COWS, HOUSES, HOOKS: THE GRAECO-SEMITIC LETTER NAMES AS A CHAPTER IN THE HISTORY OF THE ALPHABET

I. INTRODUCTION

It is well known that all modern European alphabets can be traced back, via the Latin and/or Greek alphabet, to a Semitic ancestor. This ancestor alphabet, which we encounter first as the Proto-Canaanite script, may have been created in the first half of the second millennium B.C., possibly in the Sinai peninsula and under Egyptian influence.[1] This is the region where the so-called Proto-Sinaitic inscriptions (variously dated between the eighteenth and the thirteenth centuries B.C.) have been found. The Proto-Sinaitic signs can be regarded as predecessors or at least cognates of the Proto-Canaanite and Old Canaanite (seventeenth–eleventh centuries) as well as the Phoenician (from eleventh century) letters.

Apart from the formal similarities of the early alphabets, the Greek letter names provide the most obvious proof of the Semitic ancestry of our script: not only do most of them closely correspond to the Hebrew letter names, but a considerable number can also be etymologized easily on the basis of Semitic lexemes.

The date, place and circumstances of the adoption of the alphabet by the Greeks have been the subject of much scholarly debate in recent years. Since the study of the Graeco-Semitic letter names promises little insight into these hot topics, it has been pursued less frequently. This article aims to redress the balance by presenting an up-to-date *status quaestionis* as well as some new suggestions regarding the early history of the letter names in both Semitic and Greek.

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[1] Cf. now F.M. Cross, 'The origin and early evolution of the alphabet', *Eretz-Israel* 8 (1967), 8*–24*, at 8*–12*; D. Diringer, *The Alphabet: A Key to the History of Mankind, I* (London, 1968³), 160–3; G.R. Driver, *Semitic Writing from Pictograph to Alphabet* (London, 1976³), 140–4 and 185–97; B. Isserlin, 'The earliest alphabetic writing', in J. Boardman et al. (edd.), *The Cambridge Ancient History, III.1. The Prehistory of the Balkans, and the Middle East and the Aegean World, Tenth to Eighth Centuries B.C.* (Cambridge, 1982), 794–818, at 794–802; J. Naveh, *Early History of the Alphabet. An Introduction to West Semitic Epigraphy and Palaeography* (Jerusalem and Leiden, 1982), 23–42; B. Sass, *The Genesis of the Alphabet and its Development in the Second Millennium B.C.* (Wiesbaden, 1988), esp. 135–68; B. Sass, *Studia Alphabetica. On the Origin and Early History of the Northwest Semitic, South Semitic and Greek Alphabets* (Fribourg and Göttingen, 1991), 24–7; W. Röllig, 'L'alphabet', in V. Krings (ed.), *La civilisation phénicienne et punique. Manuel de recherche* (Leiden, New York and Cologne, 1995), 193–214, at 193–6; W. Röllig, 'Das Alphabet und sein Weg zu den Griechen', in N. Dimoudis and A. Kyriatsoulis (edd.), *Die Geschichte der hellenischen Sprache und Schrift (Tagung Ohlstadt 3.-6. Oktober 1996)* (Altenburg, 1998), 359–86, at 360–2, after the pioneering work of A.H. Gardiner, 'The Egyptian origin of the Semitic alphabet', *Journal of Egyptian Archaeology* 3 (1916), 1–16; W.F. Albright, 'The early alphabetic inscriptions from Sinai and their decipherment', *BASOR* 110 (1948), 6–22; and W.F. Albright, *The Proto-Sinaitic Inscriptions and their Decipherment* (Cambridge, MA and London, 1966).

II. THE EARLIEST ATTESTATIONS OF THE GRAECO-SEMITIC LETTER NAMES

Paradoxically, the earliest attestations for the entire series of the alphabetic letter names are not found in the Semitic world where they originated. After long centuries during which there is not a single piece of unquestionable[2] evidence for a Semitic letter name, they all come to the fore within just a few decades: in their Hellenized forms in Greek texts. This sudden appearance is due to two interrelated factors: to the bloom of Athenian culture and literature in the fifth century B.C. on the one hand, and to the increased interest in various aspects of language and writing, arising from the spread of literacy in Greece as a whole, on the other. Thus, the Platonic dialogues, and in particular the *Cratylus* in which the phonetic values of the various letter signs are central to the discussion about the legitimacy of etymological speculation, are among the most important early sources for the Greek letter names. The following overview shows that only two names of the classical series are absent from Plato's writings ($\mu\hat{v}$ and $\xi\epsilon\hat{\iota}$):[3]

$\check{a}\lambda\phi a$ (*Crat.* 393e etc., *Eryx.* 395c), $\beta\hat{\eta}\tau a$ (*Crat.* 393e, 431e, *Tht.* 203b), $\gamma\acute{a}\mu\mu a$ (*Crat.* 427b), $\delta\acute{\epsilon}\lambda\tau a$ (*Crat.* 403a etc.), $\epsilon\hat{\iota}$ (*Crat.* 411e etc., *Tht.* 207e, 208a), $\zeta\hat{\eta}\tau a$ (*Crat.* 418c etc.), $\hat{\eta}\tau a$ (*Crat.* 393e etc.), $\theta\hat{\eta}\tau a$ (*Tht.* 207e), $\iota\hat{\omega}\tau a$ (*Crat.* 399b etc.), $\kappa\acute{a}\pi\pi a$ (*Crat.* 412e), $\lambda\acute{a}\beta\delta a$ (*Crat.* 403a etc.), $\nu\hat{v}$ (*Crat.* 414c etc.), $o\hat{v}$ (*Crat.* 414c etc.), $\pi\epsilon\hat{\iota}$ (*Crat.* 403a), $\acute{\rho}\hat{\omega}$ (*Crat.* 414c etc.), $\sigma\acute{\iota}\gamma\mu a$ (*Crat.* 402e, *Tht.* 203a etc., *Eryx.* 395c), $\tau a\hat{v}$ (*Crat.* 393e etc., *Tht.* 208a, *Phdr.* 244c), $\hat{v}$ (*Crat.* 393d), $\phi\epsilon\hat{\iota}$ (*Crat.* 427a), $\chi\epsilon\hat{\iota}$ (*Crat.* 414c, *Tim.* 36b), $\psi\epsilon\hat{\iota}$ (*Crat.* 421b, 427a), $\hat{\omega}$ (*Crat.* 420b, *Phdr.* 244d, *Tht.* 203a etc.).

Even before Plato, a complete enumeration was given in the $\Gamma\rho a\mu\mu a\tau\iota\kappa\grave{\eta}\ \tau\rho a\gamma\omega\delta\acute{\iota}a$ 'Letter Tragedy' (or $\Gamma\rho a\mu\mu a\tau\iota\kappa\grave{\eta}\ \theta\epsilon\omega\rho\acute{\iota}a$ 'Letter Embassy'[4]) by the Athenian comic poet Callias.[5] In this play, presumably to be dated to the 430s, each of the 24 members of the chorus represented one of the 24 letters of the classical (East Ionic) alphabet.[6]

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[2] On the uncertain biblical attestations of some letter names see § III below.

[3] On the letter names in the *Cratylus* cf. W. Stefanski, 'On the names of the letters used in Plato's *Kratylos*', *Eos* 80 (1992), 53–60; on the accentuation of $\sigma\acute{\iota}\gamma\mu a$ B. Einarson, 'Notes on the development of the Greek alphabet', *CPh* 62 (1967), 1–24 and 262–3, at 21–2, n. 38.

[4] The transmission at Athen. 7.276a and 10.448b supports the title $\Gamma\rho a\mu\mu a\tau\iota\kappa\grave{\eta}\ \tau\rho a\gamma\omega\delta\acute{\iota}a$, the one at Athen. 10.453c the alternative $\Gamma\rho a\mu\mu a\tau\iota\kappa\grave{\eta}\ \theta\epsilon\omega\rho\acute{\iota}a$. Since the play was clearly a comedy (as evidenced by the number of chorus members), a parodistic $\Gamma\rho a\mu\mu a\tau\iota\kappa\grave{\eta}\ \tau\rho a\gamma\omega\delta\acute{\iota}a$ may have been mistakenly changed into $\Gamma\rho a\mu\mu a\tau\iota\kappa\grave{\eta}\ \theta\epsilon\omega\rho\acute{\iota}a$ by a corrector.

[5] Earlier doubts about the identity of the author with the comic poet Callias (e.g. in U. von Wilamowitz-Moellendorff, review of A. Wilhelm, *Urkunden dramatischer Aufführungen in Athen* [Wien, 1906], *Göttingische gelehrte Anzeigen* [1906], 611–34, at 631–2) are hardly justified: see C.J. Ruijgh, 'Le *Spectacle des lettres*, comédie de Callias (Athénée X 453c–455b), avec un *excursus* sur les rapports entre la mélodie du chant et les contours mélodiques du langage parlé', *Mnemosyne* ser. 4, 54 (2001), 257–335, at 268–71, after M. Pohlenz, 'Die Begründung der abendländischen Sprachlehre durch die Stoa', *Nachrichten der Gesellschaft der Wissenschaften zu Göttingen* n.s. 3 (1939), 151–98, at 152–4.

[6] The East Ionic alphabet was officially established in Athens under the archon Eucleides in 403/2 B.C., but by that time it had been used in private inscriptions for decades; cf. L. Threatte, *The Grammar of Attic Inscriptions, I. Phonology* (Berlin and New York, 1980), 33–4; L. Bodson, 'Aspects techniques et implications culturelles des adaptations de l'alphabet attique préliminaires à la réforme de 403/2', in C. Baurain, C. Bonnet and V. Krings (edd.), *Phoinikeia grammata: Lire et écrire en Méditerranée* (Namur, 1991), 591–611; S. Colvin, *Dialect in Aristophanes and the Politics of Language in Ancient Greek Literature* (Oxford, 1999), 92–100; A.J. D'Angour, 'Archinus, Eucleides and the reform of the Athenian alphabet', *BICS* 43 (1999), 109–30, at 112–14 and 122; Ruijgh (n. 5), 269–71.

The entrance of this peculiar chorus is described in one of the extant passages (Callias test. 7 K.–A., transmitted by Athen. 10.453c):

> <τὸ ἄλφα,> βῆτα, γάμμα, δέλτα, θεοῦ γὰρ εἶ,[7]
> ζῆτ’, ἦτα, θῆτ’, ἰῶτα, κάππα, λάβδα, μῦ,
> νῦ, ξεῖ, τὸ οὗ, πεῖ, ῥῶ, τὸ σίγμα, ταῦ, <τὸ> ὓ,
> παρὸν <τὸ> φεῖ, <τὸ> χεῖ τε τῷ ψεῖ εἰς τὸ ὦ.

Further dramatic, and especially comic, passages and fragments confirm the impression that by the end of the fifth century B.C. a knowledge of the letter names could be taken for granted among the majority of the Athenian population.[8] Additional attestations from the classical or early post-classical period are found in Pindar, Herodotus, in the *Corpus Hippocraticum*, in Xenophon, Aeneas Tacticus and in various Attic inscriptions of the fourth century.[9] We may thus assume that Greek pupils already in classical times learned the canonical letter names together with, or even before, the corresponding letter shapes, just as it was the case in later centuries according to Dionysius of Halicarnassus (*Dem.* 52.2) and Quintilian (1.1.24).

Most of the letter names found in Plato and Callias are those with which we are familiar. The vocalism of modern *ksi*, *pi* etc. (for ξεῖ, πεῖ etc.) of course simply reflects the post-classical iotacistic pronunciation [ī] of original closed [ē] (written as *EI* in classical orthography; but later on, spellings such as πῖ with simple *I* are also found).[10] The replacement of εἶ, οὗ, ὗ and ὦ by ἒ ψιλόν, ὂ μικρόν, ὒ ψιλόν and ὦ μέγα is only the product of late Greek and Byzantine grammar; here the names ἒ ψιλόν and ὒ ψιλόν 'simple *E/Y*' helped to differentiate between the spellings *E* and *AI* (both pronounced as [e] by that time), and *Y* and *OI* (both pronounced as [ü]),[11] and

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[7] The exact reconstruction of this line is problematic, not least because the allusion in θεοῦ γὰρ εἶ to the *E* of the sanctuary at Delphi (cf. Plut. *Mor.* 384d–394c) is syntactically awkward. Pohlenz (n. 5), 153, n. 2, suggests reading the first line as θεῷ γάρ· ἄλφα, βῆτα, γάμμα, δέλτα <τ’> εἶ instead (cf. also Ruijgh (n. 5), 286–93).

[8] In Old and Middle Comedy we find βῆτα (Ar. *Eccl.* 684), δέλτα (Ar. *Lys.* 151), θῆτα (Ar. *Eccl.* 685), κάππα (Ar. *Eccl.* 686), λάβδα (Eupolis fr. 394 K.–A.), ῥῶ (Ar. *Thesm.* 781) and σίγμα (Pl. Com. fr. 29 K.–A.), in a fragment of the tragic poet Achaeus, in which the name Διονύσō is described, δέλτα, ἰῶτα, οὗ, νῦ, ὗ, and σάν (Achae. fr. 33 Snell; on σάν cf. below and § VIII); cf. further Nicochares fr. 5 K.–A. ἀναλφάβητος.

[9] Pind. *Dith.* 2, fr. 70b.3 Maehler (σάν: cf. below and § VIII); Hdt. 1.139 (σάν and σίγμα: cf. below and § VIII), 2.13.2 etc. (δέλτα in the metaphorical sense of '[river] delta'), 5.92 (λάβδα as a name); Hp. *VC* 1 (p. 3.182 Littré) (ἦτα, ταῦ, χεῖ/χῖ); Xen. *Cyr.* 7.1.5 and *Oec.* 19.9 (γάμμα), *HG* 4.4.10 (σίγμα), *Anab.* 7.5.1 (Δέλτα as a place name); Aen. Tact. 31.18 (ἄλφα, εἶ, ἰῶτα, νῦ in the description of an encrypting procedure); inscriptions: ἄλφα (*IG* 2².1425.95, 2².1429.28), βῆτα (*IG* 2².1425.98, 2².2783.27), γάμμα (*IG* 2².1496.187), εἶ (*IG* 2².1496.223), ἰῶτα (*IG* 2².1496.185), μῦ (*IG* 2².2783.24), νῦ (*IG* 2².2783.21), πεῖ (*IG* 2².2783.23), ταῦ (*IG* 2².2783.20), ὗ (or ὓ according to J. Wackernagel, review of K. Meisterhans, *Grammatik der attischen Inschriften* [Berlin, 1885] and M. Hecht, *Orthographisch-dialektische Forschungen auf Grund attischer Inschriften* [Königsberg, 1885], *Philologischer Anzeiger* 16 [1886], 65–83, at 71, and LSJ, 1840, s.v. *Y*; but see also Einarson [n. 3], 263) (*IG* 2².2783.4), χεῖ (*IG* 2².1491.33) (cf. K. Meisterhans and E. Schwyzer, *Grammatik der attischen Inschriften* [Berlin, 1900³], 5–6 with n. 19).

