

Federico Carbone

Overstriking at Gortyna: insights and new perspectives

ABSTRACT

As with many Cretan cities, a feature of the coin production of Gortyna is the continuous re-use of specimens from other mints; in fact, one hypothesis considers that the beginning of local coinage might be connected to the end of the circulation of foreign coins, and particularly those from Aegina.

In light of new data, the case of Gortyna must be reconsidered, distinguishing among the different periods of autonomous activity of the mint: by the analysis of a sample of coins, it is possible to identify the percentage of overstruck coins and the provenance of the flans. It becomes possible to understand the trends attested in coin production in the Hellenistic period, which have been linked with the homecoming of groups of mercenaries after they had been paid with coins struck by Cyrenaican mints or as part of the booty. In this case, it becomes clear that, although the quantity of overstruck coins was quite significant in the Hellenistic period, a large amount of coins can be traced to Cretan towns. This, however, does not happen in the nearby city of Phaistos and might mean a choice of the monetary policy of Gortyna.

Based on this data, we suggest a new hypothesis which may open further perspectives of study on the understanding of overstriking, through the reading of which the most meaningful features of Cretan economy can be integrated.

KEYWORDS: Gortyn, overstrikes, mercenaries, Cretan economy, coin production, Cyrenaica, Phaistos

The coins of the Cretan mints are distinguished by the quantity of specimens issued by re-using already minted flans. This evidence is largely witnessed in the coinage of Gortyna, which covers a wide chronological range, enabling us to make useful distinctions in order to understand the impact and the meaning of such a process.

It is well known that, after spreading widely through the eastern Mediterranean, the coins from Aegina circulating outside the island underwent a considerable decrease around the year 479 BC.¹ Besides the Aegean islands, Boeotia, the Peloponnese, Sicily, Caria and Cyprus, many specimens had also reached Crete, and their progressive decrease in circulation stimulated the local cities to start autonomous coinages; it is widely acknowledged that they began producing

* This paper is a preliminary result of a more articulate research, presented as a poster entitled "Overstriking at Gortyn: insights and interpretations". A complete overview of overstriking and its importance in monetary policies of Crete: Garraffo 1974, 59-74; Stefanakis 1999, 247-268; Stefanaki 2001, 47-80.

¹ Sutherland 1942, 11; on the circulation of Aeginetic coins see Kraay 1976, 41; Figuera 1981, 104; see Beer 1980 on the hoard analysis. The considerable decrease is attested by the number of dies used from this phase.



Fig. 1. Stater of Gortyna on Aeginetic coin; National Archaeological Museum of Naples, Cat. Fiorelli 7639.

coins by re-using Aeginetic didrachmas as flans.² This phenomenon has also been considered to support the theory concerning the scarcity of silver in the island – obtained by the city only through weak lines of foreign trade – which apparently conditioned the first moments of coin production. The mints only issued scarce and sporadic groups of coins, probably linked to commercial purposes, which required the use of minted metal.

The phenomenon of overstriking Aeginetic coins – which must have already been well known and used within a common market³ – also forms the basis of the choice of the local weight standard, which due to the light decrease compared to the original one was considered a “reduced Aeginetic standard”⁴ (Fig. 1). This was not an isolated phenomenon and can be compared to the Cyprus context, where the beginning of local coinage is linked to the same practice.⁵

The beginning of local productions does not involve the disappearance of coins from Aegina, although their evidence in hoards is limited.⁶ However, we must mention the coinage issued by Kydonia, which at the beginning of its activity coined some series imitating the types used by Aegina; this phenomenon lasts at least until the years 330-320 BC,⁷ a period when significant changes appear in the symbols adopted from other cities, which seem to match the spreading Alexandrine taste.

² Stefanakis 1999, 257.

³ An example is hoard IGCH 1, containing 70 Aeginetic staters and 1 stater from Thera, discovered in Matala – the harbor of Phaistos – and dated between 550 BC and 525 BC. See Le Rider 1966, 168; Stefanakis 1999, 249-257 analyzes all this evidence.

⁴ Stefanakis 1999, 260-264, the local weight reduction was the result of a common coinage policy choice.

⁵ Destrooper-Georgiades 1996, 106.

