The Damareteion Controversy – a New Approach*

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For nearly a generation there has been vigorous debate about the dating of the famous Syracusan decadrachm, the so-called Damareteion. Diodoros linked it with the peace concluded after Gelon's defeat of the Carthaginians at Himera in 480 BC: but, writing long after the event, he may have misunderstood Timaios and fallen into error. On strong numismatic grounds modern scholars have suggested other contexts, ranging from the early 470s to 461 BC.[1] I propose a completely new approach. The Damareteion, with its magisterial style, was widely imitated. If any copy could be securely dated, it would at least provide a firm terminus ante for the prototype. One of the closest derivations is found at Italian Kymai. RUTTER listed it as no. 32 in his Corpus, at the very head of his Group 6 – a run of didrachms under clear Syracusan influence. The eye of no. 32, unlike its model, is fully profile. Otherwise the degree of likeness is almost uncanny.[2] The transition from frontal to profile eye at Kymai begins in RUTTER's Group 5 and proceeds through Group 6, with the occasional throw-back. The coinage is here very tightly interlocked, with *R* 22 of Group 4 leading stylistically straight to *R* 30 in Group 6 (no. 33). RUTTER's relative arrangement must stand.[3] His dating of Group 5 is thus crucial for Group 6 also. The very distinctive crabs on the reverses of Group 5 owe much to the Cock / crab series struck at Himera between c. 482 and 472 BC under Akragantine control.[4] This does not in itself compel us to date the Damareteion c.

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[1]Diod. 11,26,3 and schol. 15 (29) d on Pindar, Olymp. 2 (Timaios); C. M. KRAAY in: C. M. KRAAY – M. HIRMER, Greek Coins, 1966, 288 (466 BC?); CH. BOEHRINGER, JNG 18, 1968, 67–98 (470–68 BC); KRAAY, Greek Coins and History, 1969 (henceforth GCH), 19–37 (461 BC?) and NC 1972, 13–24 (c. 465 BC) with Archaic and Classical Greek Coins, 1976 (henceforth ACGC), 205f. and 211f. (c. 465 BC); R. T. WILLIAMS, NC 1972, 1–11 (early 470s); SHELAGH JAMESON, NC 1971, 339–43 (late 470s); G. MANGANARO, AIIN 21–2, 1974/5, 9–40 (463 BC); CARMEN ARNOLD-BIUCCHI, The Randazzo Hoard 1980. ,, 1990, 47 (c. 475–470 BC); G. K. JENKINS, Ancient Greek Coins, ²1990, 84f. (c. 465 BC: retracting his earlier acceptance of the tradition).

[2]N. K. RUTTER, Campanian Coinages, 1979, 15f. and 24–6 with Pl. 2; my Pl. 1,1–2.

[3]RUTTER, op. cit. 22–4 with Pl. 2.

[4]The obverses force us lower than this. Instead of the usual nymph they show helmeted heads of Athena, which derive from certain Corinthian staters now dated in the 460s. RUTTER's Group 6 then, with no. 32 at its head, will start no earlier than c. 465 BC.[5] RUTTER, op. cit. 22f. and ns. 89–91 on 108 with Pl. 2. The best parallels for *O* 25, with no single plait down the neck (see my Pl. 1,3), are O. RAVEL, Les poulains de Corinthe 1, 1936, 211f. (*O* 121/R 164; *O* 121a/R 165); also 225 – the only two scoloi feature – and 226. RAVEL 214 and 217f. (*O* 123/*R* 164; *O* 125/*R* 167, 164). These staters come early in RAVEL's Class 3 (478–458 BC). RAVEL's dates have had to be revised. See M. PRICE and N. WAGGONER, The Asyut Hoard, 1975, 76–8. Class 1 will run from c. 500–480/75 BC, Class 2 will begin not very long before c. 475 BC and Class 3 must start in the early 460s. The Isthmia deposit of c. 475/70 BC contained with three specimens of RAVEL 190 (*O* 111/*R* 146) from the middle of Class 2; for the deposit's date see O. BRONEER, Hesperia 24, 1955, 112 and 133–6 and R. ROSS HOLLOWAY, ANSMN 17, 1971, 8.

465 BC also. Kymai could have taken it as a model only after many years. But that was not the case, as we have seen, with the Corinthian Athenas. Moreover Kymai was politically dependent on Syracuse ever since Hieron rescued them from the Etruscan menace in 474 BC; he apparently even maintained a garrison on Pithekousai for some considerable time after the battle. In this climate, as a grateful client, Kymai was more likely perhaps to have paid its numismatic compliment promptly rather than somewhat belatedly. But this is necessarily subjective.[6]

My second example of dependence on the Damareteion is undoubtedly contemporary. Here the dating of the other mint becomes crucial for Syracuse. Leontinoi struck a very small tetradrachm issue – from just one pair of dies – with a running lion under the chariot on the obverse, as on the Damareteion, and on the reverse a charming Artemis, which owes much to the Arethusa of Syracuse. Evans and Hill even thought that the obverse was by the Damareteion master himself, but this must remain doubtful.[7] Obviously linked with this coin is another Leontinoi issue with a running lion beneath the chariot and a second lion beneath the striking head of Apollo on the reverse. There are two obverse and two reverse dies. The eye on the first and finer reverse is still frontal, as on the Damareteion and the Artemis tetradrachm; but it is profile on the second. On the obverses Nike exceptionally crowns the driver and not the horses, as on virtually all the preceding Syracusan coinage, the Damareteion group and the Artemis coin.[8] The relative position of the Artemis and Apollo issues in the archaic Leontinoi series is certain. Alan Johnston acutely stressed a small epigraphic point, which had somehow been overlooked. Leontinoi's archaic coinage, including the Artemis coin, has Syracusan–Geloan lambda (Λ) in the ethnic; but the two Apollo dies have the Euboic–Chalkidian form ( or ). This is the form that is carried over to the subsequent Apollo / lion's head tetradrachm series and the same shift can be seen in the lower denominations.[9] The first of the later Apollo heads is rough and almost barbaric in style, recalling unmistakeably the second Apollo / lion die. Its reverse, with the dotted truncation of the lion's head and general design, equally recalls the last reverse of the archaic Chariot / lion's head series. There can be no doubt that the 'Damareteion' group at Leontinoi comes at the very end of the archaic coinage and apparently, when coinage resumed after a prolonged break, the last examples of the earlier coinage were taken as models.[10]

[6]For Hieron's victory see Diod. 11,51 and Pindar, Pyth. 1,69–75 with the scholia. Rutter stressed (op. cit. 3–6) the degree of Syracusan involvement with Kymai, citing Strabo 5,248 for the garrisons's later fate. The BC, under democracy, Syracusan navies operated in Etruscan waters in defence of Greek interests (Diod. 11,88,4–5). Concluding that his no. 32 would have been struck soon after its model, he claimed that its date «supports a substantial lowering (by as much as fifteen years) of the traditional date of the Syracusan 'Damareteion'» (26). Kraay anticipated Rutter in ACGC, 178, dating Group 5 after 470 BC (by Corinth) and Group 6, no. 32 not «earlier than 465/460 BC».

[7]See my Pl. 1,4: H. Cointraine, JNG 8, 1957, 16 with Pl. 1,2; Holloway, ANSMN 11, 1964, 2f. with Pl. 1,2; Manganaro, op. cit. (n. 1) 23 with Pl. 1,8. For the artist see A. J. Evans, NC 1894, 214 with Pl. VII,7 (Villabate hoard); G. F. Hill, Coins of Ancient Sicily, 1903, 78; E. Boehringer, Die Münzen von Syrakus, 1929 (henceforth Syrakus), 80f. (an artist of his Reihe a–d).

[8]See my Pl. 1,5–7; Holloway, op. cit. (n. 7) Pl. 1,3–4; Chantraine, op. cit. (n. 7) Pl. 1,3–5; Arnold-Biucchi, Randazzo, Pl. 4,88–90 (as splendid as the Villabate Artemis). Nike crowns the driver on B 34–7 (Reihe 3) and then only after the Damareteion on a fairly early group with the *keios* symbol (B 434–48: Reihe 13 b). For the eye on the Apollo dies see Holloway, op. cit. (n. 7) 9 f. (regarding the first die as by the Damareteion master). Hill apparently attributed the second die to him: see op. cit. (n. 7) 77f. with Pl. V,4.

[9]See A. Johnston, ZPE 17, 1975, 153f. and L. H. Jeffery, Local Scripts of Archaic Greece, 1961, 74, 242 and 262. I had stumbled on this point independently and was happy to find that I had been anticipated by an expert on local scripts.

