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INTRODUCTION

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Regional variation was a persistent feature of Greek alphabetic writing throughout the Archaic period. Although direct testimony is scarce, we have good reason to believe that the Greeks were well aware of local variations in the repertoires, sign shapes and sign values of their alphabets; there is clear evidence that they were able not only to maintain those alphabetic distinctions, but also to exploit them and use them to emphasise social and political boundaries.[1] Modern scholarship has sought to impose a taxonomical system on the distribution of Archaic Greek dialects, perhaps most famously and most literally in the colour-coded map published by Adolf Kirchhoff in the 19th century that still dominates the terminology we use today (the green, red, light blue and dark blue alphabets, on which see further below).[2]

When Lilian H. (Anne) Jeffery, to whom the present work is dedicated, began her study of the Archaic Greek alphabets she was in one sense building on a by then well-established scholarly tradition that sought to categorise the alphabets, and to use their variant features to understand better the transmission of alphabetic writing from the Phoenicians (a 'fact' that was itself well entrenched in Greek thought, where the alphabet was referred to as *phoinikeia grammata*).[3] While Jeffery's contribution considerably furthered such ongoing conversations, her greatest legacy is to be found in her working methods: rather than accept the state of knowledge as it then was, she embarked on an ambitious survey of more than 1,000 inscriptions, which she viewed first-hand. By conducting her own autopsy, photography and drawing of each text,[4] she established the basis for a study that far surpassed

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[1] Luraghi (2010); see also Johnston (2012).
[2] Kirchhoff (1887).
[3] See for example Roberts (1887) and Carpenter (1933).
[4] It is worth mentioning here another woman scholar working roughly around the same time as Jeffery: Margherita Guarducci, whose approach to publishing the epigraphic record of Crete in her *Inscriptiones Creticae* volumes followed similar standards (which sadly have seldom been embraced by others publishing local Greek epigraphic corpora).

those of earlier scholarship, as realised in her 1961 publication of *The Local Scripts of Archaic Greece* in which she not only engaged with theoretical approaches to alphabetic developments but also, and more importantly, laid out detailed discussions of the features of alphabetic writing region-by-region across the Greek-speaking world. The 1990 second edition, updated to include subsequent finds and scholarship with a supplement by Alan Johnston, remains the seminal treatment of the Archaic Greek alphabets to which all modern studies owe a considerable debt. That debt will, we hope, be obvious in the range and nature of contributions to the present volume.

A. History and Functions

I. How, when, where, by whom, and for what purpose?

'The adoption of the alphabet by the Greeks: how, when, where, by whom, and for what purpose?': that (translated) title of an earlier paper by one contributor to this volume sums up a cluster of issues around which many of the present papers revolve.[5] To start with 'when?', the idea that the alphabet might have reached Greece centuries before the first surviving evidence was devastatingly attacked in 1933 by Carpenter,[6] whom Jeffery[7] and all the contributors to this volume follow; no one shows sympathy for the revival of that position, by Naveh and others, who argued that the Greek letter forms reflect earlier stages in the history of west Semitic lettering and must date to c. the 11th c.[8] 'Somewhere close to 800' is the consensus here, though Woodard suggests going a quarter of a century or so earlier. Absolute precision will never be possible, because as Wachter points out it is unlikely that the scraps of early writing that chance to survive take us back to the very moment of invention – although he also argues that previous models have probably greatly overestimated the time it could take for an invention such as the alphabet to be communicated from one part of the Mediterranean or another (a matter of 'a few weeks rather than months or years'). A little discouragingly, Wachter also writes 'The alphabet we find in the inscriptions of some region is surely not the Greek 'Uralphabet' or 'prototype alphabet', it is not even likely to be the first variant of alphabet used there. We can be sure that in the beginning of writing in any

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[5] Wachter (1998).
[6] Carpenter (1933).
[7] *Local Scripts*, 12-21; supported against Naveh in *Local Scripts. Supplement*, 426-7.
[8] On this debate see most recently Waal (2018), (2019).