⁶ IGCH 86, 109, 253. The first (IGCH 86) contains a triobol; the second (IGCH 109) a stater; IGCH 253 an obol. Among other discoveries, a silver obol and a bronze one are attested (Markoulaki, Niniou Kindeli 1990, 116); other evidence is 3 staters – dated to the middle of 4th century BC from a hoard discovered in 1991 in the south of the island – and 1 stater from a hoard located in Keratokambos (Touratsoglou 1995, 47). Another 4 staters were discovered during the excavation led by Evans in the central part of the palace of Knossos (Evans 1928, 5-7), probably part of a hoard.

⁷ Le Rider 1966, 194.



Fig. 2. Stater of Gortyna on Cyrenaican coin; British Museum, n. BM1858,1124.35.

According to scholars, the lack of metal to be converted into new coins apparently lasted for a long period; the impact of the arrival on the island of large quantities of coins earned by mercenaries during their service in military events under the leadership of Alexander and his generals is still debated. This phenomenon has been linked to the evolution of the island in the Alexandrine period and – as far as the production of coins is concerned – to the general increase in coinage and the opening of new mints. This can be associated with the possible existence of such groups that had dealt with simplified transaction techniques, thanks to the forced use of coins circulating outside the island and even thanks to the use of a more fractional currency.

It is not yet clear if the increase in the rhythm of coinage occurs in all the local mints. It must be pointed out that a number of events directly related to the economy of the island took place in this period, including the increase of commercial sea trade,⁸ the initiatives of Mausolus of Caria during the Social War, the activities of Phalaikos and his mercenaries in 346 BC,⁹ and those of Agis III of Sparta in 333 BC.¹⁰

Scholars have defined what happened after 330 BC as an explosion in the activity of the Cretan mints.¹¹ Although they still issued coins based on the reduced Aeginetic standard, their number increased at an exceptional rate, in fact in the period between 330 BC and 280 BC many cities with active mints are proved to have existed.¹²

According to studies dating back to the end of the past century, the hoards attest that after the year 330 BC a considerable amount of coins from Cyrenaica reached Crete. They probably soon became the predominant circulating currency, to the point of being used as flans by local mints (Fig. 2). Such contacts are also attested by sources: a good example is the case of Thibron

⁸ Thompson 1973, 352; also Petropoulou analyzes trade as an index of wealth for Cretan cities (Petropoulou 1985, 61-68).

⁹ General Phalaikos, after his arrival in Knossos, was elected the commander of the Phocian mercenaries recruited during the war. He was killed in 342 BC during the siege of Kydonia after the defeat in Lyttos (343 BC) at the hands of Spartan soldiers led by Archidamus III.

¹⁰ Le Rider 1966, 190.

¹¹ Mørholm 1991, 88.

¹² Stefanakis 1999, 260.

the tyrant, who recruited Cretan troops for an unfortunate expedition intended to conquer Cyrenaica.¹³

Following this frantic phase, for the period after 270 BC scholars have identified a decrease in the production of silver coins, probably due to a temporary loss in the flow of coins from overseas. This caused the closing of several mints and the re-organization of the remaining ones.

To sum up, between the end of the 3rd and the beginning of the 2nd century BC some series that used a weight standard similar to the one used in Rhodes were issued in Crete. On the contrary, between the 2nd and the 1st century BC Athenian coins with a new style became predominant and – after a few decades – local mints began to produce tetradrachms based on a “reduced Attic system”, both using their own types and issuing the so-called *stephanophoro* coins.¹⁴ After the Roman conquest under Quintus Caecilius Metellus in 67 BC, the local production of coins followed the same organization as the other Roman provinces, at least until the age of Antoninus Pius.

If we analyze the rhythm of minting in Crete, it becomes clear that this production is mostly linked to the prevailing events in the area. Consequently, while waiting for further studies to enquire into the trend of single mints, it becomes meaningful to observe in detail the impact of some phenomena peculiar to the local coinages.