[10]For the Apollos and the truncation see my Pl. 1,6–9 with Arnold-Biucchi, Randazzo, 25 and Pl. 4,87 (last archaic lion's head). Arnold-Biucchi wanted to put the Leontinoi Apollo / lion issue later than the Damareteion, wondering whether it ran parallel with the latest Chariot / lion's head tetradrachms in the early 460s. Epigraphy

What is the position of the Damareteion in the Syracusan series? Jenkins suggested that Boehringer's Reihe 12 a–d could be put in 479–4 BC after the Damareteion group (12 e), which might then be left in 479 BC. But style and hoard evidence surely rule this out. The Monte Bubbonia hoard went down to B 333 (12 c) in the tetradrachm series, with two drachms which Boehringer listed under 12 d (B 356 f.); the slightly later Casulla hoard of only 40 coins had 9 Syracusan tetradrachms down to B 324 (12 b). Neither hoard had any trace of the Damareteion group.[11] The hoard which E. J. Seltmann acquired in Sicily in 1890 corroborates this evidence. The accumulation of some two hundred coins from an unknown larger number included Egesta didrachms of just the first archaic phase, which we would now date to about 470 BC. There were tetradrachms and didrachms of the archaic Leontinoi series and abundant Syracusan coinage of the 'Gelonian' period and earlier. Seltmann presumably showed two of the latest on his Pl. III – one is a specimen of B 321 (12 b), the other was from *R* 246 (12 d). This is the reverse closest to *R* 276 of the Damareteion group, but again there was no trace of that group in this hoard. Seltmann would certainly have noticed one of these already famous and familiar coins.[12] Like Seltmann's hoard Casulla contained Leontinoi didrachms and Monte Bubbonia had two tetradrachms from the first Leontinoi obverse die. All three hoards also had Cock / crab didrachms of Himera (c. 482–472 BC) – some twelve rather worn specimens in Seltmann's hoard, four and five respectively in the others in good condition. These didrachms are not found in any later Sicilian hoards till the end of the fifth century.[13] It is likely that Seltmann's hoard, like the other two, had only didrachms of Akragas. Whereas these in his time were vaguely dated c. 550–472 BC, scholars generally agreed that the tetradrachms began c. 472 BC. If there had been any tetradrachms in his hoard, Seltmann would surely have used them in his discussion of its date.[14] The combined evidence of the three hoards confirms Boehringer's placing of the Damareteion group (12 e) after Reihe 12 a–d. The long *keios* sequence then follows 12 e without a break (Reihe 13 and 14 were struck in much less volume than Reihe 6–12, as is clearly shown by the fact that the Randazzo hoard had only 15 specimens from the *keios* period out of 308 Syracusan and Villabate only 7 out of the 79 Syracusan examined.[15]

Can we date the Monte Bubbonia and Casulla hoards more precisely than the c. 475–470 BC

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alone bars this.

[11] For Reihe 12 a–d and e see Jenkins, Gela, 22–4. He was vigorously challenged by Kraay, but Williams embraced his thesis eagerly (NC 1972, 13–16 and 2). Arnold-Biucchi supports Kraay (Randazzo, 35–7 and 46f.). The one close link between 12 d and 12 e is between *R* 246 and *R* 276; but Williams and Arnold-Biucchi point to strong stylistic affinities between *R* 276 and *R* 201 (12 a) and *R* 215 (12 b). See NC 1972, 2 with Pl . 1, a–c and Randazzo, 35 f. For Monte Bubbonia (=Mazzarino) and Casulla see the good surveys in Jenkins, Gela, 154f. and AIIN 16–17, 1971, 30 f.; U. Westermark and G. K. Jenkins, Coinage of Kamarina, 1980, 21–3; Kraay, GCH, 31f. and NC 1972, 17–9 (Mazzarino); Westermark, in: Essays in Honor of Margaret Thompson, 1979, 290.

[12] ZfN 19, 1895, 165–82. See my Appendix for a full discussion of this controversial hoard (IGCH 2076). It can still be used with some confidence, I believe. For Egesta see Seltmann, 178 (c. 500–480 BC) and Pl. III; B. V. Head, HN^2, 1911, 165 (c. 480–461 BC); Kraay, ACGC, 220 (from c. 470 BC on). For Boehringer *R* 246 and 276 see Syrakus, 40 and 187; Kraay, GCH, 34 and NC 1972, 15; Jenkins, Gela, 23; Williams, NC 1972, 2.

[13] On the first Leontinoi obverse (horses racing) see Arnold-Biucchi, Randazzo, 24f. and 44 with Pl. 4,77f.; my Pl. 1,17. She arranged Leontinoi by Ch. Boehringer's forthcoming Corpus. Seltmann showed one tetradrachm with the first obverse and just the reverse of another (ZfN 19, 1895, Pl. III); this is very similar to the new Randazzo reverse die (Pl. 4,83 with 25) and die-identical with Traité 2.1, no. 2230 (Pl. LXXIII, 5). For Himera see Seltmann, ZfN 19, 1895, 166; Jenkins, AIIN 16–17, 1971, 30f.; Arnold-Biucchi, Randazzo, 44 and 42f., Table 4. Monte Bubbonia had coins from *O* 3, *O* 10 and *O* 13 (3); Casulla had *O* 10, *O* 13, *O* 14, *O* 15 (the last). The only later hoard with Himera crabs is Monteracci from c. 400 BC (IGCH 2).

[14] See Seltmann's careful statement of his refusal to adduce only vaguely dated material (op. cit. 178f.); for tetradrachms of Akragas c. 472 BC see Head, HN^2, 1911, 120 and Hill, op. cit. (n. 7) 49f. and 65.

[15] Westermark and Jenkins, Kamarina, 22; Arnold-Biucchi, Randazzo, 34.

now fashionable? We must go back to two earlier hoards, revising their dating and establishing when the tetradrachm coinage of Gela and Leontinoi began. There was no trace of them in the Gela and Passo di Piazza (Gela) hoards. JENKINS dated the Gela hoard c. 485 BC and even KRAAY was long reluctant to bring this down by more than a year or two.[16] But JENKINS' date can not stand. The large Athenian element in the hoard includes all the late archaic, unwreathed groups except for those known mainly from the Acropolis hoard of 480 BC. These same Attic groups were present in the S. Anatolia and Asyut hoards, which are now dated c. 480–475 BC by common consent.[17] Epigraphy reinforces the case. The last Syracusan tetradrachms from the Gela hoard (B 38, 39 and 46) come from a short minting period when the die-cutters veered between old koppa and new kappa (Ϙ and K). Now Gelon's Delphic dedication in 480/79 BC has both koppa and kappa; but Hieron's Olympian helmets after Kymai in 474 BC have only kappa in their inscription. Coins and epigraphic practice should surely coincide. That will effectively anchor the Gela hoard c. 480 BC.[18]

In the Passo di Piazza hoard the Syracusan series has progressed to B 75–8 and ?85. The hoard also contains a Messana mule-car didrachm from Anaxilas' Olympic victory coinage; most scholars would now date the victory 480 BC. But this is naturally just a terminus post quem, since in any case the didrachm may not be one of the very first issues. It would be safer to put the hoard c. 478 BC. Another twelve Syracusan obverse dies may have been used since the Gela hoard was buried.[19] Now in the Gela hoard the Gela didrachm series has gone only as far as JENKINS 40, but in the Passo hoard it has reached J 82 – only five more obverse dies remain before its end and the start of the true tetradrachm series.[20] Apparently a Syracusan artist was brought in to inaugurate this on the Syracusan model. The fine first obverse die (*O* 32) must be the work of the die-cutter who not long before made *O* 26 at Syracuse. This obverse was used in the group showing the koppa/kappa transition, with which the Gela hoard closed. Polyzalos' accession at Gela in 478 BC seems the likeliest occasion for the new tetradrachms.[21] Leontinoi was a little slow

[16]Initially KRAAY felt that the 'Mazzarino' hoard (IGCH 2071) had nothing requiring a date after c. 475 BC (IGCH, 31f.), but after JENKINS' work on Gela he boldly argued for drastic down-dating (NC 1972, 17–19). ARNOLD-BIUCCHI stuck to c. 475–470 BC for both hoards (Randazzo, 44); WESTERMARK, Essays . . . Thompson, 290, would date Casulla after 470 BC (IGCH 2075). For Gela (IGCH 2066) see JENKINS, Gela, 20f. and 150f.; KRAAY, NC 1972, 16f.

[17]See JENKINS, Gela, 151 with Pl. 36; E. S. G. ROBINSON, NC 1961, 109f. with Pls. XIII–XIV (S. Anatolia); PRICE and WAGGONER, Asyut, 22,61–4 (Athens) and 117–25. S. Anatolia had a fine Abdera octadrachm (Pl. XIII: MAY 44). Asyut had a run ending with MAY 41, 42, 45 and 48 (36f.). They must come down to c. 480 BC; MAY made their group end c. 492 BC. Both ROBINSON and the Asyut authors dated their hoards and the Gela hoard c. 480 BC. KRAAY reopened this conclusion in NC 1977, 9f. and NC 1961, 12 where he and Asyut JENKINS now seems to have been persuaded: see Ancient Greek Coins[2], 84f. (dating B 46 c. 480–475 BC).

[18]B 49 (Reihe 4) and 56 (Reihe 5: old *R* 27) are the last issues with koppa. See my Pl. 1,10 (B 38, *R* 22: koppa) and 11 (B 42, *R* 26: kappa). For the inscriptions see SIG[3] 34–5; MEIGGS and LEWIS, Greek Historical Inscriptions, no. 28, 60f.; L. H. JEFFERY, LSAG, 266.6 and 275.7 with Pl. 51; G. DAUX, BCH 84, 1960, 721 (a second helmet); KRAAY, GCH, 28f.; CH. BOEHRINGER, JNG 18, 91f.; F. HOEFTLER, Abstracts XI Int. Num. Cong., Brussels 1991, 29. The last three have already strongly argued my case.

[19]For Passo di Piazza (IGCH 2068) see JENKINS, Gela, 156. The last obverse die in the Gela hoard is *O* 27. B 75–8 share *O* 36 (seven tetradrachm dies later). B 85 – but was it rightly identified? – has *O* 41 (twelve on from Gela). For the mule-car see JENKINS, Gela, 154f. and 21f.; KRAAY, NC 1972, 28; ARNOLD-BIUCCHI, Randazzo, 18 and 26.

[20]JENKINS, Gela, 177–9. The Gela hoard ends with *O* 13, Passo with *O* 25. JENKINS argued cogently that the true tetradrachm series came after Group 1 (didrachms) with no overlap: see Gela, 22, 24–6 and 199f. The very rare tetradrachms with types like the didrachms were an experiment, issued along with the final stage of the didrachms.

