# The Chronology of the Syracusan Coinage under the Deinomenids: New Data and Overlooked Criteria*

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*In memory of Hansjörg Bloesch (1912–1992)*

*Plates 1–3*

## 1 The Evidence of Hoards

The excellent recent publication of the so-called Randazzo hoard (a locality situated at the foot of Mount Etna) by Mrs. Carmen Arnold-Biucchi[1] undoubtedly marks an important stage in the study of the coinage of the cities of eastern Sicily – and more particularly of Syracuse – in the first half of the 5th century B.C. Despite its regrettable dispersal immediately after its discovery in 1980, this hoard which contained at least 339 tetradrachms (and perhaps some examples of the famous Syracusan decadrachm known as the "Demareteion") is indeed one of the most considerable that we have for this region and this period.[2] Its primary, but not exclusive, interest lies in the fact that it allows us to establish a fairly precise synchronism between well-dated strikings from several Siciliote workshops and some issues, or rather series of issues, emanating from Syracuse.

*This study originated from a course given at the University of Neuchâtel in 1987/88 (two of my assistants, Miss M. Spoerri and Mr. M.-A. Kaeser, successively helped me to complete Boehringer's corpus through investigations in later catalogs; to the latter I also owe the clean copy of the table in fig. 2, while to Mrs. Chr. Tripet, secretary, goes the credit for having recorded the text). The central part was also the subject of a lecture at the University of Geneva on May 8, 1989, then at the École Pratique des Hautes Études, Section IV, in the chair of Mr. Georges Le Rider, on March 8, 1990, under the title "A Turning Point in Syracusan Coinage of the Severe Style: Hieron's Orthographic Reform." Finally, after becoming aware of the publication of the Randazzo hoard (infra n. 1), I presented a brief communication on it at the XI$^{th}$ International Numismatic Congress recently held in Brussels (September 8–12, 1991): cf. Résumé des communications, p. 28. To my audiences, particularly those in Paris and Brussels and especially to Professors Chr. Boehringer, H. A. Cahn and G. Le Rider, as well as to Mmes. C. Arnold-Biucchi and D. Bérend, I express here once again my deep gratitude for their critical observations: may they please not hold it against me that I could not always accept their reasoning. Finally, I thank Mrs. Silvia Hurter for having accepted my article in this journal and for having contributed to establishing its illustration.

[1]The Randazzo Hoard 1980 and Sicilian Chronology in the Early Fifth Century B.C., ANS Numismatic Studies 19 (New York 1990), hereafter abbreviated Randazzo Hoard. See on this work the critical review published by Chr. Boehringer in this same volume (p. 203 ff.), whose chronology I note with great satisfaction is remarkably close to that defended below.

[2]For the first half of the 5th century there is in Sicily only the Gela hoard, IGCH 2066 (on which cf. infra n. 27–30) which is more important in terms of the number of coins recorded, for it is probable that the Randazzo hoard, even at the moment of its discovery, did not contain more than 600 pieces (Randazzo Hoard, p. 11); for the possible presence of "Demareteion," cf. ibid., p. 12, n. 5).

Although the coins of this city constitute more than half of the hoard as we know it (308 pieces out of 539), it is not they – by proper methodology – that could serve as the basis for dating its burial. For if Erich Boehringer's corpus[3] remains an admirable working tool for everything concerning the classification of issues and thus their relative chronology, we know that the absolute chronology proposed by this scholar is no longer universally accepted since, a quarter of a century ago, Colin M. Kraay[4] – to whose memory the publication of the Randazzo hoard is moreover dedicated – advanced arguments for lowering it significantly, without however succeeding, far from it, in convincing all numismatists.[5] Faced with this veritable dilemma, with all its historical and archaeological implications, one can only praise Mrs. Arnold-Biucchi for having adopted the approach that was called for: namely to leave aside temporarily the two systems under consideration, in order to seek in the non-Syracusan fraction of the hoard the clues allowing us to determine as precisely as possible the period in which it was constituted and then buried by its owner.

A first *terminus post quem*, absolutely insurmountable, is provided by coins from Naxos, Messana and Rhegion whose striking cannot have begun before the year 461. It was then indeed that the two cities of the Strait, rid of the tyranny of the sons of Anaxilas (Diod. XI 76.5), resumed their own coinage,[6] while this date marks for Naxos – as for other cities (*ibid.*) – the return of the inhabitants to the site of their city, an event celebrated by the issue of a tetradrachm of which there are five examples, all struck from the same dies, in the hoard.[7] The most recent coins from Gela and Agrigentum are not so precisely dated, but it should be emphasized that these Geloan tetradrachms belong to a group that G. K. Jenkins places between 465 and 450 approximately,[8]

[3]Die Münzen von Syrakus (Berlin 1929), hereafter abbreviated Syrakus. Universally recognized, the exhaustiveness of the catalogue and the solidity of the classification have been emphasized again by T. Hackens, in: Statistique et numismatique (Louvain 1981), p. 58–59, and by Chr. Boehringer, Nachbemerkung zu Erich Boehringer; Die M. von S. Einleitung und Texte zu Gruppe I, Reihe I, in: Methoden der Antiken Numismatik. Wege der Forschung 259 (Darmstadt 1989), p. 70; "Time has left the book remarkably intact (G. Le Rider)." Most often, indeed, the new die linkages have confirmed the order of the series established by B., if not always the limits and separations he thought he should place between them.

[4]Greek Coins and History. Some Current Problems (London 1969), p. 19–42, with the important review by S. Jameson, NC 1971, p. 338–344. See already Kraay-Hirmer, Greek Coins (London 1966), p. 288, for a cautious sketch of the new chronological theory, which this numismatist subsequently defended with conviction in NC 1972, p. 13 ff. (The Demareteion Reconsidered: A Reply) and repeated in ACGC, p. 211; cf. also NC 1977, p. 196–197.

[5]While several scholars have accepted this chronological lowering of the decadrachm – cf. for example G. Manganaro, loc. cit. in n. 7; T. Carradice – M. Price, Coinage in the Greek World (London 1988), p. 45 and 66; J. Melville Jones, A Dictionary of Ancient Greek Coins (London 1986), p. 69, s.v. Demareteion; H. Bloesch, Gr. Münzen in Winterthur (W. 1987), p. 85, n° 900, and Chr. Boehringer in: L'éwine Coll. (op. cit. in n. 32, p. 50–51), others have shown themselves more reluctant, thus E. S. G. Robinson, A Catalogue of the Galouste Gulbenkian Collection of Greek Coins, I (Lisboa 1971), p. 87; G. K. Jenkins, The Coinage of Gela, AMuGS II (Berlin 1970), p. 27 ff.; cf., by the same author Münzen der Griechen (Fribourg 1972), p. 159 ff., and Coins of Greek Sicily[2] (London 1976), p. 5 and 16 ff.; or even resolutely opposed: this is notably the case of H. A. Cahn, who recently expressed his attachment to the traditional chronology: see Antikenmuseum Basel und Sammlung Ludwig. Gr. Münzen aus Grossgrie-chenland und Sizilien (Basel 1989), p. 125, no 433. In the same sense see also P. Höfer (loc. cit. in n. 51 and 67) and already G. Biegel, Das Demareteion und die sizilischen Dekadrachmen, Münst. Num. Zeitschr. I, 1971, p. 1–5. – For the compromise attempted by M.-R. Alföldi, see below p. 32.

[6]This chronology of the coinages of Rhegion and Zancle was established by E.S.G. Robinson, JHS 66, 1946, p. 17 ff., and it is very generally adopted (cf. Randazzo Hoard, p. 10 and 26).

[7]Randazzo Hoard, p. 61, nos 227–231. This is issue no 54 of H.A. Cahn, Die Münzen der sizilischen Stadt Naxos (Basel 1944). "There is no doubt about the date of this issue," writes Mrs. Arnold-Biucchi quite rightly (p. 29). The fact that there is only one die pair suggests that this coin has commemorative value and was struck very shortly after 461 (cf. Cahn, op. cit., p. 42 ff.; Antikenmuseum Basel, p. 112, no 384). – On these events, see G. Manganaro, La caduta dei Dinomenidi..., AIIN 21/22, 1974–1975, p. 9–40.

[8]Group III (Coinage of Gela, p. 52 ff.). Cf. Randazzo Hoard, p. 21.

the Agrigentine tetradrachms having to be, for their part, in any case posterior to 470 according to the corpus in preparation by U. Westermark and thus probably dating from around 460.[9] Ultimately, it is the coinage of Catana – one of the cities closest to the findspot – that provides the most interesting chronological indication, well exploited by the editor of the hoard.[10] This indeed contains 29 tetradrachms issued by the people of Catana (at first with the remarkable legend KATANE instead of the ethnic KATANAION) after their reinstallation on the site of this city, previously renamed Aitna by Hieron. The *terminus post quem* thus obtained, either 466/5 (fall of the tyranny at Syracuse) or better *ca.* 463, the probable date of the Catanians' return, is certainly higher than that which follows from the presence of the coins of Naxos, Messana and Rhegion. But the some thirty pieces from Catana form a very coherent ensemble, where practically all the links of a continuous sequence are represented (whereas these coins are otherwise quite rare): if one admits that one die equals one year, as Mrs. Arnold-Biucchi does not without plausibility (in such a case)[11] – since the dies of this series prove to have been used as long as possible – it seems very probable that these issues from Catana, currently known by a good dozen obverse and reverse dies, may extend from *ca.* 463 to *ca.* 450.[12] Therefore, it is quite exactly from the middle of the 5th century, in the range between 455 and 445, that the burial of the Randazzo hoard must date, whether or not it is to be related to the Sikel uprising of Douketios.[13]

Established independently of any reference to the coinage of Syracuse (except, of course, to its history), this dating which has the best guarantees, and which no current numismatist will or probably can fundamentally contest, immediately highlights the inadequacy of Boehringer's chronological system, at least for the period from 474 (victory of Cumae over the Etruscans) to about 450. Such would be, according to the author of *Die Münzen von Syrakus*, the date of his group IV (series 13–18), characterized on the obverse by the presence of a sea monster (*kêtos*) in the exergue.[14] Now what do we observe? Of the 308 Syracuse coins hoarded at Randazzo (constituting 57% of the whole) there are only 15 that belong to this group, distributed more or less equally between series 13 (7 pieces) and series 14a (8 pieces). Series 14b–18, yet still prior to 450 according to Boehringer, are absolutely not represented in the new hoard. Such a discrepancy could only be explained if we were dealing with a workshop much more distant than the others or striking intermittently. As this is obviously quite the contrary, we must admit that the traditional chronology is here too high by at least fifteen years. The group with the *kêtos* certainly did not begin in 474 (in fact, the link between the sea monster and the famous naval battle off Cumae has

[9]These are coins of the type Antikenmuseum Basel, p. 82, no 254, also dated between 460 and 450. Cf. Randazzo Hoard, p. 19–20.

[10]Randazzo Hoard, p. 23: "The Amenanos/Nike tetradrachms from Katane are perhaps the most important and most interesting component of the hoard." Already fairly well represented in the Ognina hoard of 1923 (IGCH 2120), this series has been studied, after W. Schwabacher, Röm. Mitt. 48, 1933, p. 121–126, and by Chr. Boehringer, SNR 57, 1978, p. 135, who rightly places it between 465 and 450.

[11]Ibid., p. 24, with n. 91, where the author justifies in a reasonable way this equivalence, which, of course, is not always the rule.

[12]Ibid., p. 39/40 "The Burial Date," with a table of the most recent issues from each of the workshops represented in the hoard.

[13]This possibility is evoked by the author of the publication. On Douketios, see most recently E. Galvagno, Ducezio *eroe*: storia e retorica in Diodoro, in: Mito-Storia-Tradizione. Diodoro Siculo e la storiografia classica (Catania 1991), p. 99–124, with all the recent bibliography (p. 104, n. 22).

[14]Syrakus, p. 41 ff. On the significance of the *kêtos* and its supposed link with the battle of Cumae – the foundation of a chronology that Boehringer borrowed here from B.V. Head, On the Chronological Sequence of the Coins of Syracuse, NC 1874, p. 1 ff. (cf. however HN$^2$, p. 172, where the English numismatist already judged this connection "very doubtful") –, see the following note.

never been demonstrated and has often seemed doubtful even to proponents of this chronology[15]) but only around 460 to extend probably until after 440. Thus is brilliantly confirmed, in my opinion, the dating that C. M. Kraay proposed some time ago, since it was after the fall of the Deinomenids that he placed the beginning of Boehringer's group IV, and more precisely around 460.[16]

At first glance, one might believe that this is also Mrs. Arnold-Biucchi's conclusion: "The hoard evidence," she writes on the last page of her commentary, "also shows that at Syracuse the ketos group, Group 4, did not begin in 474 B.C. but some 10 to 15 years later".[17] One would consequently expect to see her date the beginning of series 13, which is the first of the *kêtos* group, to *ca.* 460, at the earliest to *ca.* 465. In reality, she places it around 470 already, for the reason that this series, stylistically close to the last of the preceding group (group III, series 12), should still belong to the end of Hieron's reign; for the decadrachm, which is part of this series (12th), cannot, in any case, be much later than 470 (although an even lower dating has been proposed by Kraay and others: see below). It is only series 14, marking "a new beginning" after this "transitional phase" (*ibid.*), that would correspond, in 465/6, to the advent of democracy.

However attractive it may appear to some, this compromise chronology does not seem acceptable to me. It certainly does not occur to me to contest the obvious stylistic connection established between the "Demareteion" (or the tetradrachms associated with them, Boehringer nos 379–391; pl. 23–24), and the reverse of certain issues of series 13 (represented by one piece in the Randazzo hoard: cf. no 528; here *pl. 3,28*). But given its fame, the decadrachm could have been imitated many years after its striking by an engraver seeking a model: in fact, Mrs. Arnold-Biucchi considers this imitation as "a stereotyped, lifeless, rendering of the severe style of the Demareteion" (*ibid.*), which clearly shows that stylistic kinship is not necessarily synonymous with chronological proximity. The great disadvantage of the system proposed by the editor is that it forces one to stretch group IV over a duration of about thirty-five years (470–435): indeed, one must now admit that series 14b–18, which, according to the evidence of the Randazzo hoard and the slightly later Villabate hoard,[18] can hardly have begun before 455–450, extend to around 435, since they correspond to two thirds of the group's life (judging by the number of obverse dies[19]). This date (end of group IV in 435) for the end of group IV is accepted by Mrs. C. Arnold-Biucchi (Randazzo Hoard, p. 46), confirmed by the Selinunte hoard of 1923;[20] it moreover allows one to accommodate

[15]Thus H.A. Cahn, Antikenmuseum Basel, p. 125, no 435: "The Ketos (...) was interpreted as a symbol of Hieron's naval victory over the Etruscans at Kyme (474/73), but is rather to be understood as a general sea symbol." Even earlier, doubts about the traditional interpretation had been raised, for chronological reasons, by K. Regling, Gnomon 6, 1930, p. 63, and G. E. Rizzo, Saggi preliminari sull'arte delle monete nella Sicilia greca (Roma 1938), p. 30 ff., who proposed to date the beginning of group IV to 479 (contra: Jenkins, Coinage of Gela, p. 23, for whom "there seems no very good reason for rejecting the link between the Ketos issue and Kumae).

[16]Gr. Coins and History, p. 36 (cf. p. 31 for the argument based on the *kêtos*). – What the new hoard demonstrates in any case, and definitively, is that the attempt by Regling and Rizzo to place the beginning of group IV in 479 (see the previous note) cannot be retained.

[17]Randazzo Hoard, p. 47. Let us note here three printing errors that may be troublesome: p. 35, the number of pieces belonging to group IV is 15 (and not 5); p. 32, in the table, write "to Series 14a" (not 16a) and just above no 523 (not 533); the caption of pl. 10–11 must also be corrected. Other typos: cf. infra, p. 209, n. 21 (Chr. B.).

[18]IGCH 2082: around 445.

[19]The entire group IV comprises about 45 obverse dies; yet the series represented at Randazzo (13–14a) have only about fifteen. Cf. R. Ross Holloway, The Coinage Production in the Sicilian Greek Mints, in: Rythme de la production monétaire de l'Antiquité à nos jours (Louvain 1987), p. 11 ff., with the table on p. 19 ("revised chronology").