The identification of re-use of coins can shed light both on the origin – and thus the possible dating to be used as chronological term – of foreign coins used as flans, and on the monetary policy followed by the city. Le Rider has already investigated this topic in detail: his study – which considers the whole island – has allowed us to identify the extent of this practice, supplying the fundamental basis for the development of a relative chronology.¹⁵

Considering the data available today, a good case study for going deeper into the matter might be the analysis of Gortynian coins: this city, which played a central role in the south-western part of the island for a long time, issued a large amount of issues, many of which using already minted flans.¹⁶

This analysis starts with the sample of coins from Gortyna in public and private collections, and is based on a group of 2,265 coins, 405 of which show traces of pre-existing types. The ratio is equal to about 18% of the total, but with meaningful concentration points.¹⁷

¹³ Historians deal with his achievements and place in evidence above all the theft of a part of the Babylonian treasure after the killing of Harpalus, the fugitive treasurer of Alexander the Great. Thibron set sail in October 324 BC from Crete to Cyrenaica, his expedition was utterly defeated and in 322 BC he was killed in Crete; the chronicle of his feats is perpetuated by D.S., XVII, 108, 8; XVIII 19-21. A study on social context in Griffith 1935, 43; Parke 1933, 202; van Effenterre 1948, 294. See also Le Rider 1966, 143-146.

¹⁴ Stefanaki & Stefanakis 2013, 161-163.

¹⁵ Le Rider 1966, 50-132.

¹⁶ Le Rider 1966, 54-84.

¹⁷ The study of the sample was part of a Ph.D. thesis concerning the coinages of Gortyna and Phaistos, defended at the University of Salerno. Further studies are now underway at the Italian School of Archaeology at Athens, and a complete analysis with the detailed description of the material is forthcoming.

	470-425 BC						425-350 BC					350-270 BC					260-250 BC	250-200 BC			200-75 BC			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
Aegina					1	1	1		1		2													
Aeginetic	6	1			1	7			3	2	2	12		1										
Argos											1													
Barca												1												
Boeotia												1												
Caria												1												
Cyrenaica												36		2	1									
Cyrene												11		1										
Elis												3												
Gortyna							1					9								7				
Iasos												1												
Itanos										3		9				1								
Knossos										2		34	1											
Kydonia										1														
Lycus								1	2	2	1	20												
Phaistos												5												
Phaistos or Gortyna									2															
Sifnos	1																							
Sikyon												2												
Thebes												4		1		1								
Zakynthos											1													
UNCERTAIN	1				2			1	6	6	4	100		17	14	10	2				6		2	

Fig. 3. Summary table of groups divided by issues in chronological phases, with a number of overstruck specimens listed by mint of origin.

Assigning a date to these specimens is rather complex, because of the very lack of reliable time links, but considering the peculiar features of Gortynian coins it becomes possible to identify some useful details for a more accurate chronological definition. If we follow the suggestions of Svoronos and Le Rider and match these data with the evolution in style, the identification of types (and undertypes), and changes in the weight system, we can understand how the phenomenon of overstriking covers a very wide period, from the beginning of autonomous coinage up to the end.

Although the date of the beginning of striking in Gortyn, and generally for Cretan mints, is still debated,¹⁸ the use of already minted flans partly referable to the mints of Aegina and Sifnos dates to the coinage of the first series. If we are to choose – on the basis of epigraphic data and in comparison with realities beyond the borders of the island – a dating slightly higher than that suggested by Le Rider, the peculiarities of the coins allow us to identify a first group of coins dating roughly to the phase between 470 and 425 BC. Within this chronological phase, four of the six groups of coins minted (A to F) include overstruck coins (Fig. 3).

¹⁸ This topic has been considerably debated; according to Le Rider, the early coins from Gortyna are dated 450-425 BC, thanks to relations between Athens and Aegina, and a chronological term could be later than 431 BC (Le Rider 1966, 166-167). This theory has been integrated by Kraay (Kraay 1976, 50) and Thompson, considering a chronological term around 450 BC more reliable (Thompson 1973, 350). Considering the stylistic comparison with coins from Samos, Price proposed to date the production around 470 BC and also considered the Cretan case quite similar to the Aeginetic one because it was influenced by the capability of obtaining metal to mint (Price 1981, 464). This analysis was supplemented by Chaniotis and by Stefanakis, the latter considering the evidence from Kydonian coins imitating Aeginetic types (Chaniotis 1987, 217; Stefanakis 1999, 257-260). Polosa makes a notable proposal, considering as the large numbers of attestations provide a complete overview, that this shows that the island does not seem reluctant to use coins (Polosa 2003, 199-206); in my opinion, from the comparison of these hypotheses, a chronological term around (or shortly after) 470 BC should be preferred.