[10] Cf. W.S. Allen, *Vox Graeca. A Guide to the Pronunciation of Classical Greek* (Cambridge, 1987³), 170.

[11] Cf. LSJ, 2024, s.v. ψιλόν, and LSJ, 1840, s.v. *Y*, where Theognost. *Can.* 18, Schol. Ar. *Plut.* 896, and [Hdn.] *Epim.* 116, 137 as well as Anon. post *Et. Gud.* 679.9 and 678.55 and Chrysoloras are cited as the earliest sources: 'but in πᾶσα λέξις ἀπὸ τῆς κε̄ συλλαβῆς ἀρχομένη διὰ τοῦ ε̄ ψιλοῦ γράφεται […] πλὴν τοῦ καί, κτλ. Hdn. *Epim.* 62, ε̄ ψ. is not yet merely the name of the letter'; E. Schwyzer, *Griechische Grammatik, I. Allgemeiner Teil, Lautlehre, Wortbildung, Flexion* (Munich, 1939), 140, Allen (n. 10), 172–3.

the names ὂ μικρόν 'small *O*' and ὦ μέγα 'big *Ω*' ensured that *O* and *Ω* could be kept apart after distinctions of vowel length had been lost in Greek.[12]

As we concentrate on the early history of the letter names, it is however of greater interest to note a series of minor synchronic, apparently regional, divergences that obtained in the classical age. According to the Byzantine grammarian Eustathius, the atomist Democritus used the names γέμμα and μῶ instead of γάμμα and μῦ, presumably in his treatise Περὶ εὐφώνων καὶ δυσφώνων γραμμάτων 'About well-sounding and ill-sounding letters' (Democr. fr. 68B19 D.–K. = Eust. in Hom. *Il.* 3.1, p. 370.15; cf. Phot. μ 654, s.v. μῶ). The source explicitly mentions that γέμμα is an Ionic form of the letter name, and the same may be inferred for μῶ from a Delian inscription of the third century B.C. (*IG* XI/2 205 Ab 25; cf. further § IX).[13] Moreover, Democritus is said to have inflected the letter names, presumably in an attempt to establish an idiosyncratic innovation rather than following a more widespread early Ionic (but certainly not Attic[14]) usage; at best, such a usage could have been promoted when the name δέλτα had acquired the metaphorical meaning '(river) delta' and had thus become fully lexicalized, or also when the descriptive letter name σίγμα 'hissing' had replaced an earlier name of *Σ* (cf. § VIII). As for the more common indeclinability of the letter names, a scholion on Dionysius Thrax (p. 184.3–19 Hilgard) rather amusingly speculates that its purpose was to make the letter names easy to learn for children (ἢ διὰ τὸ ἀρτιμαθὲς τῶν παίδων οὐ κλίνονται, ἵνα μὴ πολλὰ γινόμενα δυσκατάληπτα αὐτοῖς γίνωνται); but this certainly tells us more about ancient pedagogy and perceptions of children's language than about anything else, and we can be sure that the real reason for the indeclinable names was that their non-Greek origin (or only half-lexical status) was too strongly felt to allow them entrance into a pre-existing declensional pattern.

A slightly more complicated case of synchronic variation concerns the letter names σάν and σίγμα. Herodotus claims that all Persian personal names end in one and the same letter, 'which the Dorians call σάν and the Ionians σίγμα' (Hdt. 1.139: τελευτῶσι πάντα ἐς τωὐτὸ γράμμα, τὸ Δωριέες μὲν σὰν καλέουσι, Ἴωνες δὲ σίγμα; cf. also Athen. 11.467a). Quite apart from the factual error in this statement,[15] it would be more precise if Herodotus did not just speak of a different letter *name*. In archaic times and at least until the fifth century B.C., the phoneme /s/ was represented

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[12] Cf. LSJ, 2029, s.v. *Ω*, and LSJ, 1193, s.v. *O*, with Hdn. *Epim.* 208–9, Theognost. *Can.* 13, and Eust. 869.26, 829.29 and 1828.49 as the earliest attestations of ὦ μέγα and ὂ μικρόν; Allen (n. 10), 173.

[13] Einarson (n. 3), 19, n. 10, sees the variant μῶ confirmed by the lexeme *motacismus* in Isid. *Etym.* 1.32.6, but this may be an analogical formation after *iotacismus*. Ionic γέμμα is the likely starting point for (Etruscan?-)Latin *gēlcē*: see E. Hermann, 'Herkunft und Alter der deutschen Buchstabennamen', *Nachrichten der Gesellschaft der Wissenschaften zu Göttingen* (1929), 215–32, at 225.

[14] With Democritus' δέλτατος and θήτατος contrast Ar. *Eccl.* 684 τοῦ βῆτ(α) and Eupolis fr. 394 K.–A. τὰ λάβδα; only in the special case of σίγμα, Pl. Com. fr. 29 K.–A. may have to be read as τῶν σιγμάτων Εὐριπίδου (but τῶν σίγμα τῶν Ε. is possible). Schwyzer (n. 11), 141, also points to the derivative ϙοππατ-ίας (as if from a nominal stem ϙοππατ-), but this is formed after στιγματ-ίας.

[15] According to I. Gershevitch, 'The Old Persian lisp', in G. Gnoli and A. Panaino (edd.), *Proceedings of the First European Conference of Iranian Studies, I. Old and Middle Iranian Studies* (Rome, 1990), 115–33, at 133, Herodotus may have been misled by an informant who was familiar with the Elamite graphic rendering of Old Persian nouns ending in *-a* (< *-as*). I owe this reference to the anonymous referee for this journal.

by two different letter *signs*: on the one hand by the descendant of Semitic ṣadē (in the Doric regions of Crete and Corinth), and on the other by the descendants of šin (in Ionia). The fact that neither σίγμα nor σάν has an exact lexical equivalent among the Semitic letter names is an additional difficulty to be discussed below (§ VIII). For now it will suffice to note that σάν may in fact have been the only Greek letter name for any letter representing the phoneme /s/ that was in use until the fifth century, no matter if the relevant letter formally continued ṣadē or šin. This is suggested not so much by the common Athenian designation σαμφόρας (lit. 'σάν-bearer') for a race horse brand-marked by the letter σάν[16] as by the retention of the name σάν in two literary texts which do not come from a σάν/ṣadē region: one is a fragment of the tragedian Achaeus of Eretria, who was active in fifth-century Athens (Achae. fr. 33.4 Snell), the other an epigram in Ionian dialect on the well-known sophist Thrasymachus of Chalcedon, which was quoted by Neoptolemus of Parion (third century) (Thrasymachus test. 85A8 D.–K. = Athen. 10.454f). Incidentally, σάν is even the earliest attested Greek letter name, as it is used in a dithyrambic fragment of Pindar's where the poet alludes to how earlier dithyrambists avoided the sound /s/ (Pind. *Dith.* 2, fr. 70b.3 Maehler).

Like σάν in σαμφόρας, the name κόππα (Ϙόππα) for the letter Ϙ (rendering /k/ before a dark vowel: hence Latin Q) is also attested indirectly in classical times: another type of race horse was called κοππατίας after the brand-mark Ϙ, possibly standing for Ϙόρινθος 'Corinth' (Ar. *Nub.* 23, 438, Ar. fr. 43).[17] Although this letter fell into disuse from the sixth century onward, its name still seems to have been familiar to educated people in the Hellenistic age, for in an iambus by Parmenon of Byzantium (third century B.C.) an uncultivated drunkard is said proverbially 'to know not even the Ϙόππα' (Parmenon fr. 1.2 Powell: οὐδὲ κόππα γινώσκων).

Finally, the last-attested Graeco-Semitic letter name is Ϝαῦ for the letter Ϝ (rendering /w/, but formally the ancestor of Latin F). This letter was no longer needed to write the classical Attic and Ionic dialects, which had lost the sound /w/, but it nevertheless appears in early Attic-Ionic abecedaries after E, and it was appropriately given the value '6' in the Milesian system of alphabetic numbering (α = 1, β = 2, etc.).[18] Whereas the Roman scholar Varro (first century B.C.) refers to it as Ϝαῦ (Varr. fr. 270 Funaioli = fr. gramm. 71, pp. 208–9 Goetz–Schoell: *VAV*),[19] by that time the descriptive alternative name δίγαμμα 'double γάμμα' (referring to the letter shape) may already have existed as well (cf. Quint. 1.4.8; Trypho *Pass.* 11; Apoll. Dysc. *Pron.* 76.32 Schneider).

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[16] As L.H. Jeffery, *The Local Scripts of Archaic Greece. A Study of the Origin of the Greek Alphabet and its Development from the Eighth to the Fifth Centuries B.C.* (Oxford, 1990²), 33, n. 1, rightly notes after C.A. Böttiger, *Kleine Schriften archäologischen und antiquarischen Inhalts, II* (Dresden and Leipzig, 1838), 162, the σαμφόραι were imported from the σάν/ṣadē region Σικυών (Böttiger: Συρακοῦσαι); the name may thus have simply reflected the fact that it was not a σίγμα/šin that served as a mark.

[17] Thus again Jeffery (n. 16), 33, n. 1, after Böttiger (n. 16), 162; alternatively one might think of the race of the (Scythian?) ἵπποι Κολαξαῖοι (Ϙολαξαῖοι) mentioned in Alcm. fr. 1.59 *PMGF* (cf. the Scythian personal name Κολάξαϊς in Hdt. 4.5.2; G. Devereux, 'The Kolaxaian horse of Alkman's *Partheneion*', *CQ* n.s. 15 (1965), 176–84).

[18] Jeffery (n. 16), 25.

[19] See also § III on ουαυ in the manuscripts of the *Septuagint*, and cf. Dion. Hal. *AR* 1.20.3.

III. THE EARLIEST ATTESTATIONS OF THE SEMITIC
LETTER NAMES

The non-Hellenized Semitic versions of the letter names are also first attested by a source written in Greek. In translating the Hebrew Bible into Greek it proved impossible to render the acrostichic structure of various, mainly poetical, passages of the original: to let the first verse of a poem that was acrostichic in Hebrew start with *A* in the Greek translation, the second with *B*, and so on, would have meant abandoning the more fundamental aim of translating literally. However, in order to highlight the formal play of the original, various manuscripts of the *Septuagint* add the Hebrew letter names (in a fairly consistent transcription) as 'subtitles' within the acrostichs at *Ps.* 118 (119) and *Lam.* 1–4. The transcriptions chosen are as follows (variants between brackets, with added * when obviously corrupt):[20]

αλφ (αλεφ), βηθ, γιμλ (γιμαλ, γιμελ, *gimel*), δελθ (δελεθ, δαλεθ, *deleth*, *delech*), η (*he*, *ηπ, *heth*), ουαυ, ζαιν (ζαι), ηθ, τηθ, ιωθ (ιωδ, *loth*), χαφ (*caph*, *coph*), λαβδ (λαμεδ), μημ, νουν, σαμχ (*samech*, *sanch*), αιν, φη, σαδη (τιαδη), κωφ, ρης (ρηχς), σεν (χσεν), θαυ.

Further attestations of this series are found only in the Christian era. In his *Praeparatio evangelica*, the Church Father Eusebius of Caesarea points out that the Greek alphabet depends on the Hebrew one, and in support of this he advances the irrefutable argument that the letter names are meaningful in Hebrew, but not in Greek (Euseb. *Praep. evang.* 10.5). Interestingly, Eusebius does give the actual original meaning in a few cases (e.g. φῆ = στόμα 'mouth', ῥής = κεφαλή 'head'), but in others he seems to be following a secondary (Jewish school?) tradition which tried to build a meaningful text from the letter-name series (or at least parts of it). Thus, while βήθ is rendered correctly by the word for 'house' (Gr. gen. οἴκου), the preceding ἄλφ is not connected with the root ʾlp 'cow' (cf. § IV), but with the root ʾlp 'to learn' (Gr. μάθησις),[21] and the following γίμελ (γημέλ) is not interpreted as '*crook, throw stick' or 'camel' (?), but as πλήρωσις 'fulfilment'; together with δέλθ paraphrased as δέλτων and ἤ (ε, εἰ) taken as a demonstrative pronoun, the sequence ἄλφ βήθ γίμελ δέλθ ἤ

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[20] On details of the transcription see T. Nöldeke, *Beiträge zur semitischen Sprachwissenschaft* (Strasburg, 1904), 126–8, and C.J. Ruijgh, 'La date de la création de l'alphabet grec et celle de l'épopée homérique', *Bibliotheca Orientalis* 54 (1997), 533–603, at 577–9. In the other biblical acrostichs such 'subtitles' are not used (*Ps.* 9–10, 25, 34, 37, 111, 112, 145, *Nah.* 1.2–8 [only ʾalep to *kap*], *Prov.* 31.10–31, *Sir.* 51.13–30); on these and similar texts see M. Löhr, 'Alphabetische und alphabetisierende Lieder im Alten Testament', *Zeitschrift für die alttestamentliche Wissenschaft* 25 (1905), 173–98; P.A. Munch, 'Die alphabetische Akrostichie in der jüdischen Psalmendichtung', *Zeitschrift der Deutschen Morgenländischen Gesellschaft* n.s. 15 (1936), 703–10; R. Marcus, 'Alphabetic acrostichs in the Hellenistic and Roman periods', *Journal of Near Eastern Studies* 6 (1947), 109–15; W.W. Hallo, 'Isaiah 28 9–13 and the Ugaritic abecedaries', *Journal of Biblical Literature* 77 (1958), 324–38, at 328; A. Demsky, 'A Proto-Canaanite abecedary dating from the period of the Judges and its implications for the history of the alphabet', *Tel Aviv* 4 (1977), 14–27, at 17, and A. Demsky, 'School texts: abecedaries', in W.W. Hallo and K.L. Younger (edd.), *The Context of Scripture, I. Canonical Compositions from the Biblical World* (Leiden, New York and Cologne, 1997), 362–5, at 364.