[20]IGCH 2084. The date of ca. 435 for the end of group IV is accepted by Mrs. C. Arnold-Biucchi (Randazzo Hoard, p. 46).

without problem the issues of groups V and VI (series 19 to 25) in the ten or fifteen years that follow, since Boehringer curiously left a void of a decade between the end of the coinage studied by him and the beginning of that which had been the subject of L. Tudeer's book.[21]

What is also very troublesome in the solution adopted by Mrs. Arnold-Biucchi is her chronology of group III (series 6–12), for it implies, against all likelihood, that the very great majority of Syracusan coins found at Randazzo (281 pieces out of 308) were struck more than twenty, even more than thirty years before the burial of the hoard. On this point, indeed, the editor has adopted a position that is on the whole quite traditional. Admittedly, she concedes to C. M. Kraay that group III cannot end as early as 479, as E. Boehringer believed he had to admit, who was driven to the truly absurd hypothesis of an interruption of Syracusan coinage between this date and the battle of Cumae (474), when the city, under Gelon then under Hieron, was at the height of its power: for Mrs. Arnold-Biucchi, group III, with its numerous series and sub-series (including that of the decadrachm), would nevertheless extend to around 470. But she did not want to follow Kraay – with whom she regrets not having been able to begin "any thorough discussion of the hoard"[22] due to his unexpected death in 1982 – in the attempt made by him to place the end of the group only in 461. Above all, it seemed impossible to her to place its beginning, with this scholar, in the aftermath of the battle of Himera (480): she judged it necessary, here, to remain absolutely faithful to Boehringer's chronology, which, as we know, thought that group III begins with Gelon's takeover of Syracuse in 485; the fact that numismatists such as G. K. Jenkins and H. A. Cahn[23] have always defended this chronology visibly played a role in the author's choice, which does not mean, of course, that their opinion was her only argument.

Determining, in her eyes, seems to be the testimony of two other Sicilian hoards, which had nevertheless already been examined by Kraay in connection with the exposition of his new system. First is the Passo di Piazza hoard,[24] found near Gela in 1934, which contained 18 tetradrachms (and an unknown number of didrachms) from Syracuse, the most recent of which are part of series 6,[25] that is to say from the very beginning of group III: if the burial of this hoard was certainly prior to 480, as has been believed, this would obviously prove that group III began even before Himera; but this dating is, by Mrs. Arnold-Biucchi's own admission,[26] too high by a few years, so that one cannot rely on this to make the first issues of group III begin before 480. More solid at first glance appears the argument drawn from the great Gela hoard,[27] which must still be the

[21]Die Tetradrachmenprägung von Syrakus in der Periode der signierenden Künstler (Berlin 1913). On this interval that the new chronology allows one to fill, cf. Kraay, Gr. Coins and History, p. 38.

[22]Randazzo Hoard, p. 9 (preface). For an obituary and bibliography of this scholar, see Essays Kraay/Mørkolm (Wetteren 1990), p. ix ff. (M. Thompson).

[23]For the latter, cf. most recently Antikenmuseum Basel, p. 124, no 432 (tetradrachm dated "um 485," although it does not belong to the beginning of group III, being close to B. 189, series 9a: cf. our table fig. 2). As for Jenkins, while he also maintains here the date of 485 for the beginning of group III, he places after the "Demareteion," traditionally dated to 480/79, the entire series 12a–d, developing in this a suggestion by Ch. Seltman, Greek Coins$^2$ (London 1955 [1960]), p. 124, n.3: cf. Coinage of Gela, p. 22–23. This solution is not adopted by C. Arnold-Biucchi, who sticks to Boehringer's classification, but accepts lowering the date of the decadrachm to around 470.

[24]IGCH 2068. Cf. Kraay, Gr. Coins and History, p. 28–29; NC 1972, p. 13 ff.

[25]The most recent Syracusan issue – assuming that none of the unrecorded didrachms were even later – is Boehringer's no 85 (V 41/R55), an identification that does not however appear certain (sign of doubt in Jenkins).

[26]Randazzo Hoard, p. 18, 24/25, and 41/42. Against the high dating (between 484 and 480) defended by J. P. Barron, The Silver Coins of Samos (London 1968), p. 42, cf. Jenkins, Coinage of Gela, p. 21/22 and 154 (inventory), who proposes "ca. 480–478," a date adopted in IGCH and Randazzo Hoard; if the chronology defended below is accepted, the year 478 must be considered as a *terminus post quem* for the burial of the Passo di Piazza hoard, (the *terminus ante q.* being *ca.* 475: Chr. Boehringer, below in his review, p. 207).

[27]IGCH 2066. Cf. Kraay, loc. cit.

subject of a detailed publication by G. K. Jenkins: there are indeed, in this vast collection of more than 1000 pieces (of which 870 still gathered at Gela), 31 tetradrachms (and 2 didrachms) from Syracuse, but considerably older than those from the Passo di Piazza hoard: none belongs to group III, the most recent being a specimen of Boehringer's issue no 46 (group II, series 4). The burial of this hoard is to be situated around 485 according to Jenkins.[28] Regarding this date as the lowest that is admissible (due to the absence in the hoard of the last issues of Agrigentum's 3rd group, which would necessarily be prior to 482), Mrs. Arnold-Biucchi estimates that Syracuse's group II "must have started *before* 485 B.C."[29], which completes her conviction that group III, for its part, must begin as early as 485. But in reality the contents of the Gela hoard can very well accommodate a dating between 485 and 480: far from being a *terminus ante quem*, the year 485 must be considered as a *terminus post quem*, and this not only with Kraay, but also with Chr. Boehringer, M. Price–N. Waggoner and others still.[30] Nothing prevents therefore, or rather everything recommends, returning – despite the vigorous opposition of partisans of the high chronology[31] – to the old opinion that quite naturally attributed to Gelon the innovations of group II in relation to group I (appearance of the *nikê* and dolphins) and placed this turning point not in 510, nor even in 490,[32] but indeed in 485.

Does this mean that one must adopt in all points, now that the validity of a general lowering of the chronology is proven, the reconstruction proposed by C. M. Kraay for the monetary history of the city under the Deinomenids? I fear, for my part, that the excellent numismatist may in turn have been victim of the received idea according to which the battle of Himera would necessarily be the pivot of this history, since he fixes to the year 480/79 precisely the transition from group II ("earliest dolphins") to group III ("massive issues"). What seems certain to me, in any case – and I intend to demonstrate it – is that the usual distinction between these two groups is not numismatically established: it is a largely artificial creation of Boehringer, who, prisoner in some sense of his system (founded on the identification of the decadrachm with the "Demareteion" of the aftermath of Himera), was forced to introduce into the sequence of Syracusan issues a break supposedly corresponding to that major event that was Gelon's takeover in 485; failing which his chronology would not have failed to appear immediately suspect, for that which had been in force since Head (1874)[33] had the undeniable advantage of explaining by the entrance on the scene of the tyrant of Gela the double typological modification just mentioned. The paradox is that one has

[28]Coinage of Gela, p. 20–21 and 150–151 (inventory).

[29]Randazzo Hoard, p. 46. Cf. p. 41: "I see no reason to date the Gela hoard any later than 485 B.C." (in fact she adopts the range 490–485 for its burial); in the same sense, cf. R.T. Williams, NC 1972, p. 2 ff. and 16.

[30]Kraay, Gr. Coins and History, p. 28 ("The highest date for the burial of Gela hoard is 485, or more probably 484"); Chr. Boehringer, JNG 18, 1968, p. 95 ("Nach den oben Gesagten möchte man seine Verbergung gegen 480 ansetzen, keinesfal vor 485") and below in his review, p.207; M. Price–N. Waggoner, Archaic Silver Coinage. The Asyut Hoard (London 1975), p. 20 and especially 121: "It now seems clear that a date nearer 480 than 485 is probable for the deposit of the Gela hoard," etc.

[31]Thus K. Regling, Gnomon 6, 1930, p. 631, in his review of Boehringer's corpus; and the latter categorically rejected the then-accepted link between Gelon's Olympic victory in 488 and the *nikê* of group II: "485, soweit müsste man herabgehen, ist zu spät für die ersten Münzen mit der Nike" (Syrakus, p. 91).

[32]The date of 490 for the beginning of group II is that proposed by C. Arnold-Biucchi, Randazzo Hoard, p. 47, in the wake of G.K. Jenkins, Coinage of Gela, p. 43, and Chr. Boehringer, in: The Arthur S. Dewing Collection of Greek Coins (New York 1985), p. 47, who dates B.'s series 4 to "ca. 485–483" (which implies a dating around 490–485 for series 3, although he brings down to around 485 the end of group I (series 1–2). R. Ross Holloway, loc. cit. in n. 19, proposes the year 487 (?) for the transition from I to II; H. A. Cahn, for his part, modifies Boehringer's chronology only slightly (500–485 instead of 520–485).

[33]Loc. cit., in n.14; cf. $HN^2$, p. 172. This is notably the chronology adopted by E. Babelon, Traité II 1, col. 1519/20 (after A. Evans, NC 1874, p. 197 ff.).

neglected – or, rather, refused – to take into consideration the only criteria (apart from style) that should have allowed for a long time not, strictly speaking, to constitute new groups (for, once again, there is no real solution of continuity within the great ensemble II–III) but to draw a dividing line capable, for its part, of being dated with very satisfactory precision: it is principally the spelling of the legend and, secondarily, the hairstyle of the nymph, that change virtually simultaneously. It seems time to exploit these two criteria, especially the first, with complete rigor and honesty. Only then will there be reason to ask, by way of conclusion, about the place to be attributed to the famous decadrachm, whose dating to 461 is certainly not the most solid result of the so meritorious revision carried out by Kraay.

## 2 Hieron's Orthographic Reform

The replacement of *qoppa* (ϙ) by *kappa* (κ) in the ethnic *Syrakosion* on coins of severe style has obviously been observed for a long time – if not always – by numismatists. But they do not appear to have tried, until now, to date this change in any precise manner, for lack of having understood its exact nature. In fact, E. Boehringer puts the substitution of κ for ϙ on the same level as the passage from **A** to A[34], as if in both cases it were a matter of purely formal evolution, a difference that was in some way stylistic, from which it would be rash to make a serious chronological criterion. Even those who believed they could allege it as an adventitious argument against the system in force manifestly shared this point of view; thus one reads from the pen of C. M. Kraay that «too much weight cannot be put upon single occurrences of particular *letter forms*»[35] (underlined by me). Now, we are dealing here with something quite different, which has nothing to do with the straightening of the bar of *alpha* or the modification of the form of *sigma* (in the coins of Messana for example): this abandonment of *qoppa* in favor of *kappa* is a change of sign affecting the manner of transcribing the syllables *ku/ko* (voiceless velar + back vowel[36]). It is therefore, neither more nor less, an orthographic reform: a specific reform certainly, but a reform nonetheless, that is to say decided by the State at a very precise moment, exactly as will be the case later at Naxos[37] with the replacement of X by Ξ to note the sound *ks*, or at Syracuse itself[38] (and elsewhere) with the introduction of the Ionic letters H = *ē* and Ω = *o*.

Having misunderstood the character of this remarkable substitution of κ for ϙ, the author of the corpus of Syracusan coins drew practically no benefit from it. Certainly, he did see that the change occurred within his group II and more precisely in his series 4, without going back (setting

[34]Syracus, p. 94, in commenting on the dedication of Gelon at Delphi and that of Hieron on a helmet from Olympia (see below for these documents).

[35]Gr. Coins and History, p. 29–30. Same thing in Chr. Boehringer, JNG 18, 1968, p. 92 («Here **Ϙ** and **A** are opposed to **K** and **A**»), who saw however that unlike the progressive replacement of the old *alpha* by the recent *alpha*, the replacement of *qoppa* by *kappa* had been «sudden»; hence his just remark concerning «this change in the official spelling of the city name on inscriptions and coins».

[36]Cf. for example M. Lejeune, Phonétique grecque (Paris 1979), p. 27 § 2. For the voiceless consonant, the archaic alphabets preserve the two signs that the Semitic alphabet furnished them, K (*káppa*: Hebrew *kaf*) and Ϙ, (*qóppa*: Hebrew *kof*).

[37]We know that this is an effect of the abandonment of the old Euboean («red») alphabet by this colony of Chalcis, where X = ks. For the date of this change of letter, and not of «form» (p. 430), cf. H. A. Cahn, Naxos, p. 54; M. Burzachecchi, in: Gli Eubei in Occidente (Taranto 1979), p. 209 sqq.

[38]The change is to be situated around 410 and it does not appear to have been realized, if not overnight, at least in very little time, even if the classification in force may give the contrary impression (cf. L. Tudeer, op. cit. in n. 21, p. 80, 124, 139 sqq. and 173).





aside the use of two reverses from this series in series 5[39]). One must however acknowledge that he did not take it into account – nor even mention it – in the internal classification of the issues of this series, a classification which, it is true, could suggest that there existed a rather long period of fluctuation[40] during which the engravers had recourse indifferently to the old orthography and to the modern orthography. But to what extent is this conclusion inescapable? Let us note first that the difficulty, apparent or real, comes only from the tetradrachms, for as far as the didrachms are concerned, Boehringer's classification supposes on the contrary an absolutely clear break between the two spellings: to obverse die V28 correspond the four reverse dies R33–36 (B.50–53; *pl. 2, 5–7*), whose order of fabrication (or at least of use) is established by the progressive deterioration of the obverse die;[41] now, remarkably, the first two reverses have *qoppa* (R33–34), the last two *kappa* (R35–36).

Let us see then how the more complex sequence of tetradrachms of series 4(–5) presents itself in this regard, where seven reverses (R22–25, 27, 30 and 32) still offer the old spelling, while the new one is already found on six others (R26, 28, 29, 31, 33 and 39). The numbering of dies in the corpus should not be misleading: it does not correspond to a strict chronological order. For this classification, besides not being equally certain in all points – as Boehringer moreover recognized quite honestly[42] –, does not at all imply that the reverses linked to the first obverse die of the series (V26) are always earlier than those which are associated with the second (V27). The at least partial parallelism of the two sequences had been well seen by this scholar.[43] More recently, it has been further demonstrated, and above all better highlighted by means of the table that I reproduce here (*fig. 1*), in a stylistic study devoted to the *Meister der spätarchaischen Arethusaköpfe*.[44] This work having often been neglected by numismatists,[45] it is worthwhile to exploit here its essential results. The matter is all the more interesting for the problem that concerns us since the author, Mrs. H. Scharmer (student of H. A. Cahn), does not claim to call into question the classification – and even less the chronology – of Boehringer; on the other hand, the *qoppa/kappa* alternation plays only a very secondary role in her work, which will perhaps give my conclusions (when they agree with hers) increased weight.

At the beginning of series 4 one must obviously place not only R22–R24 with Boehringer, but also R30, and doubtless R32, with H. Scharmer.[46] The reverse R24 (*pl. 2, 10*), which ensures the

[39]In series 5 as constituted by Boehringer, Syrakus, p. 16–17 and 123–125); all the reverse dies paired with obverse V30 come in fact from series 4; now, among them R27 still has *qoppa*, which means that V30 was used, at least in part, at the same time as the obverses of series 4. See below.

[40]This is what Kraay himself suggests, Gr. Coins and History, p. 30 n. 1: ≪*Koppa* [sic] is invariable up to R25; from R26 to R32 it *alternates* [the italics are mine] with *kappa*, but thereafter *kappa* is invariable.≫ Cf. already Traité I, col. 1521/22, with the earlier bibliography.

[41]Boehringer, Syrakus, p. 15.

[42]Ibid.: ≪The sequence from R22 to R29 is not entirely certain≫.

[43]Ibid.: ≪Pairing must be done on two coins≫.

[44]H. Scharmer, Ant. Kunst 10, 1967, p. 97–100 and pl. 28–29. In the table on page 98, I have removed at the bottom of the ≪Didrachmen≫ column the mention of die R65 (attributed to the ≪Krobylos-Meister≫), for the obverse V46 to which it is paired belongs to a later series and it is by error that the author ranks this couple under Boehringer's no. 54 (it is in fact no. 97: no. 54 designates a drachma, which H. Scharmer rightly shows, p. 97 n. 10, does not belong to group II). On the other hand, I have added in the middle column, at the level of R28 (B. 57) the mention of obverse V30, which was unfortunately omitted, making one believe that V27 is also paired with R26–28, which does not correspond to the truth (at least in the current state of our knowledge).

