new scale of the 'Greco-Macedonian' state after his death had a profound effect on the monetary models adopted by his successors.

One of the most important monetary results of Alexander's conquests was the suppression of civic and other local coinages. The city had been the principal locus for the production of coinage in the Classical Greek world. Within a few years of his arrival, the civic coinages of northern, western and southern Asia Minor were

²⁴ It might be noted also that the distribution of denominations was not uniform across the empire either. The striking of silver drachms (weighing c. 4.3 g), for example, was largely confined to a number of mints in western Asia Minor. See Le Rider (2007: 95–98).

produced no more.²⁵ The issues of the Phoenician cities, which had grown copious during the 4th century disappeared too.²⁶ Egypt, which seems to have seen a florescence of coin production in the 4th century BC in the form of imitations of Athenian coinage, also ceased production.²⁷ To give just a brief impression of this change, I have tabulated the pattern of production in one region, that of Caria in south-western Asia Minor from the beginning of coinage to the Roman period (Table 3).

It is a blunt tool, but makes the point that for a century or more after Alexander there was very little locally-produced coinage. And we might add that this impression is borne out not just by the pattern of production, but also by that of circulation attested by coin hoards.

On the one hand this suppression could be and has been interpreted as overbearing imperialism on the part of the ruling monarch. But there is nothing in any text or document to suggest that the Kings had any reason to resent local coinage, nor that they sought actively to suppress it.²⁸ The evidence of production of royal coinages and their circulation suggests rather that they filled the gap left by the disappearance of the local coins. Again we must face the question of whether this was a conscious economic policy, or merely the result of decisions taken for other reasons. In the case of Caria it is difficult to argue for a deliberate policy of suppression and replacement, since no royal mint opened there under Alexander. Moreover, in areas where royal mints did appear such as Ionia in western Asia Minor, their appearance is sporadic and surely produced nothing like the quantity of coinage that had been minted by the sum of the Ionian cities in the 4th century BC. If we were to argue for a motive of profit in such a suppression, it would be necessary to assume a strong intervention on the part of the royal administration in the market-places of the cities. But we have precisely no evidence from any city that this occurred.

The 'fiscal' explanation for coinage, that it was produced purely to make payments, would essentially require that the suppression of local coinage after Alexander was an accidental consequence of the production of his own coinage. There would be two reasons for this. First, the sheer quantity of Alexander's coinage supplied cities (through taxation or benefaction) with the monetary stock they needed.²⁹ Second, the *de facto* creation of common currency by Alexander on a single weight standard rendered it an obvious choice for users in economic terms. This was attractive both to the local 'reissuer' of the coinage, but also to those in the market-place.

Whatever the reason, the effect of this prioritisation of royal issues was to create currency zones. Initially, as we have seen, the empire of Alexander was one giant

²⁵ Not all civic coinages disappeared immediately (Mørkholm 1991: 92–93), and Le Rider (2007: 109) points to some notable exceptions, but the general pattern is one of swift disappearance. Note, for example, the almost complete disappearance of the Chian weight coinages that flourished in 4th-century Asia Minor: Meadows (2011).

²⁶ Elayi and Elayi (1993: 218 and 333); cf. Le Rider (2007: 157).

²⁷ See the summary in Le Rider (2007: 161–200).

²⁸ See on this point Meadows (2001).

²⁹ For models of the flow of monetary resource into and out of State 'reservoirs' see Davies (2005).

Table 3 Ancient cities of Caria in S.W. Asia minor that struck coinage, by period