[21] Contrast the gloss Hsch. α 3321, s.v. ἄλφα· βοὸς κεφαλή. <Φοίνικες>; 'en effet, l'expression "tête de boeuf" ne peut se rapporter qu'à la forme de la lettre, puisque l'appellatif ʾalp- signifie simplement "boeuf", comme le savait Plutarque (*Mor.* 738a: … τὸ ἄλφα προτάξαι διὰ τὸ Φοίνικας οὕτω καλεῖν τὸν βοῦν)' (Ruijgh [n. 20], 539).

yields Greek $\mu\acute{a}\theta\eta\sigma\iota\varsigma$ $o\mathring{\iota}\kappa o\upsilon$, $\pi\lambda\acute{\eta}\rho\omega\sigma\iota\varsigma$ $\delta\acute{\epsilon}\lambda\tau\omega\nu$ $a\mathring{\upsilon}\tau\eta$ 'the learning of the house, this is the fulfilment of the tablets' *vel sim*.[22]

Only after Eusebius' time do we finally come across the first systematic references to the Semitic names in the Hebrew tradition and spelling: these appear in various parts of the Palestinian *Talmud* (fifth century A.D.?).[23] However, it has been suggested that two of the known letter names are already attested obliquely in the Old Testament itself. According to William Hallo, *waw* 'hook' and *taw* 'sign' would not have been common nouns to begin with, but only names for the corresponding letters; when *waw* seems to mean 'hook' in the description of the Tabernacle at *Ex.* 26.32 etc., and when *taw* means 'sign, mark' in *Job* 31.35 and *Ezek.* 9.4 and 9.6, these would be secondary developments on the basis of the meaningless letter names (comparable with German *X-Beine* and *O-Beine* for 'knock-knees' and 'bandy legs' respectively, or also with Greek $\delta\acute{\epsilon}\lambda\tau a$ for a river delta). Hallo finds support for this assumption in the mysterious passage *Jes.* 28.9–10 where, in his view, *ṣaw lᵉ ṣaw qaw lᵉqaw* neither represents 'an impenetrable utterance concealing or conveying God's plan' nor the 'shouts and cries of a party of drunkards', but rather two (equally meaningless) alternative names for the letters *ṣadē* and *qōp* 'in the context of a spelling-lesson sarcastically pictured as being administered by the prophet'.[24]

IV. THE ORIGIN AND DATE OF THE SEMITIC LETTER NAMES

In view of these attestations, and in particular if Hallo is right in assuming that several meaningless letter names existed in the first half of the first millennium B.C. in Palestine, we may ask when the meaningful Semitic letter names came into being. An obvious *terminus ante quem* is indicated by the transfer of the Northwest Semitic alphabet to Greece, no later than around 800 B.C.[25] It is much more difficult to say

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[22] And further $o\mathring{\upsilon}a\mathring{\upsilon}$ (*$o\upsilon a$) '$\mathring{\epsilon}\nu$ $a\mathring{\upsilon}\tau\mathring{\eta}$, in it' + $\zeta a\mathring{\iota}$ (*$\zeta a\acute{\eta}$) '$\zeta\mathring{\eta}$, lives' + $\mathring{\eta}\theta$ '$\acute{o}$ $\zeta\hat{\omega}\nu$, the living' → 'the living one lives in it'; $\tau\acute{\eta}\theta$ '$\kappa a\lambda\acute{\eta}$, beautiful' + $\iota\acute{\omega}\theta$ '$\acute{a}\rho\chi\acute{\eta}$, beginning' → 'a beautiful beginning'; $\chi\acute{a}\phi$ ($\chi\acute{a}\beta$) '$\mathring{o}\mu\omega\varsigma$, nonetheless' + $\lambda\acute{a}\beta\delta$ '$\mu\acute{a}\theta\epsilon$, learn' → 'learn nonetheless'; $\mu\acute{\eta}\mu$ '$\mathring{\epsilon}\xi$ $a\mathring{\upsilon}\tau\hat{\omega}\nu$, from it' + $\nu o\hat{\upsilon}\nu$ '$a\mathring{\iota}\omega\nu\acute{\iota}a$, eternal' + $\sigma a\mu\chi$ '$\beta o\eta\theta\epsilon\iota a$, help' → 'from it [comes] eternal help'; $\acute{a}\mathring{\iota}\nu$ ($\acute{a}\mathring{\iota}\nu$) '$\pi\eta\gamma\mathring{\eta}$ $\mathring{\eta}$ $\mathring{o}\phi\theta a\lambda\mu\acute{o}\varsigma$, fountain (or eye)' + $\phi\mathring{\eta}$ '$\sigma\tau\acute{o}\mu a$, mouth' + $\sigma\acute{a}\delta\eta$ '$\delta\iota\kappa a\iota o\sigma\acute{\upsilon}\nu\eta$, justice' → 'a source (or: an eye) and a mouth of justice'; $\kappa\omega\phi$ '$\kappa\lambda\mathring{\eta}\sigma\iota\varsigma$, calling' + $\rho\mathring{\eta}\varsigma$ '$\kappa\epsilon\phi a\lambda\acute{\eta}$, head' + $\sigma\acute{\epsilon}\nu$ ($\sigma\mathring{\iota}\nu$) '$\mathring{o}\delta\acute{o}\nu\tau\epsilon\varsigma$, teeth' + $\theta a\hat{\upsilon}$ '$\sigma\eta\mu\epsilon\mathring{\iota}a$, signs' → 'the calling of the head and the signs of the teeth'.

[23] G. Dalman, *Grammatik des jüdisch-palästinischen Aramäisch nach den Idiomen des palästinischen Talmud, des Onkelostargum und Prophetentargum und der jerusalemischen Targume* (Leipzig, 1905²), 52, mentions the following first attestations in the Palestinian Talmud (cf. also Einarson (n. 3), 22, n. 41): *'alep* (Sabb. 9ᵇ, Sanh. 18ᵃ), *bēt* (Meg. 71ᵈ), *gimel* (Shek. 47ᵇ), *dalet* (Maas. sh. 55ᵇ), *hē'* (Sabb. 9ᵇ, Pea 20ᵇ), *waw* (Meg. 71ᶜ, Sanh. 25ᵇ), *zayin* (Sabb. XII 5), *ḥēt* (Pea 20ᵇ, Maas. sh. 55ᵇ), *ṭēt* (Maas. sh. 55ᵇ), *yōd* (Meg. 71ᵈ), *kap* (Meg. 71ᵈ), *lamed* (Sabb. 9ᵇ), *mēm* (Meg. 71ᶜ), *nūn* (Meg. 71ᵈ), *samek* (Meg. 71ᶜ), *'ayin* (Meg. 71ᶜ), *pē'* (Meg. 71ᵈ), *ṣadē* (Meg. 71ᵈ), *qōp* (Maas. sh. IV 11), *rēš* (Maas. sh. 55ᵇ), *šin* (Meg. 71ᵈ), *taw* (Sanh. 18ᵃ). I owe this reference to I. Willi-Plein (Hamburg).

[24] W.W. Hallo, *Origins. The Ancient Near Eastern Background of Some Modern Western Institutions* (Leiden, New York and Cologne, 1996), 38 (cf. Hallo [n. 20], 336–8), who rejects the interpretations and objections of A.F. Key, 'The magical background of Isaiah 6 9–13', *Journal of Biblical Literature* 86 (1967), 198–204, at 203, and F.M. Cross and T.O. Lambdin, 'A Ugaritic abecedary and the origins of the Proto-Canaanite alphabet', *BASOR* 160 (1960), 21–6, at 24, n. 21; for the interpretation of *Jes.* 28.9–10 as a school scene see also Driver (n. 1), 89–90, 168 and 242–3.

[25] The exact date of the transfer is of course fiercely debated, and a substantially earlier date is preferred especially among Semitists (cf. J. Naveh, 'Some Semitic epigraphical considerations on the antiquity of the Greek alphabet', *American Journal of Archaeology* 77 [1973], 1–8; Naveh [n. 1], 175–86; J. Naveh, 'Semitic epigraphy and the antiquity of the Greek alphabet', *Kadmos* 30

how many centuries one should go back from this date. Ultimately, the question is related to the much more fundamental problem of the creation of the alphabet.

A substantial number of the Semitic letter names refers to concrete things. One may cite here *'alp* (*'alep*) 'cow' for /'/, *bēt* 'house' for /b/, *dalt* (*dalet*) 'door' for /d/, *yōd* 'hand' for /y/, *kap* 'palm (of the hand)' for /k/, *mēm* 'water' for /m/, *'ayin* 'eye' for /'/, *rēš* 'head' for /r/, *šin* 'tooth' for /š/.[26] In these cases, the letter shapes show more or less recognizable similarities with the respective referents. In an early *'alp* one can easily see the head of a cow, and in an early *kap* a hand with fingers. It is therefore commonly assumed that the alphabet was conceived acrophonically from the beginning. The 'inventor' of the alphabet would have collected a number of words which all started with a different phoneme, drawn a stylized and simplified picture of their referents, and used these drawings as letters for the respective initial phonemes.[27]

This is possible, but not definitely provable. In theory at least, it could also be that each letter shape was at first correlated more or less arbitrarily with the phoneme designated by it and that it was only at a later stage that someone thought of a word which both started with that phoneme and had a referent (ideally) resembling the letter shape.[28] In other words, people would first have had the shape of the letter *'alp*,

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[1991], 143–52; F.M. Cross, 'Newly found inscriptions in Old Canaanite and early Phoenician scripts', *BASOR* 238 [1980], 1–20, at 17; B. Isserlin, 'The antiquity of the Greek alphabet', *Kadmos* 22 [1983], 151–63, but also B.L. Ullman, 'How old is the Greek alphabet?', *American Journal of Archaeology* 38 [1934], 359–81; C.J. Ruijgh, 'D'Homère aux origines proto-mycéniennes de la tradition épique. Analyse dialectologique du langage homérique, avec un excursus sur la création de l'alphabet grec', in J.P. Crielaard [ed.], *Homeric Questions* [Amsterdam, 1995], 1–96, at 26–47, and Ruijgh [n. 20], 535–6 and 549–54); note however the reservations expressed by S.A. Kaufman, 'The pitfalls of typology: on the early history of the alphabet', *Hebrew Union College Annual* 57 (1986), 1–14, about the (in)validity of arguments based on the typology of various letter shapes. Nowadays a date just after 800 B.C. is certainly the latest possibility (whereas R. Carpenter, 'The antiquity of the Greek alphabet', *American Journal of Archaeology* 37 (1933), 8–29, had still suggested 720–700 B.C.); cf. the overviews in G. Pfohl, 'Einleitung', in G. Pfohl (ed.), *Das Alphabet: Entstehung und Entwicklung der griechischen Schrift* (Darmstadt, 1968), ix–xl, at xv–xvii, and A. Heubeck, 'Schrift', in F. Matz and H.-G. Buchholz (edd.), *Archaeologia Homerica, III. Kapitel X* (Göttingen, 1979), X75–X78, as well as P.K. McCarter, *The Antiquity of the Greek Alphabet and the Early Phoenician Scripts* (Missoula, Mont., 1975), 103–26; Driver (n. 1), 176; A.R. Millard, 'The Canaanite linear alphabet and its passage to the Greeks', *Kadmos* 15 (1976), 130–44, at 141–2; M. Guarducci, *L'epigrafia greca dalle origini al tardo impero* (Rome, 1987), 19–20; R. Wachter, 'Zur Vorgeschichte des griechischen Alphabets', *Kadmos* 28 (1989), 19–78, at 69–76; R. Wachter, 'Die Übernahme des Alphabets durch die Griechen: wie, wann, wo, durch wen und wozu? Eine aktuelle Abwägung der Standpunkte, Argumente und methodischen Ansätze', in Nikolaos Dimoudis and Apostolos Kyriatsoulis (edd.), *Die Geschichte der hellenischen Sprache und Schrift (Tagung Ohlstadt 3.-6. Oktober 1996)* (Altenburg, 1998), 345–58, at 351–2; Jeffery (n. 16), 12–21 and 426–7; M.G. Amadasi Guzzo, 'The "shadow line". Réflexions sur l'introduction de l'alphabet en Grèce', in C. Baurain, C. Bonnet and V. Krings (edd.), *Phoinikeia grammata. Lire et écrire en Médi-terranée* (Namur, 1991), 293–311, at 296–308; Sass (1991) (n. 1), 94–8; S.R. Slings, '*Tsadē* and *hē*: two problems in the early history of the Greek alphabet', *Mnemosyne* ser. 4, 51 (1998), 641–57, at 656, and Röllig (1998) (n. 1), 371.

[26] On *waw* 'hook' and *taw* 'sign' cf. § II above.

[27] See e.g. Gardiner (n. 1), 5–11; Albright (1948) (n. 1), 7; Driver (n. 1), 152–3 and 157–61; J.F. Healey, 'The early alphabet', in J.T. Hooker et al. (edd.), *Reading the Past. Ancient Writing from Cuneiform to the Alphabet* (London, 1990), 197–258, at 211–12 and Ruijgh (n. 20), 537–40.

[28] For this or similar scenarios see – after F. Lenormant, *Essai sur la propagation de l'alphabet phénicien dans l'ancien monde, I* (Paris, 1875²), 94–7, and, more ambiguously, already W. Gesenius, *Geschichte der hebräischen Sprache und Schrift. Eine philologisch-historische Einleitung in die Sprachlehren und Wörterbücher der hebräischen Sprache* (Leipzig, 1815), 167 – e.g. H. Bauer, *Der Ursprung des Alphabets* (Leipzig, 1937), 17–23; M. Dunand, *Byblia Grammata. Documents et*

then assembled a list of words starting with *'alp*, and finally decided in favour of *'alp* as their letter name because the shape of the sign looked more like a cow than like, say, a father (*'ab*).