[45]Given the date of its appearance, it could hardly be known to C.M. Kraay and Chr. Boehringer publishing their works toward the end of the sixties. The article by H. Scharmer is on the other hand regularly cited in the catalogs of H.A. Cahn (cf. supra n. 9).

[46]Art. cit., p. 94/95 and table. Already Boehringer had recognized the belonging of R30 and 32 to ≪the well-known master≫, but he considered these two as ≪late in comparison to R24≫, and despite the connection

connection and contemporaneity of obverses V26 and V27 (then both intact), is manifestly the work of the same engraver, or ≪Master of the large Arethusa head≫ (Scharmer), as the four reverses of the preceding series (R18–21; *pl. 2, 9*); this artist is equally the author of reverses 30 and 32, which were engraved a little later, as is proven by the fact that V27, the only obverse associated with these reverses, now presents a small damage (notch at the hocks of the horses).[47] Alongside the master worked another engraver, to whom are owed the reverses R22 (*pl. 2, 11*) and R23[48]: this is the sub-group called ≪around R33≫ (Scharmer), since it is to this engraver that one can also attribute, with complete certainty, the making of the first reverse of the didrachms (R33),[49] the second (R34) being on the other hand a creation of the master himself.[50] A recent discovery has moreover revealed that the die R22 was profoundly reworked in its central part by a third artist, who, according to the editor of this *unicum*[51] (*pl. 2, 12*), could be the future ≪Kröbylos Master≫ (see below), given that the new effigy offers more than one trait in common (despite the absence of the eponymous tuft) with that of this engraver. Be that as it may, a notable fact unites all the reverses of this first phase: the legend is always spelled there with *qoppa*, which confirms their relative antiquity.

It is with two entirely innovative reverses, R31 and R29, that one can, or rather that one must, begin the transition phase, which is characterized by the simultaneous recourse to the two orthographies. R31 (*pl. 2, 8*) immediately signals attention by the fact that the engraver – called for this reason ≪Left master≫ (Scharmer)[52] – has oriented to the left the figure of the nymph, whom the ≪Master of Arethusa≫ and his first collaborators had always turned to the right. What ensures the position of the ≪Left master≫ at the beginning of this phase is on the one hand the association of R31 with V27 (B. 48), a die already in use in the preceding phase and which ceases after that to be used; it is on the other hand that this artist must also have made the third reverse

established by R24 between V26 and V27 he estimated that the second obverse had not been put in place at the same time as the first. If one can hesitate to rank R32 in the immediate succession of R30, it is because V27, according to Boehringer (Syrakus, p. 121), would be more damaged with R32 (B. 49) than with R31 (B. 48), in any case ≪in individual examples≫; but the comparison that can be established on the basis of excellent recent photos (for example, for B. 48, Giessener Münzhandl. 58, 1992, no 90, or Antikenmuseum Basel no 430 = *pl. 2, 8* and, for B. 49, Sammlung eines Kunstfreunds no 59), shows that the damage is identical in the two issues, which leaves one free to place no. 49 with *qoppa* (very slightly) before no. 48 with *kappa*. It is absolutely certain, on the other hand, that B. 47 (V27/R24; cf. e. g. Antikenmuseum Basel, no 427 *pl. 2, 10*) is earlier than these two issues, so that one does not understand why H. Scharmer wanted to place R24 after R30 in her table (cf. our fig. 1).

[47] See the preceding note.

[48] Already Boehringer, loc. cit., brought together these two dies, but believed he should attribute them to the engraver of V26–27 and of R18–21 (≪Master of the large Arethusa head≫). Cf. also H. A. Cahn in an unpublished work cited by H. Scharmer, art. cit., p. 94 n. 2 (≪Short-hair master: R22, R23, R42≫).

[49] Art. cit., p. 97/98. H. Scharmer also ranks in this group the die R27: but see below.

[50] Cf. already Cahn in the work cited supra n. 48; Antikenmuseum Basel, no 429 = pl. 2, 6 (and no 426 for R33 = pl. 2, 5).

[51] P. Höfer, Beiträge zur spätarchaischen Silberprägung von Syrakus (Feldkirch 1982); this brochure was also published in list 49, November 1982, of J. Elsen (Brussels). The author publishes there three tetradrachms coming from a hoard found in 1970 on the territory of Camarina, whose publication is the responsibility of Chr. Boehringer (hoard called by him Comiso in his review of *Randazzo Hoard*, hereafter p. 207). It concerns an example of issue B. 38 (V26/R22), an example of a variant not yet known to E. Boehringer (V26/R22 retouched, with the exception of the dolphins and the legend: cf. sale J. Elsen 3, 1985, no 42) and finally an example which attests to an unpublished association of dies V31 and R28 (see below). The Randazzo hoard has not made known new examples of these two previously unknown associations (but on the other hand an example of B. 38; cf. no 236), which shows that one is still at the mercy of other discoveries, for example of pieces revealing an association of V26 with R30–32.

[52] Art. cit., p. 96/97. In the work cited supra n. 48, Cahn already constituted a group called the ≪Left master≫, to whom he also attributed the die R26, where H. Scharmer recognizes the hand of another engraver (cf. Antikenmuseum Basel, no 430 and 431 = pl. 2, 8 and 3, 17).





of the didrachms (R35), where not only does Arethusa present herself similarly to the left, but where, for the first time, the legend is with *kappa* (*pl. 2, 7*). Now, precisely, R31 also adopts the new orthography.[53] This orthography, R31 has in common moreover with R28–29. Not without plausibility, Boehringer put R29 (*pl. 2, 13*) immediately following R28 (*pl. 2, 15*) and he placed them both at the end of series 4,[54] since the engraver of these two dies has a good chance of being the author of the last of the four reverses of didrachms associated with the unique obverse V28, namely R36. H. Scharmer does not fundamentally contest this opinion, but she shows that R36 belongs to a more advanced stage[55] in the career of the engraver whom she baptizes with the name of «Kröbylos Master»; it is in fact this artist of great talent who has durably modified the hairstyle of Arethusa by raising the braid (until then falling) to tie it on the nape and make a tuft, or *krobylos*, spring forth at the extremity of the headband.

What is the first reverse die of the «Kröbylos Master»? On this point, H. Scharmer departs more clearly from the order proposed in the corpus, since she considers that it is R29, not R28, and that she puts these two reverses before R26 and R27. She notes in fact that R26–28 are already paired with a new obverse die (V30) or even with two (V31 for R26), whereas R29 is not yet; on the other hand and above all, she estimates that the Arethusa with tuft of R27 (*pl. 2, 14*) – which, in her opinion, could hardly be the work of the creator of this type[56] – must necessarily be inspired by the nymph as she appears in R28–29 (although these two reverses have *kappa*, whereas the other has *qoppa*). If I believe I can adhere to her classification, it is because proof has been furnished – without anyone noticing it, or at least reporting it – of the relative antiquity of R29. Of this reverse associated only, it seems, with V26 (B. 45), Boehringer knew only a unique exemplar and so worn on the obverse, that it was impossible to determine «whether the injury on the horses' back was already present».[57] Now, since then, at least three new much better preserved exemplars have appeared on the market, one of which was known to H. Scharmer[58] but was not exploited by her despite its excellent state of preservation, and of which the two others, published respectively in 1984[59] and in 1991 (*pl. 2, 13*), reveals an obverse die still intact. As, on the other hand, this die is already damaged above the back of the horses when it is associated with R27 (B. 43) and with R28 (B. 44), one is forced to conclude that R29 chronologically precedes R27–28, and not the reverse.

It remains to determine – to evaluate the duration of this transition phase – which are the last reverse dies with *qoppa* and at what moment of the sequence they are situated. A reverse thus spelled, R25 (*pl. 3, 18*), must still be attributed to the «Master of Arethusa».[60] Despite its close kinship with R24, this reverse could not in fact be ranked in the first phase, for, as Boehringer

[53]This characteristic of the «Left master» is not mentioned by H. Scharmer, who concerned herself with the *qoppa/kappa* opposition only with regard to the two principal masters.

[54]Syrakus, p. 15: «R28 and R29 belong stylistically at the end».

[55]Art. cit., p. 96 and n. 7: «Boehringer lists R36 in group II only because it is connected with an obverse of this group. R36 however appears once in series VI, together with V46.» What she could have added is that such connections between groups II and III reveal the artificial character of this separation (see further below).

[56]Ibid., p. 99: «R27 is in connection with R29, that is to say R29 must have been created before, for the Kröbylos Master will hardly have chosen R27 as a model.»

[57]Syrakus, p. 120 no 45. Of this exemplar from the Pennisi collection in Acireale (Catania) only the reverse is reproduced in photo pl. 2.

[58]Art. cit., pl. 28, 11 (reverse only): «Private possession.» This is certainly not the Pennisi example nor the example reported in the following note, nor the one which is reproduced here (*pl. 2, 13*), after Sotheby New York, June 1991 (Hunt II), 246.

[59]Liste Münzen und Medaillen 469 (August 1984), no 5 (ill.). I do not know the current location of this piece.

[60]Attribution accepted by Boehringer, Syrakus, p. 15 and 119, no 4, as by H. Scharmer, p. 94 and table, and by H. A. Cahn, Antikenmuseum Basel, p. 124, no 428 («a later work of the first master»).

observed without drawing all the consequences, it is in the course of striking with R25 (B. 41) that V26 begins to deteriorate, whence the presence of the characteristic damage on at least one exemplar of this issue.[61] It follows that R25, with *qoppa*, was made (or in any case used) after – and not before – R29 and R26 (*pl. 3, 17*), with *kappa*. One must infer, even if H. Scharmer expresses the contrary opinion,[62] that the ≪Master of Arethusa≫ continued to work – doubtless for a short time – after the entrance on the scene of the ≪Kröbylos Master≫, who was first apprentice at his side as we have just seen. It may even be that the old master, displeased with the changes brought by his pupil, forced him on one point to go back: one would explain best, in this way, that the die R27, very similar to R29 in the presentation of the nymph (hair with *krobylos*) and in the arrangement of the legend (double interpunction[63] between the end and the beginning of the ethnic) is again with *qoppa*, although it is certainly situated at a moment when the replacement of this letter by *kappa* was decided. R27 would therefore be the work of the young ≪Kröbylos Master≫, whereas H. Scharmer ranks it in an unconvincing manner[64] in her group ≪around R33≫, which clearly belongs to the first phase of series 4.

What cannot be doubted is that this artist rapidly became the principal master of the monetary workshop: when he created R28 – where the *qoppa* of former times has definitively given way to the *kappa* of the reformed orthography – he no longer had a rival. Indeed, for the striking of this reverse, one sees him using sovereignly, so to speak, the three anvils which the Syracuse workshop had had at its disposal for some time: on one of them there was still the old die V26, quite at the end of its course, while on the two others there were now the obverses V30 and V31, which Boehringer made rather artificially the pillars of a distinct series (series 5), even though all the reverses associated with V30 already appear in series 4;[65] a distinction that H. Scharmer has partly endorsed, since, if in her table, she ranks V30 following V27 and parallel to (the end of) V26, she puts V31 after V30, without noticing that R26, which establishes the first connection between these two dies, is in reality earlier than R28.[66] It is true that she could not yet know that this last reverse had also been combined with V31, something revealed by a coin published only in 1982.[67] One can therefore today dispense with this subdivision into two series and consider 4–5 as one and the same series, linked moreover – as will be seen – to series 6 (although this is supposed to constitute the starting point of a new group). It is appropriate on the other hand to note that

[61] Naville 4, 1922, no 300 (= B. 41, 2). The example from the Weber Collection, no 1550, presents on the other hand an obverse still intact, as does the example from the Basel Museum (see the preceding note).

[62] The conclusion of her work is in fact ≪that the most accomplished die-cutters, the Master of the large Arethusa head and the Kröbylos Master, did not work simultaneously or alternately, but that one succeeded the other≫ (art. cit., p. 99).

[63] This notable peculiarity is found moreover only on the reverse R22, which we have just seen was retouched by an engraver who could well be one with the (future) ≪Kröbylos Master≫ (cf. supra n. 51); it is an additional argument for attributing R27 to the same engraver (see also the following note).

[64] For she recognizes at the same time its close kinship with R29 (cf. supra, n. 56). In fact, Cahn already put R27 with R29 and R38–39 to attribute them to a ≪Flat-head master≫ (cf. Scharmer, art. cit., p. 94, n. 2) who is one with the ≪Kröbylos Master≫.

[65] The (relative) innovation manifests itself only in the reverses R38–40 (all three also attributable to the ≪Kröbylos Master≫ according to H. Scharmer), which, in the current state of knowledge, are found associated only with the second of the two obverses in question; but these are very close stylistically (Boehringer, Syrakus, p. 16), and, as is now known, doubly linked by R26 and R28.

[66] It emerges however clearly from Boehringer's catalogue that V26 is still more or less intact when it is associated with R26 (B. 42; cf. for example Sammlung eines Kunstfr., no 60, or SNG ANS Sicily III, no 8, or Antikenmuseum Basel, no 431 – *pl. 2, 17*) while this die, as we have seen, is already damaged in issue B. 44 (V26/R28).

[67] Cf. supra n. 51. The editor clearly emphasized this novelty (≪Our die combination is not previously known≫), but he did not truly see its interest for relative chronology and the classification of issues; in fact, his dating of the three tetradrachms published by him remains very traditional (≪around 490, but in no case later than 485≫).

group II is divided, chronologically and therefore historically, into three phases: a first during which *qoppa* is still alone in use; a second, but which cannot have lasted more than a year (since it begins when V26 has already been considerably used and ends before this die is scrapped) during which the introduction of *kappa*, though decreed by the State, encountered a certain resistance on the part of the chief engraver and great artist who had been in office for already quite some time, a third finally which opens when the new master of the workshop imposes forever the new orthography.

One thus notes that the meticulous study of H. Scharmer, once corrected on a few points especially in light of new elements, brings to light, and so to speak without the author's knowledge,[68] the very abrupt and not progressive character of the orthographic change operated by the Syracusan engravers at the end of a brief transition period which shows them curious on the one hand to innovate on the iconographic level, obliged on the other hand to increase their production singularly. It would therefore be essential for the history of Syracusan coinage to be able to date the event – for it is indeed an event – with some precision. At first sight, the thing appears very difficult, since the monetary chronologies proposed until now imply for this reform dates that are considerably divergent. Indeed, from the system put in place by Boehringer and still defended today by numerous numismatists – including, as we have just seen, in particular H. A. Cahn and his school, as well as G. Manganaro[69] – it follows that the substitution of *kappa* for *qoppa* would date from 490 at the latest (group II extending for them from *ca.* 510–500 to 485). A later date, around 483–482, emerged from the handbooks of Head and Babelon;[70] now this dating is the one adopted anew (implicitly) by the authors of various catalogues, thus Mrs. D. Bérend in the recent fascicle devoted to Syracuse in the American Numismatic Society collection[71] or especially Chr. Boehringer in the publication, by L. Mildenberg and S. Hurter, of the Dewing collection and this because of the adjustments that he has made to his father's chronology.[72] For C. M. Kraay, who is one of the rare scholars to have taken a clear position on this, the letter Ϙ «remains current until 480, and is superseded only when the massive issues begin after Himera»[73]. Finally, it is only from 470 – or even later still – that one would have to place the change if one followed Michael Vickers[74]

[68]Since H. Scharmer, once again, did not concern herself with this reform, a notion which moreover does not appear in her article.

[69]Art. cit. supra n. 7, p. 31. Indeed, if the Italian historian adopts Kraay's opinion regarding the low date of the «Demareteion» (which he places more precisely in 463), he modifies little the chronology of groups I–III, limiting himself «by way of hypothesis» to putting group II – during which the orthographic change is accomplished (of which he says nothing) – between 500 and 485 (instead of 510–485 in B.).

[70]Cf. supra, n. 14 and 33.

[71]SNG ANS, Sicily III (1986), nos 1 sqq. Series 3 being dated to *ca.* 485–484, series 4 to *ca.* 484–483 and series 5 to *ca.* 482, this entails for the reform a date around 483. Same thing, very nearly, in Dewing Coll., loc. cit. in n. 32 (series 4 «ca. 485–483 B.C.»).

