

foundations and floors of the Mycenaean palace, for in the 'clay area' N of the S portico we find Mycenaean construction immediately above Neolithic deposit. It must be born in mind, however, that we have as yet excavated very little beneath the Mycenaean floor-level. This previous building would correspond to the 'Kamarais' palace at Phaestos.

II. A Mycenaean palace with 'Council Chamber', magazines and 'Procession-corridor'. The construction has almost everywhere on its gypsum blocks signs like the 'Kamarais' ones, but the construction itself, apart from the occasional *reuse* of 'Kamarais' blocks, is Mycenaean, by which I mean that it belongs to the same general period as the typical Mycenaean ware found in the Magazines and elsewhere.

III. Later constructions belonging to the periods of decline.

It has to be noticed in favour of my views

(1) That the 'Kamarais' ware was found not on but below the Mycenaean floor-level.

(2) That pictographic signs like those of Phaestos were, as a matter of fact, found at Knossos on bed blocks built into Mycenaean construction. These signs must accordingly be earlier, factually, than those on the fresh gypsum blocks of the Mycenaean construction. On the other hand these latter signs do not require to indicate a 'Kamarais' period for the walls since similar signs occur on pictographic inscriptions contemporarily with those of the great 'linear' class. Both classes of inscriptions are in turn contemporary with the Mycenaean ware of the magazines.

D.M.K.

NICOLETTA MOMIGLIANO
Balliol College, Oxford/University of Bradford

Piglets again*

In a note to volume cxi of this journal,¹ I observed that the word δελφάκιον, although a diminutive, did not at all periods describe a piglet. In the classical period, it seems to have meant a small but not necessarily immature pig; in Hellenistic Delos and in Egypt, a pig full-grown or nearly so, apparently synonymous with the non-diminutive δέλφαξ; then by the first post-Christian century the term δελφάκιον came indeed to mean 'piglet', a meaning previously expressed by χοῖρος.

I was not able to give a certain meaning either for δέλφαξ or for δελφάκιον, and my difficulty was complicated by the fact that other words referred to piglets (χοῖροι), sows (ῥες), and boars (κάπροι). I did, however, make two suggestions: a δελφάκιον was either 'an adolescent, if the term is properly applied to swine',

* An earlier version of this paper was presented at the twenty-third annual convention of the Society for the Promotion of Classical Studies in Israel held in Be'er Sheva on May 26, 1994.

¹ 'When is a Piglet not a Piglet?', *JHS* cxi (1991), 208-9.

or else a castrated animal. It appears, thanks to the helpful correspondence of Professor Dwora Gilula of the Hebrew University, Professor W. Clarysse of Leuven and Dr David Bain of Manchester, that there is more to be said on the subject, and a better reason can now be suggested for the changes in meaning.

Before we can speak of a δελφάκιον, we shall have to define its parent word, δέλφαξ. A δέλφαξ is surely not a castrated anything at all. Athenaeus collected a number of examples of this word both in the masculine and in the feminine,² and indeed etymologists both ancient and modern have suggested that it is derived from the word δελφός, 'uterus',³ which would make the feminine meaning the original one. This etymology should now be abandoned,⁴ but it is certain that a δέλφαξ can be feminine, and hence cannot be castrated.

What is a δέλφαξ? Despite my hesitancy, it does indeed appear to be an adolescent. Aristophanes of Byzantium, as Eustathius quoted him, was quite clear:

τῶν σῶν οἱ μὲν τέλειοι καὶ ἐνόρχαι κάπροι· οἱ δὲ πονεὺς αὐτῶν σιάλοι· ἡ δὲ θήλεια σὺς μόνον. Ἰππῶναξ δὲ [fr.103.11 West] γρόμφιν λέγει, εἶτε καθόλου πᾶσαν ὕν δηλῶν, εἶτε τὴν παλαιὰν τῆ ἡλικία. τὰ δὲ νέα, δέλφακες μὲν τὰ πεπηγῶτα πῶς ἦδη τοῖς σώμασι, τὰ δὲ ἐτι ἀπαλὰ καὶ ἐνικμα χοῖροι.⁵

For Aristophanes the grammarian, a pig was a δέλφαξ when it had 'already become somewhat firm⁶ in [its] body'. Some moderns⁷ have taken sexual maturity to be the dividing line between χοῖρος and δέλφαξ, and the

² Athenaeus, *Deipnosophistae* ix 374 d-375 b and xiv 656 f-657 a.