At first sight, this second hypothesis looks unnecessarily complicated. However, it may find some limited support in a number of letter names which either (a) do not mean anything (thus, *hē'* for /h/, *ṭēt* for /ṭ/) or (b) do mean something, but nothing that could be easily recognized in the letter shape: a *qōp*, for instance, does not particularly resemble a 'monkey', and even a *bēt*, whose pictographic character is not usually questioned,[29] looks like a 'house' only if we posit a surprisingly abstract drawing of a house front or a ground plan.[30] Moreover, the secondary-name hypothesis can point to typological parallels in other traditions where letter names are artificially created in accordance with the acrophonic principle. Thus, in the Old Irish Ogam alphabet the letters were named after lexemes designating trees (e.g. *beith* 'birch-tree' for <b>, *luis* 'rowan-tree' (?) for <l>, *fern* 'alder-tree' for <f>[31]), and the letters of the new Slavonic alphabets were referred to by the words of an acrostichic text which may have been created at the same time as, or only shortly after, the Cyrillic alphabet itself: here, the letter for /a/, for example, was arbitrarily called *azŭ* 'I', the following letter for /v/ *vědě* '(I) know' etc.[32] That similar revisions could have taken place in the Semitic alphabet history as well is shown not only by the new meanings for the conventional names which are mentioned by Eusebius (cf. § III), but also, more importantly, by the South

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recherches sur le développement de l'écriture en Phénicie (Beirut, 1945), 163–71; Hallo (n. 20), 335–8; I.J. Gelb, *A Study of Writing* (Chicago and London, 1963²), 140–3, and Diringer (n. 1), 168–9.

[29] Cf. e.g. Healey (n. 27), 212, and Ruijgh (n. 20), 542, but see also Driver (n. 1), 152–3 and 163; for *ṭēt* A.G. Lundin, 'O proischoždenii alfavita', *VDI* 2/160 (1982), 17–28, at 25, hypothesizes a meaning 'ear (of a needle)'.

[30] Additional cases which are either formally or semantically problematic include *gaml* (*gimel*) 'camel' (thus Lundin (n. 29), 25, but 'throw stick' according to Driver (n. 1), 155, 163–4 and 262, with reference to Akkadian *gamlu*), *zayin* '?' (on an alleged alternative name *zēt* 'olive tree' cf. § VIII), *ḥēt* 'fence, barrier (?)' (Dunand [n. 28], 166), *lamd* (*lamed*) 'thorn (?)', *nūn* 'fish' (cf. below), *samk* (*samek*) 'fish (?), support (?)', *pē'* 'mouth' (but see Driver [n. 1], 153), and *ṣadē* (Dunand [n. 28], 168, 'Le mot se rattache sans doute à la racine *ṣwd* et pourrait désigner un engin de chasse o[u] de pêche'; differently M. Lidzbarski, 'Die Namen der Alphabetbuchstaben', in M. Lidzbarski, *Ephemeris für semitische Epigraphik, 2 (1903–1907)* [Giessen, 1908], 125–39, at 126–7, and Driver [n. 1], 263); cf. further Lidzbarski (above), 126–38; Dunand (n. 28), 164–9; Diringer (n. 1), 168–9; Driver (n. 1), 161–71 and 262–6, and Sass (1988) (n. 1), 108–33.

[31] See H. Meroney, 'Early Irish letter-names', *Speculum* 24 (1949), 19–43; D. McManus, 'Irish letter-names and their kennings', *Ériu* 39 (1988), 127–68, and E. Seebold, 'Fuþark, Beith-Luis-Nion, He-Lamedh, Abgad und Alphabet. Über die Systematik der Zeichenaufzählung bei Buchstaben-Schriften', in F. Heidermanns, H. Rix and E. Seebold (edd.), *Sprachen und Schriften des antiken Mittelmeerraums. Festschrift für Jürgen Untermann zum 65. Geburtstag* (Innsbruck, 1993), 411–44, at 427–8; D. McManus, 'Runic and Ogam letter-names: a parallelism', in D. Ó Corráin, L. Breatnach and K. McCone (edd.), *Sages, Saints and Storytellers. Celtic Studies in Honour of Professor James Carney* (Maynooth, 1988), 144–8, stresses that the acrophonic principle was retained even when the sign acquired a new value through sound change (cf. similarly E. Ullendorff, 'Studies in the Ethiopic syllabary', *Africa* 21 (1951), 207–17, at 211, on Ethiopian *yäman* for *yōd* 'as *'ǝd* would have been useless'; compare also Greek *ἦτα (/hḗta/ ← *hēt*), which was first used for /h/ and secondarily, starting from East Ionia where /h/ was lost, for /ε̄/).

[32] See K. Kuev, 'Azbučna molitva', in P. Dinekov (ed.), *Kirilo-Metodievska Enciklopedija, I* (Sofia, 1985), 50–4; J. Schaeken and H. Birnbaum, *Die altkirchenslavische Schriftkultur. Geschichte, Laute und Schriftzeichen, Sprachdenkmäler (mit Textproben, Glossar und Flexionsmustern)* (Munich, 1999), 76; the names for the Germanic runes and the Gothic letters follow a similar principle (cf. B. Mees, 'Runo-Gothica. The runes and the origin of Wulfila's script', *Die Sprache* 43 (2002/3), 55–79, at 56–63, with earlier literature).

Semitic Ethiopian alphabet, an old side branch of the Northwest Semitic alphabet. In the former, the letter for /n/ is called *naḥaš* 'snake' instead of *nūn* 'fish', and while it may be useless to speculate which of the two names is older, it is clear that one of them must be a secondary creation.[33]

V. FURTHER EARLY EVIDENCE: UGARIT AND ʿIZBET ṢARṬAḤ

As long as the secondary-name hypothesis cannot therefore be dismissed a priori, the question remains how far back we may safely push the *terminus ante quem* for the existence of the Semitic letter names. It is possible, though not certain, that we can reach the fourteenth century.[34] The excavations at ancient Ugarit have yielded, next to many other cuneiform documents, texts written in a locally-developed cuneiform *alphabet*. The Ugaritic alphabet represents letter values which correspond closely to those of the Semitic linear alphabet, but its letters are designed with the typical cuneiform wedges. Several of the Ugaritic documents in the cuneiform alphabet are school exercises, and one of them contains a peculiar abecedary (KTU 5.14): in this sequence of cuneiform alphabet letters, about two thirds of which have survived, the writer has added next to each cuneiform letter a cuneiform sign from the usual cuneiform syllabary. Thus, next to the letter for /b/ the syllabogram <be> is found, next to the letter for /g/ the syllabogram <ga> etc.[35] It has been argued by Frank Cross and Thomas Lambdin that these correspondences are not haphazard. The two authors suggest that the vowels expressed in the syllabograms are the same vowels that occurred in the (first syllable of the) Semitic letter names: hence, <be> for /b/ because the letter name was *bēt*, <ga> for /g/ because the letter name was *gaml*, and so on.[36] Overall, these vowel correspondences are indeed systematic enough to make coincidence unlikely, even if not every detail fits in exactly (one would not, for instance,

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[33] The wave-like shape seems to favour *naḥaš* 'snake' (Driver [n. 1], 154 and 165; cf. however Ruijgh [n. 20], 541), but this name is attested, like the other Ethiopian letter names, only in 1548 in a translation of the New Testament printed in Rome; Ullendorff (n. 31), 211–14, suspects that the entire Ethiopian name series was invented in the sixteenth century by European missionaries or scholars (cf. Sass [1991] [n. 1], 92, but differently Nöldeke [n. 20], 131–3, and Lundin [n. 29], 21). One may also ask why a name *naḥaš* 'snake', which fits the shape rather nicely, should have been replaced in the Northwest Semitic tradition by a less plausible *nūn* 'fish'. On further name changes see Demsky (1997) (n. 20), 364 (*hehin* and *pepin* in Rabbinic literature); Ruijgh (n. 20), 542 (*dalt* renamed from *dag* 'fish'; cf. Cross and Lambdin [n. 24], 25, Sass [1988] [n. 1], 113–14), and § VIII on *ṯann → šin*; the excessive reliance on such changes in Lidzbarski (n. 30), 126–38, is already criticized by Gardiner (n. 1), 7–8.

[34] Cf. also Cross and Lambdin (n. 24), 22 and Cross (n. 1), 23*: 'The Ethiopic letter names were taken over with the alphabet from Old South Arabic, and in turn these go back to the time when the Proto-Arabic script branched apart from the Proto-Canaanite toward 1,300 B.C.' (similarly Lundin [n. 29], 21: not later than in the middle of the second millennium B.C.); but see the preceding footnote on the uncertainties surrounding the Ethiopian letter names.

[35] The complete series is *a–a, b–be, g–ga, ḫ–ḫa, d–di, h–ú, w–wa, z–zi, ḥ–ku, ṭ–ṭí, […], [p–p]u, ṣ–ṣa, q–qu, r–ra, ṯ–ša, ġ–ḫa, t–tu, i–i, u–u, s–zu* (M. Dietrich, O. Loretz and J. Sanmartín, *The Cuneiform Alphabetic Texts from Ugarit, Ras Ibn Hani and Other Places* (KTU: second, enlarged edition) [Münster, 1995], 493–4). Typologically one may compare the much later transformation of alphabetic letters into syllabograms in the Old Hispanic scripts where, according to the 'alphabet' of Espanca, <b> became /be/ (cf. *bēt, βῆτα*), <g> became /ka/ (cf. *gaml, γάμμα*), and <t> became /ta/ (cf. *taw, ταῦ*): on this see J. Untermann, 'Neue Überlegungen und eine neue Quelle zur Entstehung der althispanischen Schriften', *Madrider Mitteilungen* 38 (1997), 49–66, at 58.

[36] Cross and Lambdin (n. 24), 23–6; cf. further Cross (n. 1), 23*–24*, and Driver (n. 1), 264–6.

expect the syllabogram <ú> next to the letter for /h/ named *hē*'[37]). Thus, the tablet does appear to provide the first evidence for the existence of the Semitic letter names. However, since it is still indirect evidence, one must continue to hope for additional direct attestations to be discovered in epigraphic material from the second half of the second millennium B.C.

There may in fact be one small piece of evidence whose potential relevance in this context has not been noticed so far, although the item as such is not a new discovery. In 1976 the earliest known non-cuneiform abecedary was excavated in 'Izbet Ṣarṭah in Israel. It is written on a postcard-size ostracon dated to the early twelfth century B.C.[38] Four lines of writing exercises, which do not seem to have a meaningful content, are followed by a fifth line containing the alphabet sequence, which may have been written first. The writer was obviously a student.[39] His limited writing competence is demonstrated by the fact that he did not know how to write a proper *waw* or *zayin* (and instead just drew some approximative pseudo-signs), that he left an empty space where he should have placed *mēm* for /m/, no doubt because he had forgotten what the shape looked like, and that he inverted the sequence of the letters *zayin* and *ḥēt*.[40]

The most striking thing, however, is the beginning of the abecedary line. The first letter, *'alep*, is clearly recognizable. The following letters should be *bēt* and *gimel* (*gaml*). However, the editor Kochavi notes that the sign for *bēt* is problematic: 'it is difficult to determine when the writer intended *bēt* and when *lamed*'.[41] In fact, there is hardly any difference at all between the open spirals of *bēt* and *lamed* later in the line. Moreover, in other Proto-Canaanite and early Phoenician inscriptions such open spirals are usual for *lamed*, but clearly distinguishable from *bēt*. In other words, if the 'Izbet Ṣarṭah letter did not occur in the second slot of the alphabet, one would read it as *lamed*.[42]

[37] Cf. Hallo (n. 24), 38, who also points to <pu> next to the letter for /p/ (for which Cross and Lambdin [n. 24], 25, and Driver [n. 1], 153, 162, 261–2 and 264, postulate Semitic *puw* 'mouth'); <ú> for /h/ is explained through 'a form *hū/*hī > hê' in Cross and Lambdin (n. 24), 25–6, and <ku> for /h/ is ascribed to a mix-up of two syllabograms.

[38] First published and dated by M. Kochavi, 'An ostracon of the period of the Judges from 'Izbet Ṣarṭah', *Tel Aviv* 4 (1977), 1–13; cf. also Demsky (1977) (n. 20); Cross (n. 25), 8–15; and with a summary A. Demsky, 'The 'Izbet Sartah ostracon ten years later', in I. Finkelstein (ed.), *'Izbet Ṣarṭah. An Early Iron Age Site near Rosh Ha'ayin, Israel* (Oxford, 1986), 186–197. G. Garbini, 'Sull'alfabetario di 'Izbet Ṣarṭah', *Oriens Antiquus* 17 (1978), 287–95, at 289, suggests a later (eleventh-century) date.

[39] See Kochavi (n. 38), 6; Demsky (1977) (n. 20), 19–20; J. Naveh, 'Some considerations on the ostracon from 'Izbet Ṣarṭah', *Israel Exploration Journal* 28 (1978), 31–5, at 31–3; A. Lemaire, 'Abécédaires et exercices d'écolier en épigraphie nord-ouest sémitique', *Journal Asiatique* 266 (1978), 221–35, at 222–25; Cross (n. 25), 8–9; and A. Dotan, 'New light on the 'Izbet Ṣarṭah ostracon', *Tel Aviv* 8 (1981), 160–72, who suspects 'short sentences or phrases containing proper names and names of objects (clothing and food)' in the first four lines (but cf. Demsky [n. 38], 192). The doubts of Garbini (n. 38), 291–2, about the interpretation of the fifth line as an abecedary are unjustified.

[40] Cf. in detail Kochavi (n. 38), 9 and 10, and on the *ḥēt–zayin* sequence Demsky (1977) (n. 20), 17–18; according to Demsky, the equally surprising *pē'–'ayin* sequence need not be a mistake because of several parallels.

[41] Kochavi (n. 38), 8; cf. also Kochavi (n. 38), 10, on *lamed* as well as Cross (n. 25), 9: 'All our other evidence suggests that the *bēt* of the 12th century should have an angular, large, pointed head, and a short angular or slightly curved leg (Lachish Bowl, Beth-shemesh Ostracon, 'El-Khaḍr Arrowheads).'

[42] Letter no. 11 of the second line, which is read as a failed *dalet* by Kochavi (n. 38), 5, looks much more like a normal *bēt*.