[21]On Gela *O* 32 and Syracuse *O* 26 see BOEHRINGER, Syrakus, 78 with Pl. 30, A 1 and Pl. 2,38; JENKINS, Gela, 43 with Pl. 7,104–6; my Pl. 1,12–13. For Polyzalos' link see KRAAY, ACGC, 210f. and ARNOLD-BIUCCHI, Randazzo, 21.

to follow Gela. The first Leontinoi obverse die with the racing horses was probably modelled on the more successful early Gela die with this motif (*O* 35); the motif is otherwise quite unknown on coinage at this date. It is tempting to make Leontinoi's archaic coinage begin 476 BC, when Hieron moved the population of Katana and Naxos to that city, on refounding Katana as Aitna.[22] At the same time he quarreled violently with Polyzalos and it nearly came to war between their cities; but wisely both preferred the mediation of Theron of Akragas. The period of harmony, however, was over. Close cooperation, even at the numismatic level, was no longer possible and we find no other evidence of it after Gela *O* 32.[23] Early in the Leontinoi series, however, there is rather surprising evidence of numismatic cooperation between Leontinoi and Syracuse. One of the first Leontinoi obverse dies passed with its maker to Syracuse, where it was reused with an old reverse – *R* 42 – on which the newcomer recut the hair and legend. This die had been first used with *O* 53 (B 117: Reihe 8 a), then with *O* 32 (B 63: Reihe 6 a) and finally with *O* 54 (B 118). Boehringer's Reihe 8 a actually began before his Reihe 6 a and evidently more than one anvil was in use simultaneously. The first two uses of *R* 42, though not in the Passo hoard, probably do pre-date its burial; but the third may very easily have succeeded it. An old die could be brought back into use at Syracuse after a considerable interval. Thus the Leontinoi obverse die ultimately used with *R* 42 need not be dated before c. 475 BC.[24]

Now there are nineteen obverse dies in Gela Group II. Can they really be accommodated in the period before c. 470 BC, as Jenkins thought? Rizzo knew of eleven obverse dies for the Leontinoi Chariot / lion's head series and there may well have been some fifteen in all. Can these be confined to an even shorter period, as Arnold-Biucchi wishes?[25] To answer these questions we must look critically at the dating of three hoards – an unpublished Sicilian deposit and the Monte Bubbonia and Casulla hoards. The first has Syracuse down to Reihe 10 (B 228–239 E), the earlier part of Group IV of the Akragas didrachms and Himera crabs down to *O* 8. Judging by Himera alone we could date this c. 475 BC, but the Syracusan element surely goes later than that. At least 64 obverse dies have been used since the burial of the Passo hoard. A dating in the late 470s looks inevitable.[26] For the Monte Bubbonia and Casulla hoards the Himera crabs give only a terminus post quem of c. 472 BC. The Akragas IV didrachms are represented for over half their course in the first, right to the end in the second.[27] In the Monte Bubbonia hoard Gela Group II

[22] On Gela *O* 35 see Jenkins, Gela, 44 (≪more successful than . . . in one of the first dies at Leontinoi . . .≫) with Pl. 8,118–21; for the Leontinoi die see Randazzo, Pl. 4,77f. and my Pl. 1,17. For 476 BC as the start see Kraay, ACGC, 211 and Arnold-Biucchi, Randazzo, 24f. For Aitna see Diod. 11,49.

[23] Diod. 11,48,3–8 and scholia on Pindar, Olymp. 2 (15 [29] b–d). Much later, in the time of democracy, a Syracusan artist was again called in to design a die that inaugurated another tetradrachm group at Gela; see Boehringer, Syrakus, 81 and Jenkins, Gela, 63f. on Syracuse *O* 264 and 266 (B 500 and 502f.) and Gela *O* 66, the second die used in Group IV.

[24] Boehringer, Syrakus, 17f., 21f. and 79f. with Pls. 3,5 and 30, A 2 (Leontinoi obverse with *R* 42); Arnold-Biucchi, Randazzo, Pl. 4,80 (the same) and 81 (next obverse?); my Pl. 1,14 (B 117), 15 (B 65: *O* 32) and 16 (= Randazzo 81). The order of striking of *R* 42 is well established by progressive die-damage. The Leontinoi die is integral to the Leontinoi series. It is paired with three separate Leontinoi reverses (Boehringer, 79 n. 63) and is very close in style to the obverse of Randazzo 81. Syracuse *R* 56 (first used with *O* 42, B 87: Reihe 6 b) was brought back with *O* 81 (B 181: Reihe 9 a); *R* 183 (first used with *O* 120, B 265: Reihe 11) was reused with *O* 162 (B 327: Reihe 12 c). B 62–6 and 117f. were all missing from the Passo hoard, but there were four specimens of B 67, which on die-wear evidence must follow B 62–66. See Boehringer, 18 and 125. For clear presentations of Boehringer's Reihe 6–12 see Ch. Boehringer, op. cit. (n. 1) 83f.; Arnold-Biucchi, Randazzo, 36 (Table 2).

[25] For Gela see Jenkins, Gela, 201–18. For Leontinoi see G. E. Rizzo, Monete greche di Sicilia, 1946, Pl. 21f.; Kraay, ACGC, 211 (≪about fifteen obverse dies . . . on much the same scale as Polyzalos' tetradrachms at Gela≫); Arnold-Biucchi, Randazzo, 24f. (≪total issue much larger than indicated by the hoard's 9 *O* and 11 *R* dies).

[26] Westermark and Jenkins, Kamarina, 21; Westermark, Essays . . . Thompson, 290.

[27] See Jenkins, Gela, 154f. and AIIN 16–17, 1971, 30f.; Westermark, loc. cit. (n. 26). Westermark says

goes almost to its close, with just two obverse dies to come. With KRAAY I am tempted to make the group go right down to the fall of Polyzalos, perhaps not long before Hieron's death in 467 BC. There would then have been at most a very short gap in coinage before the democracy resumed with the very different, restyled Group III.[28] Is it possible to confirm this? WESTERMARK, relying on JENKINS' 485 BC dating for the Gela hoard, which had most of Akragas III, made Akragas IV strictly contemporaneous with the Himera crabs (c. 482–72 BC), a position supported by JENKINS and ARNOLD-BIUCCHI. She adduced in support two overstrikes by Taras. One was by CAHN's third issue – which he dated 500–490 BC – on a didrachm of Akragas III, very likely from its latter part. She was able to argue persuasively that CAHN's Taras dating should be reduced by a decade, which would square with the Akragas chronology.[29] A specimen of CAHN's fourth issue (on his view 490–480 BC) was overstruck on a didrachm from the middle section of Akragas IV. With CAHN's date again brought down by a decade, this fits in well enough with WESTERMARK's Akragas dating.[30] With the correct c. 480 BC dating of the Gela hoard the dating of Akragas III and IV should surely be lowered, especially as even WESTERMARK's Taras dates may still be too high.[31] Akragas IV might be dated c. 478–468 BC. Only its very beginning is found in the Passo hoard. Overstrikes by dumpy incuse staters of Metapontum and Kroton on Akragas III and IV seem to fall in the 460s and 450s. Though KRAAY thought that the dumpy fabric began in the 470s, ANN JOHNSTON has reasonably suggested a start c. 465 BC. An overstrike by a Metapontine stater from the middle of the dumpy fabric period is known on a Syracusan didrachm (B 497). This goes closely with the last tetradrachms (B 480, 483) that were found in the Randazzo hoard of c. 450 BC. The dumpy fabric was replaced by double relief coins at both mints by 440 BC.[32] The Akragas tetradrachm series probably did not begin before c. 464 BC, as WESTERMARK and ARNOLD-BIUCCHI suggest, and none were found in the three hoards under discussion.[33]

The Monte Bubbonia and Casulla hoards can then be brought down into the early 460s, with the Seltmann hoard perhaps a little later even than Casulla. The Damareteion group and its counterparts at Leontinoi may now be seen as celebrating the fall of tyranny in the two cities. At such a time both would have been glad to proclaim their concord and gratitude to the great god Apollo, whose special beast became their emblem. The slight differences of style at Leontinoi show

of Monte Bubbonia ≪the earlier half of group IV is present≫. But comparison of JENKINS' list in Gela, 154, with JENKINS' listing of Group IV on p. 164 (total of 13 obverse dies) seems to show that only two reverse types were missing – male head rt (2 dies) and female head rt (1 die), though the one die with male head and A was present. There were 14 Group IV coins. Some at the very least of the second half of Group IV seems to be present. On the Himera crabs see my n. 13.

[28] ARNOLD-BIUCCHI gives J 178 as the last Gela coin on her Hoard Table (Randazzo, 42), misled by Gela, 154. The Catalogue (201–17) shows that the 7 tetradrachms were J 105, 119, 124, 126, 153, 156 and 180 (O 48/R 99); I underline the corrections to p. 154. The last obverse die is O 50 (J 185 f.).

[29] WESTERMARK, Essays . . . Thompson, 291 with Pl. 36,7–9; CAHN, Essays in Greek Coinage presented to Stanley Robinson, 1968, 59–74.

[30] WESTERMARK, op. cit. 288–90 with Pl. 36,1–3.

[31] P. J. BICKNELL (Schweiz. Münzblätter 1971, 3) wanted to date CAHN's fourth Taras issue c. 470–460 BC and the fifth with the ≪Satyra≫ head c. 460–450 BC. This is perhaps a little too late, since the ≪Satyra≫ heads have the frontal eye. CAHN's issues 2 and 3 are present in 6-60 BC that can hardly have been buried before 450 BC, whereas CAHN's conclusion that issue is 460 BC. This corroborates WESTERMARK's case. A fairly early Taras oikist stater was overstruck on a Corinthian stater of c. 450 BC; dated by VLASTO c. 473–460 BC, it should rather be put in the 440s; this surely supports a down-dating of CAHN's Taras chronology by possibly more than a decade. See KRAAY, ACGC, 203 (hoard) and NC 1960, 61 and Pl. IV, 9–10 with CAHN, op. cit. (n. 29) 72 (overstrike).