particular place there were lots of individual experiments of which we will never know.'
This was a new technology, sometimes seen as the creation of a single inspired individual or
community who saw the possibility of adapting the Phoenician alphabet for Greek use, which
spread like wildfire because of its manifest utility through most regions. So our situation is
as if we were seeking to recover the proto-history of the internet from evidence beginning let
us say in the year of publication of this book. It should also be remembered that the Greek
alphabet was not an isolated development, and that very similar alphabetic writing (featuring
the key shared innovation of the same five vowel signs) appeared in Phrygia and Italy around
the same time, and in fact some of these attestations are dated slightly earlier than the first
surviving Greek alphabetic inscriptions (second half of the 9th and first half of the 8th c.
respectively). Janko's recent re-evaluation of early alphabetic inscriptions of Greece, Italy
and Phrygia seeks to raise the standard Aegean chronology for this period and places the
beginnings of the Greek alphabet in the mid-9th c;[9] such attempts to revise Mediterranean
chronologies, however, are not uncontroversial.[10]

The question of 'how?' is multi-faceted. One aspect is the debate between believers
in single or multiple takeover: was the west Semitic alphabet transformed into the Greek, by
the addition of vowels, just once (all subsequent divergences from the prototype occurring by
internal development within Greece), or do the Greek local scripts vary in part because
several distinct adaptations of the Semitic alphabet had occurred? There is near consensus in
this volume in favour of a single takeover, though Haarer is willing to flirt with the theory of
polygenesis. The most emphatic unitarian is Wachter, who once engagingly supposed the
Greek alphabet to have born when an unusually brilliant Greek or Greeks met with
Phoenicians 'at a little party on a pleasant summer evening' (1989, 37).[11] But whereas
Wachter's Greeks and Phoenicians go their separate ways after that momentous encounter,
Luraghi argues that contact must have been maintained for longer. Luraghi supports a
'modified version of the single-adaptation theory'. While one popular argument for single
adaptation (the supposed arbitrariness of the relation between the Greek vowels and the
Phoenician graphemes used to represent them) has lost its force, another has emerged, if we
allow that more of the familiar Greek letters are new creations, not adaptations of the

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[9] See Janko (2015). .
[10] See e.g. Fantalkin, Finkelstein and Piasetzky (2011).
[11] Cf. below p. 00: 'I continue to imagine, for this invention to have been made, no more than one or two
Greeks, preferably traders far from home, sitting together with a Phoenician who told them about the use of
script for writing letters, order-lists, short memoranda etc., and then taught them the series of letter-names and
passed on to them an *abecedarium*.'

Phoenician, than has often been supposed: 'the more we recognize the significant differences between all known Western Semitic alphabets of the relevant period and all known Greek alphabets, the less the multiple independent adaptations theory is conceivable'. But, he argues against Wachter, the creation of the Greek alphabet must have been a process that took time and careful analysis, not the happy improvisation of a genius in an idle moment. The gap between speech and writing in any language whatsoever is such that learning to write, even when the conventions are fully established, is always a protracted process: how much harder to create such conventions for the first time, starting from an alphabet shaped to the needs of a different language. A next step in his argument depends partly on accepting four controversial copper plaques supposedly found in the Fayum as genuine.[12] These much-analysed documents apparently attest a proto-Greek alphabet lacking all the supplemental letters added at the end of the Phoenician, not just ΦΧΨ which are absent from some local Greek alphabets but even the crucial new vowel Y. If a proto-alphabet existed without Y, which as a shape is generally held to derive from Phoenician waw, the interaction between the two alphabets was not confined to a single moment.[13] The point survives, even if the Fayum plaques are discounted, if we accept (but Wachter would not[14]) that some of the other supplementary letters are re-shapings of Phoenician letters, requiring a 'second wave of adaptation' (and one where, presumably, there is a more distant relationship between shape and value of sign). 'We can speak of a tradition, and need to think in terms of individuals who were the carriers of such tradition: scribes may be a reductive term, but would be one of the least misleading ways to characterize them.'

Though for Wachter the creation of the alphabet is almost instantaneous, he is much in agreement on the importance of tradition or traditions for its diffusion. Crucial here are the hypothesised alphabet jingles, oral manifestations of the 'well-defined sequence of letters that the literate members of a community have learnt and are able to reproduce at any moment in their lives', attested for us by the abecedaria surviving from many but unfortunately not all regions. Having learnt the jingle the student then learns the sounds indicated by the names (and suggested by their first letters), and finally is taught to combine letters into syllables and

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[12] On these items, see Woodard (2014).

[13] Wachter (1989) 40 sought to deny the inference by the suggestion that, if genuine, the tablets are the work of Greeks practising the Phoenician alphabet but using the Greek letter shapes that were more familiar to them.