Similarly, the third letter poses a problem. 'The *gimel* of our ostracon is also difficult to distinguish from another letter, namely *pe*. […] The *gimel* of 'Izbet Ṣarṭah with its erect shaft and the small angle between the shaft and arm resembles more the *gimel* of the 10th century onwards than the *gimel* of the 12th-11th centuries B.C.E.'[43] Unfortunately, early comparative material for *pē'* is rare, but letter no. 3 looks even more like a *pē'* on the somewhat later Gezer calendar (tenth century) than letter no. 15, which has to be a *pē'*.[44]

Thus, for an unprejudiced reader the first three letters of the 'Izbet Ṣarṭah ostracon do not read as *'alep–bēt–gimel*, but as *'alep–lamed–pē'*. Is it just a coincidence that this sequence corresponds exactly to the name of the first letter (*'lp*)? It seems at least as likely that the letter series was dictated to an inexperienced pupil who first thought he had to write down the letter names, but when he noticed his mistake, the teacher and his fellow pupils had already reached *dalet* and he had no time left to correct his initial error. Such a scenario would not only take into account that 'Zeichennamen dienten primär der Verständigung im Schulbetrieb, genau wie die Buchstabennamen der modernen Alphabete',[45] but also explain why the student at 'Izbet Ṣarṭah left an empty space for *mēm*; no doubt he intended to fill this space later on, but did not have time to ask or look up the missing shape immediately. In this way, the 'Izbet Ṣarṭah ostracon may provide a welcome confirmation of the Ugaritic evidence for a second-millennium date of at least some of the Semitic letter names.

VI. THE GREEK ADAPTATION OF THE SEMITIC LETTER NAMES

Returning to Greece, we shall next consider how the Greeks adapted and transformed the Semitic letter names. Because the acrophonic principle was so useful, it was out of the question to translate the Semitic names: the letter for /b/, for instance, could not simply be called δῶμα or οἶκος in analogy with *bēt* 'house'.[46] Only in the particular case of a letter whose consonantal value was not needed to render Greek was a similar action apparently taken. The laryngeal consonant /ʻ/, which was represented by Phoenician *ʻēn (Hebrew *ʻayin*), did not exist in Greek. We know that certain letters were 'recycled' to create new vowel-signs for the Greek alphabet: thus, Phoenician *'alp* (ἄλφα) was used quite straightforwardly, in accordance with the acrophonic principle, for the vowel /ā̆/ instead of the glottal stop /ʼ/ (the latter having no phonemic status in Greek), *hē'* (εἶ) was used for /ē̆/ instead of /h/ (because Greek /h/ was rendered by the more strongly articulated *ḥēt* (ἦτα/*ἧτα)[47]), *yōd* (ἰῶτα) was used for /ī̆/ instead of /y/

[43] Kochavi (n. 38), 8.

[44] Cf. the table in M. O'Connor, 'Epigraphic Semitic scripts', in P.T. Daniels and W. Bright (edd.), *The World's Writing Systems* (New York and Oxford, 1996), 88–107, at 91.

[45] Y. Gong, *Die Namen der Keilschriftzeichen* (Münster, 2000), 1.

[46] Note that such a procedure is found in the Ethiopian alphabet, where *pē'* 'mouth' was replaced by *'af* 'without regard to the loss of the otherwise consistently applied acrophony' (Ullendorff [n. 31], 211).

[47] Neither the argument by Einarson (n. 3), 6, that the alphabet must therefore have been adopted in the psilotic dialect of East Ionia, nor the one by Ruijgh (n. 25), 29–30, Ruijgh (n. 20), 535 and 567–8, and C.J. Ruijgh, 'Sur la date de la création de l'alphabet grec', *Mnemosyne* ser. 4, 51 (1998), 658–87, at 661–3, that the use of *ḥēt* proves a second-millennium date for the transfer of the alphabet, is watertight; the latter is refuted by Slings (n. 25), 652–4, and the former would not exclude the psilotic regions of Crete either, even if it were reliable (on psilosis in Central Crete cf. A. Thumb and E. Kieckers, *Handbuch der griechischen Dialekte, I* [Heidelberg, 1932²], 155–6, and Jeffery [n. 16], 28). On *ἧτα as the original form of the name see W. Schulze, review of P. Kretschmer, *Die griechischen Vaseninschriften ihrer Sprache nach untersucht* (Gütersloh, 1894), *Göttingische gelehrte Anzeigen* (1896), 228–56, at 256.

(which no longer existed as a simple consonant in Greek), and a graphic variant of *waw* ($Ϝ αῦ$, and then $ϑ$) was used for /ǔ/ (later dialectal /ǖ/).[48] As an additional (and before the secondary creation of $Ω$, as the last) vowel sign, for /ō/, however, the laryngeal-sign *ʿēn* was ideal because it was not only as superfluous as *ʾalp* in reproducing the Greek consonant system, but also because the Greek translation of *ʿēn* 'eye', $ὀφθαλμός$ or $ὄμμα$, appropriately started with the remaining vowel /o/; here too, then, the acrophonic principle seems to have operated at least in the background.[49]

More commonly, however, the Phoenician names were only superficially Hellenized: *ʾalp* became $ἄλφα$, *bēt* $βῆτα$, etc. In some respects this transcription (rather than translation) raises minor issues which may be mentioned in passing, but need not be discussed in detail:

(1) In letter names ending in a final consonant a prop vowel -$α$ was added whenever the word-final consonant in question (-$φ$, -$τ$, -$π$ etc.) was not admitted in this position in Greek ($ἄλφα$ < *ʾalp*, $βῆτα$ < *bēt*, $κάππα$ < *kap*, $Ϙόππα$ < *qōp*, etc.).[50]

(2) Complex consonant groups were simplified through assimilations in $γάμμα$ < *gaml* and $λάβδα$ < *lamd* (where $λάμβδα$ is a secondary and late-attested phonetic development).[51]

(3) Word-final -$ν$ and -$ς$ (for -*š*) were dropped in $νῦ$ < *nun* and $ῥῶ$ < *roš*, either without a motivating factor or as a sandhi result of their pronunciation in the alphabet sequence (**nūn-samk* > **nūssamk*, divided into *nū–samk*; **rōš-šan* > **rōššan*, divided into *rō–šan*).[52]

(4) The fluctuation between an *e*-vowel and an *a*-vowel in $δέλτα$ < *dalt* and also Ionic $γέμμα$ for $γάμμα$ < *gaml* (cf. § II) suggests a pronunciation as [æ] or as a

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[48] Cf. Ruijgh (n. 25), 30–1, and Ruijgh (n. 20), 569–73, and on $υ/Ϝ$ (which are still undifferentiated in the Würzburg abecedary: see A. Heubeck, 'Die Würzburger Alphabettafel', *WJA* n.s. 12 [1986], 7–20) e.g. Wachter (1989) (n. 25), 36–8, Jeffery (n. 16), 24–5 and 35, and C. Brixhe, 'De la phonologie à l'écriture: quelques aspects de l'adaptation de l'alphabet cananéen au grec', in C. Baurain, C. Bonnet and V. Krings (edd.), *Phoinikeia grammata: Lire et écrire en Méditerranée* (Namur, 1991), 313–56, at 345–50.

[49] Thus G.L. Cohen, 'The origin of the letter omicron', *Kadmos* 21 (1982), 122–4; Ruijgh (n. 25), 31; Ruijgh (n. 20), 569; Ruijgh (n. 47), 665–6; Röllig (1995) (n. 1), 202–3; and Röllig (1998) (n. 1), 372. One might object with Driver (n. 1), 155 and 179, after Bauer (n. 28), 41, that /ō/ is occasionally written with the *ʿayin* equivalent at Ugarit and that 'the Semitic ʿ showed a preference for the *o*-sound' (cf. F. Praetorius, 'Zum semitisch-griechischen Alphabet', *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 62 [1908], 283–8, at 284; Gardiner [n. 1], 11; E. Schwyzer, 'Griechische Interjektionen und griechische Buchstabennamen auf -α. Mit Exkursen über die Geschichte der Buchstabennamen und des Wortes Alphabet', *Zeitschrift für vergleichende Sprachforschung* 58 [1931], 170–204, at 180, n. 1, and Allen [n. 10], 171, but also Einarson [n. 3], 20, n. 28). However, this is no valid counterargument since Phoenician *ʿēn* yielded the vowel sign for /e/ in the South Iberian and Tartessan scripts, which also depend on the Phoenician alphabet and thus ensure that the pronunciation of the Phoenician version of the letter name must indeed have contained an *e*-vowel (cf. Untermann [n. 35], 55).

[50] Cf. Nöldeke (n. 20), 135, Schwyzer (n. 49), 177–84, Schwyzer (n. 11), 140, and B.B. Powell, *Homer and the Origin of the Greek Alphabet* (Cambridge, 1991), 36; it is unnecessary to postulate here the 'restitution' of a seemingly elided vowel (Einarson [n. 3], 9), or a Semitic accusative or absolutive ending (Ruijgh [n. 20], 557–8; J. Tropper, 'Griechisches und semitisches Alphabet: Buchstabennamen und Sibilantenentsprechungen', *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 150 [2000], 317–21, at 317–19).

[51] Cf. Ruijgh (n. 25), 27, n. 87, and Ruijgh (n. 20), 558; on $λάμβδα$ see Einarson (n. 3), 3–4.

[52] Thus Einarson (n. 3), 2, followed by Powell (n. 50), 37, Ruijgh (n. 25), 27, n. 88, and Ruijgh (n. 20), 558, whereas Schwyzer (n. 49), 179, and Tropper (n. 50), 319, assume an unmotivated loss. On $μῦ$ after $νῦ$ cf. § IX.

weak *schwa* sound of the underlying Phoenician vowel, rather than two alternating forms of the Phoenician name (e.g. *gaml/giml*; cf. Hebr. *gimel*).[53]

(5) Somewhat inconsistently, the Semitic voiceless stops are normally rendered by Greek voiceless stops ($\beta\hat{\eta}\tau\alpha$ < *bēt*, $\delta\acute{\epsilon}\lambda\tau\alpha$ < *dalt*, $\hat{\eta}\tau\alpha/^*\hat{\eta}\tau\alpha$ < *ḥēt*, $\pi\epsilon\hat{\iota}$ < *pē'*, $\tau\alpha\hat{\upsilon}$ < *taw*), but by a voiceless aspirate in the case of $\check{\alpha}\lambda\phi\alpha$ < *'alp* and by a geminate voiceless stop in the case of $\kappa\acute{\alpha}\pi\pi\alpha$ < *kap* and $\wp\acute{o}\pi\pi\alpha$ < *qōp*;[54] in $\iota\hat{\omega}\tau\alpha$ < *yōd* instead of the expected †$\iota\hat{\omega}\delta\alpha$, the final syllable must have been influenced by the preceding $\zeta\hat{\eta}\tau\alpha$, $\hat{\eta}\tau\alpha$, $\theta\hat{\eta}\tau\alpha$.[55]

(6) In the same domain, it is slightly puzzling that the emphatic stop of *ṭēt* was identified with the Greek voiceless aspirate in $\theta\hat{\eta}\tau\alpha$ for /tʰ/ (contrast $\wp\acute{o}\pi\pi\alpha$ < *qōp* with emphatic *q-*), but we do not know enough about Phoenician phonetics to affirm that this was simply because /t/ was already represented adequately by *taw*/$\tau\alpha\hat{\upsilon}$ so that the remaining dental plosive of Phoenician could be pressed into service for the remaining dental plosive of Greek, notwithstanding any articulatory differences.[56]

In addition to these points, there are a few letter adaptations which are more complex and/or more relevant for the history of the alphabet. The first two of these, concerning $\dot{\rho}\hat{\omega}$ (§ VII) and the sibilant/affricate signs (§ VIII), have been discussed repeatedly in the past, while the problem raised by the third, regarding $\mu\hat{\upsilon}$, has not attracted the same interest; even though no definitive solution will be presented here, it will be worthwhile at least to highlight the issue (§ IX).

VII. THE SIGNIFICANCE OF ʹ$P\Omega$

The Greek letter name $\dot{\rho}\hat{\omega}$ is significant because it proves what could be suspected anyway given the large-scale trade activities of the Phoenicians throughout the Mediterranean basin in the first half of the first millennium B.C.: that the Greek alphabet was adopted from the Phoenicians and not, for instance, from the Aramaeans. The corresponding Hebrew letter is called *rēš* 'head' (cf. the shape of the letter, which is reminiscent of a head on top of a neck). Hebrew and Aramaic *rēš* can be traced back to a proto-form **ra'š*, and this in turn yielded Phoenician *rōš*.[57] If the Greeks had learned the alphabet from the Aramaeans, their letter should therefore be called †$\dot{\rho}\epsilon\hat{\iota}$, not $\dot{\rho}\hat{\omega}$.[58] Thus, the ancient sources which widely agree on Phoenician intermediaries, are fully vindicated.[59]

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[53] After Nöldeke (n. 20), 135, cf. now J. Friedrich, W. Röllig and M.G. Amadasi Guzzo, *Phönizisch-punische Grammatik* (Rome, 1999³), 39 ('Gelegentlich begegnet auch *e* für *a*, wohl weil das *a* hier nach *æ* hin ausgesprochen wurde'); Ruijgh (n. 20), 558, also mentions the Cyprian form $\delta\acute{\alpha}\lambda\tau\sigma\varsigma$ for $\delta\acute{\epsilon}\lambda\tau\sigma\varsigma$ 'tablet' in *ICS* 217.26 (*ta-la-to-ne*).

[54] For (highly speculative) attempts to explain this cf. Einarson (n. 3), 1 and 19, n. 5, and Ruijgh (n. 20), 558, but see also McCarter (n. 25), 91, n. 69: 'it is probable that to some degree the Greeks played fast and loose with the Phoenician alphabet; and one need not seek motives where none exists'.

[55] Cf. Wackernagel (n. 9), 71, Schwyzer (n. 49), 181, and Ruijgh (n. 20), 558; Einarson (n. 3), 3, postulates an assimilation to the following *kap* (i.e. **yōd-kap* > **yōtkap*), but this would rather yield †*yōk* and one would also expect †*'alb* for *'alp* because of the following *bēt*.

[56] Cf. McCarter (n. 25), 95, n. 77, Ruijgh (n. 25), 28 with n. 91, and Ruijgh (n. 20), 560.

[57] See Friedrich, Röllig and Amadasi Guzzo (n. 53), 12–13, 36 and 43.