[72]Loc. cit. in n. 32; cf. already JNG 18, 1968, p. 95, where the author proposes indeed to place the last issues with *qoppa* around 480, this on the basis of the hoards from Gela (cf. supra n. 30) and Caltagirone (= Mazzarino – Monte Bubbonia: IGCH 2071), which contained 61 tetradrachms of Syracuse up to no. 333 of Boehringer (series 12c) with 1 drachma of series 12d (= B. 354) and whose burial must be situated around 470 at the latest (cf. C. Arnold-Biucchi, Randazzo Hoard, p. 44, against Kraay's too low dating); see now the chronological table given hereafter in his review, p. 208.

[73]Gr. Coins and History, p. 29.

[74]Persepolis, Athens and Sybaris: questions of coinage and chronology, Rev. Et. Gr. 99, 1986, p. 239–270 and notably 267 sq., where V. adopts Kraay's views on the decadrachm, and proposes «to associate the very first dolphins [group II, series 3] and the winged victory flying over the chariot with the naval victory of Cumae in 474, with Hieron's victory over Agrigento and Himera in 472, or else [!] with his victory in the Olympic chariot races in 468»; cf. by the same NC 1985, p. 1–44, in particular 38. On V.'s «chronological revolution», see for example P. Amandry, BCH 112, 1988, p. 591 sqq.





in his proposal (which still appears only sketched) to lower to 474, at the earliest, the beginning of group II. A good twenty years thus separate the two extreme datings, which could suggest that the means to fix the thing are cruelly lacking.

However, if Syracusan inscriptions are not abundant, one has the good fortune to possess several public dedications of great interest for the chronology of the reform. The two most important, already known to Boehringer, are on the one hand the dedication of the tripod erected by Gelon at Delphi after the victory of Himera, on the other hand the consecration made at Olympia by Hieron of a helmet (in reality, as is now known, of several) taken from the Etruscans defeated in the naval battle of Cumae. Although engraved abroad, the Delphic dedication is clearly «written in a Syracusan alphabet», while the signature of the artist who made the tripod and the *nikê* «is in an alphabet of oriental type and in Ionic dialect».[75] Let us reproduce the facsimile and the transcription of this justly celebrated text (*pl. 1, 1–2*):



Γέλōν ὁ Δεινομέν[εος]
ἀνέθēκε τṓπόλλōνι
Συραϙόσιος.

τὸν τρίποδα ⋮ καὶ τὲν ⋮ Νίχēν ⋮ ἐργάσατο
Βίōν ⋮ Διοδṓρō ⋮ υἱὸς ⋮ Μιλḗσιος.

The occasion of the consecration being beyond doubt,[76] one can establish fairly precisely the date at which the monument was erected. It appears clear indeed that the project – even in the hypothesis where it would have been conceived immediately after the battle of 480[77] – could not have been realized at Delphi before the autumn of 479, when the Persian threat, at the evening of Plataea, ceased to hang over central Greece. It is moreover probably after the liberation of his homeland, consecutive to the naval combat at Cape Mycale (480), that Bion of Miletus undertook to execute the Syracusan tripod; this was of gold according to the testimony of ancient authors, and P. Amandry has just demonstrated that it stood at the summit of a column (doubtless of bronze) resting itself on the preserved bell-shaped base.[78] In short, one hardly risks being wrong in placing only around 478, the very year of Gelon's death, the erection of the first monument of

[75]L. Dubois, Inscriptions grecques dialectales de Sicile (Rome/Paris 1989), p. 97–98, no 93, with the earlier bibliography. For the signature of Bion of Miletus, cf. P. Amandry, in: J. Boardman, A Conference at the Homereion in Chios 1984 (Oxford 1986), p. 209 and fig. 7. I am indebted to Mr. Fr. Lefèvre, member of the École française d'Athènes, for sending the photo given here (unpublished photograph by P. Amandry). – It is quite in vain that R.T. Williams, in his essay refuting the chronology proposed by Kraay, attempted to weaken the value of the argument drawn from Gelon's inscription, by highlighting the fact that this base is a block of black limestone «almost certainly local Delphian» and that the signature is the work of an Ionian stonecutter: «is it likely that a mason was sent from Syracuse just to carve the six words of script at the top?» (NC 1972, p. 7–8, no 22). In any case it is certain that at least one Syracusan architect came to Delphi; and this *tektôn* could very well have engraved this three-line text which is «the most beautiful inscription found at Delphi» (P. Amandry, BCH 111, 1987, p. 83).

[76]The connection with Himera is clearly established by Diod. XI 26, 7; even more clearly Athenaeus, VI 231 F, citing Phainias of Eresos, author of a work On the Tyrants of Sicily (Fr. Wehrli, Die Schule des Aristoteles $9^2$, Basel 1969, fr. 11) and Theopompus of Chios (F. Jacoby, FgrHist 115, F 193), places Gelon's monument at the time when Xerxes was campaigning against Greece. Cf. also Bacch. III 15–17 and the scholion to Pind., Pyth. I 155.

[77]At what moment of the year is unknown, for the supposed synchronism of the battles of Salamis and Himera is only a legend born precisely in the milieu of the tyrants of Syracuse, then developed in the 4th century: cf. Ph. Gauthier, The Himera-Salamis parallel in the 5th and 4th century B.C., Rev. Et. Anc. 68, 1966, p. 5 sqq.; D. Asheri, CAH$^2$ IV (1988), p. 73 sq.

[78]BCH 111, 1987, p. 79–92; cf. J.-Fr. Bommelaer, Guide de Delphes. Le site (Paris 1991), p. 188–189, no

the Deinomenids. If, consequently, the stonecutter charged with the engraving wrote the ethnic in the form **Συραqόσιος**, it is because one still and always had recourse to *qoppa*, at this date in the official acts of Syracuse. Had it, on the other hand, already gone out of use when, a little later (but doubtless even before Cumae), Hieron in his turn had erected at Delphi a very similar monument,[79] if not identical? One unfortunately cannot affirm it, the second base being much less well preserved and the ethnic (supposing there was one) having completely disappeared.[80] But this is infinitely probable, as will be seen.

For, lacking this document, one can allege for the reign of Hieron three inscribed helmets coming from the booty taken from the Etruscans. Boehringer still knew only the one, of Italic type, which has been in the British Museum for a very long time (pl. 1, 3). It is moreover always the only one for which a facsimile is available, which I believe useful to reproduce here with, again, the transcription:[81]



Hιάρōν Δεινομένεος
καὶ τοι Συρακόσιοι
τõι Δὶ Τυρ(ρ)αν(õν) ἀπό Κύμας.

Two more recent finds, published one in 1960[82], the other in 1979[83], have revealed that Hieron had the same text inscribed on a whole series of helmets, both Greek (Corinthian type) and Italo-Etruscan; this has permitted the correction with complete certainty of the curious form TVPAN (line 3), which had been interpreted until then in various ways: in the light of the new exemplars one must, in fact, read Τυρ(ρ)αν(õν) (genitive of origin: «taken from the Tyrrhenians = Tyrrhenians»). What is much more important for our purpose – and has not been noted[84] – is to have henceforth the assurance that the spelling Συρακόσιοι with *kappa* is not due to another

518; also now, K. Krumreich, Golden tripods of the Deinomenids from Delphi, JdI 106, 1991, p. 37–62, who places Gelon's offering as early as possible after 480, at least for its conception, and contests that it is a response to the trophy of Plataea. – At Olympia, Gelon and the Syracusans consecrated after Himera three linen cuirasses, which were deposited in a treasury of the Altis (Paus, VI 19, 7) and have obviously disappeared.

[79]On this monument cf. P. Amandry, loc. cit. The fact that it rests on the same base as that of Gelon appears to indicate that their construction to both had been undertaken in the aftermath of Himera (cf. also R. Krumreich, art. cit. p. 49). But if one believes Theopompus, Hieron took time to find the refined gold that he needed for the offering of the tripod and the *nikê* (cf. supra n. 76), whence also the mention of the weight in the dedicatory inscription (see the following note). There is no serious reason to connect the thing with the victory of Cumae, as do (after others) R. Meiggs – D. M. Lewis, A Selection of Gr. Hist. Inscr. (Oxford 1969), p. 21; cf. F. Courby, Fouilles de Delphes, II La terrasse du temple (Paris 1927), p. 250.

[80]«Only the name of the dedicant Ϧιάρōν (block no 1617) survives», writes L. Dubois, op. cit. in n. 75, p. 98 n. 13. But what D. took for a fragment of the base has no connection with it (same error in Jenkins, Coinage of Gela, p. 9 and n. 56): it is a piece found elsewhere (inv. no 2476), which H. Pomtow dated to 482 and where he restored after Th. Homolle, BCH 21, 1897, p. 403 sq., Ϧιάρōν [ὁ Δεινομένεος ἀνέθēκε Συραqόσιος] (Syll.$^3$ [1915], no 35 A); on this arbitrary attribution to Hieron, cf. P. Bourguet, FD III 1 p. 79 no 136. Hieron's base inscription preserves, for its part, only the end of the patronymic, Δεινομέ]νεος immediately followed by the verb ἀνέθēκε. At line 2 one still reads λεπτὰ, which preceded an amount in talents.

[81]Most recently re-edited by L. Dubois (op. cit. in n. 75), p. 98, no 94a.

[82]G. Daux, BCH 84, 1960, p. 721 and fig. 12 (Chronicle of excavations in 1959). Cf. H. Jucker, Mus. Helv. 21, 1964, p. 186 and pl. II 2. Taken up in SEG XXIII 253 (cf. XXIV 315 and XXIX 411), and by L. Dubois, loc. cit., no 94b.

[83]Arch. Delt. 29, 1973–1974 (1979), Chron. B. 2, p. 343, and pl. 216. Cf. notably BCH 104, 1980, p. 611 and fig. 64, G. A. Pikoulas, Horos 1, 1983, p. 59, who wrongly transcribes Ἱάρων and Τυραννῶν with *omega* (whence SEG XXXIII 328), and L. Dubois, loc. cit., p. 99, n. 15.

[84]Thus by L. Dubois, who has clearly marked on the other hand that the form TVPAN should be corrected

small negligence of this engraver (who would have abusively modernized the orthography of the ethnic), but corresponds indeed to a new usage, already generalized at the moment of the battle of Cumae. In other words, the reform was accomplished around 474, whereas it was still to come in 479 or even, as we have seen, 478. One could not therefore admit for the change the much too high date that E. Boehringer's system implies, nor the one, clearly too low, which emerges from the hypothesis sketched by M. Vickers: the truth is found, quite exactly, in the middle.

This conclusion could have been drawn for nearly a century.[85] Now, even today one is reluctant to make it and in any case to use it as a precise chronological criterion. Nothing shows this better than the recent publication of a remarkable bronze *kērykeion* acquired in 1978 by the Museum für Kunst und Gewerbe in Hamburg[86]: this object half a meter long bears indeed the inscription δαμόσιον Συρακοσίōν «official (caduceus) of the Syracusans» (*pl. I, 4*). The style of the engraving permits its attribution with great confidence to the first half of the 5th century. W. Hornbostel – followed moreover by the epigraphists[87] – dates it more precisely to the period 485–470, while marking his preference for the second part of this period, namely the reign of Hieron. In fact, the presence of *kappa* in this most official text should have permitted being quite categorical: one is certainly after 479/8, as Peter Herrmann suggested[88]. If the editor preferred to retain the *terminus post quem* of 485, it is because the reference work for archaic writings, L. H. Jeffery's handbook, teaches that the substitution of *kappa* for *qoppa* was not realized overnight but that there is a gap of about ten years, on this point, between monetary legends and monumental inscriptions: «The die engravers», writes the British epigraphist,[89] «were apparently quicker than some other writers to abandon *qoppa*». But this observation results of course from the too confident adoption of Boehringer's chronology, as if it were forbidden to a specialist in writing to exercise critical judgment in the domain of numismatics. The height of it, to tell the truth, is to see afterwards learned numismatists flying to the rescue of this chronology by alleging Miss Jeffery's opinion: thus R. T. Williams[90], according to whom the die cutters, like vase painters, would make use of a more modern writing than contemporary stonecutters, for the reason that «a die cutter might well prefer to use simple forms for his tiny letters». But this is an affirmation that could not apply to the particular case of *qoppa*/*kappa*, since the writers changed letter, not form: to claim that one of these letters is simpler than the other has, therefore, no sense.

(cf. already G. Daux loc. cit., and M. Guarducci, Epigrafia Greca, I, 1964, p. 346) or at least considered as an abbreviation (cf. the same in Bull. épigr. of the REG 100, 1987, p. 448, no 757), a strange hypothesis is made on this abbreviated form by O. Hansen, Hermes 118, 1990, p. 498, who has not known the 3rd helmet, whose inscription, confirming that of the 2nd, destroys his exegesis.

[85]It was indeed in 1894 that Gelon's base was discovered at Delphi; as for the first helmet dedicated by Hieron, it was acquired by the British Museum as early as 1827. Cf. Antike Helme (...) des Antikenmuseums Berlin (1988), p. 97 sq. and 248 sq.

[86]W. Hornbostel, Jahrbuch der Hamburger Kunstsammlungen 24, 1979, p. 46–62, notably 46 sqq. and fig. 19–21 and 38.

[87]Thus the authors of SEG XXIX 940, or L. Dubois, op. cit. in n. 75, p. 95, no 89, with this commentary: «The absence of *qoppa* and the presence of the Sicilian delta of form D put the writing of this inscription midway between those of dedications 93 [Gelon] and 94 [Hieron].»

[88]Consulted by W. Hornbostel, the Hamburg epigraphist indeed «proposed a dating between 480–470, at most 485–470 B.C.» (p. 53), alleging our inscriptions and the opinion of L. H. Jeffery (for which see below).

[89]The Local Scripts of Archaic Greece (Oxford 1961), p. 265 (cf. also 263). No additional note on this in the re-edition of the handbook provided by A. W. Johnston (Oxford 1990), whose supplement makes no mention of the new inscribed *kērykeion* (cf. p. 460, Syracuse A–C).

[90]NC 1972, p. 7, no 22, citing Jeffery, p. 63 and 65, who was moreover obliged to note that coins are sometimes more conservative, in matters of writing – or let us say better of alphabet –, than lapidary inscriptions, the classic examples being furnished by Corinth (maintenance of the initial Ϙ) and by Athens (legend AΘE). For Williams's opinion on Gelon's base, cf. supra, n. 75.





It must be recognized that this confusion has its roots in Boehringer himself, whose attitude toward the testimony of inscriptions has been singular, not to say more. From the outset, indeed, one sees him declare that the dedications of the Deinomenids bring nothing for the dating of coins: ≪The inscriptions of Syracusan votive offerings found to date teach us nothing for the dating of the coins.≫[91] Quite to the contrary, it is the coins that would permit us to make ≪a remarkable epigraphic observation≫. Remarkable assuredly, since one would thus learn that at Delphi because of the sacred character of the offering, Gelon had recourse to letters of venerable antiquity (≪archaic letters≫), even though one already made use of the new ones, at the same period, in the production of the State's coins. I could have dispensed with citing this astonishing petitio principii, if Boehringer's opinion had remained isolated. But K. Regling immediately echoed him in the detailed review that he gave of the Syracuse corpus, underlining the correctness of the opinion according to which the presence of *qoppa* in the Delphic dedication ≪is explained by the sacred purpose≫ and seeking to support it by means of an example borrowed from Byzantine numismatics which has strictly nothing to do with the problem posed by the change in question.[92] And, more recently, it is another excellent numismatist who believed he could put the ≪epigraphic indices≫ in the last rank of criteria usable to fix the chronology of monetary series.[93]

One will perhaps not judge it useless, in these conditions, that I try to confirm by numismatic arguments the dating obtained above for the orthographic reform. They are moreover furnished to me by observations that I find recorded in the Syracusan corpus and whose merit belongs to its author. Boehringer remarked that a very close stylistic kinship united *the obverse* V26 of Syracuse (*pl. 2, 11–15* and *pl. 3, 17–18*) and an obverse of Gela, which is die O32 (*pl. 3, 19*) in G. K. Jenkins: the resemblances in the treatment of the quadriga, the charioteer and the *nikê* are even so numerous that one can attribute the two dies to the same artist.[94] Now, in Boehringer's system, the Syracusan die must have been engraved around 500 B.C., since it is with this obverse that series 4 (group II) opens. For the German scholar it was then hardly easy to explain how one and the same artist could have, before 485, worked for Syracuse and for Gela, two separate and enemy cities: no question, in any case, of thinking of the events of the year 485/4, when Gelon, once master of Syracuse, brought to his new capital more than half the inhabitants of Gela (Hdt. VII 156) and thus created multiple links between the two States. He therefore had to suppose that the artist had moved from one city to the other outside any political context.[95] Today, it seems that one can account for the thing much more simply. Indeed, Jenkins has shown that die O32 of Gela, which inaugurates group II of this city, must be placed in the period immediately following Himera, and this has obliged him to lower to around 490–485 the date of the Syracusan model[96];

[91] Syrakus, p. 93.