[14] 'Not a single one of the subsequent changes to the alphabet, not even of the earliest ones, needs a Near Eastern source or inspiration.'

words. All this implies a tradition of teaching[15] and one that is strongly integrated into the transmission of the alphabet from person to person and from place to place. On the other hand, Benelli in this volume questions the importance of alphabetic training as a vehicle for the transmission of the script, seeing the variability of some early local scripts and especially the co-existence of scripts with different repertoires in some areas (his primary focus is on the Etruscan material) as indicating that standardized teaching was a secondary rather than a primary development. There may have been regional differences in this regard, as writing was learnt for different purposes and incorporated into different local traditions – in the case of Etruria, for instance, growing up within the context of local elite practices such as gift exchange (as argued by Benelli in this volume).[16]

To the interconnected questions 'where?' and 'by whom?, Jeffery answered (*Local Scripts*, 11), with due caution, 'possibly at Al Mina in North Syria' by Greek traders In this volume, only Woodard attempts anything like so precise an answer. He believes, on philological grounds, that the Phoenician script was adapted for Greek by Greeks from Cyprus, and that the chain of transmission then went through east Ionians to west Ionians. He thus looks for a scenario in which 'literate Cypriot and non-literate East Ionian Greeks are co-operatives in an undertaking in which acquisition of at least basic literacy is advantageous to East Ionians', and proposes a concrete (and interestingly early!) context: 'Assyrian military expeditions into Syria-Palestine and Anatolia in the ninth century BC, perhaps particularly the campaigns of Shalmaneser III, who ruled 858–824 BC', in which east Ionians would have served alongside Phoenicians as mercenaries.'[17] The busy Euboeans, well known to have been active at both ends of the Mediterranean, then become the obvious candidates to have carried the new technology westwards. This postulate of Cypriot middlemen has obvious attractions, and faces (philological issues aside) one obvious difficulty. Positively, Greek language is attested on Cyprus as early as the 10th c, and the presence of Phoenician settlement there by the 9th c gives further opportunities for contact between Greek and Phoenician speakers in approximately the right timeframe. Greek was written there, it is true, in the inherited syllabary, not the alphabet of the future, but nevertheless such writing shows

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[15] An attempt at an English equivalent for the concept of 'corpus dottrinale' developed by Prosdocimi (1989) 1326-8 and (1990) 188-194; cf. too Lejeune (1989) 1289: 'il n' y a pas emprunt d'une écriture sans emprunt de la pédagogie qui la sert'.

[16] It has been argued by Maras (forthcoming) that the epigraphic reflexes of gift exchange have their origins in a longstanding tradition that must have pre-dated local literacy.

[17] The currently prevalent view that Greeks regularly served as mercenaries in Assyrian and Babylonian armies has been strongly contested by Fantalkin and Lytle (2016).

that Cypriots understood potential uses of literacy. Negatively, it becomes a puzzle why the new Cypriot invention, if such it was, had to wait another half millennium before becoming predominant in its place of origin.[18] Luraghi might have sympathy for Woodard's location (minus the Cypriot thesis), but just as one possibility among several. He thinks merely of a locale somewhere on the margins of the Greek world, where a mixed population of Greeks interacted with speakers and scribes of other languages: mercenary service in one of the near eastern armies would provide an appropriate context. Wachter by contrast regards the question of 'where?' as unanswerable in principle, because, as mentioned above, the very earliest stages escape us and the new technology surely spread very quickly, leaving no trail behind it.   He denies that we need to think of a mixed settlement: 'I therefore prefer the notion of a rather casual meeting of some Greek and Phoenician traders in any Mediterranean harbour.'

The question 'what for?' is most fully addressed in this volume by Thomas. She comes at it from a distinctive angle, and one barely available to Jeffery, given that the relevant material has almost all been very recently discovered. In Iliad 7 (170-189), when a choice has to be made of a Greek champion to confront Hector, the candidates all mark a 'lot' (a potsherd?) with a σῆμα (a sign or mark) and the lots are put in Agamemnon's helmet: this is then shaken, and the one that comes out first is shown to the heroes in turn; they 'fail to recognise' it until it comes to Ajax who rejoices to see his own σῆμα. Thus written marks can signify ownership even among the illiterate, and it is this phenomenon that Thomas discusses on the basis of the very recently discovered and now quite abundant 8th c. graffiti from Methone (all or almost all in the Eretrian alphabet) and the sanctuary of Apollo Daphnephoros at Eretria. Both these contexts have revealed a small number of examples of true writing (mostly names), more of single letters of the alphabet or non-alphabetic marks; both the latter very likely indicate ownership (being often positioned in the places on vessels where undeniable ownership inscriptions occur).   Two possibilities are open: the use of σῆματα prepares the ground for writing, which does the same job with more precision; alternatively, non-writers imitate writers by use of distinctive marks. Either way, the two practices co-exist; and we see the first writing/pre-writing/para-writing used in a practical, commercial context (in both cases by Euboeans).[19] The 'literary' use in the famous Nestor