[32] See S. P. NOE, Coinage of Metapontum Parts 1 and 2, 1984, with additions and corrections by ANN JOHNSTON, 37–51 (for hoards, overstrikes, dating); KRAAY, NC 1960, 59–62 with Pl. IV, 10–11 (overstrike on B 497) and ACGC, 171 f.

[33] Randazzo, 19 f. and 39 (based on WESTERMARK's forthcoming Corpus).



the emergence of a new spirit of independence, even while still cooperating.[34] Leontinoi may well have hired new die-cutters. The splendid contemporary issues of Naxos, Katana, Aitna and Himera show that such men could be found elsewhere than at Syracuse. After the brief splendour of c. 465 BC the Leontinoi mint was surprisingly closed for two decades. Katana meanwhile produced the magnificent River god / Nike series from 461 BC on and followed it with the almost equally striking Chariot / Apollo sequence. Only then, it seems, did Leontinoi begin the Apollo / lion's head series that lasted till the Syracusan take-over c. 423 BC.[35] Naxos behaved more like Leontinoi. After the single superb Dionysos / Seilenos tetradrachm of 461 BC the mint struck only intermittent drachms, litrai and hemilitrai till about 420 BC, when new tetradrachms with modernised types – still from just one obverse die – were produced.[36] We clearly still have much to learn about the rationale of Greek cities in regard to coinage. But, unless we have the chronology right, progress with this and other problems will be very hard. This paper is offered as a contribution to solving the major chronological crux of fifth-century Sicilian numismatics.

Appendix

The Seltmann Hoard (ZfN 19, 1895, 165–82)

The hoard was found by two workmen in 1890, probably near Palermo and possibly in the same quarry which produced the Villabate hoard a few years later (Evans, NC 1894, 201). It was divided between the finders, and the dealer involved could at first give Seltmann only part; within a few weeks he gave him the rest, which proved to be from the same mints and of the same period. Seltmann was therefore convinced that it was a genuine, integral hoard. He handled altogether some 200 tetradrachms and didrachms. Since the hoard contained coins of Himera which must have been struck after 472 BC and the earliest in his eyes showed considerable wear, he fixed on c. 450 BC as the burial date. The archaic coins of Syracuse, Egesta and Leontinoi present in the hoard in some numbers, without any later issues, would have to be down-dated drastically against all current expert opinion. His dating of the Himera tetradrachms and linked didrachms seems confirmed by the Villabate hoard of c. 445 BC, which had nine specimens of much the same types. But none would now accept Seltmann's proposed down-dating of Syracuse and that has seemed to leave just two possible escape-routes.

1 *Time-lag of Syracusan coinage in remoter Sicily*

Westermark and Jenkins (Kamarina, 22) have suggested that there may have been a serious time-lag in the arrival of new and recent Syracusan coinage in the Panormos region. They noted that the Villabate hoard also had a mass of 'Gelonian' Syracusan tetradrachms and only 7 *ketos* coins out of the 79 examined by Evans. We can now add that the slightly earlier Randazzo hoard, from the north-east corner of the island, had only 15 *ketos* coins out of 308 Syracusan. But it

[34] Ch. Boehringer, JNG 1968, 96 f., thought that the joint issue must fall within the tyranny, but Kraay, GCH, 34 f. and NC 1972, 23 f., and Manganaro, AIIN 1974/5, 23–8 and 32–5, have argued vigorously for seeing the period of civil strife (465–1 BC) as the better context.

[35] On Katana see Arnold-Biucchi, Randazzo, 22–4 with Pl. 3–4, 48–76. There were no Apollo coins in either the Randazzo or the later Villabate hoards; Evans deduced that they began after Villabate (NC 1894, 215).

[36] Cahn, Die Münzen der sizilischen Stadt Naxos, 1944, 42–59. The second tetradrachm issue was very short too, since the five reverse dies show little stylistic development.

is hard to believe that a hoard as late as c. 450 BC from near Palermo could have contained no Syracusan coinage at all from after the archaic period. I do not think that this escape can work.

2 *Break in the early Himera tetradrachm series*

The main publication of this series is by Fr. Gutmann and W. Schwabacher in Mitt. Bayer. Num. Ges. 47, 1929, 103–13 and 116–30 (didrachms and discussion). The Seltmann hoard had a very rare Pelops tetradrachm (GS 12) and from the Nymph and Seilenos group GS 4 and GS 7 (6 splendid specimens), with an early didrachm (didr. GS 1): the Villabate hoard had GS 1, 2 (2), 4 (4) and 6 (2). On wear Seltmann set some twenty years between his GS 4 and 7; but Kraay rightly insisted that the reverse die-link now known between the two varieties ruled this out and he preferred to date GS 7 c. 465–460 BC (GCH, 33 with n. 1). For illustrations of the coins discussed see Seltmann, Pl. III; Evans, Pl. VII, 8–9 (GS 1 and 4); Kraay, ACGC, Pl. 44,764 f. (GS 7 and Pelops); A. Baldwin-Brett, Catalogue of Greek Coins, Boston 1954, Pl. 13,253 (GS 6). Now there is a double die-gap in the coinage between GS 9 (O 3/R 6) and GS 10 (O 4/R 7), as Kraay also noted, suggesting a possible prolonged break in the coinage there (GCH, 37 n. 1). GS 1–9 could then fill the period down to c. 465–460 BC – GS 6–9 all share O 3 – and coinage would be resumed c. 445 BC after the Villabate hoard. A mint specimen of GS 15 (O 5/R 8) was in the Selinunte hoard of c. 435 BC (see Jenkins, Gela, 66–8 for the dates) and GS 10 (O 4/R 7), which is stylistically close, was surely minted in the preceding decade. Kraay's solution is ingenious, but does not remove all difficulties. On his view Villabate ought to have had some representation of GS 7–9; they are not absolutely rare, since GS 7 was known in 14 specimens by 1929 and GS 9 in 7 – though only two examples are known of GS 8, really a variant of GS 7 with reverse die reworked and altered. Moreover on Kraay's view we should have to put GS 1 and 2 (didrachms) twenty years apart; the first clearly goes with the tetradrachms GS 4 and 7, the second with GS 10 and 15; a mint specimen was also in the Selinunte hoard (see NC 1925, Pl. XI, 13–14). For illustrations see also Kraay, ACGC, Pl. 44,766 and Boston Catalogue, Pl. 13,254 for GS 10; Kraay - Hirmer, Greek Coins, Pl. 20,66 for GS didr. 1. The two didrachms are close in style and design. Both have the legend IMEPAION on the obverse and ΣΩΤΗΡ on the reverse (though differently placed) and both have the caduceus symbol behind the Nymph instead of the Seilenos. After a long gap there should really be more change and rethinking. I would suggest that the Himera series began c. 464 BC with the Pelops issue, reflecting the second Olympic victory of Ergoteles of Himera (some – see Kraay, GCH, 33 – prefer his first in 472 BC: for the dates see W. S. Barrett, JHS 93, 1973, 24–8). GS 1–3 would follow in the 450s and GS 4–7, a closely die-linked group, will go into the 440s. It is surely the Himera element which is out of step with the Seltmann hoard, which otherwise has real coherence – as I tried to show in my text (p. 3 f.). How can we solve the dilemma?

3 *Was the Seltmann hoard a unitary deposit?*

Two explanations seem legitimate. The workmen may have discovered two hoards and mixed them together, one perhaps consisting wholly of Himera tetradrachms and their linked didrachms. Just such a hoard was in fact found in 1894, possibly at the same find-spot (Evans 201). The Virzi hoard consisted of 9 Himera tetradrachms down to GS 6 (IGCH 2074). The Avola hoard of 1888 was found in two jars, apparently in the same closed archaeological context, and was published as an entity by A. Löbbecke in ZfN 17, 1890, 167–79. Two entirely separate hoards were in fact



involved – one of gold coins of the early fourth century, the other of silver c. 300 BC (IGCH 2124 and 2169).

Alternatively a group of recent Himera tetradrachms and didrachms may have been added c. 445 BC to a hoard otherwise closed c. 465 BC. This is a known phenomenon with hoards. The Asyut hoard was basically constituted by c. 475 BC, but later additions seem to have been made to it for some time before its final loss. See Kraay, NC 1977, 190–4.

Perhaps neither of my solutions may win general acceptance. But surely we can now agree that Seltmann's hoard was in essence a genuine archaic deposit and that it can be used profitably with due caution.