City	5 th cent.	4 th cent.	3 rd cent.	2 nd cent.	1 st cent.	Imperial
Alabanda/Antioch						
Alinda						
Amyzon						
Antiocheia ad Maeandrum						
Aphrodisias						
Apollonia Salbace						
Attuda						
Bargasa						
Bargyia						
Callipolis						
Caryanda						
Caunus						
Ceramus						
Chersonesus						
Cidramus						
Cnidus						
Cranaus						
Cys						
Euippe						
Euromus						
Gordiuteichos						
Halicarnassus						
Harpasa						
Heracleia Salbace						
Hydisus						
Hyllarima						
Iasus						
Idyma						
Mylasa						
Myndus						
Neapolis ad Harpasum						
Neapolis Myndiorum						
Orthosia						
Plarasa						
Sebastopolis						
Stratonikeia						
Syangela						
Tabae						
Termera						
Trapezopolis						
Tymnessus						

common-currency area unified by his coinage. Under the early successors little changed. Remarkably, Antigonus and Cassander in Macedonia, Lysimachus in Thrace, Seleucus in Syria and the East and Ptolemy in Egypt all continued to produce coinage with the types and in the name of Alexander, as if he had never died and his

empire were still whole.³⁰ On the one hand, their inertia *viz à viz* the coinage matched their reluctance to acknowledge the passing of Alexander's empire in political terms: not one of them took the title 'King' until 17 years after Alexander's death. But as the kingdoms of the successors coalesced into rival states at the end of the 4th century, so their coinage began to change, as portraits and rival family badges emerged for the first time, and the unity of appearance of Hellenistic royal coinage was broken. One could argue for an active political spur to this innovation, of course, and this has been done,³¹ but it may also be the case that an economic brake on change had been removed. If the unity of Alexander's coinage had been caused by the need to make payments to a mobile work-force, then the creation of boundaries between parts of the empire by the emergence of the separate kingdoms arguably trapped the recipients of payments and allowed for the closing down of the currency. It is certainly the case that, while Alexanders from eastern mints had flown freely westwards into Greece, the coins of the Seleucid successors are far more rarely found there.³²

That such closure could and did happen is proven beyond any doubt by the course chosen by one of the successor kingdoms: Ptolemaic Egypt from the early 3rd century BC. The policy and its rationale, must be determined largely from the coinage itself, and has thus been the subject of some discussion among ancient economic historians.³³ But before we examine it, it is worth recalling one ancient voice, perhaps the only one we have, on the bipolar nature of Greek monetary systems.

The passage occurs in Plato's *Laws*, where a fictional Athenian is describing a law he would institute for the ideal state:

As regards the universal Hellenic coinage,—for the sake of expeditions and foreign visits, as well as of embassies or any other missions necessary for the State, if there be need to send someone abroad,—for such objects as these it is necessary that the State should always possess Hellenic money. [742b] If a private citizen ever finds himself obliged to go abroad, he may do so, after first getting leave from the magistrates; and should he come home with any surplus of foreign money, he shall deposit it with the State, and take for it an equivalent in local (epichoric) coinage. Plato, *Laws* Book 5. 742a–b.³⁴

For the Athenian there are two types of coinage. Hellenic coinage, which is broadly usable in the outside world; and epichoric (local coinage) which is specifically

³⁰ For a summary, see Mørkholm (1991: 58–62).

³¹ See e.g. Smith (1988: 13), 'the use of a royal portrait on coins, like their inscriptions in the king's name, soon came to have the primary meaning of assertion of the dynast's independent royal status'.

³² For surveys of the circulation of royal coinages in Greece and Macedonia in the Hellenistic period see e.g. Touratsoglou (1993, 1995, 1998).

³³ For a recent survey see Von Reden (2007).

³⁴ κοινὸν δὲ Ἑλληνικὸν νόμισμα ἕνεκά τε στρατειῶν καὶ ἀποδημιῶν εἰς τοὺς ἄλλους ἀνθρώπους, οἷον πρεσβειῶν ἢ καὶ [742b] τινος ἀναγκαίας ἄλλης τῆ πόλει κρυκείας, ἐκπέμπειν τινὰ ἂν δέη, τούτων χάριν ἀνάγκη ἐκάστοτε κεκτῆσθαι τῆ πόλει νόμισμα Ἑλληνικόν. ἰδιώτῃ δὲ ἂν ἄρα ποτὲ ἀνάγκη τις γίγνηται ἀποδημεῖν, παρέμενος μὲν τοὺς ἄρχοντας ἀποδημεῖται, νόμισμα δὲ ἂν ποθεν ἔχων ξενικὸν οἴκαδε ἀφίκεται περιγενόμενον, τῆ πόλει αὐτὸ καταβαλλέτω πρὸς λόγον ἀπολαμβάνων τὸ ἐπιχώριον/χώριον For further discussion see Meadows (2009).