Fig. 4. Stater of Gortyna on coin from Lyttos; auction Obolos 4-295.

This phenomenon is certified throughout the 5th and the first half of the 4th century BC, when flans from other Cretan mints – which by that time had started to issue autonomous coins – were used. All five groups identified (G to K), include overstruck coins: at that time flans produced on the island exist side-by-side with Aeginetic coins. For the first time the re-use of flans from the mint of Gortyn, besides those from Itanos, Knossos, Kydonia and Lyctus as foreign coins, is also attested for single specimens from Argos and Zakynthos. The faint traces on other flans of doubtful attribution only allow us to link them to Gortyna itself or to nearby Phaistos, since both had coined some series with similar types; other specimens can hardly be attributed due to their poor grade.

In both periods, although the types of the overstruck coins circulating on the island are interesting, the overstriking rate does not appear to be high.

Some differences appear in the following phase: the period between 350 and 270 BC shows a dizzy increase in production, also confirmed by hoards, by the exponential increase of the variety of types and variants, and consequently by the number of dies used for striking.¹⁹

At least five groups can be included in this period (L to P), and the first shows noteworthy features: the number of overstruck specimens is over 50% and several are produced thanks to the re-use of coins from the mints of Cyrenaica or from Crete itself.

Eleven specimens can be ascribed to the mint of Cyrene, although a remarkable group of 36 coins can be attributed to other Cyrenaican mints, since a better attribution is not possible. Among the coins struck by Cretan cities, 34 specimens are definitely from Knossos, together with 20 from Lyttos and nine each from the mints of Itanos and Gortyna itself (Figs. 4-5), and a few more specimens from Boeotia, Caria, Elis, Phaistos, Sicyon and Thebes. However, if 149 specimens can be identified, 100 more still await a more accurate identification.

¹⁹ This refers to hoards IGCH 151; IGCH 152; IGCH 153 and IGCH 154. Other evidence comes from IGCH 338, IGCH 350 and IGCH 300, containing only bronze coins. A few specimens come from archaeological excavations, see Garraffo 2011, Gortina I, Gortina II, Gortina III, Gortina IV, Gortina V. Some other coins were recovered in the “Hellenistic area of Chalará” in Phaistos.



Fig. 5. Stater of Gortyna on coin from Knossos; Ira & Larry Goldberg Auctioneers Auction 87-2044.

It must be underlined that the high number of known specimens might distort the datum for this group: only a few other groups include such a high percentage of overstruck coins and are anyhow identifiable in a limited sample.

Group N includes a good quantity of overstruck (but not identifiable) specimens, while those whose attribution is certain can be referred once again to mints with Cyrenaican and Aeginetic types. The same phenomenon can be observed in groups O and P: in both cases, many coins are not identifiable for sure, but in the former group at least one specimen comes from Cyrenaica while the latter two have a Cretan origin. After the production of this cluster, the phenomenon can be analyzed from time to time in other groups and seems to end within 270 BC, probably due to a sudden change in the weight systems.

A single group (labeled Q) which, due to its characteristics in types and time, can be attributed to the years 260-250 BC,²⁰ represents the first instance of gold, silver and bronze coins. Among the silver didrachmas, just two are overstruck but the attribution of undertypes is not certain.

In the following phase, group T – coined between 250 and 200 BC – is the only exception: all these coins seem to have been produced by overstriking once on the preceding group S. In this case, their re-use again provides a record of the relative chronology, besides information on the changing of the system of types and weights, since overstruck coins vouch for the transition from a Phoenician weight standard to a Rhodian one. We can therefore deduce that these coins deliberately obliterated those previously circulating; it is also worth noting how the scarce consumption of the undertypes allows us to acknowledge their chronological closeness.

From this moment on, overstrikes are sporadic: in the groups produced between 200 and 75 BC (U to X), the first includes six specimens with traces of re-striking, while two more belong to those of group W. One of these is the only known Gortynian case of local overstriking of bronze coins.²¹

²⁰ During this phase a group of coins based on a Phoenician standard is attested. It is composed of gold, silver and bronze coins with similar weights to ones produced in Cyrene when the city was controlled by Magas (see Le Rider 1966, 152; Buttrey 1987, 55).