³ *Ibid.*, ix 375 a; cf. P. Chantraine, *Dictionnaire étymologique de la langue grecque* i (Paris 1968) 261, and H. Frisk, *Griechisches Etymologisches Wörterbuch* i (Heidelberg 1960-1970) 362.

⁴ The root of δέλφαξ is certainly the Indo-European *g^oelbh-*, *g^oolbh-*, which is also the root of the English calf (so correctly E. Klein, *A comprehensive etymological dictionary of the English language* i [Amsterdam 1966] 223). The semantic field with which this root is associated appears to include other forms of swollen flesh besides the womb. The calf of the leg, *pace* Klein *ibid.*, is from the same root: cf. O.J. Sadovszky, 'The reconstruction of IE *pisko and the extension of its semantic sphere', *Journal of Indo-European Studies* i (1973) 81-100, for the surprising but well-attested semantic connection between the calf of the leg and fish roe. Suetonius, *Galba* 3.1 tells us that the Gauls called a very fat person (*praepinguis*) *galba*, and this, too, will have come from the same root: so E. Partridge, *Origins: a short etymological dictionary of modern English* (London 1958) 71, who writes that 'the basic idea in IE is app(arently) a "swelling of the body"'. This being the case, it needs no special explanation why a pig of either sex should be called δέλφαξ, a 'swell'. I owe this note to the learned comments of Dr. Daniel Gershenson and Professor David Weissert; my thanks to both.

⁵ A. Nauck, *Aristophanis Byzantii, Grammatici Alexandrini, Fragmenta* (Halle 1848, reprinted Hildesheim 1963), chapter IV (Λέξεις), fragment III, 101-2, quoting Eustathius' comment on Hom. *Od.* xiv 80-2, = Ar. Byz. fr. 169 Slater.

⁶ See *LSJ* s.v. πηγνυμι III, from Aelian and Galen.

⁷ Chantraine (n. 3): 'il désigne une jeune bête, mais apte à la reproduction', G.P. Shipp, *Modern Greek evidence for the ancient Greek vocabulary* (Sydney 1979) 209 follows him: 'a young but sexually mature animal.'

hapax δελφακουμένα in the *Acharnians*⁸ seems indeed to point in that direction. It is undoubtedly sex that interests Aristophanes the comedian (here as elsewhere), but it does not necessarily follow that it was sexual maturity that defined a δελφάξ; for that matter, there is no compelling reason to presume that there was a single standard definition. In modern American usage the term *heifer* signifies to some a cow that has given birth only once, to others a young cow that has never given birth. G.P. Shipp, in his survey of modern Greek terms, found the Bovan term *Derfáci* (= δελφάκιον) to refer to a 'year old pig'.⁹

It will now be clear to us why the diminutive did not, at least in Athens, refer to a suckling-pig: the diminutive suffix could not negate entirely the meaning of the root noun. For an English parallel we might take a word like *girlie*, whose diminutive suffix may indicate either affection or contempt, but does not turn a girl into a baby.¹⁰ On Delos, as mentioned in my previous article, the diminutive seems to have taken over the semantic field entirely. A δελφάκιον is an adolescent pig, and the word δελφάξ is not attested at all.