designed for use within the issuing state only. Plato has in fact just defined what epichoric coinage is for: ‘purposes of such daily exchange as it is almost necessary for craftsmen to make use of, and all who need such things in paying wages to hirelings, whether slaves or immigrants’ (742a). Plato was writing probably in the 350s BC, and what he has in mind by Hellenic money at this time is the coinage of Athens, which enjoyed remarkable acceptance throughout the Greek world.³⁵ But it is equally clear that the coinage of Alexander could no less fill the function of Hellenic currency. We might in fact characterise the effect of Alexander’s conquest in the East as the displacement of the majority of epichoric or local currencies by a Hellenic currency. What happened next in the kingdoms of the east, however, involves a selective establishment or re-establishment of epichoric currencies.

The clearest and earliest example of this change occurred in Ptolemaic Egypt where a closed currency system was created by a reduction of the silver weight standard from the Attic standard of 17.2 g to a new one of c. 14.3 g. As the hoard evidence makes clear, the effect was immediate. Attic weight coins no longer entered Egypt, nor other parts of Ptolemaic Empire, which at its height extended into Israel, Palestine, Jordan, and much of southern and western coastal Turkey. In fact the Ptolemaic kings created a vast epichoric currency zone within their empire, shut off from the Hellenic coinages produced outside. By the same token, Ptolemaic weight coins are rarely found outside the kingdom, where the Attic standard persisted. The Ptolemaic motive in establishing this system is often assumed to be profit. On the assumption that exchange was enforced at a ratio of one Attic weight tetradrachm to one Ptolemaic, then the profit per coin was a healthy 17 %, way above exchange fees elsewhere.³⁶ But while we do know that there was a royal monopoly on exchange (at one point in time),³⁷ we do not know for certain that the rate was 1 tetradrachm : 1 tetradrachm. The other advantage to the Ptolemaic house in establishing an epichoric system was that it effectively trapped silver within Egypt, since there was a powerful disincentive to export the light-weight coins, particularly if they had been dearly bought. To the Ptolemaic kings, who had no indigenous source of silver, this probably mattered. The Ptolemaic kings had a natural advantage that made their action possible: the land was rich in grain and merchants flocked to the country to buy it.

The Seleucid kingdom, on the other hand, chose not to close its monetary system, but rather left it open to circulation of all Attic weight coins—at least this is what the hoard evidence suggests.³⁸ As a part of this policy of openness they maintained an Attic weight, Hellenic currency that facilitated the easy movement of money across their borders.

³⁵ See most recently van Alfen (2012).

³⁶ The classic exposition is that of Le Rider (1986); cf. de Callatay (2005) and Le Rider and de Callatay (2006: 143–144). For reinforcement of the notion that the system was actively closed at the same time as the reduction in weight standard see Lorber (2012).

³⁷ The evidence comes in a letter preserved on papyrus, dated 23 October 258, from an official charged with exchanging gold coins to his superior, the chief financial comptroller of the realm: *P. Cairo Zenon* 59021.

³⁸ See Le Rider and de Callatay (2006: 114–128).

It is tempting to ask whether either of these two kingdoms was more successful as a result of the open or closed nature of the system they adopted. We have virtually no economic statistics by which to compare the performance of the economies of the rival Ptolemaic and Seleucid states. And there is very little evidence to suggest that either kingdom saw itself as being the economic rival of the other, or that if they did, that monetary policy or innovation was a means to greater growth. Economic growth was more easily obtained by conquest. Money was the means to conquest.