[58] Cf. Nöldeke (n. 20), 135–6, Gelb (n. 28), 176, McCarter (n. 25), 100, n. 87, Amadasi Guzzo (n. 25), 296 (with literature in n. 9), and Ruijgh (n. 20), 545; an Aramaic source is postulated by S. Segert, 'Altaramäische Schrift und Anfänge des griechischen Alphabets', *Klio* 41 (1963), 38–57, at 48–52, Driver (n. 1), 266–7, and E.A. Knauf, 'Haben Aramäer den Griechen das Alphabet

VIII. THE SIBILANT SIGNS

The case of the names for the Phoenician sibilant letters is less straightforward. The Northwest Semitic/Phoenician alphabet had four letters for sibilant sounds: *zayin* for voiced /z/ as no. 7 in the alphabet sequence, *samk* for voiceless /s/ as no. 15, *ṣadē* for sharp or affricated /ṣ/ as no. 18, and *šin* for /š/ as no. 21. Greek, on the other hand, had only one sibilant phoneme /s/. The sound which was represented by *Z* and realized as either [dz] or (at least in classical times) [zd] need not have been monophonemic,[60] but it certainly included a voiced sibilant element; hence, when the adaptors of the alphabet decided to employ Phoenician spare signs to render the biphonematic groups [dz] and [ks] by a single letter, the choice of the *zayin* sign for the former group was relatively obvious. It would follow that the name *zayin* should also be continued by the name ζῆτα. However, it has been suggested repeatedly in the past that this is not so, but that the name *zayin* gave rise to the Greek name σάν for the letter that corresponds in shape and position to *ṣadē*. Moreover, since Greek σίγμα and ξεῖ continue Phoenician *šin* and *samk* respectively in both shape and position, a complete confusion would have arisen from the transfer of the name *zayin*: for the *name* σίγμα would also have been transformed from the name *samk*, the *name* ζῆτα from *ṣadē*, and the *name* ξεῖ from *šin*.[61]

   All of this is neither historically nor linguistically plausible. In reality, the development must have been much simpler, as Roger Woodard has shown.[62] In order to write their one sibilant phoneme /s/ the Greeks initially used either the palatal *šin*, which was pronounced as [s], not [š], at least in some of the Phoenician dialects, or the sharp *ṣadē*; note that Phoenician names starting with the *ṣadē* sound are indeed transcribed with the Greek /s/ sign in historical texts (e.g. *Ṣīdōn* ~ Σιδών).[63] As for the

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vermittelt?', *Welt des Orients* 18 (1987), 45–8, although no counterevidence to the ῥῶ argument exists (so that Segert [above] accepts that the *names* of the letters were mediated by the Phoenicians). Given Hebrew *yōd*, the name ἰῶτα, which is said to reflect a Phoenician sound change *á > ō* in *yád > *yōd* (Cross [n. 25], 14; Naveh [n. 1], 183; Ruijgh [n. 20], 543), seems less telling. Why ἄλφα and βῆτα are called 'clearly Aramaic' by Driver (n. 1), 266, remains unclear, not least because ἄλφα is phonetically closer to Phoenician *'alp* than to Aramaic *'alep*.

   [59] Cf. Hdt. 5.58; Critias fr. 88B2.10 D.–K.; Ephorus *FGrH* 70F105; Arist. fr. 501 Rose; Diod. Sic. 3.67.1; Plut. *Mor.* 738f; Lucan. 3.220–4; Plin. *HN* 7.192; Tac. *Ann.* 11.14; Nonn. *Dion.* 4.259–66; for dissenting voices (Hecataeus *FGrH* 1F20; Anaximander *FGrH* 9F3) see A. Willi, 'Κάδμος ἀνέθηκε. Zur Vermittlung der Alphabetschrift nach Griechenland', *MH* 62 (2005), 162–71, at 169, n. 28. Note also the term φοινικήια (φοινικικά, φοινίκια) γράμματα, whose implications were disputed already in antiquity according to Schol. Dion. Thr. p. 184.20–185.2 Hilgard (Hdt. 5.58.2; Soph. fr. 514 Radt; *SIG*³ 38.37; *Chron. Lind.* = *FGrH* 532, B15; cf. M. Burzachechi, 'L'adozione dell'alfabeto nel mondo greco', *PdP* 31 [1976], 82–102, at 83–4, and Heubeck [n. 25], X108), and the Cretan ποινικαστάς 'scribe' and ποινικάζεν 'to write' in *SEG* 27.631 (L.H. Jeffery and A. Morpurgo Davies, 'ποινικαστάς and ποινικάζεν: BM 1969. 4–2. 1, a new archaic inscription from Crete', *Kadmos* 9 [1970], 118–54, esp. at 132–3 and 152–3; G.P. Edwards and R.B. Edwards, 'The meaning and etymology of ποινικαστάς', *Kadmos* 16 [1977], 131–40).

   [60] On the pronunciation and the phonemic status of Greek *Z* see Allen (n. 10), 56–9.

   [61] Thus Jeffery (n. 16), 25–8, as well as Driver (n. 1), 268, Brixhe (n. 48), 332–3, and Powell (n. 50), 46–8 (with *σεμκ > *σεμκα > *σεμγα > *σεγμα > σίγμα!), after I. Taylor, *The History of the Alphabet, II* (London, 1883), 97–102, and Nöldeke (n. 20), 134; somewhat differently, but equally implausibly, Einarson (n. 3), 7–8 and 11, and Tropper (n. 50), 318 (σίγμα < *šinna!).

   [62] R.D. Woodard, *Greek Writing from Knossos to Homer. A Linguistic Interpretation of the Origin of the Greek Alphabet and the Continuity of Ancient Greek Literacy* (New York and Oxford, 1997), 147–88.

   [63] See Friedrich, Röllig and Amadasi Guzzo (n. 53), 11–12, n. 4 and 26, on the *ṣadē* transcription, and Woodard (n. 62), 184, on the pronunciation [s] of *šin* in Cyprian Phoenician; cf. also Friedrich, Röllig and Amadasi Guzzo (n. 53), 25, on e.g. *'asr* for *'ašr* in Sidon.

letter names, McCarter and others had already suspected, on the basis of the evidence from Ugarit where the cuneiform letter for /t/ is equated with the Akkadian syllabogram <ša> (cf. § V), that the letter *šin* was originally called *šan*:[64] the meaning of Phoenician *šan* (< *ṯann*) 'bow' would fit the letter shape just as well as the meaning of *šin* 'tooth'. According to this theory, then, the Greeks at first adopted the letter shapes *and* names of both *ṣadē* and *šin* (*šan*) for their phoneme /s/. However, because the pronunciation of the initial consonant of *šan* as [san] may have been more similar to that of a normal Greek /s/, the name *ṣadē* disappeared. Similarly, in each local script of Greece only one of the two letter shapes survived. This situation was further obscured when, probably only in the fifth century (cf. § II), an additional name came to be used for the letter that had arisen from *šin* (*šan*), namely σίγμα. Far from being a transformed Phoenician *samk*, Greek σίγμα is a regularly formed common noun meaning 'hissing, hissing sound (i.e. sibilant)' (cf. onomatopoetic σίζω 'to hiss').[65] The only slightly paradoxical thing in all this is the fact that, if Herodotus (1.139) is right, the name σάν survived longer – though not exclusively[66] – in regions where the shape of *ṣadē* was continued (Ϻ), whereas the name σίγμα took over in the Ionian *šin* (*šan*) region (Σ); but even this 'contradiction' is mitigated by the transfer of the *ṣadē* shape into the *šin* (*šan*) slot in σάν regions:[67] hence, of the three constituents position, name and shape, only either the shape (in σάν regions) or the name (in σίγμα regions) was 'innovated'.

Turning to ζῆτα, this name is more likely to be an analogical reshaping of Phoenician *zēn* (~ Hebrew *zayin*; cf. Phoen. *ēn* ~ Hebr. *ayin*) after the following ἦτα (*ῆτα) and θῆτα than the descendant of an alternative letter name *zēt 'olive tree'.[68] Finally, ξεῖ has nothing to do with any of the Phoenician sibilant names, but follows the general pattern by which all the newly-created letters for Greek consonants (or consonant groups) not found in Phoenician were named: these letters were added at the end of the alphabet, after the last Semitic letter ταῦ < *taw*, and the long closed *e*-vowel in the names φεῖ for /pʰ/, χεῖ for /kʰ/ and ψεῖ for /ps/ must have been chosen in analogy with πεῖ < *pē* for /p/ where the same vowel was already present in the Phoenician name.[69] We can see here the beginnings of a process that was to become

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[64] McCarter (n. 25), 100–1, n. 88: 'The abbreviated name of Ugaritic *t* is rendered by Akkadian *ša*. This indicates that the correct vocalization of the old Canaanite name of the letter, represented by the "composite bow" pictogram, was, at least in one dialect, *ṯann-* and not *ṯinn-* (cf. already Cross and Lambdin [n. 24], 26, and now Sass [1988] [n. 1], 132). Alternatively, one could consider σάν a Greek innovation after *σίν, the latter being eventually given up in favour of σίγμα (Ruijgh [n. 20], 559).

[65] Cf. Schwyzer (n. 49), 188–9; Schwyzer (n. 11), 140–1; McCarter (n. 25), 99, n. 85; P. Chantraine, *Dictionnaire étymologique de la langue grecque. Histoire des mots* (Paris, 1968–80), 2.1002–3, s.vv. σίγμα and σίζω, Ruijgh (n. 25), 27, n. 87; Ruijgh (n. 20), 559; implausibly Gelb (n. 28), 141 (σίγμα < *šimk 'shoulder').

[66] Burzachechi (n. 59), 95–6, rightly stresses that there are also Doric regions (e.g. Laconia and Messenia) where the *šin* (*šan*) shape survived and that the ancient sources (Hdt. 1.139; Athen. 11.467a) 'dicono semplicemente che i Dori chiamavano *san* quella consonante che gli Ioni chiamavano *sigma*, non che i Dori chiamassero *san* il segno Ϻ e gli Ioni *sigma* il segno Σ'.

[67] This is pointed out by Brixhe (n. 48), 330, even though he derives the name σάν from *samk*; cf. also Jeffery (n. 16), 131 and 404 no. 16, 261 and 410 no. 19, and Slings (n. 25), 650.

[68] Cf. Nöldeke (n. 20), 134; McCarter (n. 25), 94, n. 74; Driver (n. 1), 159; Allen (n. 10), 170; Powell (n. 50), 37; Ruijgh (n. 25), 27, n. 87; Ruijgh (n. 20), 543; the *zēt theory is preferred by Lidzbarski (n. 30), 132, Schwyzer (n. 11), 140, n. 4, and Friedrich, Röllig and Amadasi Guzzo (n. 53), 44 and 133.

[69] Cf. Hermann (n. 13), 225, Allen (n. 10), 170, and R. Wachter, 'Abbreviated writing', *Kadmos* 30 (1991), 49–80, at 52.

predominant in later alphabets derived from the Greek; in many of these, only 'minimal syllable names' such as Latin *bē*, *cē*, *dē* were used.[70] The only reason why $\xi\epsilon\hat{\iota}$ was not added at the end alongside $\phi\epsilon\hat{\iota}$ etc. was that its *shape* was borrowed from Phoenician *samk*; but its phonetic value was about as like or unlike that of *samk* as the value of $\zeta\hat{\eta}\tau\alpha$ was like or unlike that of *zayin* (cf. above).[71]

IX. THE NAME OF M

With the 'minimal syllable names' of the type Gr. $\pi\epsilon\hat{\iota}$, $\chi\epsilon\hat{\iota}$ etc. or Lat. *bē*, *cē* etc., we have already touched upon an issue that is of potential relevance for a last problem of the Greek letter-name adaptations to be discussed here. The Hebrew name for the letter from which the Greek *M* derives is *mēm*, and the Phoenician name would be expected to be identical; the zigzag shape of the letter nicely reflects the meaning of *mēm*, 'water'. It would be easy to explain the Greek name $\mu\hat{\upsilon}$, not $\dagger\mu\epsilon\hat{\iota}$ or the like, as modelled after the following $\nu\hat{\upsilon} < n\bar{u}n$ (cf. § VI).[72] However, as we have seen before (§ II), there was a (possibly Ionic) by-form $\mu\hat{\omega}$. Since $\mu\hat{\omega}$ could be changed into $\mu\hat{\upsilon}$ without difficulty given the following $\nu\hat{\upsilon}$, and since there is no reason why $\mu\hat{\upsilon}$ should have been changed into $\mu\hat{\omega}$, it may be inferred that $\mu\hat{\omega}$ is the older variant of the Greek name. But why should the Greeks have replaced Phoenician *mē(m)* by $\mu\hat{\omega}$? Of course one might argue that the Phoenicians had already changed the name of the sign into **mō*,[73] and it has in fact been suggested that such a Phoenician **mō* had developed out of a hypothetical **maw* that would be similar to *taw* and *waw*;[74] but since the latter two names are represented by Greek $\tau\alpha\hat{\upsilon}$ and $\digamma\alpha\hat{\upsilon}$, not $\dagger\tau\hat{\omega}$ and $\dagger\digamma\hat{\omega}$,

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[70] On the Latin letter names and their possible Etruscan predecessors see A.E. Gordon, *The Letter Names of the Latin Alphabet* (Berkeley, Los Angeles and London, 1973); J. Boüüaert, 'Le nom des lettres de l'alphabet latin', *Latomus* 34 (1975), 152–60; F.V. Mareš, 'De litterarum latinarum nominibus', *WSt* n.s. 11 (1977), 219–24; W.D. Lebek, 'Eine Eselei aus Ostia und die lateinischen Buchstabennamen', *ZPE* 42 (1981), 59–65, after W. Schulze, 'Die lateinischen Buchstabennamen', *Sitzungsberichte der Akademie der Wissenschaften zu Berlin* (1904), 760–85; Hermann (n. 13); M. Hammarström, *Beiträge zur Geschichte des etruskischen, lateinischen und griechischen Alphabets* (Helsinki, 1920), 15–34; M. Hammarström, 'Die antiken Buchstaben-namen. Zugleich ein Beitrag zur Geschichte der griechischen Lauttheorien', *Arctos* 1 (1930), 3–40; B.L. Ullmann, 'The Etruscan origin of the Roman alphabet and the names of the letters', *CPh* 22 (1927), 372–7; Einarson (n. 3), 15–17 and 23–4, nn. 56–63. Einarson (n. 3), 16, notes that 'of all the alphabets that were borrowed from the Greek or influenced by it, and of which the letter names are known – Roman, Coptic, Gothic, Armenian, Georgian, and Cyrillic – only Coptic retained the Greek names, doubtless because literate Copts were largely bilingual and found one set of names convenient' (cf. also Schwyzer [n. 49], 193–9, on the spread of the 'ABC principle').