Age may not be the essential variable here. English, with its characteristic wealth of vocabulary, distinguishes swine (a general term); pigs (usually those breeds raised for eating); piglets (new-born); boars (male); sows (female); hogs (usually pigs of some maturity; *Webster's Third International* gives 120 pounds as a minimum); barrows (male pigs castrated before maturity); gilts (females that have not borne, or have borne only one litter); porkers (young pigs fattened for the table) and shoats (young hogs of either sex, especially less than one year old)¹¹. Various modifiers offer more precision: brood-sow (one kept for raising piglets), lard-hog (raised for its fat), bacon-hog (raised for cured meat).

In Greek papyri of third- and second-century Egypt, we find δέλφακες in various contexts. Sometimes they are opposed to χοιρίδια¹² or χοιροδέλφακες;¹³ that opposition surely distinguishes the adolescents from the babies. The same may be true when they are distinguished from ἱερεῖα, sacrifices, if the custom was (as in

certain cases it certainly was)¹⁴ to offer piglets to the gods.¹⁵ The most common distinction, however, seems to be between δέλφακες and τοκάδες, brood-sows.¹⁶ The author of one papyrus says that he has 'one brood-sow, her five δέλφακες, and two barrows'; the latter will have been castrated pigs being kept and fattened ('the labouring man's pig is his bank', as one author puts it).¹⁷ In this period, it would appear that the Greeks in Egypt continued to use the term δελφάξ for a pig larger than a χοῖρος but still clearly distinguished from those swine raised into old age for breeding or fattening.

It may be that not every language had distinguished the age of swine with the same precision. An Egyptian demotic papyrus from 229 BCE notes *rr*, a pig; *išw.t*, a sow; *še*, a boar; and *tlpgs*, a previously unknown word that can only be the Greek δελφάξ. The original editor could not imagine what a *tlpgs* might be;¹⁸ Prof. Clarysse, who did recognize it,¹⁹ was not able to say what was left after pigs, sows, and boars had been excluded. From what has preceded, we have, of course, no hesitation in identifying a *tlpgs* as a partially grown pig. I think, moreover, that it should not be difficult to guess why a Greek term was used. Demotic, I suspect, had not distinguished among swine with the same precision that Greek used. There surely were δέλφακες in Egypt, and the conquering Greeks will have considered them a different kind of animal, not quite a piglet and not quite a pig. The Egyptians had to register them in some way, and they had nothing better to call them than *tlpgs*.

The interesting thing is that the distinction does not seem to have been maintained in Egypt. The word δελφάξ, and more commonly the diminutive δελφάκιον, reappears in late papyri, but it does not seem to be distinguished from other pigs by age; it is simply a pig. The imported distinction between χοῖροι and δέλφακες, so clear in the papyri of the generations immediately after Alexander's conquest, did not last. There is no doubt that the Greeks of Egypt could distinguish a suckling-pig from a year-old specimen, but where the distinction was immaterial, their language did not make it. The identification of a pig as adolescent, once so essential a part of a Greek's perception that the conquered Egyptians had imported it, was no longer part of his pig-view. It may have been the older Egyptian vagueness that reasserted itself, or perhaps changing circumstances of their lives made distinctions among

⁸ Ar. *Ach.* 786.

⁹ Shipp (n. 7).

¹⁰ I do not, offhand, find an English equivalent in the masculine, presumably because *boy* does not lend itself to the addition of *-y*; but Yiddish offers us the term *bocher'l*, where the diminutive suffix *-l* may indicate affection towards or contempt for the adolescent *bocher*, but does not change his age. English-speaking Jews of Yiddish background use the hybrid word *boychik* in the same sense. The case of μεῖραξ, an adolescent girl, whose diminutive μεῖράκιον denotes an adolescent boy, was mentioned in my previous article.

¹¹ This last term is the one chosen for δελφάξ by C.B. Gulick in the Loeb *Athenaeus* ix 374 d-375 b; in xiv 656 f-657 a, on the other hand, where Athenaeus is not distinguishing various words for pigs, Gulick contents himself with more pedestrian terms such as sow and pig.