[92] Gnomon 6, 1930, p. 637: ≪Something similar is it (a millennium and a half later), when on Byzantine coins in Christ's name the old forms M and N still stand, but otherwise the new, cursive forms are used (ZfN 33, 279)≫. Again, therefore, the substitution of *kappa* for *qoppa* is wrongly assimilated to a change in the form of one and the same letter.

[93] H. A. Cahn, cited by Chr. Boehringer, JNG 18, 1968, p. 91: ≪Certainly epigraphic indications are the last that one should use to date coins of continuous minting≫, who refers to this author without reference.

[94] Boehringer, Syrakus, p. 78. Cf. Jenkins, Coinage of Gela, p. 43: ≪Close comparison of details make it clear that Gela 032 must by the same engraver as the Syracusan die [V26]≫; J. has on the other hand rejected, or at least cast doubt on, another stylistic rapprochement proposed by B. (between V107 at Syracuse and O33 at Gela).

[95] Syrakus, p. 79: ≪The artists could well work now here and now there in the neighboring city only a few days' journey away; even the fact that before 485 Syracuse and Gela had lived in a state of war with each other cannot overturn the evident connection≫; cf. H. Chantraine, JNG 8, 1954, p. 14, n. 36.

[96] Loc. cit. in n. 94: ≪the Syracusan die is later than this [i.e. Boehringer's date around 505 B.C.] but not later than 490–485≫; this because series 4 to which V26 belongs is already present in the Gela hoard (see above), while group II of Gela is not yet found there. – C. M. Kraay, Gr. Coins and History, p. 39–40, was, on the basis of

for faithful, essentially, to Boehringer's system, he did not want – or dare – to cross the fateful limit of 485. One must however, despite oneself, resolve to do so: what likelihood is there indeed in admitting an interval of half a dozen years (at minimum) between these two dies so closely related? It is therefore only around 480 that the artist must have engraved V26 at Syracuse and it is very shortly after that he was sent to Gela, by order of the tyrant, to make there the first obverse die of Syracusan type. Now, one remembers that V26 is precisely one of the obverses to which are first associated reverses with *qoppa*, then afterward reverses with *kappa*. Consequently, the orthographic reform could hardly be earlier than 480; one will situate it, rather, one or two years after this date, especially in the hypothesis (considered very seriously by Jenkins) where group II of Gela would begin only around 475.[97]

Another rapprochement, even more remarkable, will serve as the ultimate numismatic counterproof to the epigraphic chronology. Boehringer observed that the reverse R42, after having been used with several Syracusan obverses – in the order V53 (B. 117), V32 (B.63; *pl. 3, 20*) and V54 (B. 118) – was paired with an obverse that one could not, according to him, truly qualify as «Syracusan» and which is for this reason ranked among the «foreign» dies (A3; *pl. 3, 21*), since it is found combined, for its part, with three reverses of the type and name of Leontinoi (lion's head to the right with four grains arranged in a circle, legend ΛΕΟΝΤΙΝΟΝ; *pl. 3, 22*). This community of dies between the two coinages necessarily implies that the two cities were then politically united.[98] By this, one obtains an insurmountable *terminus post quem*: for it is only from 485 that Syracuse found itself in the same camp as Leontinoi, this city forming part, as is known, of the cities that the tyrant of Gela inherited from Hippocrates, who had conquered it shortly before his disappearance in 491 (Hdt. VII 154). Boehringer was therefore led to suppose that Gelon, immediately after his seizure of power at Syracuse, hastily brought from Leontinoi an engraver equipped with an obverse die usable both in that city and in the new «capital» and that the engraver in question reworked there,[99] to give it a new youth, the reverse die R42; it is thus that in 485 there would have been produced, in one and the same workshop, pieces with the ethnic of Syracuse and others with that of Leontinoi.

Without denying the interest of this audacious hypothesis, which seems moreover very generally accepted,[100] one must indeed see that it has real sense only in Boehringer's chronological system, of which it moreover constitutes one of the pillars: for if the beginning of group III was placed in 485, it is because of it, the obverse V32 – to which is associated the linking reverse R42[101] –

this rapprochement, «tempted to conclude that the quadrigae coinage of Gela (...) began c. 484/483 immediately after the burial of the Gela hoard», whose burial, however, proves a little later (cf. supra n. 30).

[97]Cf. Coinage of Gela, p. 24–25 (480/475–475/470).

[98]This is admitted by Boehringer, Syrakus, p. 79: «It is not to be assumed that between Syracuse and Leontinoi, as long as both cities stood in enmity to each other (...), an exchange of dies took place.» This example of die sharing, very exceptional for the classical period, was emphasized by K. Regling, Gnomon 6, 1930, p. 636.

[99]It is indeed in the association with A 3 that R42 is most worn (cf. Syrakus, p. 22 and 135, no 117). The retouching consisted in cutting the extremity of the hair and re-engraving the legend (ibid.; cf. also 79–80 for the exposition of the hypothesis). This coin is very rare: the only exemplar known to B. (p. 257 and pl. 30) was then in the coll. J. Wertheim, whence it passed in 1926 (Naville – Ars Classica XII, 1926, no 828; cf. no 827, where R42 is not yet retouched = B. 63, another *unicum*) into the Lockett coll. (SNG Lockett, no 877), then to Oxford (Kraay, Gr. Coins and History, pl. 4, 3).

[100]Besides Regling (loc. cit. in n. 98), cf. more recently Kraay, Gr. Coins and History, p. 27 and n. 3 («an obverse die borrowed from Leontinoi»); R. T. Williams, NC 1972, p. 4 (who cites Kraay adding: «Borrowing there certainly was»); especially H. A. Cahn, Antikenmuseum Basel, p. 346, concerning the Leontinoi tetradrachm no 347 (here *pl. 3, 22*): «Our obverse die was brought to Syracuse after its use in Leontinoi, a unique phenomenon for this early period.»

[101]This reverse is the work of an archaizing engraver who returns to the old hairstyle of Arethusa, such as one





being the first of this group according to the author of the corpus; and one can even, without impertinence, go so far as to think that this is what incited Boehringer to put by preference here the rather arbitrary separation between group II and group III). Now, one has noted that this high chronology was henceforth rendered obsolete by the concordant testimony of several hoards – including that of Randazzo –, which forbid dating the «mass coinage» before 480. How to admit in these conditions that, more than five years after having inaugurated his Syracusan coinage, Gelon would have had to call upon an engraver from Leontinoi who, to be more immediately «operational», would have brought with him an obverse die of his city? If only one could show that this emergency die was widely used at Syracuse, but it is quite the contrary[102]: of issue A3 one knows still, it seems, only a unique exemplar and the die in question was, at Syracuse, associated with only a single reverse, worn and retouched moreover, whereas the other contemporary obverses (V31–V37) were infinitely more productive.

However, the principal obstacle to Boehringer's explanation lies elsewhere: it is in the fact that the coinage of Leontinoi cannot have begun as early as his hypothesis implies.[103] One could not indeed impute to chance the absence of any coin of this city in the vast Gela hoard (IGCH 2066) buried, as will be remembered, around 480 as also in that, a little later, of Passo di Piazza (IGCH 2068); it is only in that of Monte Bubbonia (IGCH 2071), which dates from the end of the 470s, that specimens of the oldest series of Leontinoi appear, constituted by tetradrachms and didrachms of Syracusan type (quadriga or horseman on the obverse/lion's head surrounded by four grains on the reverse). Thus it is very generally admitted today,[104] even by the partisans of Boehringer's system (and this at the risk of a certain incoherence), that Leontinoi began to strike coins only in the aftermath of its «refoundation» by Hieron in 476, who regrouped there the inhabitants of Naxos and Catane (Diod. XI, 49). Awaiting the corpus that Chr. Boehringer must give of this coinage, one can try to account thus for the die link brought to light by E. Boehringer: the obverse that was supposed to come from Leontinoi is in reality a product of the Syracuse workshop. This die was first paired – as a trial – with the reverse R42, which was then at the end of its course and was even reworked for the occasion,[105] then Hieron put it at the disposal of the new city of Leontinoi, where it was used quite a long time since one knows at least three reverses that are associated with it. This issue is certainly among the first[106] (if not the first: the future corpus

finds it afterward, or simultaneously, in series 8a (R70, R77). See moreover Boehringer, Syrakus, p. 21: «R70 recalls R42, is by the same hand, and indeed a little earlier, as the archaisms in the face prove besides the coupling appearing at number 117 (...) R77 stands between R70 and R42.»

[102] As Boehringer had to recognize, Syrakus, p. 80 (cf. supra n. 99).

[103] One long admitted, indeed, that the first strikings of Leontinoi went back to the very beginning of the 5th century: cf. e.g. Head, HN$^2$, p. 148, and Traité I, col. 1503. Likewise still H. Chantraine, Syracuse and Leontinoi. A numismatic-historical contribution to the older Western Greek tyranny, JNG 8, 1957, p. 7–20, who placed its beginning around 490, at the time when Leontinoi depended on Ainesidemos, confidant of the tyrant of Gela.

[104] See notably Chr. Boehringer, JNG 18, p. 94 sqq.; Kraay, Gr. Coins and History, p. 27–28 (who however makes the coinage of Leontinoi begin before 480 already; cf. R. T. Williams, NC 1972, p. 3, for whom – despite Jenkins, Coinage of Gela, p. 151 n. – the presence of a coin of Leontinoi in the Gela hoard is not to be excluded); P. R. Franke – S. Grunauer von Hoerschelmann, SNG München 5 (1977), nos 536 sqq.; Chr. Boehringer, in Dewing Collection (cf. supra n. 7), p. 42; H. A. Cahn, Antikenmuseum Basel, p. 104; C. Arnold-Biucchi, Randazzo Hoard, p. 24–25.

[105] Boehringer, Syrakus, p. 80, believed he could infer from the manner in which this retouching had been realized, with dots at the angles and extremities of the letters, that it was the work of an engraver from Leontinoi called to Syracuse, since the technique in question is not found at Syracuse before the decadrachm; but the argument proves today invalidated, a very small number of years (about three years according to me) separating in fact the reworking of R42 from the making of the 5 reverses of the decadrachm, cf. W. Schwabacher, Das Demarateion (Bremen 1958), p. 25 and pl. 3.

[106] Two of the three reverses associated with the Syracusan-Leontinian obverse are represented in the coll. of SNG





will settle this point) of the Leontinian coinage around 475. Henceforth one can affirm that the orthographic reform was accomplished in 476, for the ethnic of the Syracusan reverse R42 (*pl. 3, 20–21*) – already presents, and before any retouching, the new orthography.

By this, one sees, the *terminus ante quem* that the booty of Cumae (474/3) furnishes is not only confirmed but also moved upward in a very interesting way: it is therefore between 479/8 (Gelon's offering at Delphi) and 476/5 (refoundation of Leontinoi by Hieron) that one should henceforth place the official substitution of *kappa* for *qoppa*. One will then, without excessive audacity, take an additional step. As the highest date is also the most plausible from the numismatic point of view (for reasons of style as much as of monetary rhythm), one is justified in thinking that the reform, perhaps already decided by Gelon at the extreme end of his reign, was realized by Hieron from his accession. This modernization of orthography can hardly date, ultimately, but from 478.[107]

# 3 From the «Geloneion» to the «Demareteion»

An epigraphic change hitherto poorly interpreted and consequently insufficiently exploited – when it has not been quite simply rejected as a fallacious criterion – thus proves capital for anchoring the absolute chronology of the coinage of Syracuse under the Deinomenids. It becomes possible, in any case, to distribute clearly the production between the two great reigns of Gelon (485–478) and of Hieron (478–467). Now, this division coincides exactly with none of the classifications in force, not even that, however close, of C. M. Kraay.

With the late numismatist of Oxford, one can at least resume with complete certainty the opinion that prevailed before 1929[108] concerning the date when the old tetradrachm with quadriga and small head of Arethusa was transformed by the addition of the *nikê* and the dolphins: it is a creation imputable to Gelon in 485/4 or very shortly after. The «Geloneion» – to give it this name analogous to that of «Hieroneion» forged a short time ago by Chr. Boehringer (see below) – was at first struck only in very small quantity: for three or four years, until around 482–481, there was only one anvil where a single obverse die was successively associated with four reverse dies, all the work of the same artist (series 3 of Boehringer). Although the silver resources available to the tyrant notably increased only from his victory over the Carthaginians, one notes, even before Himera, a sensible increase in production (in view of this war?), which manifests itself in the fact that two anvils with the obverses V26 and V27 are henceforth used concurrently; it is also then that the striking of didrachms resumes, interrupted since 485 (if not already earlier). The patron of the workshop is still the «Master of Arethusa», creator of the new types, but at his side there is now at least one apprentice, who cuts some reverse dies (R22/23) and even doubtless the first obverse die V28, associated with the first reverse of the didrachms (R33). On the eve of the orthographic reform – that is to say, as is now known, in the aftermath of Himera (480) – a new engraver (in

ANS 4/II, nos 201–202, but they are not classified at the head of the series; same thing in the publication of the Randazzo hoard (no 80, from the same obverse and reverse dies as no 201 of the ANS), without one seeing clearly why, in the absence of the corpus in preparation. For the 3rd reverse, cf. Antikenmuseum Basel, no 347 (reproduced here *pl. 3, 22*) or Franke-Hirmer, Gr. Münze, pl. 5, 14, or SNG München 536 (placed at the very beginning), or Kraay, Gr. Coins and History, pl. 4, 3 (Oxford).

[107] A change of reign appears to be the most appropriate moment for such a reform: at Athens, the adoption of the Ionic alphabet took place, as is known, the year when the democratic regime was reestablished (403/2); at Thespiae, this adoption was realized at the beginning of the Corinthian War, around 395 (cf. J. Taillardat/P. Roesch, Rev. Phil.[3] 40, 1966, p. 78–79), while it is only in 379, date of the liberation of the Cadmea that it was, in my opinion, definitively realized at Thebes (cf. Chiron 22, 1992 [in press], no 24).

[108] See above p. 12 and n. 33.

whom one can see the future «Kröbylos Master»)[109] makes his appearance by completely recutting the effigy of the reverse R22. This production of the years 482–478 corresponds roughly to series 4 of Boehringer; but one must take care that series 5 is partly parallel to this series 4, for it is certainly before the scrapping of dies V26 and V27 that the obverse V30 is placed on a third anvil:[110] in fact, as I have shown above, the true line of demarcation, constituted by the passage from *qoppa* to *kappa*, crosses the two series. If therefore Boehringer was manifestly wrong to make the end of series 5 coincide with Gelon's arrival in power, one could not give reason either to those who, such precisely as Kraay, have made Himera the pivot between series 5 and 6 (or groups II and III): the only immediate or almost immediate effect, of the victory, in the coinage of Syracuse, is a new increase in striking thanks to the installation of a third anvil.

The death of Gelon and the accession of Hieron will precipitate the evolution begun from 479. The change affects first of all the aspect of the reverse of the tetradrachms. Following the reform decreed by the new tyrant, one will very quickly modify not only the orthography of the legend but also the hairstyle of Arethusa, and this after a short period of trial and error where one sees two engravers try to turn to the left the effigy traditionally oriented to the right, one by preserving for the nymph her old hairstyle (R26; *pl. 3, 17*), the other by already adopting the new fashion (R31; *pl. 2, 8*) of which R29 (*pl. 2, 13*) furnishes the first attestation. This die is a creation of the engraver designated under the name of «Kröbylos Master» who works at first under the firm direction of the old master as the reverse R27 (*pl. 2, 14*) attests,[111] still with *qoppa* whereas the reform has already entered into force. His placement at the head of the workshop – where he will remain several years (judging by the number of dies that can be attributed to him) – is exactly contemporary with the definitive substitution of *kappa* for *qoppa*. Refractory, perhaps, to this reform (in any case his last reverse die, R25; *pl. 3, 18*, remains faithful to the old orthography), the «Master of Arethusa» will disappear very shortly after Gelon himself, of whom he will thus have been the official engraver (but not unique). One is permitted to wonder if Hieron would not have sent him to Gela to his brother Polyzalus, since the first obverse die of group II of Gela was attributed by Boehringer already, then by Jenkins, to the same artist as the author of the Syracusan obverse V26, which is assuredly the work of the «Master of Arethusa». This would imply that the Geloean coin in question was struck around 478/7:[112] as the specialists admit for the beginning of this group a dating between 480 and 475, the least that one can say is that the hypothesis would not be implausible from the chronological point of view.