²¹ Specimen from the Numismatic Museum of Athens (inv. n. NMA 673-360).

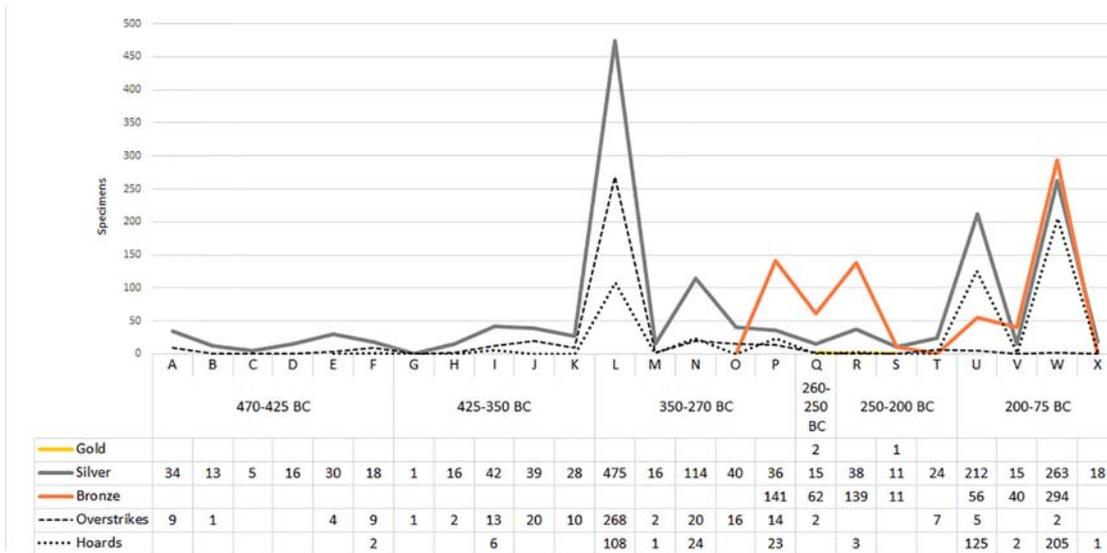


Fig. 6. Summary diagram concerning the coin production of Gortyna, with evidence of overstriking and hoarding.

Based on the data described so far, it is possible to state how the use of already circulating coins is witnessed for the whole period of activity of the mint, but we can once more stress the fact that – in a phase ascribable to the second half of the 4th century BC – this phenomenon became particularly intense. However, we must analyze in more detail both where such coins originally came from and whether there are differences among the values used for overstriking, besides possible data on their circulation.

In the past, this evidence had been linked to the arrival in Crete of a considerable quantity of coins from Cyrenaica, but further details must be specified on this matter too. Preceding studies stress the importance of the overstriking of Aeginetic or Cyrenaican coins, which is useful for a restricted chronological definition. However, if we examine the material we see that the main bulk of overstruck coins belongs to Crete poleis. It consists of 69 coins from different mints followed by the 49 from Cyrenaica. This datum should not surprise us: on the contrary, it sheds light on the normal economic relations – certainly also carried out through money – which must have existed among the cities in the island.

Consequently, acknowledging the flow of coins from Cyrenaica to be set only in the third quarter of the 3rd century BC: if, on the one hand, it does not exclude the origin of such Cretan coins following the return home of mercenary troops with coins which had to be converted to the local system, on the other hand it might only have been one of the known points of contact between the two realities.²²

If on the contrary, we analyze the two points diachronically, it becomes clear how the first overstrike must have been the result of a weight affinity with the coins circulating on the island; they are always coins of an Aeginetic weight, corresponding to the standard locally in use. The

²² D.S., XVII, 108, 8; XVIII 19-21. Si veda Le Rider 1966, 143-146; van Effenterre 1948, 294.

correspondence of weights in overstruck flans lasts until the year 350 BC, when large quantities of foreign coins began to reach the Cretan cities: from this moment on, all that is available in circulation begins to be reused, that is coins with Aeginetic, Cretan, Boeotian, Cyrenaic types, etc. The diversity of these values, and the probable need to keep minting expenses low, lies at the basis of a single technical procedure: as proposed by Le Rider²³ and recently taken up by Stefanakis,²⁴ the flans are often cut, which shows how they must have been processed to improve their weight or to recover metal.