¹² *PCair.* 59274, where the δέλφακες are explicitly called μέγαλοι by comparison.

¹³ *PCair.* 59274, where the δέλφακες are explicitly called μέγαλοι by comparison. In the second century of the current era, on the other hand, when the word χοῖρος had come to be a general term for 'pig', SB IV 7469 spoke of a τελεῖα ('full-grown') χοιροδέλφαξ.

¹⁴ The sanctuary at Delos was purified every month with a χοῖρος; δελφάκια, on the other hand, were sacrificed to three gods at the annual Posideia (IG xi 2 and *Ins. Dél., passim*).

¹⁵ One might, of course, take the ἱερεῖα to be ritually perfect (i.e., unblemished) animals, but the contexts do not suggest any such distinction: *PCair.* 59310 complains that a swineherd has run away while in debt for a certain number of ἱερεῖα and another number of δελφάκια. *PCair.* 59769 mentions pigs in three categories: ἱερεῖα, δέλφακες, and ἀρσενες.

¹⁶ *PTebt.* 883, *PCair.* 59312 and 59349, *PLond.* 2186, *PSI* IV 379 B, line 22.

¹⁷ R. Wallace in *Encyclopedia Britannica*¹¹ xxi 595.

¹⁸ *PLille* III 99

¹⁹ W. Clarysse, 'Greek Loan-Words in Demotic', in S.P. Vleeming, ed., *Aspects of Demotic lexicography* (Leuven 1987) 22 n. 71. The original editor, F. de Cenival, has since agreed to Professor Clarysse's interpretation (personal correspondence of Professor Clarysse).

pigs less familiar or less important to most Greek-speakers. I suspect, however, that the blurring of the distinctiveness of the word δέλφαξ was driven by a broader semantic change.

Homer had called a sheep ὄς and a pig ὄς. Various phonetic developments, however, combined to erase the distinction between the two words. The first two vowels of ὄς coalesced into a diphthong; by the classical period, ὄς had disappeared from Attic prose, replaced by the unambiguous πρόβατον. As time went on, the rough breathing dropped out of some dialects, and eventually all; the diphthong οἰ and the vowel υ became indistinguishable, so that the Byzantines called the υ by its now familiar name upsilon (υ ψιλόν) to distinguish it from its diphthongal homonym. These developments are hard to date precisely, but the last of them seems to have taken place by the second century of this era.²⁰ Once this happened, ὄς was no longer a suitable general term for a pig. Even though the word ὄς was not in use, it remained as a poetic term. Children still learned to read from Homer, and the term ὄς will have been inconvenient once the homonymy was complete.

Its place was taken by χοῖρος, as has long been recognized, and now for the first time the term χοῖρος designated a pig of any age rather than a suckling. Δέλφαξ, for its part, seems also to have ceased to carry the same implication of adolescence that it had once borne. Perhaps, as suggested above, it was foreign influence or a different life-style that had caused the change. Equally likely, however, is that it was only now that the change in χοῖρος caused the change in δέλφαξ: once the former was not necessarily young, the loss of the semantic contrast meant that the latter was not necessarily older. It was in this situation that the diminutive δελφάκιον, freed of its adolescent connotation, came to denote a piglet.

We can now follow the history of our words with more precision than we had previously offered. A δέλφαξ in the classical period was a pig neither newborn nor old; its diminutive form δελφάκιον carried the usual meanings of diminutives, but did not reduce it to a piglet. This distinction may have been without parallel in the native Egyptian speech, if its appearance as a Demotic loan-word is significant. Eventually the term δέλφαξ and its diminutive lost their force as being specifically adolescent pigs. This may have occurred early as a result of foreign influence or increased urbanization, or later because of the loss of the opposition to χοῖρος. It was thus either a cause or an effect of the change in δέλφαξ that when phonetic developments caused ὄς to drop from use and χοῖρος to take its place as the usual term for swine, the diminutive δελφάκιον finally came to mean what we once thought it had always meant, a suckling-pig.