If the change of reign thus coincides with a renewal of the personnel working in the monetary workshop, the thing seems due, at least in part, to a will to increase production sensibly. With series 6 begins indeed the «mass coinage», which Boehringer was able to classify with patience and rigor but whose beginning he unfortunately placed in 485, when Gelon was still very far from having at his disposal the reserve of precious metal necessary for the striking of these hundreds of thousands of pieces (one counts approximately 150 obverse dies for the series forming group III). Kraay perfectly showed the historical implausibility of this chronology,[113] and by placing the

[109] Hypothesis of P. Höfer (cf. supra n. 51) that I have adopted by adapting it to the new chronology.

[110] This simultaneity was only partially recognized by H. Scharmer, art. cit. in n. 44, since she ranks V30 certainly beside V26 but following V27 (table fig. 1).

[111] For the attribution of R27 and the place of R29, two points on which I depart from the conclusions of H. Scharmer, see above, p. 16–17.

[112] This joins the hypothesis of C. M. Kraay, who, after having defended a rather high date (around 484) for the first tetradrachms of Gela (Gr. Coins and History, p. 39–40), issued the idea, on the basis of Jenkins's corpus (cf. supra n. 97 for the latter's opinion), that the didrachms inaugurating this coinage «were in all probability superseded by tetradrachms on the accession of Polyzalus in 478» (NC 1972, p. 17).

[113] Gr. Coins and History, p. 24 sqq. Basing himself on the corpus, K. counted 142 obverse dies for group III, but

beginning of group III in 480/79 he was wrong only by little: this coinage is necessarily posterior to 478, date of the orthographic reform. On the other hand, as I have already suggested on several occasions, there is no solution of continuity between group II and group III. From the stylistic point of view, this is made manifest by the attribution to one and the same artist, the «Kröbylos Master», of reverse dies belonging to both groups.[114] There are moreover two die links that unite them closely (and one can think that others will appear again, new finds often making known unpublished associations or even, sometimes, unrepertorized dies); one is established by the reverse R39, associated with the obverse V31 (B. 60) of series 5 (group II) and with the obverse V32 (B. 64) of series 6a (group III), the other by the reverse R36 (didrachm), used in series 5 (B. 53) as in series 7 (B. 96). One has moreover not paid enough attention to the fact that Boehringer himself implicitly recognized this overlapping of the two groups (separated however, according to him, by Gelon's coup d'état!) when he wrote that «one will have begun with the striking of V32 when one had not yet stopped with V31»[115]. It is that in fact group III begins at the moment when, quite simply, one decided to install a fourth anvil (V32) then a fifth (V53–54); almost simultaneously, one had to change the dies fixed to the second and to the third (V26 and V30 replaced by V34 – of which one knows, doubtless provisionally, only two pairings out of the four or five expected – and V36), while, on the first anvil, V31 remained still usable (see table fig. 2). Now, it is henceforth possible to date fairly precisely this historically important phase of the coinage: one is there around 476/5, since the obverse common to Syracuse and to Leontinoi is found linked, by the reverse R42, to V32, first obverse of one of the two new Syracusan anvils.[116]

It is practically at the same moment that series 6a must have ended, whose last die is V36 or better V37. But there is no break between it and the small series 6b (V38–V43)[117], which can also be placed around 475: such is indeed, as will be remembered, the approximate date of the Passo di Piazza hoard (IGCH 2068), where the most recent of the Syracusan coins is a piece of this series (B. 85 = V41/R55). Series 7 seems at first sight to be a little apart, for it is constituted of issues of tetradrachms that are without links – except stylistic ones – with those of the preceding and following series. But besides the fact that it is nonetheless linked to series 6 by a didrachm die (reverse R36 associated with V28 and with V46), the two dies V44 and V45 readily take place, beside one another, on two of the anvils that are freed at the end of series 6b.

What happens on the other anvils in operation since the beginning of Hieron's reign? One

their number must in reality approach 150, since one must admit that even today some dies remain unknown to us: nothing shows this better than the Randazzo hoard where there are 3 new obverses for this group alone: cf. nos 393–396 (new obv./ new rev. already attested together by the exemplar Ars Classica 15, 1930, 332), no 432 (new obv. associated with R177 E; cf. B. 257 E) and no 475 (new obv. associated with R216; cf. B. 310); see also Chr. Boehringer SNR 57, 1978, p. 127, no 212 (new obv. associated with R161; cf. B. 236); two new obverses appeared moreover in series 12e (tetradrachms linked to the decadrachms): SNG ANS 5/III, 120 (associated with R269; cf. B. 382) and SNG Delpierre 630 (associated with R275: cf. B. 389).

[114]Cf. H. Scharmer, art. cit. in n. 44, p. 96, who notes that R43, which she attributes to this master, is «a connecting link, for it can be attached to R40 [Gr. II], but also already stands very close to R46 [Gr. III]».

[115]Syrakus, p. 15.

[116]Very shortly after, or even simultaneously, a 5th anvil must have been put in place, with the obverses V53 and V 54 (perhaps in alternation, for a strict succession does not seem possible here), both linked to R42. This is proof that series 8a, to which these two dies belong, is largely contemporary with series 6a–6b (which make only one: see the following note).

[117]As is proven by the fact that R49 links V35 (series 6a: B. 74) to V43 (Ognina hoard, no 203: cf. Chr. Boehringer, SNR 57, 1978, p. 127). It is therefore rather secondary to know that series 6a ends not with V36 as E. Boehringer believed, but with V37: cf. C. Arnold-Biucchi, Randazzo Hoard, p. 35, on the basis of two new associations, but apparently without knowing that of the Ognina hoard. Moreover, V36 seems to be as old as V32 (first obverse of series 6a according to Boehringer), since they are linked by R43 (B. 65 and 79 E).





must obviously place there the dies of series 8a, with which would end, according to Mrs. C. Arnold-Biucchi[118], the first phase of group III. Our table however highlights three things that the presentation of the corpus risked strongly masking: it is first that series 8a is contemporary with series 6a–6b (see the link that establishes itself between them from the beginning by the reverse R42); it is next that this series, which begins by occupying two anvils, develops on three anvils from the moment when one passes from 6a to 6b (see the change that operates on the 4th anvil, where V47 has every chance of succeeding V33, itself successor of this obverse V32 which it closely inspires);[119] it is finally and perhaps above all – for this obliges one to move the frontier between the two first phases distinguished by Mrs. Arnold-Biucchi – that series 6b is prolonged (by means of the reverse R56) into series 9a[120] (distributed on two anvils). In other words, if there is indeed a frontier between 8a and 8b – which proves today linked to series 11[121] –, it is appropriate to place the whole of series 9 in the first and not in the second phase. The passage from one to the other must be situated a little after the burial of the Passo di Piazza hoard, therefore doubtless around 474/3, date of the victory of Cumae.

The classification proposed here implies that, for the period of approximately five years going from the accession of Hieron to the aftermath of Cumae (478–474/3), one made use of a little more than 50 obverse dies (series 6–8a and series 9). There would therefore remain a good hundred[122] to lodge between 473 and 461, very probable date, as the hoards teach, of the beginning of the *kētos* group (series 13–18). This gives a balanced distribution, even if it were necessary by chance to go back up to *ca.* 465, that is to say to the fall of the Deinomenids, the end of group II–III (series 12a–d): one would therefore deduce only that the rhythm of striking must have increased again in the second half of Hieron's reign, which would be quite admissible given the stylistic mediocrity of the issues grouped in series 8b and 10–12.

Set apart, of course, the decadrachm (and the tetradrachms that are associated with it; *pl. 3, 23–24*), which Boehringer classified at the very end of his group III (series 12e). If the place of this small ensemble within the great series 12 were assured, there would no longer be any way to escape a very low dating of the first Syracusan decadrachm: one would indeed be forced to choose between 465, 463 or 461,[123] depending principally on the date that one would judge should be preferred, until further notice, for the passage from group II–III to group IV. But one can legitimately refuse

[118]Randazzo Hoard, p. 37, who distinguishes three phases, the 2nd being constituted by series 8b–11, the 3rd by series 12 and its numerous sub-series: ≪These three phases probably developed in a chronological sequence, but within the phases the issues can be considered parallel and contemporary≫, which seems to me fundamentally correct (cf. supra n. 116).

[119]Cf. Boehringer, Syrakus, p. 21: ≪V47 at number 102, with which series VIII is introduced, recalls V32.≫ He also emphasized the kinship between R70 and R42 (supra n. 101); but it is wrongly – in my opinion – that he placed the latter after the former, basing himself on the style and the coupling of R42 with V53–54: R42 belongs to the beginning of series 6a and therefore necessarily also to the beginning of series 8a.

[120]This is what Chr. Boehringer already saw, JNG 18, 1968, p. 84. Cf. also M. R.-Alföldi, Dekadrachmon, Tabelle 1.

[121]On this link see C. Arnold-Biucchi, Randazzo Hoard, p. 35 with the table p. 36, which also shows that series 11 is linked to series 10, which was not known.

[122]On the number of obverses of group III cf. supra n. 113.

[123]In the range 465–461 C. M. Kraay (loc. cit. in n. 4) marked a preference for the lowest date, which would correspond to the episode related by Diod. XI 76, 2 (reward granted by the Syracusans to their six hundred most valorous defenders against the *xenoi*, in the form of a prize for bravery, *aristeion*, of one mina to each). G. Manganaro (art. cit. in n. 7, p. 23 sqq.), also establishes a close connection between this *aristeion* and the decadrachm, but according to a new chronology of Sicilian history in those years, he dates the event to 463; on the other hand, he considers that the decadrachm (series 12e) is inserted in group IV, which begins according to him in 466/5.





to allow oneself to be locked into this dilemma. Indeed, as several numismatists have very justly observed – of whom G. K. Jenkins in the first place, then Maria R.-Alföldi in her study entitled precisely *Dekadrachmon*[124] –, it is not at all established that the tetradrachms struck at the same time as this exceptional denomination have their place at the tail of series 12, nor even that they form part of it. If Boehringer assigned them this place, it is perhaps not so much, ultimately, for stylistic reasons as because of the lion engraved in the exergue.[125] The presence of an animal at this place seemed to him to be the prefiguration of what characterizes group IV, with the *kētos* also in the exergue. But the argument lacks force, for it suffices to take into consideration the posterior evolution to note that the exergue, after group IV, could again be often empty.[126] In short, it is manifestly with arguments of another kind that one should try to specify the date of the decadrachm, held until recently as the pivot of the entire Syracusan chronology.

Mrs. R.-Alföldi wondered formerly – without wishing or being able to decide – if the year 478 should not constitute a *terminus ante quem* for the striking of the issue attributed to Damarete: ≪Whether one should take as lower limit the moment of her marriage with Polyzalus, after 478, when she left Syracuse to live in Gela, cannot be said≫.[127] Today, this question requires a firmly negative response, if at least one accepts to fix in 478 precisely the orthographic reform: the fact that the five reverses currently known of the decadrachm[128] (like those of the corresponding tetradrachms) all have the ethnic with *kappa* proves incontestably, in my eyes, that the issue dates at the earliest from that year. Far from being a possible *terminus ante quem*, 478 is therefore an assured *terminus post quem*, which suggests that the circumstances of the striking cannot be exactly those indicated by Diodorus in evoking the ≪Demareteion≫.

In fact there exists, as is known, another upper limit, and which has the interest of being lower by a few years: it is the *terminus* furnished by the coinage of Leontinoi. From always, indeed, one has emphasized the extraordinary kinship that links the series of the Syracusan decadrachm to the Leontinian tetradrachms having on the obverse the quadriga with a lion in the exergue, on the reverse either first a crowned goddess very similar to Arethusa (but surrounded by the four grains of Leontinoi in place of the four dolphins of Syracuse; *pl. 3, 25*), then a likewise crowned Apollo (and surrounded no longer by grains, but by three laurel leaves, a second lion on the reverse occupying as it were the place of the fourth under the effigy; *pl. 3, 26*), in both cases with the legend ΛΕΟΝΤΙΝΟΝ. However evident it was, this rapprochement had long only limited interest

[124]P. 113–114, who shows well the impossibility of dating the decadrachms on the basis of the series classification, ≪because the tetradrachms stylistically directly dependent on them are not coupled with the others≫. Cf. Jenkins, Coinage of Gela, p. 23 sq., who – to attempt to save the traditional dating of the ≪Demareteion≫ – places series 12e at the head and no longer at the tail of this series 12, which R. T. Williams approves, NC 1972, p. 2, while C. M. Kraay, ibid. p. 13–16, expresses doubts on this (notably because of the influence exercised by the ≪Demareteion≫ on the tetradrachms of series 13 and 14; in the same sense cf. Chr. Boehringer, JNG 18, 1968, p. 93–94, who remains faithful to his father's classification). Likewise again H. A. Cahn (cited in n. 147), p. 99.

[125]Syrakus, p. 42, concerning series 13a: ≪On the obverse appears here for the first time in the section at the place where previously the lion was (...), an animal that the Greeks called Ketos≫.

[126]Thus in group V series 19 and 22 present an empty exergue, whereas series 20 and 21 have there a symbol.

[127]Dekadrachmon, p. 117. Mrs. M. R.-Alföldi is in fact tempted to put the decadrachm a little later, around 475, supposing a relation between this exceptional coinage and the financing of the campaign against the Etruscans. – This is the dating adopted by D. Bérend in SNG, ANS 5 Sicily III (1988), no 119, although she does not refer to the memoir of the German numismatist.

[128]Cf. W. Schwabacher, Das Damareteion (Bremen 1958), p. 25. To the 17 examples known then were added an 18th (found at Catane in 1947 [?] and entered into the Dewing collection (op. cit. in n. 4), p. 50, no 780: it concerns the combination V192/R264, already attested by the New York example and that of Boston, which corresponds to the 3rd die combination in Schwabacher, p. 25) and more recently a 19th (Schweiz. Bankverein 5, 1979, 96).





from the chronological point of view, for the date of the issues of Leontinoi depended closely on that assigned to the decadrachm.[129] Henceforth the relationship is reversed. It is certain, indeed, as has been seen, that the coinage of Leontinoi did not begin before 476/5. It would remain to determine how long the striking of the first series lasted, with the lion's muzzle on the reverse: without prejudging the result at which Chr. Boehringer will arrive in his corpus, it seems reasonable to affirm, in view of the number of dies and the stylistic evolution, that its duration was not limited to a very small number of years. A dating before *ca.* 470 therefore appears excluded for the end of this series, which could have been prolonged until the fall of the Deinomenids in 466/5.[130] This appears at first sight to favor the lowest date for the issues related to the decadrachm and therefore for it also. But, as Mrs. C. Arnold-Biucchi justly notes,[131] these two issues could very well have been struck parallel to the current series, exactly as the ≪Demareteion≫ at Syracuse. In fact, they have in common having been quantitatively weak or very weak: for the first (crowned goddess), one knows even only one obverse die and one reverse die;[132] for the second, barely more abundant, it is only two obverse dies and two reverse dies that have been inventoried until now (despite the enrichment of the Randazzo hoard, where three of these pieces figure).[133] This is to say that in good method one must be satisfied, at least provisionally, with the *terminus post quem* of *ca.* 476/5, which already constitutes notable progress compared to that, previously established, of 478 and completes the proof that the decadrachm could not be put in direct relation with the victory of Himera.

A *terminus* even notably lower still should follow, according to Chr. Boehringer, from the by now famous ≪Basel≫ tetradrachm of Aitna that he published nearly twenty-five years ago. The precise dating of this *unicum* (quadriga driven by Athena on the obverse, with a plant in the exergue/seated statue of Zeus on the reverse; *pl. 3, 27*) poses problems however. No one, certainly, thinks to contest that it is sensibly earlier than the ≪Brussels≫ tetradrachm of the same city: it is therefore between 476/5, date of the foundation of Aitna by Hieron, and the middle or end of the 460s[134] that it is appropriate to place it. But within this range of a dozen years, which corresponds roughly to that of the Syracusan decadrachm, the possibilities seem all the more numerous since all specialists do not necessarily share the editor's conviction on the question of knowing which of

[129]See for example Head, HN$^2$, p. 148–149, and Traité I, col. 1234, relying on the publication by A. J. Evans of the first known exemplar of the issue with quadriga with lion in exergue/goddess and four grains (Contributions to Sicilian Numismatics, NC 1894, p. 213 sqq.). Cf. more recently W. Schwabacher, Das Damareteion, p. 19–20 and pl. 5.