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[18] So Jeffery, *Local Scripts*: 7-8. On the progress of the use of the alphabet in Cyprus, see Steele (2018) chapter 5.

[19] Such also seems to be the working assumption of Wachter.

cup from Pithecousai is therefore an outlier, and we need not infer a highly sophisticated symposium culture at Methone from the marks on drinking vessels found there (the Hakesander cup from Methone providing the only clear parallel for Nestor's cup). 'It is highly misleading', she reminds us, 'to talk in blanket terms of "extensive literacy" deduced from evidence of the writing of individual letters or short words (as at Methone).' A surprise is that the 'Apollo Daphnephoros' material (if indeed that material derives from the sanctuary) contains only one possible allusion to a god; on this showing, naming the recipient of an offering was not one of the very first uses of literacy. But, if so, the new technique was soon re-applied for that function: the well-known mass of early material from the sanctuary of Zeus on M. Hymettos will soon be joined by that from his sanctuary on M. Parnes, perhaps beginning a little earlier, the publication of which Matthaiou foretells in this volume. I

II. The One and the Many

If we accept, as most contributors do, that the alphabet was taken over only once, whence came all the varieties so magisterially catalogued by Jeffery? Wachter distinguishes two main kinds of change: changes in letter-forms, which could be products of adjustments by individuals which then caught on within a region and might migrate beyond it, and changes in the actual alphabet (addition of a letter; dropping of a letter; re-use of a letter with new sound value), which must be seen as conscious reforms; these, unlike the former, changed the character of a given alphabet as a system for representing sounds. The abecedaria are the main witnesses to these more radical forms of change. Particularly diagnostic are the fortunes of the supplementary letters not present in the Phoenician alphabet but added in Greece at the end, especially ΦΧΨ: it was indeed primarily on the basis of the presence or absence of these symbols, and the varying sound values assigned to them, that Kirchhoff devised a now largely superseded colour-coded map of Greek alphabets which divided them into 'southern' or green (Thera, Melos, Anaphe, Crete), 'western' or red (most of mainland Greece, Euboea and Euboean colonies), and 'eastern', subdivided into light and dark blue (light: Attica and some Ionic islands; dark: Corinth, Argos, Ionia and some Ionic islands, Knidos).[20] Kirchhoff's schema was descriptive, not genetic (though the 'green' alphabets are often seen as 'primitive', since they lack the supplemental letters). But Wachter in this volume uses this kind of evidence to present a genetic model for the relation of the alphabets of Attica, Euboea and eastern Greece. The changes involved must have occurred, he argues,

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[20] Woodard (2010) 37-9.

very quickly, because once writers in large numbers had learnt one form of script they would not readily go over to another, but would cling, as does the Anglophone world, to now useless graphic conventions. This raises the question of the extent and nature of literacy among early alphabetic writers, which is also addressed in a different way in Whitley's contribution.

Luraghi's main concern by contrast is with letter-forms. He points out that the emergence of the many local scripts is roughly contemporary with the breakdown of the homogeneous middle geometric pottery style into at least twelve regional schools. What happens is primarily not, he stresses, the invention of new local graphemes, but rather the putting of existing graphemes to new local uses. The consensus had always been that variations arose through a mixture of innovation (tidying up, clarification) and simple error on the part of individuals, taken up by pupils and imitators. In 2010 Luraghi argued by contrast that communities or regions deliberately varied their alphabets, in ways that met no linguistic need, as a means of differentiation from their neighbours.[21] He pointed inter alia to single inscriptions of which different parts are inscribed, probably by the same hand, in different scripts (e.g. a dedication in the dedicator's native script plus a sculptor's signature in the sculptor's): such conscious 'digraphy' proves sensitivity to the importance of these distinctions as identity markers. A new example (a monument created by a Parian sculptor for the monument of a dead Samian) is discussed by Matthaiou in this volume. Already c. 700 a lekythos bears a digraphic (Euboean/Corinthian) abecedarium. In the second part of his contribution to the present volume he asks himself, if he is right that local scripts are strategies of differentiation, how they relate to other such strategies, what they differentiate and why. 'While there is no boundary between alphabets that was not also a political boundary, the opposite is definitely not true: there are plenty of political boundaries within the Greek world of the archaic period, documented or inferred, that are not marked by differences in the alphabets used on either side of the dividing line.' An explanation in some such cases is that the boundary was already marked out by dialect: thus the 'written language' was already differentiated, and further differentiation by alphabet was redundant. The driving force cannot have been political authority (because some of the regions so delimited were ethnically but not politically unified), but derived from a shared sense that an ethnically