The perceptive reader will note the significant variation of an apparently straightforward term over a relatively short period of linguistic time. I leave it to that perceptive reader to decide how sweeping will be his conclusion about the sandy foundations of our semantic speculations over the vaster ages.

Bar Ilan University

DAVID SCHAPS

²⁰ W.S. Allen, *Vox Graeca*³ (Cambridge 1987) 53, 81 n. 51.

Fifth century chronology and the Coinage Decree*

The debate over the chronology of the history of Athens in the fifth century BC has entered a new phase recently with the publication by Mortimer Chambers and his colleagues of physical evidence that seems to confirm Harold Mattingly's view¹ that a crucial inscription bearing three-bar sigmas and tailed rhos (*IG* I³ 11) was cut during the archonship of Antiphon in 418/7, and not during that of Habron in 458/7 as was generally thought.² This development has not been greeted with universal approval, however, and A.S. Henry, for one, has been unwilling to accept what is by any standards a radical shift.³ His arguments have, though, been more than adequately countered by Chambers,⁴ and the judgement of Jacques Tréheux remains as true now as it did in 1991: 'La mesure des intervalles entre les lettres, la superposition des photographies multiples et, surtout, le bombardement du marbre par un rayon laser ont prouvé (les photographies en couleur A et B ne permettent pas d'en douter) qu'il fallait lire et rétablir 'ΑΥΤ]-ΙΦΘΝ (*a.* 418/7).'⁵ Many competent scholars have already been convinced, and 'waverers will surely have to come round in the end'.⁶

There is an important issue at stake here (and one that is not unconnected with further chronological shifts that might be made at an earlier period). The position has never been better put than by Russell Meiggs who, although he favoured the earlier, higher, chronology, knew very much what was involved:

The main evidence for the *history* of the Athenian Empire (as distinct from an analysis of its character in the period covered by Thucydides and Aristophanes) comes from a long series of inscriptions, the most important of which are not explicitly dated. From the literary evidence (if Plutarch is dismissed as

* Acknowledgements: Thanks are due to Ernst Badian, Mortimer Chambers, David Gill, Stefan Karwiese, the late D.M. Lewis, Harold Mattingly, Wolfgang Schuller and *JHS*'s anonymous readers for, in various measure, advice, assistance and criticism in the preparation of this note.

¹ First expressed in his 'The growth of Athenian imperialism', *Historia* xii (1963) 257-73.

² M.H. Chambers, R. Gallucci, and P. Spanos, 'Athens' alliance with Eggesta in the year of Antiphon', in I. Worthington (ed.), *Acta of the University of New England International Seminar on Greek and Latin Epigraphy* (Bonn, 1990) 38-63; also published in *ZPE* lxxxiii (1990) 38-63; M.H. Chambers, 'Photographic enhancement and a Greek inscription', *CJ* lxxxviii (1992/3) 25-31. For a survey of other readings, see G. Németh, 'Was sieht ein Epigraphiker?', *Acta Classica Univ. Scient. Debrecen.* xxvii (1991) 9-14.

³ A. Henry, 'Through a laser beam darkly: space age technology and the Eggesta Decree (*IG* I³ 11)', *ZPE* xci (1992) 137-46.

⁴ M.H. Chambers, 'The archon's name in the Athens-Eggesta alliance (*IG* I³ 11)', *ZPE* xcvi (1993) 171-4; *idem*, 'Reading illegible Greek inscriptions: Athens and Eggesta', *Thetis, Mannheimer Beiträge zur klassischen Archäologie und Geschichte Griechenlands und Zyperns* i (1994) 49-52, pl. 5.

⁵ J. Tréheux, 'Bulletin épigraphique: Attique', *REG* civ (1991) 469.

⁶ H.B. Mattingly, 'Epigraphy and the Athenian empire', *Historia* xli (1992) 129.