[71] Cf. Wachter (1989) (n. 25), 42, on /ks/ as a new phonetic value, and McCarter (n. 25), 98, n. 83.

[72] Thus it is unnecessary to posit, with Driver (n. 1), 158 and 262, a singular **muw* next to the Semitic *plurale tantum mēm*. After $\mu\hat{\upsilon}$ and $\nu\hat{\upsilon}$, even $\xi\hat{\upsilon}$ may have been used occasionally: according to LSJ, 1188, s.v. $\xi\epsilon\hat{\iota}$, $\xi\hat{\upsilon}$ is a *falsa lectio* in manuscripts of Luc. *Jud. Voc.* 9 and *AP* 9.385.14 (cf. Wackernagel [n. 9], 17; but $\xi\hat{\upsilon}$ may have intruded into the manuscripts when $\xi\hat{\upsilon}$ and $\xi\epsilon\hat{\iota}$ were no longer distinguishable, both being pronounced as [ksī]).

[73] There is no support for the name **mōm* postulated by Powell (n. 50), 37. I am also unable to find any attestation of a letter name $\nu\hat{\omega}$ instead of $\nu\hat{\upsilon}$ (as posited by Schwyzer [n. 49], 188; cf. Wachter [n. 69], 51–2).

[74] For later Phoenician *-au-* > *-ō-* see Friedrich, Röllig and Amadasi Guzzo (n. 53), 45. McCarter (n. 25), 97, n. 82, points out that 'the Semitic languages provide some suggestive forms for comparison: Akkadian *mû* (< **mawū*), Old South Arabic (Sabaean) *mw*, and so on' (cf. also Cross and Lambdin [n. 24], 25, on Ugaritic **tô* < *taw*; Einarson [n. 3], 2).

such speculations do not lead very far and it may be preferable to consider other possibilities.

One (admittedly hypothetical) alternative is suggested by the phenomenon of 'abbreviated writing', which has been discussed in detail by Rudolf Wachter.[75] In early Greek inscriptions vowel letters are sometimes omitted – not systematically as in the Semitic alphabets, but still in a way that is regular enough to make a pattern discernible. The missing vowels are most often those which also follow the initial consonant in the respective letter names. One of the most common instances is that of Θ, not least because the verbal form $\dot{a}\nu\acute{e}\theta\eta\kappa\epsilon$ '(s)he dedicated' is so frequent in the early texts: instead of $ANE\Theta HKE$, the spelling $ANE\Theta KE$ is then found. In this and similar cases the stonecutter apparently divided the word into open syllables (i.e. $\dot{a}$-$\nu\epsilon$-$\theta\eta$-$\kappa\epsilon$). Several of the letter names already corresponded to such open syllables: $\nu\hat{v}, \xi\epsilon\hat{\iota}, \pi\epsilon\hat{\iota}, \dot{\rho}\hat{\omega}, \phi\epsilon\hat{\iota}, \chi\epsilon\hat{\iota}, \psi\epsilon\hat{\iota}$. Others, like $\theta\hat{\eta}\tau\alpha$, must have been shortened accordingly (i.e. into $\theta\hat{\eta}$ etc.) when the stonecutter spelled to himself in a low voice what he had to write. In fact, such shortened versions of the letter names may have been another source for the Latin letter names $b\bar{e}, c\bar{e}, d\bar{e}$ etc. (cf. § VIII).[76] Thus, when the stonecutter had incised the Θ and muttered $\theta\hat{\eta}$ to himself, he could easily 'forget' that he needed another letter to complete the syllable.

Now let us imagine the opposite: someone wants to learn how to read and write on the basis of words like $ANE\Theta KE$. His or her teacher points to A and reads α, points to NE and reads $\nu\epsilon$, points to Θ and reads $\theta\eta$, points to KE and reads $\kappa\epsilon$. That pupils at elementary schools in antiquity were indeed trained to recognize and separate such minimal open syllables is well attested.[77] The orthographically vowel-less 'syllable' Θ of $ANE\Theta KE$ in our imaginary school scene would therefore have created the impression that the single letter was really a 'syllabogram' representing the entire sequence /tʰ$\bar{e}$/. Of course, once the Greek alphabet was established there would have been enough instances of Θ + vowel to correct such an erroneous conclusion. But in the initial stages of the Western alphabet history, when the Greeks learned the shapes, values and names of the letters for the first time, this would not necessarily have been the case: after all, the vowels were consistently 'omitted' in the Phoenician spelling system. It may therefore be hypothesized that the unexpected name $\mu\hat{\omega}$ was created accidentally, when some Greeks learned to read by observing a Phoenician teacher slowly spelling out aloud a word in which the sign $m\bar{e}m$ stood for a syllable /m$\bar{o}$/.

Such a scenario, while ultimately unprovable, would gain further plausibility if it could be shown that a single $m\bar{e}m$ did in fact represent a syllable /m$\bar{o}$/ very frequently (and possibly more frequently than /m$\bar{a}$/, /m$\bar{e}$/, /m$\bar{i}$/ etc.) in the first Phoenician texts with which the Greeks became familiar. It is often assumed that the transfer of the alphabet into Greece took place in a trading context; one might therefore think of lists of goods, sale deeds and the like. However, there is not a single piece of evidence

[75] Wachter (n. 69), after a hint in F. Solmsen, '$\Sigma\iota\lambda\eta\nu\acute{o}\varsigma$ $\Sigma\acute{a}\tau\upsilon\rho o\varsigma$ $T\acute{\iota}\tau\upsilon\rho o\varsigma$', *IF* 30 (1912), 1–47, at 20, n. 1, on Σ for /si/; for a similar phenomenon in early Latin cf. Terentius Scaurus, *De orthographia* 7.14.15–7.15.7 Keil, and Hammarström (1920) (n. 70), 31–3.

[76] Because of the Latin names, Ullman (n. 70), 374–5, even suggests that short names like *$\beta\epsilon\hat{\iota}$ for $\beta\hat{\eta}\tau\alpha$ were regularly used; but see the reservations in Hammarström (1930) (n. 70), 5–14.

[77] See Wachter (n. 69), 73, and R. Wachter, 'BA-BE-BH-BI-BO-BY-$B\Omega$… Zur Geschichte des elementaren Schreibunterrichts bei den Griechen, Etruskern und Venetern', *ZPE* 146 (2004), 61–74, after H.-I. Marrou, *Histoire de l'éducation dans l'antiquité* (Paris, 1965⁶), 231, and R. Cribiore, *Writing, Teachers, and Students in Graeco-Roman Egypt* (Atlanta, 1996), 40–2; cf. also, again, the transformation of the alphabet into a syllabic script in ancient Iberia (n. 35 above).

to support this idea – even though ostraca, which might have been used for such records, would not have perished. Hence, I have argued elsewhere[78] that we should rather view the introduction of the alphabet into Greece as a corollary of the orientalizing cultural wave of the ninth century B.C. The Greeks observed how Phoenician tradesmen deposited inscribed votive gifts in the temples that were newly built all over Greece at the same time (as another orientalizing 'import'), and they decided to honour their gods in the same fashionable manner. This would explain not only why the few objects inscribed in Northwest Semitic script that have been found in Greece can be interpreted most easily as votive gifts, but also why votive texts are predominant among the early Greek epigraphic material. In our present context it is therefore intriguing that the best-attested sequence in the early Phoenician (Punic) inscriptions from Sicily – together with Sardinia the region for which the early documentation of 'Phoenician/Punic abroad' is richest – is the name of the important Phoenician god Baal Hammon (*b'l ḥmn*), appearing on nearly three dozen formulaic votive stelae at Motya.[79] Obviously, *ḥmn* = *Ḥammon* would be precisely the kind of word in which *M* represented the syllable /mǭ/ (Gr. μῶ).

X. A LOST NAME FOR A LOST LETTER

Whatever the story behind Greek μῶ, we have now considered the naming history of all the commonly used Greek letters – except for one, with which this survey may be completed most appropriately. In the Milesian numbering system (cf. § II), *Ω* for /ǭ/ is not the last letter, even though its usual position at the end of the sequence of additional letters following Phoenician *taw* = ταῦ (i.e. after *Υ, Φ, Χ, Ψ*) indicates that it was innovated at a late stage, in East Ionia, when the rest of the alphabet had already spread throughout the Greek world.[80] Since *Ω* has the numerical value '800', the following, and really last, letter has the value '900'. It is often written as ↑ or ⋋, but its oldest shape is similar to a *T* with additional vertical hastae at each end of the horizontal hasta (⊤): this is how it appears in a seventh-century abecedary from Samos, which again places it after *Ω* in the alphabetic sequence (and which also provides one of the first attestations of *Ω*).[81] Like *Ω*, the letter in question must be an Ionian invention since so far it has been found, with few exceptions (Attica, Pontic Mesambria), only in East Ionian cities (Ephesus, Erythrae, Teos, Halicarnassus, Cyzicus) and in the Ionian colony Massalia.[82] Since a similar letter exists in the Carian as well as the Phrygian scripts, the Greeks may have adopted it from some of their neighbours in Asia Minor.[83]

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[78] Willi (n. 59).

[79] See especially M.G. Amadasi Guzzo, *Scavi a Mozia: Le iscrizioni* (Rome, 1986), and also M.G. Guzzo Amadasi, *Le iscrizioni fenicie e puniche delle colonie in occidente* (Rome, 1967), with further dedications to *b'l ḥmn* from Malta and Sardinia; in Motya the only other words containing *mēm* and occurring with some frequency (though much more rarely than *b'l ḥmn*) are *mlkt* for a type of sacrifice and *mtnt* for 'gift'.

[80] Cf. Ruijgh (n. 25), 44: 'L'ordre des lettres additionelles […] a chance de refléter l'ordre chronologique de leur addition'; Wachter (1989) (n. 25), 48.

[81] Jeffery (n. 16), 428 and 471 no. 1a, with pl. 79, with a date of 660–650 B.C.

[82] Jeffery (n. 16), 38–9; cf. also C. Brixhe, 'Palatalisations en grec et en phrygien', *Bulletin de la Société de Linguistique de Paris* 77 (1982), 209–47, at 216–22, and G. Genzardi, 'Una singolare lettera greca: il *sampi*', *Rendiconti dell'Accademia Nazionale dei Lincei*, ser. 8, 42 (1987), 303–9.

[83] For Carian cf. Schwyzer (n. 11), 149; Genzardi (n. 82), 305–6; Jeffery (n. 16), 39; for Phrygian R. Wachter, 'Eine Weihung an Athena von Assesos', *Epigraphica Anatolica* 30 (1998), 1–8, at 3, n. 10; Brixhe (n. 82), 229–35; C. Brixhe, 'History of the alphabet: Some guidelines for

The value of this letter was a sharp [s(s)]. Where it occurs it competes with the spelling $\Sigma\Sigma$ in words which would show a geminate TT in Attic Greek (e.g. $\theta\acute{a}\lambda a\sigma\sigma a$). However, its use is never entirely consistent: 'it has […] been tentatively restored in the poetry of Hipponax of Chios, to explain the apparent Atticism $\theta a\lambda a\tau[\tau\eta_S]$ of the papyrus; but in the earliest Chian inscription […] $\phi v\lambda a\sigma\sigma\omega\nu$ is spelt with double *sigma*' and 'though it is attested in Milesian colonies, in Miletos itself there is as yet no example; instead we find single or double *sigma*, e.g. $T\epsilon\iota\chi\iota o\sigma\eta_S$ […] and $\kappa\eta\rho\upsilon\sigma\sigma\epsilon\tau a\iota$'.[84]

The name by which this final letter is known in modern times is $\sigma a\mu\pi\hat{\iota}$ or $\sigma\acute{a}\mu\pi\iota$. The origin of this name is not entirely clear, but it is certainly not ancient. Because $\sigma\acute{a}\nu$ could stand for $\dot{\omega}_S$ $\ddot{a}\nu$ 'like' in Byzantine Greek, it may have been coined in Byzantine times as the letter shape $\g>$ was felt to resemble that of Π (i.e. $\sigma\acute{a}\nu$ $\pi\hat{\iota}$ 'like *pi*');[85] the first attestation even seems to be found only in the early seventeenth century in the writings of Joseph Scaliger.[86] The ancient name, however, is unknown.[87] Claims that 'the name began with *ss* and was doubtless **ssán*' or that the sign is 'a **ssán* carefully distorted to distinguish it from M have no foundation whatsoever.[88] The latter claim implicitly acknowledges that the sign does *not* look like a *ṣadē* (Doric $\sigma\acute{a}\nu$), and the former forgets that the sharp sibilant is not used word-initially in Greek so that the acrophonic principle cannot be invoked; moreover, if the '$\sigma\acute{a}\mu\pi\iota$' sign continued the Semitic *ṣadē*, it should also be placed in the position of *ṣadē* in the alphabet sequence (just as F and φ continued to be placed in the positions of *waw* and

avoiding oversimplification', in A.-F. Christidis (ed.), *A History of Ancient Greek. From the Beginnings to Late Antiquity* (Cambridge, 2007), 277–87, at 281.

[84] Jeffery (n. 16), 39; for the Hipponax argument see K. Latte, 'De nonnullis papyris Oxyrrhynchiis', *Philologus* 97 (1948), 37–57, at 46. That the spelling of Sappho's name as $\Psi\acute{a}\pi\phi\omega$ represents an erroneous transliteration of $T\acute{a}\pi\phi\omega$ (G. Zuntz, 'On the etymology of the name Sappho', *MH* 8 [1951], 12–35, at 16–22) and thus indirectly attests T also for Aeolic Lesbos, also remains a possibility (cf. now G. Liberman, 'Alcée 384 LP, Voigt', *RPh* 62 [1988], 291–8, at 294 with further bibliography in n. 9).