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[21] Luraghi (2010).

distinct group should have its own recognisable written language.[22]   The genesis of that idea he tentatively seeks in a context close to that where the first Greek alphabet was created. 'It seems easiest to envisage the creation of the early cohort of local alphabets as taking place in one and the same locale (*the multi-cultural locale somewhere on the margins of the Greek world, perhaps one of mercenaries serving in a near eastern army, mentioned above*), obviously one where Greeks with the appropriate schooling and hailing from a sufficient number of regions came together with some regularity and/or for extended periods of time.' The assumption created in that context that each distinct Greek identity should have its own distinct written language was then fed back, by a mechanism often illustrated by Irad Malkin,[23] to mainland Greece, where it developed further. Some of the entities that came to be so distinguished might be characterised as *ethne*, some as *poleis*.

III. Alphabet and Language

Alphabetic inscriptions of the Archaic period play a crucial role in reconstructing the development of the Greek language. Chronologically, they fill some of the gaps between the earliest attested Greek in the Mycenaean Linear B documents of the Late Bronze Age and the later historical manuscript traditions that delivered the forms known to us in Greek literary corpora. Geographically too, the inscriptions allow far more detailed study of dialectal differences across the Greek-speaking world than would ever be possible from the literary record alone. Although some quite comprehensive treatments of the dialects preceded Jeffery's *Local Scripts* (such as Carl Darling Buck's *The Greek Dialects*, published in 1955 and still sometimes used as a handbook[24]), the large number of inscriptions that she made accessible had a marked effect on dialectal studies and further finds continue to do so to this day.

Méndez Dosuna in his contribution to this volume begins by pointing out that 'the phonology and the epigraphy of Ancient Greek are heavily dependent on each other': that is to say that the epigraphic and orthographic features found in inscriptions have a great deal to add to our understanding of the pronunciation of Greek at different stages and in different areas. He marshals a wide range of evidence, much of which is drawn from the epigraphic record – especially for dialects that survive only in inscriptions. His theory is in some ways

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[22] However, on Crete as a useful case study for the relevance of civic and political context to the development of local alphabets, see Steele (2019).

[23] See e.g. the index to Malkin (2011) s.v. 'back-ripple effect'.

[24] Buck provided a basic template for more updated studies too, such as Colvin (2007).

quite revolutionary, aiming to turn on its head the traditional narrative of the development of the Greek vowel system, whereby the 'fronting' of /u/ to /y/ (something like English 'c<u>oo</u>l' > French 'v<u>u</u>') was an innovation in Attic-Ionic. In its place he presents an alternative view in which the /u/ > /y/ change occurred much earlier, in proto-Greek, and was inherited by all dialects. Although this requires some dialects to have effectively reversed the change (since some clearly have /u/ even in historical times), there are some factors in its favour. Perhaps most persuasive is that it would allow a much simpler rule set to be drawn up for the pattern of palatalisation in clusters containing a resonant + yod combination, where it would otherwise be difficult to explain why /u/ acts in a similar way to /e/ and /i/ (which are lengthened in dialects other than Lesbian and Thessalian, e.g. *kri-n-je/o > κρῑ́νω, *plu-n-je/o- > Att. πλῡ́νω) versus a different reflex for /a/ and /o/ (which trigger metathesis of the yod, e.g. *khar-je/o- > χαίρω). This looks odd because /u/ does not share any features with /e/ and /i/ and might not be expected to trigger the same changes. On the other hand, if the sound later represented by upsilon had become /y/ at an earlier stage (i.e. it had already changed from /u/ to /y/ in proto-Greek, before the resonant clusters underwent the above changes), then it could be classified alongside /e/ and /i/ as a front vowel, thus simplifying the rule: there would simply be one change associated with front vowels (e, i, y) and one associated with non-front vowels (a, o). Méndez Dosuna constructs this argument in stages using both epigraphic and non-epigraphic sources, with potentially far-reaching implications triggered by its conclusions.