[130]This is the chronology that Chr. Boehringer admits, in Dewing Coll., op. cit. p. 42 (≪ca. 476–468 B.C.≫), by adopting therefore for the tetradrachms with quadriga and Apollo with lion the date of ≪ca. 466 B.C.≫, which seems however a little late compared to that which he indicates for the ≪Demareteion≫, namely around 470 (cf. ibid., p. 50, no 780).

[131]Randazzo Hoard, p. 25. The author also estimates, moreover, that the current series of Leontinoi must not have continued beyond 466, given the Syracusan character of the types.

[132]The known exemplars are listed in: Gr. Münzen, Sammlung eines Kunstfreundes (1974), p. 132, no 91, concerning the exemplar of this collection (here *pl. 3, 25*), which comes from that of Sir Arthur J. Evans (cf. supra n. 129).

[133]Randazzo Hoard, p. 54, nos 88–90 (cf. p. 25: ≪The early Apollo head issue at Leontinoi was no doubt a very limited one as there seem to be only two obverse and two reverse dies known≫.

[134]One can indeed hesitate, for the Brussels tetradrachm (P. Naster, La collection L. de Hirsch [Brussels 1959], no 269), between a high dating, before Aitna was abandoned by the mercenaries of the Deinomenids (event that Diod. XI 76, 2 places in 461/0, but which must go back in reality to ca. 463 at least: cf. H. Wentker, Sizilien und Athen [Heidelberg 1956], p. 163–164 n. 40, whom Chr. Boehringer approves, art. cit. p. 75 as well as G. Manganaro, art. cit. p. 10), or a low dating, posterior to this event (since the name of Aitna was then given to the town of Inessa: see Strab. VI 2, 3, 268). But in any case it must be situated around 465–460, certainly not later, given its stylistic kinship with the tetradrachm of Naxos of ca. 461 (for which cf. supra, n. 7).

the two issues preceded the other.[135] For Chr. Boehringer, indeed, it made – or at least then made – no doubt that it is the decadrachm that comes second: for if he was thereby led to overturn the received chronology of group III, he in no way called into question the classification operated by his father. Now, it is, at Syracuse, the tetradrachms of series 9–11 (in any case not those of series 13, with which begins the *kētos* group, traditionally dated 474–450) that would offer, according to him, the closest stylistic parallels with the new coin. As this moreover has every chance, in his opinion, of going back to the very year of the foundation of Aitna, this would entail for the decadrachm (supposed to belong to the extreme end of group III) a date around 470–468, therefore almost as late as that which Kraay was proposing at the same moment. It is clear that, in these conditions, one could no longer identify the first Syracusan decadrachm with the «Demareteion», whatever this issue of gold or silver may have been.[136] It would rather concern a coin commemorating a high deed of Hieron's ending reign (Pythian victory of 470 or Olympic of 468), whence the name of «Hieroneion» that the author has suggested attributing to it henceforth.

Without disregarding the considerable contribution of this work, I believe that it is appropriate today to orient ourselves toward a slightly different solution. On the very basis of the rapprochements established by Chr. Boehringer, one must admit that the «Basel» tetradrachm of Aitna is slightly more recent than this scholar thought. It is indeed from the years posterior to 474 that certainly date, in my opinion, the tetradrachms of series 9–11, where certain obverse dies «are – apart from the Nike – extraordinarily similar to the Athena die»[137]. Moreover, this *nikê* is itself quite remarkable, since she crowns not the horses but the charioteer (that is to say the goddess), as on the tetradrachms of Himera after its return to independence in 472.[138] Now, this is a relatively late trait, for this attitude of the winged figure appears hardly in the Syracusan coinage before the beginning of group IV (small series 13b; cf. *pl. 3, 28*), obviously posterior to the decadrachm. But one finds it again – something that Chr. Boehringer could have emphasized more[139] – on the two obverse dies of the Leontinoi issue with the lion in the exergue (and the effigy of Apollo on the reverse; *pl. 3, 26*). It could, certainly, be that it was the Aitna engraver who innovated on this point, as he would have been a precursor also in ornamenting the exergue; but he could hardly have done it years before others imitated him. Now, everyone holds as assured, and rightly so,

[135] See the critique of R. T. Williams, NC 1972, p. 8–9, to which C. M. Kraay, ibid. p. 22, was here very tempted to adhere, it seems («if Williams is right» ...); cf. moreover ACGC, p. 211. Same reservation in M.R.-Alföldi, Dekadrachmon, p. 114–115.

[136] Chr. Boehringer did not decide this point (as C. M. Kraay did, Gr. Coins and History, p. 40–41), but rather than imagine a gold coin of 50 liters (= 2.9 g) or of 10 Attic drachmas (43.1 g), he still preferred to suppose the existence of a silver decadrachm older than the «Demareteion» (JNG 18, 1968, p. 90–91). – In case one should retain the hypothesis of a gold issue in 480/79, it seems clear to me that Diodorus's indication regarding its equivalence with the Attic standard should be understood as referring to *its value*, not to its weight: an expression such as πεντέδραχμον χρύσεον at Delphi to designate Philip's gold triobol (worth 5 silver drachmas of Attic weight) leaves hardly any doubt on this subject: see J. Bousquet, BCH 109, 1985, p. 249 sqq. = Etudes sur les comptes de Delphes (Paris 1989), p. 139 sqq.

[137] Art. cit. p. 84. It is particularly the obverses V87 and 95 (series 9a) and 116 (series 11) that he brings close to the obverse of the first tetradrachm of Aitna. On these comparisons, see the remarks of R. T. Williams, NC 1972, p. 8–9, which show that the stylistic connections are no less numerous with the obverses of series 12d, as also with the decadrachm and the related issues of Leontinoi, notably for the presence of a symbol in the exergue.

[138] On this series, which is not yet represented in the Monte Bubbonia hoard (IGCH 2071, around 470) and of which there is no exemplar either in that of Randazzo, see F. Gutmann/W. Schwabacher: The tetradrachm and didrachm coinage of Himera (472–409 B.C.), MBNG 47, 1929, p. 104–144. Cf. for example Rizzo, pl. 21, 7.

[139] Curiously, indeed, the author does not seem to note anywhere (apart from the description of the obverse on p. 78), this peculiarity, which W. Schwabacher signaled on the other hand, Das Damareteion, p. 20, in describing the issue in question of Leontinoi: «On the obverses Nike now crowns *for the first time* [emphasized by me] not the horses, but the driver of the quadriga». Cf. already L. Tudeer, op. cit. in n. 21, p. 97–98.





that the issue in question of Leontinoi is inspired, for the rest, by the decadrachm. One cannot therefore exclude that the latter is also earlier than the first tetradrachm of Aitna. In any case, the dating of the new coin around 470 only (instead of 476) could not automatically imply an even later date for the decadrachm: it is, at best, a *terminus ad quem*.

Henceforth, and by abstaining from taking a clear position on this problem of anteriority/posteriority, I propose to put the Syracusan decadrachm in 472, a date that Chr. Boehringer envisaged but that he believed he should reject as decidedly too high.[140] Although a little later than the compromise dating suggested formerly by M. R.-Alföldi[141], this original solution does not at all prevent, quite the contrary, saving the essential of the identification nonetheless so attractive of the first Syracusan decadrachm with the ≪Demareteion≫ of the literary tradition, a coin that weighed or was worth precisely ten Attic drachmas according to Diodorus (XI 26, 3: νόμισμα ἐξέκοψε τὸ κληθὲν ἀπ' ἐκείνης Δαμαρέτειον· τοῦτο δ'εἶχε μὲν Ἀττικὰς δραχμὰς δέκα, ἐκλήθη δὲ παρὰ τοῖς Σικελιῶταις ἀπὸ τοῦ σταθμοῦ πεντηκοντάλίτρον) and of which no text obliges one to think that it was of gold.[142] It is indeed the period when, shortly after the death of Theron of Agrigento, his son Thrasydaeus tried to set himself up against Syracuse and was defeated by Hieron. Although, reduced to the sole testimony of Diodorus, one knows not much about this affair, except that it was deadly and cost Thrasydaeus his throne then his life (Diod. XI 53), one can presume that Damarete, residing at Gela (midway between the two cities), played a leading role in the circumstance, since she was the sister of the tyrant of Agrigento and the sister-in-law of that of Syracuse. It is she who must have interposed herself between the vanquished and the victor. From the fact that she was already supposed to have had this role of intermediary in the aftermath of the battle of Himera by pleading for the Carthaginians with Gelon, it was fatal that confusion would set in between the two episodes, all the more so since Himera was under the domination of Agrigento until this very year 472. One moreover notes that Diodorus expresses himself concerning Gelon granting peace to the Carthaginians in the same way, approximately, as in speaking of the Agrigentines received by Hieron in the aftermath of his victory.[143] In short, the ≪Demareteion≫ was transposed, in a way, from one Syracusan victory to another, *ad majorem Gelonis gloriam* and at the expense of Hieron, ill-beloved of Sicilian historiography, as Diodorus's account furnishes so many indices when it is based in particular on Timaeus.[144]

[140]Art. cit. p. 96: ≪In conclusion it remains to ask, for what occasion around 470 B.C. the early decadrachm series was issued. One can hardly hold for this the victory over Thrasydaeus of Acragas in the year 472: as we saw above, this date is too early for the coins≫. Whence his dating of the decadrachm around 470 or only 468 to which he remains faithful today: see hereafter p. 209.

[141]For by placing the decadrachm around 475 she could continue, she too, to admit a connection with Damarete (Dekadrachmon, p. 116–117; cf. supra n. 127), which on the other hand Chr. Boehringer and a fortiori C. M. Kraay or G. Manganaro could no longer do.

[142]For the other (lexicographic) testimonies on the ≪Demareteion≫, see most recently M.R.-Alföldi, op. cit. p. 110–112. On the sense of στέφανος and of στεφανόω in the passage of Diodorus, cf. G. Manganaro, Note Diodore, in: Mito-Storia-Tradizione (supra n. 13), p. 209.

[143]Compare XI 26, 2 (παραγενομένων γὰρ πρὸς αὐτὸν ἐκ τῆς καρχηδόνος τῶν ἀπεσταλμένων πρεσβέων ... συνεχώρησε [ὁ Ἱέρων] τὴν εἰρήνη) and XI, 53 (οἱ δ''Ακραγαντῖνοι κομισάμενοι τὴν δημοκρατίαν διαπρεσβευσάμενοι πρὸς Ἱέρωνα τῆς εἰρήνης ἔτυχον).

[144]On this hostility of Timaeus toward Hieron, cf. FgrHist 566 F 93 b (= Schol. Pind. Ol. 1, 29d), where T. expresses himself on the other hand favorably toward Gelon (likewise in fragment F 18 = Schol. Pind. Nem. 9). See essentially, on this, K. Meister, Die sizilianische Geschichte bei Diodor (Diss. München 1967), p. 41 (cf. also CAH$^2$ VII [1984], p. 384); more recently G. Maddoli, in E. Gabba/G. Vallet, La Sicilia antica, II 1 (Napoli 1980), p. 49 and n. 106 and L. Pearson, The Character of Timaeus' History as it is Revealed by Diodorus, in: Mito-Storia-Tradizione (supra n. 13), p. 17–29, in particular 23–24 on the tendency to magnify Gelon's work at Himera: ≪This must be Timaeus' version≫; it is rightly that P. also attributes to Timaeus the account of the Carthaginian embassy to Gelon (see the preceding note), and it is certain that Timaeus made mention of the ≪Demareteion≫ (cf.





Dated in 472/1, the striking of the decadrachm and the corresponding tetradrachms (series 12e)[145] is situated at a turning point of Hieron's reign, when the tyrant of Syracuse – victor for the second time at Olympia in the mounted horse race after having been twice also at Delphi in this same event[146] – finds himself rid of the unique rival who could still overshadow him and thus becomes the undisputed master of all Greek Sicily. One must admit that these pieces, which stand out from the ordinary by the addition of the lion and the crown[147] as well as by the quality of the style (not to mention the weight, in the case of the decadrachms), were issued with a particular intention. It therefore seems plausible to think that they were destined to reward the officers and soldiers who distinguished themselves before Agrigento. Very strongly in favor of this interpretation speaks the first of the two issues of Leontinoi contemporary with the «Demareteion»: on this tetradrachm so close to those of Syracuse, since the reverse also shows a crowned female effigy, the letters AR that one reads on the obverse in front of the horses' chest (*pl. 3, 25*) appear indeed to be able to be only the abbreviation of ἀριστεῖον, «prize for bravery», as G. Manganaro clearly saw,[148] the hypothesis of a signature having to be definitively set aside.[149] It is moreover indeed to the mention of an *aristeion* in Diodorus (XI 76, 2) that this historian and already C. M. Kraay before him related the first Syracusan decadrachm. But one has seen that the date resulting from this identification, 463 or 461, was too low, whereas that which is proposed here can accommodate the ensemble of properly numismatic data, without being for all that an object of scandal for archaeologists, in whose eyes the «Demareteion» is the cornerstone of the entire chronology of the severe style.

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Fgr Hist 566 F 93 b).

[145] I consider therefore that this sub-series, far from being the last of group III as the traditional classification wants (cf. supra n. 124), should be placed at the very beginning of series 12, in the immediate succession of series 8a and 9, while the rest of series 12 (a–d) is more or less contemporary with series 8b, 10 and 11 (see table fig. 2). Judging by the number of obverse dies (more than half of those that the whole of group III comprises), one must admit an increase in production in the second half of Hieron's reign (472–467), especially of course if one dates to ca. 465 the passage from group III to group IV (see above, p. 28). Contra: Chr. Boehringer in his review of *Randazzo Hoard* (hereafter p. 209).

[146] One knows that Hieron won the quadriga race only in 470 at Delphi and in 468 at Olympia (cf. Cl. Rolley, BCH 114, 1990, p. 292 sqq., who proposes – after others – to relate to Hieron, and not to Polyzalus, the victory celebrated by the monument of the Charioteer of Delphi); contra: Fr. Chamoux, FD II. L'Aurige de Delphes (Paris 1954, 1990$^2$), p. 26 sqq. and Guide de Delphes: Le Musée (Paris 1991), p. 180 sqq.

[147] The importance of this crown has justly just been emphasized by H.A. Cahn, The crowned Arethusa, in: Florilegium Numismaticum. Studia in honorem U. Westermark edita (Stockholm 1992) p. 99–102: it is for him the confirmation of the traditional chronology, for me the indication that the issue must indeed be put in connection with a military victory.

[148] Art. cit. in n. 7, p. 28 sqq.; cf. also loc. cit. in n. 142, p. 209.

[149] Cf. Gr. Münzen. Sammlung eines Kunstfreundes (1974), p. 123, no 91. But one will hardly believe that it could be the abbreviation of the epiclesis Ἀρχηγέτης designating the Naxian Apollo (Thuc. VI 3), as the catalogue suggests.