[85] Thus e.g. Schwyzer (n. 11), 149; cf. Schulze (n. 70), 769: 'Übrigens wäre es wünschenswert, wenn die Grammatiker, die das Zahlzeichen für 900 anstandslos $\sigma\acute{a}\mu\pi\iota$ oder gar $\sigma\acute{a}\nu$ zu nennen fortfahren, endlich einmal mit einem brauchbaren Zeugnisse sei es auch nur aus der byzantinischen Zeit herausrückten.'

[86] See Einarson (n. 3), 13 and 22, n. 51: 'In the "Digressio de literarum Ionicarum origine" on pp. 102–13 of his *Animadversiones in chronologica Eusebii*, appended to his *Thesaurus temporum…* (Leyden, 1606 […]) he devotes the better part of a folio page (p. 108) to the $\dot{\epsilon}\pi\acute{\iota}\sigma\eta\mu o\nu$ $\sigma\acute{a}\nu\pi\iota$ (also spelled $\Sigma\grave{a}\nu$ $\Pi\hat{\iota}$, San pi, San Pi, $\Sigma\grave{a}\nu$ $\pi\hat{\iota}$). He calls it this because $\g>$ looks like an antisigma (sigma = san) and a π, and because a scholiast on Aristophanes *Clouds* 23, explaining $\sigma a\mu\phi\acute{o}\rho a_S$, says that these horses have the imprint of a sigma, $\tau\grave{o}$ $\gamma\grave{a}\rho$ $\bar{\sigma}$, $\kappa a\grave{\iota}$ $\tau\grave{o}$ $\bar{\kappa}$ $\chi a\rho a\sigma\sigma\acute{o}\mu\epsilon\nu o\nu$ $\Sigma\grave{a}\nu$ $\ddot{\epsilon}\lambda\epsilon\gamma o\nu$. This is nonsense, says Scaliger; the scholiast writes $\bar{\kappa}$ because he is confusing the etymology with that of $\kappa o\pi\pi a\tau\acute{\iota}a_S$. He is garbling his ancient source, who must have said $\tau\grave{o}$ $\gamma\grave{a}\rho$ $\bar{\sigma}$, $\kappa a\grave{\iota}$ $\tau\grave{o}$ $\pi\hat{\iota}$ $\chi a\rho a\sigma\sigma\acute{o}\mu\epsilon\nu o\nu$ $\Sigma\grave{a}\nu$ $\pi\hat{\iota}$ $\ddot{\epsilon}\lambda\epsilon\gamma o\nu$. From Scaliger the name reached G.J. Vossius (*De arte grammatica* [Amsterdam, 1635] 1. 23, p. 91), and from him it reached the school grammars: cf. *Institutiones linguae Graecae olim quidem scriptae a Nicolao Clenardo nunc autem … expurgatae … studio atque operâ Gerardi Vossii. Editio altera …* (Leyden, 1642), p. 48: "…vocatur *sanpi*, quia conflata est ex inverso $\sigma\grave{a}\nu$, hoc est $\sigma\hat{\iota}\gamma\mu a$, & incluso π." ' Note that, against Einarson, Scaliger's argumentation and emendation make better sense if he already knew the name $\sigma\acute{a}\mu\pi\iota$; otherwise a more straightforward correction of the scholion would be $\tau\grave{o}$ $\gamma\grave{a}\rho$ $\bar{\sigma}$ $[\kappa a\grave{\iota}$ $\tau\grave{o}$ $\bar{\kappa}]$ $\chi a\rho a\sigma\sigma\acute{o}\mu\epsilon\nu o\nu$ $\Sigma\grave{a}\nu$ $\ddot{\epsilon}\lambda\epsilon\gamma o\nu$ (with $\kappa a\grave{\iota}$ $\tau\grave{o}$ $\bar{\kappa}$ having intruded from an additional reference on $\kappa o\pi\pi a\tau\acute{\iota}a_S$).

[87] Cf. Jeffery (n. 16), 39, and Brixhe (n. 48), 335.

[88] Einarson (n. 3), 13; cf. similarly Ruijgh (n. 25), 32–3; Ruijgh (n. 20), 536, 544, and 563–5; Ruijgh (n. 47), 675.

qōp respectively, even when they were no longer employed outside the numbering system).[89]

Fortunately, to discard the **ssán* hypothesis as unfounded does not mean that the 'σάμπι' letter has to remain nameless. There is a hitherto unnoticed – since misunderstood – ancient source which tells us explicitly what its true name was. In order to realize this, all we have to do is once again to consider the position of 'σάμπι' after *Ω*. The 'classical' East Ionic alphabet of the fifth century, which was officially adopted by Athens in 403/2 B.C., had 24 letters (cf. § II): of the 22 Phoenician letters, Ϝ (*waw*), Ϙ (*qōp*) and M (*ṣadē*) had been given up (except that the former two marginally lived on as numeral signs), but *Υ, Φ, X, Ψ, Ω* had been added at the end. In the above-mentioned cities Ephesus, Erythrae etc., the written (non-numerical) alphabet therefore had 25 letters before 'σάμπι' fell out of use around the middle of the fifth century B.C.: *Ω* was letter no. 24, and 'σάμπι' was letter no. 25. Now we read the following statement in a fragment of the Roman scholar Varro (fr. 3 Funaioli = fr. 46, p. 201.4–9 Goetz-Schoell):

ut Ion scribit, quinta uicesima est littera, quam uocant agma, cuius forma nulla est et uox communis est Graecis et Latinis, ut his uerbis: *aggulus, aggens, agguilla, iggerunt*. in eius modi Graeci et Accius noster bina *G* scribunt, alii *N* et *G*, quod in hoc ueritatem uidere facile non est. similiter *agceps, agcora*.

As Ion writes, there is a 25th letter, which is called 'agma', which has no shape, but a phonetic value that is the same in Greek and Latin, as in the following words: *aggulus, aggens, agguilla, iggerunt*. In words of this type, the Greeks and our Accius write a geminate *GG*, while others write *NG*, because it is difficult to recognize the real sound in the former; similarly *agceps, agcora*.

The reason why this fragment has never been connected with the 'σάμπι' problem is clearly that Varro's words at first sight point in a completely different direction. Of course Varro was right in observing that words containing a velar nasal [ŋ] were commonly written with *ΓΓ* rather than *ΝΓ* in Greek. In his studies he then came across the work of a certain Ion who mentioned a twenty-fifth letter referred to as ἄγμα, which would be pronounced as [aŋma] (cf. φθέγμα = [pʰtʰeŋma] next to φθέγγομαι[90]). Since Varro could no longer be familiar with any *real* letter after *Ω*, he inferred that his source must be thinking of the graphemic peculiarity in spelling the sound [ŋ], which happened to occur in the name ἄγμα = [aŋma]. Because of Varro's authority, this conclusion has never been questioned and lives on today,[91] although the default assumption should be that when an ancient author speaks of a twenty-fifth letter, he probably means what he says and does *not* mix up an odd spelling convention with a letter.[92] Thus, it is *a priori* unlikely that Varro's words from *cuius forma nulla est* onwards are still based on Ion.

[89] Cf. already Schulze (n. 70), 769; Genzardi (n. 82), 305; Woodard (n. 62), 178–9; Slings (n. 25), 644–6. Note also that Herodotus could hardly have regarded the name σάν as Doric (cf. § II) if it had still been in use in his own East Ionic dialect.

[90] Cf. M. Lejeune, *Phonétique historique du mycénien et du grec ancien* (Paris, 1972), 146, with further examples (ἔσφιγμαι from σφίγγω, ἐλήλεγμαι from ἐλέγχω, etc.); it is less clear whether a group *ΓΜ* was *always* pronounced as [ŋm], even when it originated from *gm, not *ngm (Lejeune [above], 77–8).

[91] Cf. e.g. Schwyzer (n. 49), 181, n. 3; J. Collart, *Varron grammairien latin* (Paris, 1954), 128; Lejeune (n. 90), 146, n. 4; M. Leumann, *Lateinische Laut- und Formenlehre* (Munich, 1977), 15; Allen (n. 10), 35–6; B. Cardauns, *Marcus Terentius Varro. Einführung in sein Werk* (Heidelberg, 2001), 38–9.

[92] With the same justification as for *ΓΓ* = [ŋ] one would otherwise have to call *EI* = [ē] or *OY* = [ō] a 'letter'.

Moreover, apart from the numbering of Ion's letter, there are further good reasons to believe that ἄγμα is the ancient name of 'σάμπι', and that Varro's ingenious construction is based on a misunderstanding. Since Ion is not introduced in any way, Varro must be assuming that his readers will know which Ion he is talking about. Hence, Ion must be *the* most famous Ion:[93] the poet and scholar Ion of Chios, who lived in the middle of the fifth century B.C., competed with Sophocles and Euripides in the tragic *agônes* at Athens, composed lyric and elegiac poems and wrote a prose history of his native island. This island, Chios, lies precisely in the relatively small East Ionic area in which the letter 'σάμπι' was still in use in Ion's lifetime. So when Ion felt that he had to tell the rest of the Greek world about Chios, it is natural that he also mentioned in this context an orthographic peculiarity most other Greeks were not familiar with: as natural in fact as if an encyclopaedia of Danish culture pointed out that the Danes have an additional letter Ø in their alphabet.

The ultimate proof, however, comes from the name ἄγμα itself. As we have seen, the epigraphic 'σάμπι' looks like an arrow pointed upwards, or also like an inverted hook or anchor. The lexeme ἄγμα is a regularly formed Greek neuter noun in -μα. The Greek word for 'anchor' is ἄγκυρα; it belongs, like the adjective ἀγκύλος 'crooked, curved' and a large number of other Greek words, to a root ἀγκ- < *ank- (cf. Skt. *añcati* 'to bend, to curve'),[94] and thus has an underlying meaning 'curved/crooked object'. The same basic meaning would characterize a derivative in -μα from this root. Such a formation *ἄγκ-μα (or rather: *ank-mô) yields ἄγμα = [aŋma] by regular sound change.[95] Thus, the word ἄγμα 'curved/crooked object', or also 'anchor-like object, hook', is not an invented nonce-word, but a purely descriptive name for what the alphabetic sign after Ω looked like in the sixth and fifth centuries B.C. As such, and with the revised meaning 'name of the East Ionic letter Ͳ/↑/⟩ ("*sampi*")', *not* 'nasalized g', it deserves its own separate entry in our dictionaries of Greek – alongside its older siblings, the Graeco-Semitic letter names.[96]

Worcester College, Oxford   ANDREAS WILLI
                                    andreas.willi@classics.ox.ac.uk

[93] Thus correctly Einarson (n. 3), 19, n. 11, after U. von Wilamowitz-Moellendorff, 'Lesefrüchte', *Hermes* 62 (1927), 278–98, at 279, n. 2, and against Schwyzer (n. 49), 181, n. 3.

[94] Chantraine (n. 65), 1.10–11, s.v. ἀγκ-.

[95] For the voicing assimilation cf. e.g. δεῖγ-μα from *deik-mô, πλέγ-μα from *plek-mô, etc.; Lejeune (n. 90), 77.

[96] The entry in LSJ, 11, s.v. ἄγμα, where the meaning 'nasalized g' is given, wrongly groups the lexeme together with ἄγμα 'fragment', a derivative of ἄγνυμι 'to break' (root *u̯ag-). The view of L. Lupaş, *Phonologie du grec attique* (The Hague and Paris, 1972), 21, that ἄγμα is a mere anagram of γάμμα, pronounced as [agma], is both phonetically and historically untenable.

APPENDIX. THE NORTHWEST SEMITIC AND GREEK LETTERS AND THEIR NAMES

Letter no.	Hebrew letter	Transcription	Hebrew (Phoenician) name	LXX version	Meaning	Greek letter	Transcription	Numerical value	Greek name
1	א	'	'alep ('alp)	αλφ	'cow'	A	ă	1	ἄλφα
2	ב	b	bēt	βηθ	'house'	B	b	2	βῆτα
3	ג	g	gimel (gaml)	γιμλ	'throw stick', 'camel' (?)	Γ	g	3	γάμμα (γέμμα)
4	ד	d	dalet (dalt)	δελθ	'door'	Δ	d	4	δέλτα
5	ה	h	hē'	η	—	E	ĕ	5	εἶ (ἒ ψιλόν)
6	ו	w	waw	ουαυ	('hook'?)	Ϝ	u̯	6	Ϝαῦ (δίγαμμα)
7	ז	z	zayin (zēn, *zēt?)	ζαιν	'?' ('olive tree'?)	Z	dz, zd	7	ζῆτα
8	ח	ḥ	ḥēt	ηθ	'fence, barrier' (?)	H	h, ē̦	8	ἦτα (*ἧτα)
9	ט	ṭ	ṭēt	τηθ	'?'	Θ	tʰ	9	θῆτα
10	י	y	yōd	ιωθ	'hand'	I	ĭ	10	ἰῶτα
11	כ	k	kap	χαφ	'palm (of a hand)'	K	k	20	κάππα
12	ל	l	lamed (lamd)	λαβδ	'thorn' (?)	Λ	l	30	λά(μ)βδα
13	מ	m	mēm	μημ	'water'	M	m	40	μῦ (μῶ)
14	נ	n	nūn (naḥaš?)	νουν	'fish' ('snake')	N	n	50	νῦ
15	ס	s	samek (samk)	σαμχ	'support' (?)	Ξ	ks	60	ξεῖ
16	ע	ʿ	'ayin ('ēn)	αιν	'eye'	O	ŏ	70	οὖ (ὂ μικρόν)
17	פ	p	pē'	φη	'mouth'	Π	p	80	πεῖ
18	צ	ṣ	ṣadē	σαδη	'?'	Ϻ	s		σάν
19	ק	q	qōp	κωφ	'monkey'	Ϙ	k (q)	90	ϙόππα
20	ר	r	rēš (rōš)	ρης	'head'	P	r	100	ῥῶ
21	ש	š	šin (*šan?)	σεν	'tooth' ('bow')	Σ	s	200	σίγμα (*σάν?)
22	ת	t	taw	θαυ	('mark, sign'?)	T	t	300	ταῦ
23						Υ	ŭ (ŭ)	400	ῦ (ὒ ψιλόν)
24						Φ	pʰ	500	φεῖ
25						X	kʰ	600	χεῖ
26						Ψ	ps	700	ψεῖ
27						Ω	ō̦	800	ὦ (ὢ μέγα)
28						ϡ	ss (ṣ?)	900	ἄγμα (σάμπι)