We must not underestimate the rapid increase in striking rhythm, and this datum can be seen in production trends. The presence of a large number of dies and their marked consumption – to such an extent that in some cases they undergo retouch – attest to intense production, which is of course an isolated event that cannot be verified in different moments in the city.

This analysis must also consider hoarding practices. The high number of overstruck coins may be related to a high productive intensity rather than to their hoarding: as a matter of fact, their frequency is higher than the quantity of available specimens, and they are all concentrated within a period between 350 and 270 BC. Yet meaningful exceptions exist, as in the case of group T, the series of which are known in 10 specimens.²⁵ Eight among them are produced by using coins from Gortyna itself, due to the scarce consumption of the undertypes and to the radical change of the style with which the dies are engraved. This can lead us to consider a sudden shift in coining customs and therefore place the two series within a short period of time. If this expedient is widely used for silver, especially staters, only one bronze specimen has been produced by this technique: it consists of a coin of a medium-high value probably struck on an existing coin of Gortyn²⁶ itself.

As far as the groups in precious metal are concerned, some aspects can be examined: it should be pointed out that the silver production of Gortyna is characterized by a high number of staters, while fractioned coins are only occasionally produced.

The overstruck coins of the first phase are produced on flan with Aeginetic types, and fractioned values – drachmas, triobols and obols – are only present in group E, showing the same undertypes. A very interesting instance in the following period is a stater belonging to group G, which was overstruck twice, once on Aegina and again on Gortyn.²⁷ It attests the period from the issue of the first series until the last one. In this phase, staters are still struck over Aegina coins, but several drachmas use flans from neighboring cities, evidence that these cities had started their own production, issuing a medium value which circulated as far as Gortyn. In addition, triobols are issued, some of which overstriking coins with Aeginetic or Pseudo-Aeginetic types, thus clearly linking them to the Kydonian production.

²³ Le Rider 1966, 150.

²⁴ Stefanakis 2016, 72.

²⁵ Svoronos 1890, Gortyna 132-134.

²⁶ A few bronze coins from Gortyna are overstruck in Phaistos, too (Carbone 2017b).

²⁷ British Museum, n. 1947,0606.3281.

In the following period, when overstriking reaches its peak, the main production consists almost exclusively of staters, many using coins from Cyrenaica and Cretan cities; the only exception is group O – consisting of drachmas, triobols and obols – with just the higher nominal value often overstruck. The last silver overstruck coins, those belonging to groups T, U and W, are drachmas issued overstriking specimens which can hardly be identified.

If we consider both the types of overstruck nominal and their chronology, we can perceive similarities with hoarding, too. A consistent group is certified among the coins belonging to IGCH 152, the closing date of which has been suggested around the years 280-270 BC. It included several coins which can be referred to group L, and a few specimens from groups N and P. Hoard IGCH 153 itself, which is probably part of the former one, and anyhow shares the same chronological peculiarities, included a number of specimens from group L. Also, IGCH 154 provides the same chronological term attesting a different record: the only Gortynian coins within its nucleus can be referred to group I and, even if we consider its entire bulk, might belong to the previous century.

This analysis is limited by the identification of the overstruck specimens and the hoards' dissolution: we know that IGCH 152 and IGCH 153 – which were probably part of a unique group – must have consisted of between 700 and 1500 specimens.²⁸

All these testimonies contribute to shed new light on the interpretation of this phenomenon: it becomes clear that if we exclude the great moment when overstriking was used, this characteristic does not prevail in the production of coins in Gortyn. In the first phases, the evidence can be compared to what happens in many mints in the ancient world, where nominals with a weight comparable to a system locally in use are systematically overstruck. It must not, therefore, surprise us to discover that overstruck coins should be those with types from Aegina or other Cretan cities, which respect the same weight standard.

The only anomaly is concentrated in the issues of the 3rd quarter of the 3rd century BC: that is when the phenomenon has a real explosion. If, on the one hand, this seems to be really linked to the arrival of large quantities of coins from Cyrenaica, we must not disregard the fact that – in the light of new data – the most consistent group is composed of Cretan coins.²⁹ This might, therefore, attest to a primary necessity which is not only linked to the need to efface foreign currency from circulation, but also to the need to produce new coins with local types and a proper weight.