40 Grantchester Road
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Plate 1

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Harold B. Mattingly

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HAROLD B. MATTINGLY

The Damareteion Controversy – a New Approach*

For nearly a generation there has been vigorous debate about the dating of the famous Syracusan decadrachm, the so-called Damareteion. Diodoros linked it with the peace concluded after Gelon's defeat of the Carthaginians at Himera in 480 BC: but, writing long after the event, he may have misunderstood Timaios and fallen into error. On strong numismatic grounds modern scholars have suggested other contexts, ranging from the early 470s to 461 BC.[1] I propose a completely new approach. The Damareteion, with its magisterial style, was widely imitated. If any copy could be securely dated, it would at least provide a firm terminus ante for the prototype. One of the closest derivations is found at Italian Kymai. RUTTER listed it as no. 32 in his Corpus, at the very head of his Group 6 – a run of didrachms under clear Syracusan influence. The eye of no. 32, unlike its model, is fully profile. Otherwise the degree of likeness is almost uncanny.[2] The transition from frontal to profile eye at Kymai begins in RUTTER's Group 5 and proceeds through Group 6, with the occasional throw-back. The coinage is here very tightly interlocked, with *R* 22 of Group 4 leading stylistically straight to *R* 30 in Group 6 (no. 33). RUTTER's relative arrangement must stand.[3] His dating of Group 5 is thus crucial for Group 6 also. The very distinctive crabs on the reverses of Group 5 owe much to the Cock / crab series struck at Himera between c. 482 and 472 BC under Akragantine con-

* This paper grew out of a lecture given to the Royal Numismatic Society in London on October 16, 1990 and I gladly acknowledge the help of all who joined in the lively discussion. I owe much also to KEITH RUTTER's searching criticism of a very different earlier draft and I would thank him here too. I must also thank Dr. UTE WARTENBERG for patiently gathering the material for my plate from the BM trays and taking the photographs.

[1] Diod. 11,26,3 and schol. 15 (29) d on Pindar, Olymp. 2 (Timaios); C. M. KRAAY in: C. M. KRAAY – M. HIRMER, Greek Coins, 1966, 288 (466 BC?); CH. BOEHRINGER, JNG 18, 1968, 67–98 (470–68 BC); KRAAY, Greek Coins and History, 1969 (henceforth GCH), 19–37 (461 BC?) and NC 1972, 13–24 (c. 465 BC) with Archaic and Classical Greek Coins, 1976 (henceforth ACGC), 205 f. and 211 f. (c. 465 BC); R. T. WILLIAMS, NC 1972, 1–11 (early 470s); SHELAGH JAMESON, NC 1971, 339–43 (late 470s); G. MANGANARO, AIIN 21–2, 1974/5, 9–40 (463 BC); CARMEN ARNOLD-BIUCCHI, The Randazzo Hoard 1980., 1990, 47 (c. 475–470 BC); G. K. JENKINS, Ancient Greek Coins, ^{2}1990, 84 f. (c. 465 BC: retracting his earlier acceptance of the tradition).

[2] N. K. RUTTER, Campanian Coinages, 1979, 15 f. and 24–6 with Pl. 2; my Pl. 1,1–2.

[3] RUTTER, op. cit. 22–4 with Pl. 2.

trol.[4] The obverses force us lower than this. Instead of the usual nymph they show helmeted heads of Athena, which derive from certain Corinthian staters now dated in the 460s. RUTTER's Group 6 then, with no. 32 at its head, will start no earlier than c. 465 BC.[5] This does not in itself compel us to date the Damareteion c. 465 BC also. Kymai could have taken it as a model only after many years. But that was not the case, as we have seen, with the Corinthian Athenas. Moreover Kymai was politically dependent on Syracuse ever since Hieron rescued them from the Etruscan menace in 474 BC; he apparently even maintained a garrison on Pithekousai for some considerable time after the battle. In this climate, as a grateful client, Kymai was more likely perhaps to have paid its numismatic compliment promptly rather than somewhat belatedly. But this is necessarily subjective.[6]

My second example of dependence on the Damareteion is undoubtedly contemporary. Here the dating of the other mint becomes crucial for Syracuse. Leontinoi struck a very small tetradrachm issue – from just one pair of dies – with a running lion under the chariot on the obverse, as on the Damareteion, and on the reverse a charming Artemis, which owes much to the Arethusa of Syracuse. EVANS and HILL even thought that the obverse was by the Damareteion master himself, but this must remain doubtful.[7] Obviously linked with this coin is another Leontinoi issue with a

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[4] RUTTER, op. cit. 25 with ns. 91–4 on 108. The crab on *R* 27 is extremely like the unique Himera crab, which JENKINS tentatively put at the head of the whole series. See AIIN 16–17, 1971, 21–36 and Pls. II–IV for his arrangement of the crabs and 25 f. with Pl. II,1 for the unique type; RUTTER also shows it on his Pl. 33 h. RUTTER's *R* 28 displays a ‹trilobed› crab, which closely resembles the characteristic Himera crabs of JENKINS' Pl. III,6–8 – which are not found on Akragas didrachms.

[5] RUTTER, op. cit. 22 f. and ns. 89–91 on 108 with Pl. 2. The best parallels for *O* 25, with no single plait down the neck (see my Pl. 1,3), are O. RAVEL, Les poulains de Corinthe 1, 1936, no. 211 f. (*O* 121/*R* 161 and *R* 162) – the only two ‹colts› with this feature – and for *O* 26 RAVEL 214 and 217 f. (*O* 123/*R* 164; *O* 125/*R* 167, 164). These staters come early in RAVEL's Class 3 (478–458 BC). RAVEL's dates have had to be revised. See M. PRICE and N. WAGGONER, The Asyut Hoard, 1975, 76–8. Class 1 will run from c. 500–480/75 BC, Class 2 will begin not very long before c. 475 BC and Class 3 must start in the early 460s. The Isthmia deposit of c. 475/70 BC closed with two specimens of RAVEL 190 (*O* 111/*R* 146) from the middle of Class 2; for the deposit's date see O. BRONEER, Hesperia 24, 1955, 112 and 133–6 and R. Ross HOLLOWAY, ANSMN 17, 1971, 8.

[6] For Hieron's victory see Diod. 11,51 and Pindar, Pyth. 1,69–75 with the scholia. RUTTER stressed (op. cit. 3–6) the degree of Syracusan involvement with Kymai, citing Strabo 5,248 for the garrison; as late as 453/2 BC, under democracy, Syracusan navies operated in Etruscan waters in defence of Greek interests (Diod. 11,88,4–5). Concluding that his no. 32 would have been struck soon after its model, he claimed that its date «supports a substantial lowering (by as much as fifteen years) of the traditional date of the Syracusan ‹Demareteion›» (26). KRAAY anticipated RUTTER in ACGC, 178, dating Group 5 after 470 BC (by Corinth) and Group 6, no. 32 not «earlier than 465/460 BC».

[7] See my Pl. 1,4: H. CHANTRAINE, JNG 8, 1957, 16 with Pl. 1,2; HOLLOWAY, ANSMN 11, 1964, 2 f. with Pl. 1,2; MANGANARO, op. cit. (n. 1) 23 with Pl. 1,8. For the artist see A. J. EVANS, NC 1894, 214 with Pl. VII,7 (Villabate hoard); G. F. HILL, Coins of Ancient Sicily, 1903, 78;

running lion beneath the chariot and a second lion beneath the striking head of Apollo on the reverse. There are two obverse and two reverse dies. The eye on the first and finer reverse is still frontal, as on the Damareteion and the Artemis tetradrachm; but it is profile on the second. On the obverses Nike exceptionally crowns the driver and not the horses, as on virtually all the preceding Syracusan coinage, the Damareteion group and the Artemis coin.[8] The relative position of the Artemis and Apollo issues in the archaic Leontinoi series is certain. ALAN JOHNSTON acutely stressed a small epigraphic point, which had somehow been overlooked. Leontinoi's archaic coinage, including the Artemis coin, has Syracusan-Geloan lambda (Λ) in the ethnic; but the two Apollo dies have the Euboic-Chalkidian form (Γ or ⅃). This is the form that is carried over to the subsequent Apollo / lion's head tetradrachm series and the same shift can be seen in the lower denominations.[9] The first of the later Apollo heads is rough and almost barbaric in style, recalling unmistakeably the second Apollo / lion die. Its reverse, with the dotted truncation of the lion's head and general design, equally recalls the last reverse of the archaic Chariot / lion's head series. There can be no doubt that the ‹Damareteion› group at Leontinoi comes at the very end of the archaic coinage and apparently, when coinage resumed after a prolonged break, the last examples of the earlier coinage were taken as models.[10]

What is the position of the Damareteion in the Syracusan series? JENKINS suggested that BOEHRINGER's Reihe 12 a–d could be put in 479–4 BC after the Damareteion group (12 e), which might then be left in 479 BC. But style and hoard evidence surely rule this out. The Monte Bubbonia hoard went down to B 333 (12 c) in the tetradrachm series, with two drachms which BOEHRINGER listed under 12 d (B 356 f.); the slightly later Casulla hoard of only 40 coins had 9 Syracusan tetradrachms down to B 324 (12 b). Neither hoard had any trace of the Damareteion group.[11] The hoard which E. J. SELTMANN acquired in Sicily in 1890 corroborates

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E. BOEHRINGER, Die Münzen von Syrakus, 1929 (henceforth Syrakus), 80 f. (an artist of his Reihe a–d).

[8] See my Pl. 1,5–7; HOLLOWAY, op. cit. (n. 7) Pl. 1,3–4; CHANTRAINE, op. cit. (n. 7) Pl. 1,3–5; ARNOLD-BIUCCHI, Randazzo, Pl. 4,88–90 (as splendid as the Villabate Artemis). Nike crowns the driver on B 34–7 (Reihe 3) and then only after the Damareteion on a fairly early group with the *ketos* symbol (B 434–48: Reihe 13 b). For the eye on the Apollo dies see HOLLOWAY, op. cit. (n. 7) 9 f. (regarding the first die as by the Damareteion master). HILL apparently attributed the second die to him: see op. cit. (n. 7) 77 f. with Pl. V,4.

[9] See A. JOHNSTON, ZPE 17, 1975, 153 f. and L. H. JEFFERY, Local Scripts of Archaic Greece, 1961, 74, 242 and 262. I had stumbled on this point independently and was happy to find that I had been anticipated by an expert on local scripts.