Before leaving discussion of systems, there is one more case of the opposition of epichoric and Hellenic that is worth noting, and may provide some explanation for the choices being made by Greeks in the Hellenistic period. This is provided by the Achaean League, formed by almost 40 cities of the Peloponnese. Here the decision was taken in the late third century BC to create a common currency among the member states. A common design was chosen with a head of Zeus on the obverse and a monogram composed of the first two letters of the League's name on the reverse. During the second century different issuing states marked the coins with their own identifying marks. Among the member states, this was a Hellenic coinage—acceptable in all cities of the League. And to a degree, it was compatible with coinages produced elsewhere in central Greece. But to the rest of the world it was epichoric, for the weight-standard chosen for this coinage was used only in the Peloponnese. The cities of the League thus took a decision to unify themselves monetarily, but to cut themselves off from the outside world. We are fortunate to possess a commentary on the nature of the Achaean League from one of its most famous citizens, the historian Polybius. He explains its success thus:

For though many statesmen had tried in past times to induce the Peloponnesians to join in a league for the common interests of all, and had always failed, because every one was working to secure his own power rather than the freedom of the whole; yet in our day this policy has made such progress, and been carried out with such completeness, that not only have they created an allied and friendly community, but they use the same laws, weights, measures and coins, as well as the same magistrates, councillors, and juries, with the result that the whole Peloponnese fails to be one city only because its inhabitants are not enclosed by a single wall; in other respects, both as a whole and in their individual cities, there is a nearly absolute assimilation of institutions. Plb. 2.37.9–11.³⁹

What Polybius is saying here is that coinage is just one of the institutions whose harmonisation has led to the greatness of the League as a whole. Monetary policy is not

³⁹ πολλῶν γὰρ ἐπιβαλομένων ἐν τοῖς παρεληλυθόσι χρόνοις ἐπὶ ταῦτο συμφέρον ἀγαγεῖν Πελοποννησίους, οὐδενὸς δὲ καθικέσθαι δυνηθέντος διὰ τὸ μὴ τῆς κοινῆς ἐλευθερίας ἔνεκεν ἀλλὰ τῆς σφετέρας δυναστείας χάριν ἑκάστους ποιῆσθαι τὴν σπουδὴν, [10] τοιαύτην καὶ τηλικαύτην ἐν τοῖς καθ' ἡμᾶς καιροῖς ἔσχε προκοπὴν καὶ συντέλειαν τοῦτο τὸ μέρος ὥστε μὴ μόνον συμμαχικὴν καὶ φιλικὴν κοινωνίαν γεγενῆσθαι πραγμάτων περὶ αὐτούς, ἀλλὰ καὶ νόμοις χρῆσθαι τοῖς αὐτοῖς καὶ σταθμοῖς καὶ μέτροις καὶ νομίσμασι, πρὸς δὲ τούτοις ἄρχουσι, βουλευταῖς, [11] δικασταῖς, τοῖς αὐτοῖς, καθόλου δὲ τούτῳ μόνῳ διαλλάττειν τοῦ μὴ μιᾶς πόλεως διάθεσιν ἔχειν σχεδὸν τὴν σύμπασαν Πελοπόννησον, τῷ μὴ τὸν αὐτὸν περίβολον ὑπάρχειν τοῖς κατοικοῦσιν αὐτήν, τᾶλλα δ' εἶναι καὶ κοινῇ καὶ κατὰ πόλεις ἑκάστοις ταῦτα καὶ παραπλήσια.

seen here as a matter of competition. It belongs with laws, weights and measures as a standard to be agreed upon, and thereafter to organise and regulate behaviour.⁴⁰