Although the speed of this process is surprising, it attests to the sudden increase of the productive rhythm, an element that confirms the need to issue currency at a higher speed due to some particularly meaningful circumstance. Certainly, there is a problem with technology given the low quality of production: this can be explained by the need to produce coins quickly, a factor that did not allow accurate striking.

²⁸ Le Rider 1966, 19-40. The hoard comes from the Phaistos area and the analysis of the material allows a partial reconstruction of its composition.

²⁹ In this same phase, the considerable increase of minting is also attested in the coinage of Phaistos. In this case the number of coins from Cyrenaica is not as significant as at Gortyna; probably the nearby city has other channels for monetary supply: mainly Aeginetic and Cretan coins are overstruck (see Carbone 2017a).



Fig. 7. Drachm of Gortyna on Cyrenaican coin;
Staatliche Münzsammlung München.

It must not surprise us to discover that in a standardization process, and in starting a large-scale production, overstruck coins are not only the heavier ones but also those with a lower nominal value (Fig. 7).

It becomes clear how impossible it is to interpret overstrikes in a single way. So far, the diachronic study of Gortynian coins allows us to understand how this phenomenon was not only a way to recover already minted silver or to make circulating nominal uniform, but was also linked to the need to reconvert nominal to new systems of use and to cope with circumstances which must have had different impacts according to the periods we refer to.

REFERENCES

- Lesly Beer (1980), *The Coinage of Aegina. A Chronological Reappraisal Based on Hoards and Technical Studies*, Oxford University, Ph.D thesis.
- Theodore V. Buttrey (1987), "Crete and Cyrenaica", A. Burnett & M.H. Crawford (eds.), *The Coinage of the Roman World in the Late Republic: Proceedings of a Colloquium Held at the British Museum in September 1985*, BAR 326, Oxford.
- Federico Carbone (2017a), "Overstrikes at Phaistos: chronologies and flows", *Archaeological Work in Crete, AEK 4*, Rethymno, (forthcoming).
- Federico Carbone (2017b), *La monetazione in bronzo di Festòs*, (forthcoming).
- Angelos Chaniotis (1987), "Κλασσική και έλληνιστική Κρήτη", N.M. Panagiotakis (ed.), *Κρήτη: Ιστορία και πολιτισμός*, Iraklio, 173-284.
- Angelos Chaniotis (1999) (ed.), *From Minoan Farmers to Roman Traders: Sidelights on the Economy of Ancient Crete*, Stuttgart.
- Anne Destrooper-Gerogiades (1996), "Les tortues d'Egine a Chypre", *Χαρακτήρ, Αφιέρωμα στην Μάντω Οικονομίδου (Δημοσιεύματα του Αρχαιολογικού Δελτίου 57)*, Atene, 103-113.
- Thomas J. Figuera (1981), *Aegina. Society and Politics*, New York.
- Salvatore Garraffo (1974), "Riconiazioni e politica monetaria a Creta. Le emissioni argentee dal V al I secolo a.C.", G. Pugliese Carratelli & G. Rizza (eds.), *Antichita Cretesi. Studi in onore di Doro Levi II*, Catania, 59-74.