[10] For the Apollos and the truncation see my Pl. 1,6–9 with ARNOLD-BIUCCHI, Randazzo, 25 and Pl. 4,87 (last archaic lion's head). ARNOLD-BIUCCHI wanted to put the Leontinoi Apollo / lion issue later than the Damareteion, wondering whether it ran parallel with the latest Chariot / lion's head tetradrachms in the early 460s. Epigraphy alone bars this.

[11] For Reihe 12 a–d and e see JENKINS, Gela, 22–4. He was vigorously challenged by KRAAY, but WILLIAMS embraced his thesis eagerly (NC 1972, 13–16 and 2). ARNOLD-BIUCCHI sup-

this evidence. The accumulation of some two hundred coins from an unknown larger number included Egesta didrachms of just the first archaic phase, which we would now date to about 470 BC. There were tetradrachms and didrachms of the archaic Leontinoi series and abundant Syracusan coinage of the ‹Gelonian› period and earlier. SELTMANN presumably showed two of the latest on his Pl. III – one is a specimen of B 321 (12 b), the other was from *R* 246 (12 d). This is the reverse closest to *R* 276 of the Damareteion group, but again there was no trace of that group in this hoard. SELTMANN would certainly have noticed one of these already famous and familiar coins.[12] Like SELTMANN's hoard Casulla contained Leontinoi didrachms and Monte Bubbonia had two tetradrachms from the first Leontinoi obverse die. All three hoards also had Cock / crab didrachms of Himera (c. 482–472 BC) – some twelve rather worn specimens in SELTMANN's hoard, four and five respectively in the others in good condition. These didrachms are not found in any later Sicilian hoards till the end of the fifth century.[13] It is likely that SELTMANN's hoard, like the other two, had only didrachms of Akragas. Whereas these in his time were vaguely dated c. 550–472 BC, scholars generally agreed that the tetradrachms began c. 472 BC. If there had been any tetradrachms in his hoard, SELTMANN would surely have used them in his discussion of its date.[14] The combined evidence of the three hoards confirms BOEHRINGER's placing of the Damareteion group (12 e) after Reihe 12 a–d. The long *ketos* sequence then follows 12 e without a break. Reihe 13

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ports KRAAY (Randazzo, 35–7 and 46 f.). The one close link between 12 d and 12 e is between *R* 246 and *R* 276; but WILLIAMS and ARNOLD-BIUCCHI point to strong stylistic affinities between *R* 276 and *R* 201 (12 a) and *R* 215 (12 b). See NC 1972, 2 with Pl . 1, a–c and Randazzo, 35 f. For Monte Bubbonia (=Mazzarino) and Casulla see the good surveys in JENKINS, Gela, 154 f. and AIIN 16–17, 1971, 30 f.; U. WESTERMARK and G. K. JENKINS, Coinage of Kamarina, 1980, 21–3; KRAAY, GCH, 31 f. and NC 1972, 17–9 (Mazzarino); WESTERMARK, in: Essays in Honor of Margaret Thompson, 1979, 290.

[12] ZfN 19, 1895, 165–82. See my Appendix for a full discussion of this controversial hoard (IGCH 2076). It can still be used with some confidence, I believe. For Egesta see SELTMANN, 178 (c. 500–480 BC) and Pl. III; B. V. HEAD, HN^2, 1911, 165 (c. 480–461 BC); KRAAY, ACGC, 220 (from c. 470 BC on). For BOEHRINGER *R* 246 and 276 see Syrakus, 40 and 187; KRAAY, GCH, 34 and NC 1972, 15; JENKINS, Gela, 23; WILLIAMS, NC 1972, 2.

[13] On the first Leontinoi obverse (horses racing) see ARNOLD-BIUCCHI, Randazzo, 24 f. and 44 with Pl. 4,77 f.; my Pl. 1,17. She arranged Leontinoi by CH. BOEHRINGER's forthcoming Corpus. SELTMANN showed one tetradrachm with the first obverse and just the reverse of another (ZfN 19, 1895, Pl. III); this is very similar to the new Randazzo reverse die (Pl. 4,83 with 25) and die-identical with Traité 2,1, no. 2230 (Pl. LXXIII, 5). For Himera see SELTMANN, ZfN 19, 1895, 166; JENKINS, AIIN 16–17, 1971, 30 f.; ARNOLD-BIUCCHI, Randazzo, 44 and 42 f., Table 4. Monte Bubbonia had coins from O 3, O 10 and O 13 (3); Casulla had O 10, O 13, O 14, O 15 (the last). The only later hoard with Himera crabs is Monteracci from c. 400 BC (IGCH 2).

[14] See SELTMANN's careful statement of his refusal to adduce only vaguely dated material (op. cit. 178 f.); for tetradrachms of Akragas c. 472 BC see HEAD, HN^2, 1911, 120 and HILL, op. cit. (n. 7) 49 f. and 65.

and 14 were struck in much less volume than Reihe 6–12, as is clearly shown by the fact that the Randazzo hoard had only 15 specimens from the *ketos* period out of 308 Syracusan and Villabate only 7 out of the 79 Syracusan examined.[15]

Can we date the Monte Bubbonia and Casulla hoards more precisely than the c. 475–470 BC now fashionable? We must go back to two earlier hoards, revising their dating and establishing when the tetradrachm coinage of Gela and Leontinoi began. There was no trace of them in the Gela and Passo di Piazza (Gela) hoards. JENKINS dated the Gela hoard c. 485 BC and even KRAAY was long reluctant to bring this down by more than a year or two.[16] But JENKINS' date can not stand. The large Athenian element in the hoard includes all the late archaic, unwreathed groups except for those known mainly from the Acropolis hoard of 480 BC. These same Attic groups were present in the S. Anatolia and Asyut hoards, which are now dated c. 480–475 BC by common consent.[17] Epigraphy reinforces the case. The last Syracusan tetradrachms from the Gela hoard (B 38, 39 and 46) come from a short minting period when the die-cutters veered between old koppa and new kappa (♀ and K). Now Gelon's Delphic dedication in 480/79 BC has both koppa and kappa; but Hieron's Olympian helmets after Kymai in 474 BC have only kappa in their inscription. Coins and epigraphic practice should surely coincide. That will effectively anchor the Gela hoard c. 480 BC.[18]

In the Passo di Piazza hoard the Syracusan series has progressed to B 75–8 and ?85. The hoard also contains a Messana mule-car didrachm from Anaxilas' Olympic victory coinage; most scholars would now date the victory 480 BC. But this is naturally just a terminus post quem, since in any case the didrachm may not be one of the very first issues. It would be safer to put the hoard c. 478 BC. Another twelve

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[15] WESTERMARK and JENKINS, Kamarina, 22; ARNOLD-BIUCCHI, Randazzo, 34.

[16] Initially KRAAY confessed that the ‹Mazzarino› hoard (IGCH 2071) had nothing requiring a date after c. 475 BC (IGCH, 31 f.); but after JENKINS' work on Gela he boldly argued for drastic down-dating (NC 1972, 17–19). ARNOLD-BIUCCHI stuck to c. 475–470 BC for both hoards (Randazzo, 44); WESTERMARK, Essays ... Thompson, 290, would date Casulla after 470 BC (IGCH 2075). For Gela (IGCH 2066) see JENKINS, Gela, 20 f. and 150 f.; KRAAY, NC 1972, 16 f.

[17] See JENKINS, Gela, 151 with Pl. 36; E. S. G. ROBINSON, NC 1961, 109 f. with Pls. XIII–XIV (S. Anatolia); PRICE and WAGGONER, Asyut, 22,61–4 (Athens) and 117–25. S. Anatolia had a fine Abdera octadrachm (Pl. XIII: MAY 44). Asyut had a run ending with MAY 41, 42, 45 and 48 (36 f.). They must come down to c. 480 BC; MAY made their group end c. 492 BC. Both ROBINSON and the Asyut authors dated their hoards and the Gela hoard c. 480 BC. KRAAY welcomed this conclusion in NC 1977, 196 f. (review of Asyut). JENKINS now seems to have been persuaded: see Ancient Greek Coins[2], 84 f. (dating B 46 c. 480–475 BC).

[18] B 49 (Reihe 4) and 56 (Reihe 5: old *R* 27) are the last issues with koppa. See my Pl. 1,10 (B 38, *R* 22: koppa) and 11 (B 42, *R* 26: kappa). For the inscriptions see SIG[3] 34–5; MEIGGS and LEWIS, Greek Historical Inscriptions, no. 28, 60 f.; L. H. JEFFERY, LSAG, 266.6 and 275.7 with Pl. 51; G. DAUX, BCH 84, 1960, 721 (a second helmet); KRAAY, GCH, 28 f.; CH. BOEHRINGER, JNG 18, 91 f.; F. HOEFFLER, Abstracts XI Int. Num. Cong., Brussels 1991, 29. The last three have already strongly argued my case.