Woodard also has recourse to phonological arguments in his attempt to reconstruct the location and nature of the original adaptation of the Greek alphabet. He revisits his earlier work on the topic, again arriving at the conclusion that the island of Cyprus provided the setting for this event;[25] unlike other discussions of the location of the adaptation, which typically start from probabilities derived from archaeological and historical reconstructions (e.g. when and where Greeks and Phoenicians might have been in contact, discussed already above), his thesis starts from observations on phonological and orthographic features. For instance, he sees the existence of complex consonant signs (e.g. xi for /ks/) in the Greek alphabet as lacking in obvious motivation – essentially there is no reason why /ks/ cannot be spelt with combinations of other letters, e.g. kappa and sigma/san. In Woodard's view the motivation for giving xi a complex value at the earliest stage of creation of the Greek alphabet (since the sign derives directly from Phoenician samek) would not be obvious unless

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[25] See especially Woodard (1997).

the script was designed by agents who already saw representation of the /ks/ consonant cluster as desirable. This is where Cyprus comes in, because Greek speakers using its 'native' syllabic writing system (itself derived from an earlier script used for non-Greek language on the island, termed by us 'Cypro-Minoan') at some point developed two signs that represented the /ks/ cluster (*xa* and *xe*) to avoid more complicated syllabic spellings of this cluster, which could therefore have influenced the sign repertoire of the new alphabet if Cypriot agents were involved in creating it.[26]

Another major part of Woodard's argument takes a further step in developing linguistic explanations for script development by attempting to establish a timeline for the representation of labiovelar consonants (e.g. /k^w/) and their descendants in the Greek dialects, and hence a timeline for the establishment of the alphabet itself. Here the connection between the Cypriot and Arcadian dialects is seen as important because these two are theoretically very close and yet geographically completely isolated from each other, meaning that shared features must date to a stage before they 'split off' from each other (envisioning a 'family tree' relationship where the dialects belong to branches) – i.e. they must be relatively very early.[27] Woodard sees the labiovelar consonants, which have peculiar but slightly different reflexes in Cypriot and Arcadian, as still being current in Cypriot (not yet having developed into other sounds as they eventually did in all Greek dialects) at the time when the Greek alphabet may have been developed, at first using qoppa to represent the labiovelars.[28] This leads him to posit a historical scenario whereby the alphabet was adopted by East Ionian Greeks, who might have found representation of labiovelars useful at this early stage, at a time in the later 9th c. when they may have been involved in Assyrian military activities Thus linguistic observations act as a springboard not only for theories concerning the phonographic development of the Greek alphabet but also for exploring possible historical settings for its creation and transmission. The context of phonographic developments, and the efforts made to adapt an alphabet to the phonological requirements of a language or dialect, inevitably come up in several papers in this volume: to take one example, the interaction between

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[26] The *xa* and *xe* signs are not, however, attested in the earliest inscriptions in the Cypriot syllabary and have no known Cypro-Minoan predecessors, perhaps indicating that they are later creations.

[27] On the problem of the relationship between Cypriot and Arcadian, and the establishment of the Greek language in Cyprus, see Steele (2016).

[28] For an alternative view, however, see Egetmeyer (2013).

phonological repertoire and letter values is important in understanding the development of local alphabets from a Greek predecessor in Italy (see Lomas' contribution on Messapic).