Diversification of Use

We have virtually no literary or documentary evidence from the Hellenistic period for how coins were used once in circulation and by whom. But in one important respect we can see that usage must fundamentally have changed at this time, as coinage stretched lower down the economic scale. This major change was caused by the widespread uptake of bronze coinage. During the Classical period the most common denominations minted by the majority of Greek cities had been silver and relatively large. The four drachma coin, weighing somewhere between 14 and 17 g, perhaps a week's pay for an average worker was standard in many states. Some states regularly produced smaller denominations: the Persian Empire, for example, had a siglos of c. 5.6 g. Certainly some states, particularly those with a sophisticated range of payments to make, such as the democracy at Athens, did produce fractions of the drachm. The smallest produced in quantity tended to be the obol, one sixth of a drachm, or perhaps a half to a third of a day's pay. This was still a relatively valuable coin, and ill-suited to the day-to-day purchases of the average individual. During the course of the 4th century, however, the minting of such fractional silver ceased in much of the Greek world, and was replaced at lower values by coins of bronze. The bronze denominational system was based on fractions of the obol, not a drachm, and was thus an order of magnitude less valuable than the silver coinage. The smallest bronze denomination regularly in production was the Chalkous, worth either 1/8th or 1/12th of an obol, depending on the denominational system. Thus the lowest value coin in circulation in states that produced bronze was worth not 1/6th of a drachm, but 1/48th or 1/72nd.

Some states took to this new innovation more readily than others (Athens was famously late in adopting), and some did not take to it at all. The change that comes in the Hellenistic period concerns the spread of this phenomenon to near ubiquity. Again, it is difficult to demonstrate this across broad geographic and chronological spaces within the space of this paper. Moreover, we are still woefully ill provided with detailed studies of Hellenistic bronze coinages from which to extrapolate the picture. *Grosso modo*, we may return to consider Table 3, listing the active mints in the region of Caria, and note that of the 12 mints that struck in the archaic and classical period, 100 % did so in silver; but that of the 25 mints that struck in the Hellenistic period, 16 (64 %) did so only in bronze.

⁴⁰ On these points see now Grandjean (2012), who stresses the collocation in Polybius' description of the cognate terms laws (*nomois*) and coinage (*nomisma*). The Attalid kings of Pergamum appear to offer a comparable case in the second century BC: see Meadows (2013) for a survey and analysis.

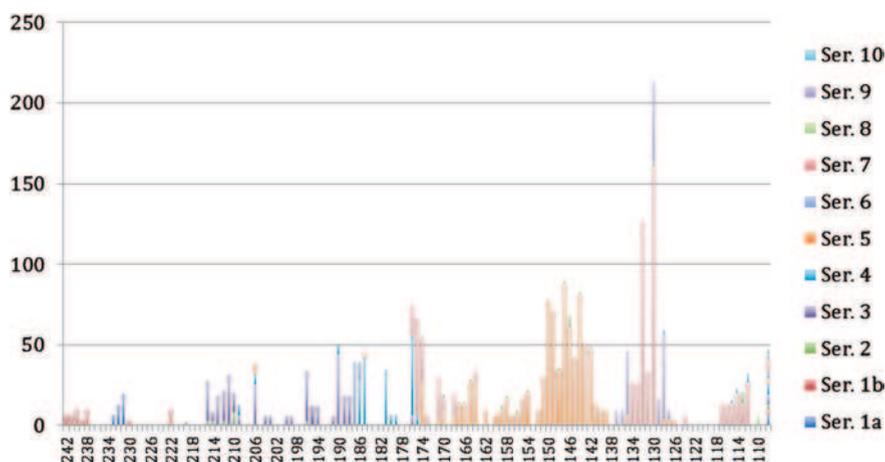


Fig. 6 Annual bronze production at Aradus, c. 242–130 BC

On a smaller scale, we do have one example that is provided with an exemplary die-study, and which has the advantage that the coins are dated, thereby allowing us to trace their rhythms of production with some accuracy (a rarity for much of this coinage). Duyrat's (2005) study of the coinage of the commercially active island of Aradus in Phoenicia allows us to pull together an overview of the bronze coinage issued by the city during the period c. 240–110 BC. In Fig. 6 are plotted the ten series of bronze coinage struck during this period. To give an idea of the relative quantities of coin produced, the number of dies recorded for each year is multiplied by the median weight of the denomination for which they were used.

It is immediately clear that production of small change was not uniform across the entire period. Some years saw no production at all. Others saw continuous production at elevated levels. There is little obvious sign here of a state exercising constant stewardship of a money supply. Rather, there seem to be clear periods when production of low value coinage was stimulated.