Syracusan obverse dies may have been used since the Gela hoard was buried.[19] Now in the Gela hoard the Gela didrachm series has gone only as far as JENKINS 40, but in the Passo hoard it has reached J 82 – only five more obverse dies remain before its end and the start of the true tetradrachm series.[20] Apparently a Syracusan artist was brought in to inaugurate this on the Syracusan model. The fine first obverse die (*O* 32) must be the work of the die-cutter who not long before made *O* 26 at Syracuse. This obverse was used in the group showing the koppa/kappa transition, with which the Gela hoard closed. Polyzalos' accession at Gela in 478 BC seems the likeliest occasion for the new tetradrachms.[21] Leontinoi was a little slow to follow Gela. The first Leontinoi obverse die with the racing horses was probably modelled on the more successful early Gela die with this motif (*O* 35); the motif is otherwise quite unknown on coinage at this date. It is tempting to make Leontinoi's archaic coinage begin 476 BC, when Hieron moved the population of Katana and Naxos to that city, on refounding Katana as Aitna.[22] At the same time he quarreled violently with Polyzalos and it nearly came to war between their cities; but wisely both preferred the mediation of Theron of Akragas. The period of harmony, however, was over. Close cooperation, even at the numismatic level, was no longer possible and we find no other evidence of it after Gela *O* 32.[23] Early in the Leontinoi series, however, there is rather surprising evidence of numismatic cooperation between Leontinoi and Syracuse. One of the first Leontinoi obverse dies passed with its maker to Syracuse, where it was reused with an old reverse – *R* 42 – on which the newcomer recut the hair and legend. This die had been first used with *O* 53 (B 117: Reihe 8 a), then with *O* 32 (B 63: Reihe 6 a) and finally with *O* 54 (B 118). BOEHRINGER's Reihe 8 a actually began before his Reihe 6 a and evidently more

[19] For Passo di Piazza (IGCH 2068) see JENKINS, Gela, 156. The last obverse die in the Gela hoard is *O* 27. B 75–8 share *O* 36 (seven tetradrachm dies later). B 85 – but was it rightly identified? – has *O* 41 (twelve on from Gela). For the mule-car see JENKINS, Gela, 154 f. and 21 f.; KRAAY, NC 1972, 28; ARNOLD-BIUCCHI, Randazzo, 18 and 26.

[20] JENKINS, Gela, 177–9. The Gela hoard ends with *O* 13, Passo with *O* 25. JENKINS argued cogently that the true tetradrachm series came after Group 1 (didrachms) with no overlap: see Gela, 22, 24–6 and 199 f. The very rare tetradrachms with types like the didrachms were an experiment, issued along with the final stage of the didrachms.

[21] On Gela *O* 32 and Syracuse *O* 26 see BOEHRINGER, Syrakus, 78 with Pl. 30, A 1 and Pl. 2,38; JENKINS, Gela, 43 with Pl. 7,104–6; my Pl. 1,12–13. For Polyzalos' link see KRAAY, ACGC, 210 f. and ARNOLD-BIUCCHI, Randazzo, 21.

[22] On Gela *O* 35 see JENKINS, Gela, 44 («more successful than . . . in one of the first dies at Leontinoi . . .») with Pl. 8,118–21; for the Leontinoi die see Randazzo, Pl. 4,77 f. and my Pl. 1,17. For 476 BC as the start see KRAAY, ACGC, 211 and ARNOLD-BIUCCHI, Randazzo, 24 f. For Aitna see Diod. 11,49.

[23] Diod. 11,48,3–8 and scholia on Pindar, Olymp. 2 (15 [29] b–d). Much later, in the time of democracy, a Syracusan artist was again called in to design a die that inaugurated another tetradrachm group at Gela; see BOEHRINGER, Syrakus, 81 and JENKINS, Gela, 63 f. on Syracuse *O* 264 and 266 (B 500 and 502 f.) and Gela *O* 66, the second die used in Group IV.

than one anvil was in use simultaneously. The first two uses of *R* 42, though not in the Passo hoard, probably do pre-date its burial; but the third may very easily have succeeded it. An old die could be brought back into use at Syracuse after a considerable interval. Thus the Leontinoi obverse die ultimately used with *R* 42 need not be dated before c. 475 BC.[24]

Now there are nineteen obverse dies in Gela Group II. Can they really be accommodated in the period before c. 470 BC, as JENKINS thought? RIZZO knew of eleven obverse dies for the Leontinoi Chariot / lion's head series and there may well have been some fifteen in all. Can these be confined to an even shorter period, as ARNOLD-BIUCCHI wishes?[25] To answer these questions we must look critically at the dating of three hoards – an unpublished Sicilian deposit and the Monte Bubbonia and Casulla hoards. The first has Syracuse down to Reihe 10 (B 228–239 E), the earlier part of Group IV of the Akragas didrachms and Himera crabs down to *O* 8. Judging by Himera alone we could date this c. 475 BC, but the Syracusan element surely goes later than that. At least 64 obverse dies have been used since the burial of the Passo hoard. A dating in the late 470s looks inevitable.[26] For the Monte Bubbonia and Casulla hoards the Himera crabs give only a terminus post quem of c. 472 BC. The Akragas IV didrachms are represented for over half their course in the first, right to the end in the second.[27] In the Monte Bubbonia hoard Gela Group II goes almost to its close, with just two obverse dies to come. With KRAAY I am tempted to make the group go right down to the fall of Polyzalos, perhaps not long before Hieron's death

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[24] BOEHRINGER, Syrakus, 17 f., 21 f. and 79 f. with Pls. 3,5 and 30, A 2 (Leontinoi obverse with *R* 42); ARNOLD-BIUCCHI, Randazzo, Pl. 4,80 (the same) and 81 (next obverse?); my Pl. 1,14 (B 117), 15 (B 65: *O* 32) and 16 (= Randazzo 81). The order of striking of *R* 42 is well established by progressive die-damage. The Leontinoi die is integral to the Leontinoi series. It is paired with three separate Leontinoi reverses (BOEHRINGER, 79 n. 63) and is very close in style to the obverse of Randazzo 81. Syracuse *R* 56 (first used with *O* 42, B 87: Reihe 6 b) was brought back with *O* 81 (B 181: Reihe 9 a); *R* 183 (first used with *O* 120, B 265: Reihe 11) was reused with *O* 162 (B 327: Reihe 12 c). B 62–6 and 117 f. were all missing from the Passo hoard, but there were four specimens of B 67, which on die-wear evidence must follow B 62–66. See BOEHRINGER, 18 and 125. For clear presentations of BOEHRINGER's Reihe 6–12 see CH. BOEHRINGER, op. cit. (n. 1) 83 f.; ARNOLD-BIUCCHI, Randazzo, 36 (Table 2).

[25] For Gela see JENKINS, Gela, 201–18. For Leontinoi see G. E. RIZZO, Monete greche di Sicilia, 1946, Pl. 21 f.; KRAAY, ACGC, 211 («about fifteen obverse dies . . . on much the same scale as Polyzalos' tetradrachms at Gela»); ARNOLD-BIUCCHI, Randazzo, 24 f. («total issue much larger» than indicated by the hoard's 9 *O* and 11 *R* dies).

[26] WESTERMARK and JENKINS, Kamarina, 21; WESTERMARK, Essays . . . Thompson, 290.

[27] See JENKINS, Gela, 154 f. and AIIN 16–17, 1971, 30 f.; WESTERMARK, loc. cit. (n. 26). WESTERMARK says of Monte Bubbonia «the earlier half of group IV is present». But comparison of JENKINS' list in Gela, 154, with JENKINS' listing of Group IV on p. 164 (total of 13 obverse dies) seems to show that only two reverse types were missing – male head rt (2 dies) and female head rt (1 die), though the one die with male head and A was present. There were 14 Group IV coins. Some at the very least of the second half of Group IV seems to be present. On the Himera crabs see my n. 13.

in 467 BC. There would then have been at most a very short gap in coinage before the democracy resumed with the very different, restyled Group III.[28] Is it possible to confirm this? WESTERMARK, relying on JENKINS' 485 BC dating for the Gela hoard, which had most of Akragas III, made Akragas IV strictly contemporaneous with the Himera crabs (c. 482–72 BC), a position supported by JENKINS and ARNOLD-BIUCCHI. She adduced in support two overstrikes by Taras. One was by CAHN's third issue – which he dated 500–490 BC – on a didrachm of Akragas III, very likely from its latter part. She was able to argue persuasively that CAHN's Taras dating should be reduced by a decade, which would square with the Akragas chronology.[29] A specimen of CAHN's fourth issue (on his view 490–480 BC) was overstruck on a didrachm from the middle section of Akragas IV. With CAHN's date again brought down by a decade, this fits in well enough with WESTERMARK's Akragas dating.[30] With the correct c. 480 BC dating of the Gela hoard the dating of Akragas III and IV should surely be lowered, especially as even WESTERMARK's Taras dates may still be too high.[31] Akragas IV might be dated c. 478–468 BC. Only its very beginning is found in the Passo hoard. Overstrikes by dumpy incuse staters of Metapontum and Kroton on Akragas III and IV seem to fall in the 460s and 450s. Though KRAAY thought that the dumpy fabric began in the 470s, ANN JOHNSTON has reasonably suggested a start c. 465 BC. An overstrike by a Metapontine stater from the middle of the dumpy fabric period is known on a Syracusan didrachm (B 497). This goes closely with the last tetradrachms (B 480, 483) that were found in the Randazzo hoard of c. 450 BC. The dumpy fabric was replaced by double relief coins at both mints by 440 BC.[32] The Akragas tetradrachm series probably did not begin before

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[28] ARNOLD-BIUCCHI gives J 178 as the last Gela coin on her Hoard Table (Randazzo, 42), misled by Gela, 154. The Catalogue (201–17) shows that the 7 tetradrachms were J 105, 119, 124, 126, 153, 156 and 180 (*O* 48/*R* 99); I underline the corrections to p. 154. The last obverse die is *O* 50 (J 185 f.).

[29] WESTERMARK, Essays . . . Thompson, 291 with Pl. 36,7–9; CAHN, Essays in Greek Coinage presented to Stanley Robinson, 1968, 59–74.

[30] WESTERMARK, op. cit. 288–90 with Pl. 36,1–3.