- Salvatore Garraffo (2011), "Monete", A. Di Vita & M.A. Rizzo (eds.), Gortina Agora. Scavi 1996-1997, *Studi di Archeologia Cretese IX*, Padova, 229-249.
- GORTINA I = Antonino Di Vita (1988) (ed.), "Gortina I", *Monografie della Scuola Archeologica di Atene e delle Missioni Italiane in oriente 3*, Roma.
- GORTINA II = Antonino Di Vita & Archer Martin (1997) (eds.), "Gortina II. Pretorio: Il materiale degli scavi Colini 1970-1977", *Monografie della Scuola Archeologica di Atene e delle Missioni Italiane in oriente 7*, Roma.
- GORTINA III = Ilaria Romeo & Elisa Chiara Portale (1998) (eds.), "Gortina III. Le sculture", *Monografie della Scuola Archeologica di Atene e delle Missioni Italiane in oriente 8*, Roma.
- GORTINA IV = Nunzio Allegro & Maria Ricciardi (1999) (eds.), "Gortina IV. Le fortificazioni di eta ellenistica", *Monografie della Scuola Archeologica di Atene e delle Missioni Italiane in oriente 9*, Roma.
- GORTINA V = Antonino Di Vita (2001) (ed.), "Gortina V.3. Lo scavo del Pretorio (1989-1995)", *Monografie della Scuola Archeologica di Atene e delle Missioni Italiane in oriente 12*, Roma.
- GORTINA VI = Antonino Di Vita (2004) (ed.), "Gortina VI. Scavi 1979-1982", *Monografie della Scuola Archeologica di Atene e delle Missioni Italiane in oriente 14*, Roma.
- GORTINA VII = Adalberto Magnelli (2008) (ed.), "Gortina VII: le iscrizioni dall'eta arcaica all'istituzione della provincia romana", *Atti della Accademia Nazionale dei Lincei 9*, vol. 19, Roma, 233-334.
- Guy T. Griffith (1935), *Mercenaries of the Hellenistic World*, Cambridge.
- IGCH = Margaret Thompson, Otto Mørkholm and Colin Kray (1973) (eds.), *An Inventory of Greek Coin Hoards*, New York.
- George Le Rider (1966), "Monnaies crétoises du Ve au Ier siècle Av. J.-C.", *Études Crétoises* vol. 15, Paris.
- Colin Mackenna Kraay (1976), *Archaic and Classical Greek Coins*, New York.
- Otto Mørkholm, Philip Grierson and Ulla Westermark (1991), *Early Hellenistic Coinage from the Accession of Alexander to the Peace of Apamea (336-188 BC)*, Cambridge.
- Herbert W. Parke (1933), *Greek Mercenary Soldiers*, Oxford.
- Angeliki Petropoulou (1985), *Beitrage zur Wirtschafts und Gesellschaftsgeschichte Kretas in hellenistischer Zeit*, Frankfurt.
- Annalisa Polosa (2003), "Una rilettura di M.I. Stefanakis 'The introduction of coinage in Crete'", *Annali dell'Istituto Italiano di Numismatica*, vol. 50, 199-206.
- Martin Jessop Price (1981), "The beginnings of coinage in Crete", *Πεπραγμένα του Δ΄ Διεθνούς Κρητολογικού Συνεδρίου*, Iraklio 1976, A2, Athens, 461-466.
- Vassiliki E. Stefanaki, "La politique monétaire des cités crétoises a l'époque classique et hellénistique", *Eulimene* 8-9, 47-80.
- Vassiliki E. Stefanaki & Manolis I. Stefanakis (2013), "Le monnayage d'argent de Gortyne entre la seconde moitié du IIIe et le premier quart du Ier siècle av. J.C. : remarques préliminaires", *Revue numismatique* vol. 170, 147-174.
- Manolis I. Stefanakis (2016), "Looking towards the North: the circulation of Cyrenaic coins on Crete" M. Asolati (ed.), *Le monete di Cirene e della Cirenaica nel Mediterraneo. Problemi e prospettive. Atti del V Congresso Internazionale di Numismatica e di Storia Monetaria*, Padova, 17-19 Marzo 2016, Padua, 65-81.
- Manolis I. Stefanakis (1999), "The introduction of coinage in Crete and the beginning of local minting", A. Chaniotis (ed.), *From Minoan Farmers to Roman Traders: Sidelights on the Economy of Ancient Crete*, Stuttgart, 247-268.

Manolis I. Stefanakis & Burkhard Traeger (2005), "Counter-stamping coins in Hellenistic Crete. A first approach", C. Alfaro, C. Marcos and P. Otero (eds.), *XIII Congreso Internacional de Numismatica. Actas, Madrid 2003*, Madrid, 383-394.

Carol H.V. Sutherland (1942), "Overstrikes and hoards", *Numismatic Chronicle* vol. 6/2, 11-18.

Ioannis N. Svoronos (1890), *Numismatique de la Crète ancienne*, Macon.

Margaret Thompson (1973), "Monetary relations between Crete and the Mediterranean world in the Greek period", *Πεπραγμένα του Γ' Διεθνούς Κρητολογικού Συνεδρίου* vol. 1, Rethymno 1971, Athens, 350-353.

Henri Van Effenterre (1948), *La Crète et le Monde Grec de Platon à Polybe*, Paris.