How have ancient numismatists and economic historians sought to explain this radical shift in monetary instruments and, presumably, economic activity? Well the truth is there has been very little discussion of this phenomenon.⁴¹ Part of the problem is that many of the coinages concerned have not been properly studied and dated, which makes the precise chronological contours of this change difficult to trace. Another problem is that virtually no documentary or literary sources attest to the monetary lives of these cities. A notable exception that has formed the focus of discussion on the topic is an inscription from the Greek city of Sestos in Thrace which has received considerable attention for what it is taken to say about the civic motivation to strike coin, but little if any for the place it occupies within the

⁴¹ Note the remarks of Marcellesi (2010).

explosion of bronze coinage.⁴² It is an honorific decree of the late second century BC for a Sestian citizen by the name of Menas. Among his many benefactions to the city is listed the following:

When the people decided to use its own bronze coinage, both so that the city's coin type should be used as the current type, and so that the people should receive the profit from such a revenue, and chose men who would safeguard this trust piously and justly, Menas was appointed and, together with his colleague, showed the appropriate care. As a result, through the justice and pride of these men, the people uses its own coinage. (*GIBM* 1000; *IGSK Sestos* 1*, ll. 43–49).⁴³

Sestos had just seen the end of a period of royal control and was a newly free city, and there is thus a preoccupation on the part of the people with introducing their own design in place, presumably, of the royal coinage that had been circulating there for two centuries. There is a concern also with profit: coinage is something from which the city will somehow benefit in fiscal terms. Characteristically, however, the document fails to explain to us the mechanism by which this profit is achieved. There has been modern speculation, which runs basically along two alternative lines. Either the profits came from the inherent overvaluation of the bronze in bronze coinage, or it came from the control of the monetary sphere of the marketplace. The former explanation has perhaps receded in probability more recently, as scholars dealing with various periods have stressed the disproportionate production expense involved in minting low value denominations.⁴⁴ It is certainly possible to assume that the city introduced legal controls over the circulation of coinage in its marketplace simultaneously with the production of its new coinage, as well as a state monopoly on exchange. But this explanation is not required by the text. We might equally interpret it as meaning that the new coinage made it possible for the state to receive revenues in monetary form. The apparently tautologous phrasing 'profits from such a revenue' (τὸ λυσιτελές... ἐκ τῆς τοιαύτης προσόδου) might nudge us in that direction, but not decisively.

While we cannot be certain how this financial benefit accrued, we can see that it was a motive, but we should note that it was one of two motives, both of which are given equal weight, three times. The city decided that it (a) wanted to use coins with its own design; and (b) derive the profit therefrom. Menas fulfilled his duties (a) piously and (b) justly; success came through (b) justice and (a) pride ('φιλοτιμία'). This should alert us to the fact that motivation behind monetary innovation in the Greek world need not have been solely economic or 'rational'

⁴² The classic treatment remain that of Robert (1973). More recently, see Martin (1985: 238–241) with Meadows (2001: 59).

⁴³ τοῦ τε δήμου προελομένου νομίσματος χαλκίνῳ χρῆσθαι ἰδίῳ χάριν τοῦ νομειτεύεσθαι μὲν τὸν τῆς πόλιος χαρακτήρα, τὸ δὲ λυσιτελές τὸ περιγεινόμενον ἐκ τῆς τοιαύτης προσόδου ἰλαμβάνειν τὸν δῆμον, καὶ προχειρισάμενον τοὺς τὴν πίστιν εὐσεβῶς τε καὶ ἰδίκαιως τηρήσοντας, νν Μηνᾶς αἰρεθεὶς μετὰ τοῦ συναποδειχθέντος τὴν καλήκουσαν εἰσηγέγκατο ἐπιμέλειαν, ἐξ ὧν ὁ δῆμος διὰ τὴν τῶν ἀνδρῶν δικαιοσύνην τε καὶ φιλοτιμίαν χρῆται τῷ ἰδίῳ νομίσματι.

⁴⁴ See, for example, Sargent and Velde (2002).