[31] P. J. BICKNELL (Schweiz. Münzblätter 1971, 3) wanted to date CAHN's fourth Taras issue c. 470–460 BC and the fifth with the ‹Satyra› head c. 460–450 BC. This is perhaps a little too late, since the ‹Satyra› heads have the frontal eye. CAHN's issues 2 to 6 were present in a hoard that can hardly have been buried before 450 BC, whereas CAHN's concluding date is 460 BC. This corroborates WESTERMARK's case. A fairly early Taras ‹oikist› stater was overstruck on a Corinthian stater of c. 450 BC; dated by VLASTO c. 473–460 BC, it should rather be put in the 440s; this surely supports a down-dating of CAHN's Taras chronology by possibly more than a decade. See KRAAY, ACGC, 203 (hoard) and NC 1960, 61 and Pl. IV, 9–10 with CAHN, op. cit. (n. 29) 72 (overstrike).

[32] See S. P. NOE, Coinage of Metapontum Parts 1 and 2, 1984, with additions and corrections by ANN JOHNSTON, 37–51 (for hoards, overstrikes, dating); KRAAY, NC 1960, 59–62 with Pl. IV, 10–11 (overstrike on B 497) and ACGC, 171 f.

c. 464 BC, as WESTERMARK and ARNOLD-BIUCCHI suggest, and none were found in the three hoards under discussion.[33]

The Monte Bubbonia and Casulla hoards can then be brought down into the early 460s, with the Seltmann hoard perhaps a little later even than Casulla. The Damareteion group and its counterparts at Leontinoi may now be seen as celebrating the fall of tyranny in the two cities. At such a time both would have been glad to proclaim their concord and gratitude to the great god Apollo, whose special beast became their emblem. The slight differences of style at Leontinoi show the emergence of a new spirit of independence, even while still cooperating.[34] Leontinoi may well have hired new die-cutters. The splendid contemporary issues of Naxos, Katana, Aitna and Himera show that such men could be found elsewhere than at Syracuse. After the brief splendour of c. 465 BC the Leontinoi mint was surprisingly closed for two decades. Katana meanwhile produced the magnificent River god / Nike series from 461 BC on and followed it with the almost equally striking Chariot / Apollo sequence. Only then, it seems, did Leontinoi begin the Apollo / lion's head series that lasted till the Syracusan take-over c. 423 BC.[35] Naxos behaved more like Leontinoi. After the single superb Dionysos / Seilenos tetradrachm of 461 BC the mint struck only intermittent drachms, litrai and hemilitrai till about 420 BC, when new tetradrachms with modernised types – still from just one obverse die – were produced.[36] We clearly still have much to learn about the rationale of Greek cities in regard to coinage. But, unless we have the chronology right, progress with this and other problems will be very hard. This paper is offered as a contribution to solving the major chronological crux of fifth-century Sicilian numismatics.

Appendix
The Seltmann Hoard (ZfN 19, 1895, 165–82)

The hoard was found by two workmen in 1890, probably near Palermo and possibly in the same quarry which produced the Villabate hoard a few years later (EVANS, NC 1894, 201). It was divided between the finders, and the dealer involved could at first give SELTMANN only part; within a few weeks he gave him the rest, which proved to be from the same mints and of the same period. SELTMANN was therefore

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[33] Randazzo, 19f. and 39 (based on WESTERMARK's forthcoming Corpus).

[34] CH. BOEHRINGER, JNG 1968, 96f., thought that the joint issue must fall within the tyranny, but KRAAY, GCH, 34f. and NC 1972, 23f., and MANGANARO, AIIN 1974/5, 23–8 and 32–5, have argued vigorously for seeing the period of civil strife (465–1 BC) as the better context.

[35] On Katana see ARNOLD-BIUCCHI, Randazzo, 22–4 with Pl. 3–4, 48–76. There were no Apollo coins in either the Randazzo or the later Villabate hoards; EVANS deduced that they began after Villabate (NC 1894, 215).

[36] CAHN, Die Münzen der sizilischen Stadt Naxos, 1944, 42–59. The second tetradrachm issue was very short too, since the five reverse dies show little stylistic development.

convinced that it was a genuine, integral hoard. He handled altogether some 200 tetradrachms and didrachms. Since the hoard contained coins of Himera which must have been struck after 472 BC and the earliest in his eyes showed considerable wear, he fixed on c. 450 BC as the burial date. The archaic coins of Syracuse, Egesta and Leontinoi present in the hoard in some numbers, without any later issues, would have to be down-dated drastically against all current expert opinion. His dating of the Himera tetradrachms and linked didrachms seems confirmed by the Villabate hoard of c. 445 BC, which had nine specimens of much the same types. But none would now accept SELTMANN's proposed down-dating of Syracuse and that has seemed to leave just two possible escape-routes.

1 Time-lag of Syracusan coinage in remoter Sicily

WESTERMARK and JENKINS (Kamarina, 22) have suggested that there may have been a serious time-lag in the arrival of new and recent Syracusan coinage in the Panormos region. They noted that the Villabate hoard also had a mass of ‹Gelonian› Syracusan tetradrachms and only 7 *ketos* coins out of the 79 examined by EVANS. We can now add that the slightly earlier Randazzo hoard, from the north-east corner of the island, had only 15 *ketos* coins out of 308 Syracusan. But it is hard to believe that a hoard as late as c. 450 BC from near Palermo could have contained no Syracusan coinage at all from after the archaic period. I do not think that this escape can work.

2 Break in the early Himera tetradrachm series

The main publication of this series is by FR. GUTMANN and W. SCHWABACHER in Mitt. Bayer. Num. Ges. 47, 1929, 103–13 and 116–30 (didrachms and discussion). The Seltmann hoard had a very rare Pelops tetradrachm (GS 12) and from the Nymph and Seilenos group GS 4 and GS 7 (6 splendid specimens), with an early didrachm (didr. GS 1): the Villabate hoard had GS 1, 2 (2), 4 (4) and 6 (2). On wear SELTMANN set some twenty years between his GS 4 and 7; but KRAAY rightly insisted that the reverse die-link now known between the two varieties ruled this out and he preferred to date GS 7 c. 465–460 BC (GCH, 33 with n. 1). For illustrations of the coins discussed see SELTMANN, Pl. III; EVANS, Pl. VII, 8–9 (GS 1 and 4); KRAAY, ACGC, Pl. 44,764 f. (GS 7 and Pelops); A. BALDWIN-BRETT, Catalogue of Greek Coins, Boston 1954, Pl. 13,253 (GS 6). Now there is a double die-gap in the coinage between GS 9 (*O* 3/*R* 6) and GS 10 (*O* 4/*R* 7), as KRAAY also noted, suggesting a possible prolonged break in the coinage there (GCH, 37 n. 1). GS 1–9 could then fill the period down to c. 465–460 BC – GS 6–9 all share *O* 3 – and coinage would be resumed c. 445 BC after the Villabate hoard. A mint specimen of GS 15 (*O* 5/*R* 8) was in the Selinunte hoard of c. 435 BC (see JENKINS, Gela, 66–8 for the dates) and GS 10 (*O* 4/*R* 7), which is stylistically close, was surely minted in the preceding decade. KRAAY's solution is ingenious, but does not remove all difficulties. On his view Villabate ought to have had some representation of GS 7–9; they are not absolutely rare, since GS 7 was known in 14 specimens by 1929 and

GS 9 in 7 – though only two examples are known of GS 8, really a variant of GS 7 with reverse die reworked and altered. Moreover on KRAAY's view we should have to put GS 1 and 2 (didrachms) twenty years apart; the first clearly goes with the tetradrachms GS 4 and 7, the second with GS 10 and 15; a mint specimen was also in the Selinunte hoard (see NC 1925, Pl. XI, 13–14). For illustrations see also KRAAY, ACGC, Pl. 44,766 and Boston Catalogue, Pl. 13,254 for GS 10; KRAAY - HIRMER, Greek Coins, Pl. 20,66 for GS didr. 1. The two didrachms are close in style and design. Both have the legend IMEPAION on the obverse and ΣOTHP on the reverse (though differently placed) and both have the caduceus symbol behind the Nymph instead of the Seilenos. After a long gap there should really be more change and rethinking. I would suggest that the Himera series began c. 464 BC with the Pelops issue, reflecting the second Olympic victory of Ergoteles of Himera (some – see KRAAY, GCH, 33 – prefer his first in 472 BC: for the dates see W. S. BARRETT, JHS 93, 1973, 24–8). GS 1–3 would follow in the 450s and GS 4–7, a closely die-linked group, will go into the 440s. It is surely the Himera element which is out of step with the Seltmann hoard, which otherwise has real coherence – as I tried to show in my text (p. 3 f.). How can we solve the dilemma?

3 Was the Seltmann hoard a unitary deposit?

Two explanations seem legitimate. The workmen may have discovered two hoards and mixed them together, one perhaps consisting wholly of Himera tetradrachms and their linked didrachms. Just such a hoard was in fact found in 1894, possibly at the same find-spot (EVANS 201). The Virzi hoard consisted of 9 Himera tetradrachms down to GS 6 (IGCH 2074). The Avola hoard of 1888 was found in two jars, apparently in the same closed archaeological context, and was published as an entity by A. LÖBBECKE in ZfN 17, 1890, 167–79. Two entirely separate hoards were in fact involved – one of gold coins of the early fourth century, the other of silver c. 300 BC (IGCH 2124 and 2169).

Alternatively a group of recent Himera tetradrachms and didrachms may have been added c. 445 BC to a hoard otherwise closed c. 465 BC. This is a known phenomenon with hoards. The Asyut hoard was basically constituted by c. 475 BC, but later additions seem to have been made to it for some time before its final loss. See KRAAY, NC 1977, 190–4.

Perhaps neither of my solutions may win general acceptance. But surely we can now agree that SELTMANN's hoard was in essence a genuine archaic deposit and that it can be used profitably with due caution.

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Plate 1

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