# Table of Plates

## Plate 1

1 Base of Gelon at Delphi (photograph P. Amandry, Ecole française d'Athènes, 40186)

2 Base of Gelon, left part of the inscription idem, L 4928, 29)

3 Etruscan helmet dedicated by Zeus of Olympia by Hieron. London, British Museum (after M. Cristofani et al., Les Etrusques, Paris 1986, p. 46)

4 Caduceus of Syracuse in bronze, with an official inscription (after W. Hornbostel, Jahrb. für Hamburger Kunstsamml. 24, 1979, p. 46–68)

a) Overall view of the object (= fig. 19)

b) The engraved inscription (= fig. 38)

## Plate 2

5 Syracuse, didrachm of engraver R 33, series 4:
Boehringer 50 (V28/R33); Antikenmuseum Basel 426

6 Syracuse, didrachm of the «Master of Arethusa», series 4:
Boehringer 51 (V28/R34); Antikenmuseum Basel 429

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9 Syracuse, tetradrachm of the «Master of Arethusa», series 3:
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12 Syracuse, same issue with reverse effigy re-engraved:
Höfer, Beitrag zur Silberprägung von Syrakus (1982) 2

13 Syracuse, tetradrachm of the «Kröbylos Master», series 4:
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14 Syracuse, tetradrachm of the «Kröbylos Master» (?), series 4:
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## Plate 3

17 Syracuse, tetradrachm of engraver R26, series 4:
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18 Syracuse, last tetradrachm of the «Master of Arethusa», series 4:
Boehringer 41 (V26/R25); Antikenmuseum Basel 428

19 Gela, first tetradrachm of Syracusan type (group II):
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20 Syracuse, tetradrachm of series 6a:
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21 Syracuse, tetradrachm outside series (obverse common with Leontinoi no. 22):
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22 Leontinoi, tetradrachm with lion's muzzle (obverse common with Syracuse no. 21):
Antikenmuseum Basel 347

23 Syracuse, decadrachm («Demareteion»); series 12e:
Boehringer 375 (V191/R265); Antikenmuseum Basel 433

24 Syracuse, tetradrachm of the «Demareteion» series:
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25 Leontinoi, tetradrachm with effigy of Syracusan Arethusa:
Sammlung eines Kunstfreundes (1974) 91, Bank Leu 50, 1990, 54

26 Leontinoi, tetradrachm with effigy of Apollo of ancient type:
Bank Leu 45, 1988, 39

27 First tetradrachm of Aitna:
Antikenmuseum Basel 250

28 Syracuse, tetradrachm of series 13b (group IV):
Boehringer 434 (V232/R310); Sotheby's New York, June 1991 (Hunt II), 250

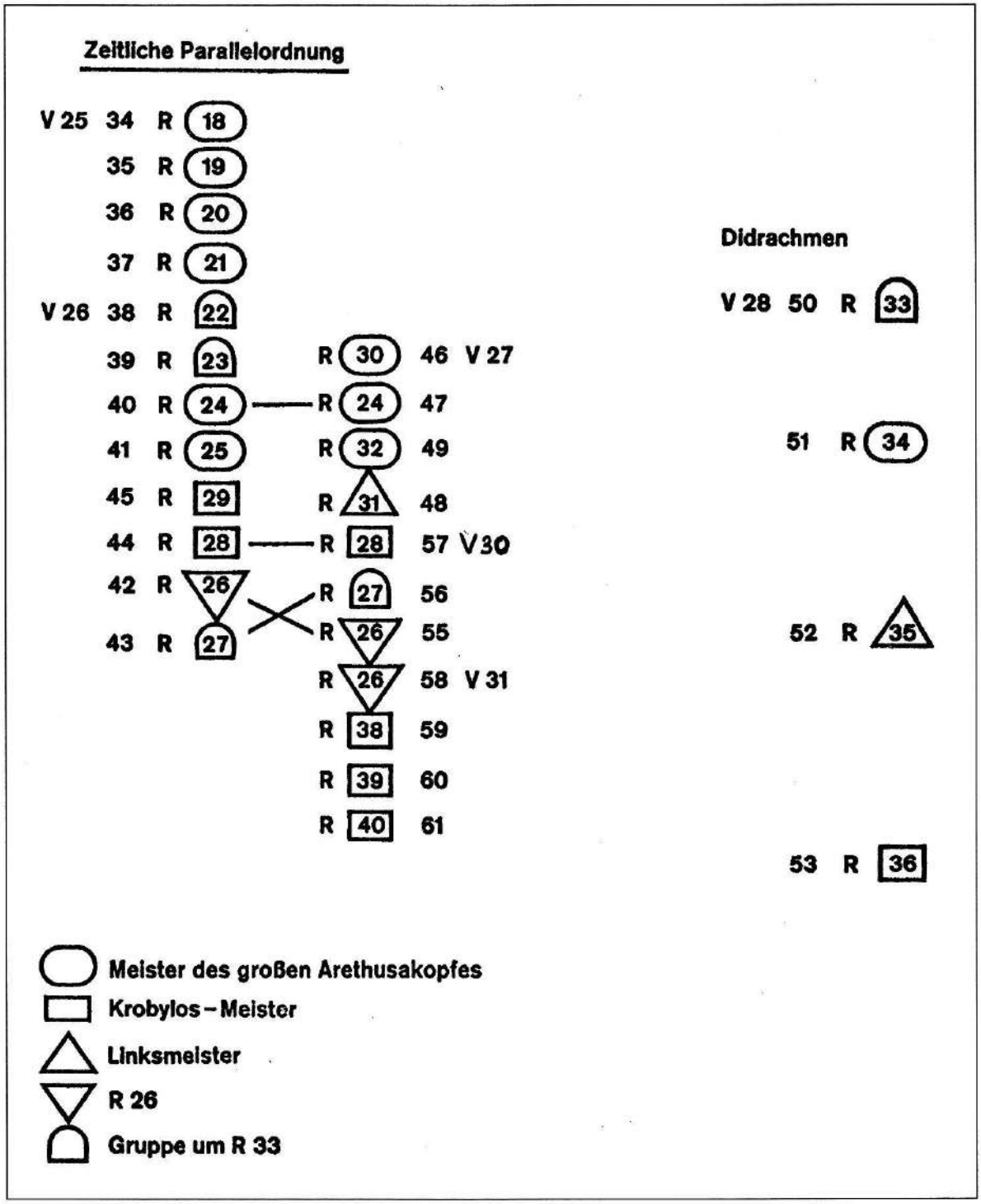
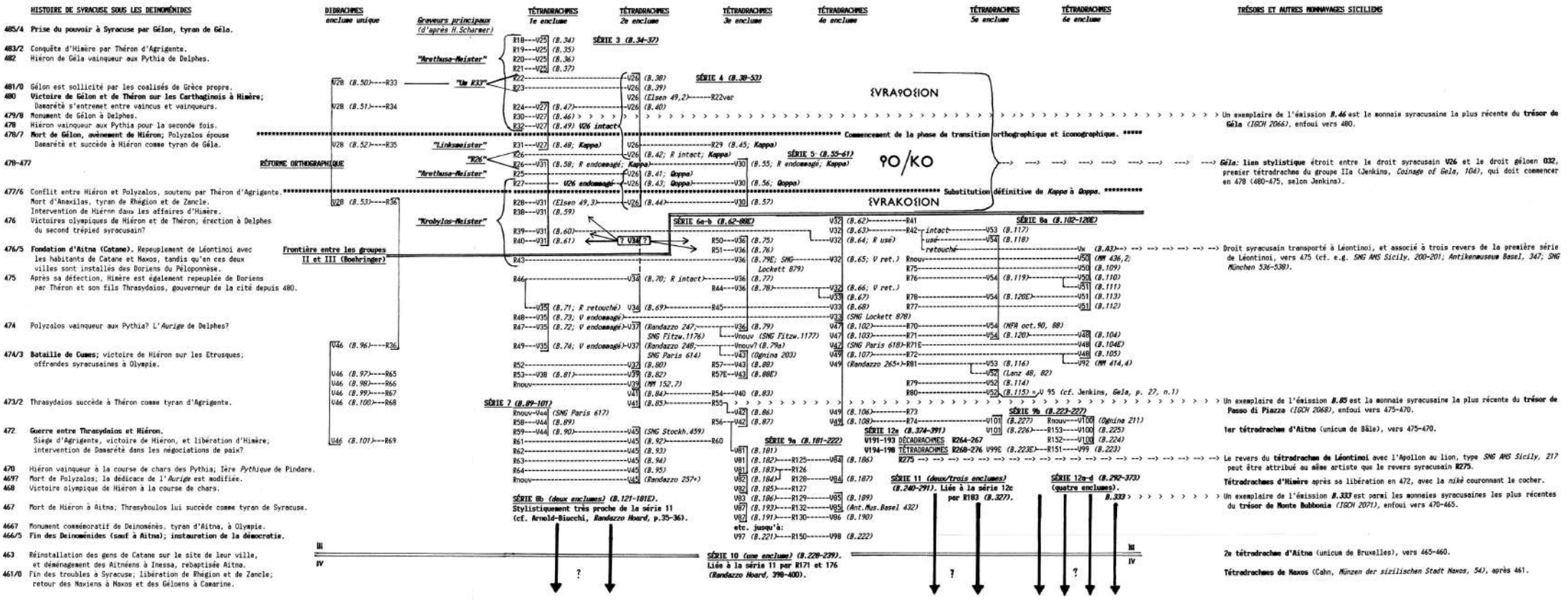



*Fig. 1*

*Fig. 1:* La succession chronologique des émissions de la série 4(–5) selon H. Scharmer, Ant. Kunst 10, 1967, p. 98 (cf. n. 44).

*Fig. 2:* Tableau des émissions syracusaines de tétradrachmes et de didrachmes sous les Deinoménides. B. = Boehringer, *Die Münzen von Syrakus* (1929). V = Vorderseite; R = Rückseite.


HISTOIRE DE SYRACUSE SOUS LES DEINOMÉNIDES
DIDRACHMES
enclume unique
Graveurs principaux
(d'après H.Scharmer)
TÉTRADRACHMES
1e enclume
TÉTRADRACHMES
2e enclume
TÉTRADRACHMES
3e enclume
TÉTRADRACHMES
4e enclume
TÉTRADRACHMES
5e enclume
TÉTRADRACHMES
6e enclume
TRÉSORS ET AUTRES MONNAYAGES SICILIENS
485/4 Prise du pouvoir à Syracuse par Gélon, tyran de Géla.
483/2 Conquête d'Himère par Théron d'Agrigente.
482 Hiéron de Géla vainqueur aux Pythia de Delphes.
481/0 Gélon est sollicité par les coalisés de Grèce propre.
480 Victoire de Gélon et de Théron sur les Carthaginois à Himère;
Damarétè s'entremet entre vaincus et vainqueurs.
479/8 Monument de Gélon à Delphes.
478 Hiéron vainqueur aux Pythia pour la seconde fois.
478/7 Mort de Gélon, avènement de Hiéron; Polyzalos épouse
Damarétè et succède à Hiéron comme tyran de Géla.
478-477
RÉFORME ORTHOGRAPHIQUE
477/6 Conflit entre Hiéron et Polyzalos, soutenu par Théron d'Agrigente.
Mort d'Anaxilas, tyran de Rhégion et de Zancle.
Intervention de Hiérnn dans les affaires d'Himère.
476 Victoires olympiques de Hiéron et de Théron; érection à Delphes
du second trépied syracusain?
476/5 Fondation d'Aitna (Catane). Repeuplement de Léontinoi avec
les habitants de Catane et Naxos, tandis qu'en ces deux
villes sont installés des Doriens du Péloponnèse.
475 Après sa défection, Himère est également repeuplée de Doriens
par Théron et son fils Thrasydaios, gouverneur de la cité depuis 480.
474 Polyzalos vainqueur aux Pythia? L'Aurige de Delphes?
474/3 Bataille de Cumes; victoire de Hiéron sur les Etrusques;
offrandes syracusaines à Olympie.
473/2 Thrasydaios succède à Théron comme tyran d'Agrigente.
472 Guerre entre Thrasydaios et Hiéron.
Siège d'Agrigente, victoire de Hiéron, et libération d'Himère;
intervention de Damarétè dans les négociations de paix?
470 Hiéron vainqueur à la course de chars des Pythia; 1ère Pythique de Pindare.
469? Mort de Polyzalos; la dédicace de l'Aurige est modifiée.
468 Victoire olympique de Hiéron à la course de chars.
467 Mort de Hiéron à Aitna; Thrasyboulos lui succède comme tyran de Syracuse.
466? Monument commémoratif de Deinoménès, tyran d'Aitna, à Olympie.
466/5 Fin des Deinoménides (sauf à Aitna); instauration de la démocratie.
463 Réinstallation des gens de Catane sur le site de leur ville,
et déménagement des Aitnéens à Inessa, rebaptisée Aitna.
461/0 Fin des troubles à Syracuse; libération de Rhégion et de Zancle;
retour des Naxiens à Naxos et des Géloens à Camarine.
"Arethusa-Meister"
"Un V33"
"Linksweister"
"R26"
"Arethusa-Meister"
"Krobylos-Meister"
Frontière entre les groupes
II et III (Boehringer)
SÉRIE 3 (B.34-37)
SÉRIE 4 (B.38-53)
SÉRIE 5 (B.55-61)
SÉRIE 6a-b (B.62-88E)
SÉRIE 7 (B.89-101)
SÉRIE 8a (B.102-120E)
SÉRIE 8b (B.223-227)
SÉRIE 9a (B.181-222)
SÉRIE 9b (B.121-181E).
Stylistiquement très proche de la série 11
(cf. Arnold-Biucchi, Randazzo Hoard, p.35-36).
SÉRIE 10 (une enclume) (B.228-239).
Liée à la série 11 par R171 et 176
(Randazzo Hoard, 398-400).
SÉRIE 11 (deux/trois enclumes)
(B.240-291). Liée à la série 12c
par R183 (B.327).
SÉRIE 12a (B.274-291)
SÉRIE 12a-d (B.292-373)
(quatre enclumes).
B.333
ΣVRA9OΣION
9O/KO
ΣVRAKOΣION
Commencement de la phase de transition orthographique et iconographique.
Substitution définitive de Kappa à Qoppa.
Un exemplaire de l'émission B.46 est la monnaie syracusaine la plus récente du trésor de Géla (IGCH 2066), enfoui vers 480.
Géla: lien stylistique étroit entre le droit syracusain V26 et le droit géloen O32, premier tétradrachme du groupe IIa (Jenkins, Coinage of Gela, 104), qui doit commencer en 478 (480-475, selon Jenkins).
Droit syracusain transporté à Léontinoi, et associé à trois revers de la première série de Léontinoi, vers 475 (cf. e.g. SNG ANS Sicily, 200-201; Antikenmuseum Basel, 347; SNG München 536-538).
Un exemplaire de l'émission B.85 est la monnaie syracusaine la plus récente du trésor de Passo di Piazza (IGCH 2068), enfoui vers 475-470.
1er tétradrachme d'Aitna (unicum de Bâle), vers 475-470.
Le revers du tétradrachme de Léontinoi avec l'Apollon au lion, type SNG ANS Sicily, 217 peut être attribué au même artiste que le revers syracusain R275.
Tétradrachmes d'Himère après sa libération en 472, avec la nikè couronnant le cocher.
Un exemplaire de l'émission B.333 est parmi les monnaies syracusaines les plus récentes du trésor de Monte Bubbonia (IGCH 2071), enfoui vers 470-465.
2e tétradrachme d'Aitna (unicum de Bruxelles), vers 465-460.
Tétradrachmes de Naxos (Cahn, Münzen der sizilischen Stadt Naxos, 54), après 461.
III
IV
?



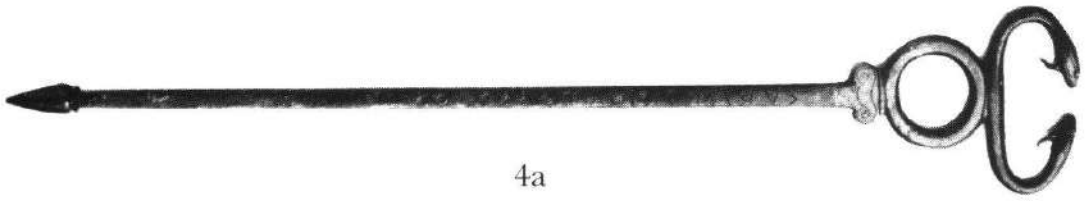
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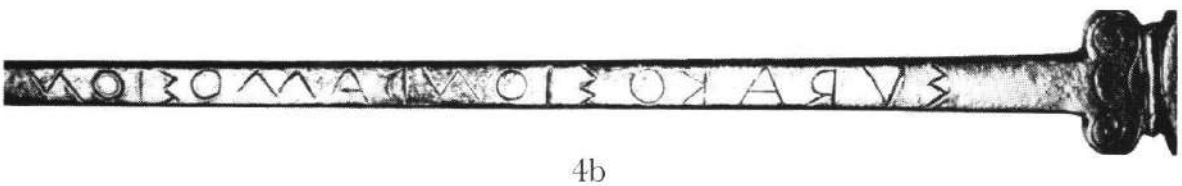
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3



4a



4b

Denis Knoepfler, Syracuse sous les Deinoménides



5 6 7 8

9 10 11 12

13 14 15 16



17 18 19 20

21 22 23 24

25 26 27 28