Fig. 7 Bronze coin of Sestos, perhaps of the type issued by Menas. 2008.1.4. © The American Numismatic Society



in nature. The coins are small, unprepossessing and bronze; but iconographically they do not disappoint (Fig. 7). The evidence of Sestos could be taken to suggest that the city was as much a religious entity as an economic one.

But even if we opt for a mixed social and economic explanation for the Sestians' claims for their coinage's role—and here we must bear in mind that it is made in an honorific discourse—we are still left to explain the mechanics of the issue of the coinage. Was it simply to hand to civic money-changers, or was it paid into circulation? Again, certainty is impossible, although, as we have seen, the case of Aradus argues against regular supply there, and the sporadic and small nature of Sestian coinage rules out a long-term policy there too.⁴⁵ Alternatively, if we accept the line that all coin at all times was minted to make payments, then we must surely look for something other than war or military expenditure as the explanation. The innovation of this coinage was, as we have seen, its reduced value. Its material, bronze, ensured that it could not serve as Hellenic money: bronze coinage rarely travelled far beyond its state of issue.⁴⁶ Thus the driving forces behind this innovation are likely to have been internal to the issuing state. Paradoxically, however, the motive may have been competitive, but not in the economic sphere. The second and first centuries BC and AD, precisely the period of florescence for these local, epichoric coinages, were also a period of growing rivalry between states for recognition by a new growing superpower: Rome. It has also recently been suggested that the uptake of bronze by the cities of the Greek East in the second and first centuries BC may owe something to practice at Rome, where bronze had been part of the coinage system from the beginning.⁴⁷

Some Conclusions

The Hellenistic period was one of innovation in the deployment of coinage as a monetary instrument. Coinage, which had tended to be a local phenomenon in earlier periods, became adapted for use in the larger political and economic systems

⁴⁵ For the coinage of Sestos and its relationship to the decree see von Fritze (1907).

⁴⁶ Bronze coinage has often been regarded as being largely confined to its city of production; however excavation material is beginning to reveal patterns of circulation, at least at a regional level. See Çizmeli Ögün and Marcellési (2011).

⁴⁷ See on this Bransbourg (2011).

that characterised the age after Alexander's conquests. It also developed in scope, as smaller denominations emerged that were suited to smaller-scale transactions than had been the large silver denominations of the classical period.

However, the tendency of numismatic scholars, on the basis of the evidence of the coinages themselves, their perceived organisational structures, and the few documents that survive, is to regard these innovations as secondary results, contingent upon larger political movements. The beginning and the end of the Hellenistic period are defined by conquests. The former by that of the Achaemenid empire by Alexander the Great, the latter by that of the Greek and Near Eastern world by Rome. The rapid expansion of imperial structure occasioned by Alexander's conquest required that coinage be adapted swiftly to function within this new space. This led to the creation of a coinage that could serve across the empire from the Indus in the East to Macedonia and Greece in the West. But the decision to create this was rooted in the need to make payments across a vast space, and was not governed by economic concerns such as the facilitation of trade. Thus, when Alexander's empire began to disintegrate, coinage and coinage systems did too. There was no economic imperative to hold to the concept of a universal, 'Hellenic' coinage.

Small-scale coinage, on the other hand, developed in part, perhaps, as a reaction to the royal silver coinages that flooded the circulation pool from the late 4th century BC onwards. The driving forces behind their production may have been inter-civic competition, and coinage may have served within this contest at two levels: first to pay for the building programs and festivals that were the manifestation of civic pride, and second as the bearers of meaning in their own right, as suggested by the Menas decree from Sestos. The effect may have been to stimulate the functioning of a moneyed economy at a lower level than previously, and this will have had an impact upon the lives of the citizens of cities such as Aradus, yet it is difficult to argue that this innovation was deliberate. Bronze coinage in the Hellenistic age appears to be just as sporadic as the silver coinage of earlier periods: a by-product of the different stimuli to coin on each occasion that a city took the decision to coin.

Innovation came in the coinage of the Hellenistic world, but more by the law of unintended consequences than through a conscious drive towards economic development.

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