The relationship between the Arcadian and Cypriot dialects is of relevance not only to Woodard's paper but to Minon's as well. Both authors consider, to differing extents, the problem of the unique letter appearing in some Arcadian inscriptions (Ʂ) that is used to represent what is probably an affricate (tˢ) as the outcome of original labiovelars before front vowels. Minon takes the investigation further, establishing the spelling strategies used in different areas of Arcadia for what is probably the same sound, sometimes represented by combinations with zeta (e.g. τζ or ζτ), which must also be weighed against the general usage of zeta in order to understand the relationship between alphabetic spelling and the phonology of the Arcadian dialect. A recently published inscription throws new light on these problems by introducing a new grapheme (a more elongated shape, ∫) used in some similar (but not all identical) environments to Ʂ, and this new text is the central focus of Minon's paper, subjected to both epigraphic and linguistic analysis in order, ultimately, to try to understand better the inscription's context (a challenge from the outset because it came from a private collector and is unprovenanced). Epigraphic factors point towards the western part of Arcadia as its origin, and it can be argued that the regional linguistic features conform with this picture, as well as possibly the historical context, in this case relating to centralised control of religious festivals. Thus again argumentation based on linguistic observation, and especially phonological reconstruction, works in conjunction with more strictly epigraphic and historical approaches. This seems all the more fitting in tribute to Anne Jeffery's great contributions to the comprehensive study of Greek inscriptions and their content and context.

B. Regional and Thematic Studies

IV. Within Greece

The third and much the longest part of Jeffery's volume took the form of a stately progress around the whole Greek world. We cannot in this volume follow her into every corner, though in some sense we go beyond her to study the take up of literacy in, respectively, Etruria and southern Italy. Some of these regional studies also discuss issues raised in Jeffery's part 2, 'Writing in Archaic Greece'. It was not Jeffery's aim to write a history of literacy in Greece, but the histories of scripts and literacy are entangled in obvious ways.

Two contributors highlight the new discoveries which multiply the evidence for various forms of literacy in the archaic period. Papazarkadas draws attention to the four 'late archaic' Theban bronze tablets found by Aravantinos and perhaps deriving from a temple treasury. The content of two of them is political/administrative, and shows that bureaucratic record-keeping was not, as it has been tempting to suppose, a peculiarity of democracies, Athens and Argos. He stresses too 'dozens of inscribed potsherds' found in what the excavator Aravantinos identified as the shrine of Herakles. Still more spectacular, as Matthaiou points out, are the 'over 1200 verbal and almost 700 figural' rock-cut graffiti observed by Langdon during his repeated investigations on, in particular, the Barako hill on the eastern fringe of modern Vari south east of Athens . The title of Langdon's most recent paper containing a selection of these discoveries, 'Herders' Graffiti',[29] reveals the sensational fact that individuals who identified themselves as shepherds or goatherds in 6th c. Attica were capable of inscribing 'memorials' of themselves; the word used is μνῆμα, which thus, incidentally, acquires a new application (the Greek for 'Fitzroy was here', we now see, was 'Fitzroy's μνῆμα').

A use of literacy little discussed by Jeffery is that on coins, here studied in a pioneering paper by Meadows. Jeffery mined coin legends for evidence, he notes, as scrupulously as she did everything else. But they did not greatly affect her argument, because, in her own words, apart from a few archaisms retained because familiar, 'coin legends in general reflect the script in use at the time when the die was cut': they bring at this level no new information. Meadows therefore approaches them in terms not of epigraphy but of function and distribution.   They start, as it seems, with the names of two Lydian kings, written in Lydian (late 7th c.). Then come, in Greek, a remarkable series inscribed 'I am a mark (σῆμα) of Phanes', or an abbreviation of the same. Seal-stones use the same 'σῆμα of' formula; in the case of a document so sealed it guarantees the origin of the document, and the meaning should be the same on the coins: certified genuine by Phanes. Personal names then vanish for more than a century, but re-appear briefly with the names of dynasts on the western margins of the Persian empire: ΗΙΠ, the exiled Athenian tyrant Hippias; ΚΥΒ, probably the Lycian Kybernis (but written in Greek!); ΙΣΤΙΑΙΟ, the tyrant (probably) of Termera in the 490s, Histiaios (all these known from Herodotus); a more elusive Carian ΟΥΛ (Greek letters again), possibly Ouliades = Oliatos of Mylasa.   But no ruler of mainland

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[29]Langdon (2015).

Greece or the islands, not even Polycrates of Samos so close to the Persian sphere, issues coins in his name. Even names of so-called 'mint magistrates' are rare in archaic Greece.

Instead, 'the vast majority of known legends in Greek serve to identify the community or place that guaranteed the coinage'. What is interesting here is the distribution of this practice, which spreads gradually eastwards from its beginnings in Italy and Sicily c. 550-520 eventually to become quite widespread in Asia Minor c. 500; mainland Greece was touched by the practice but tended to stick with single letter abbreviations (which could be recognised as an emblem without reading skills). Indications of date or denomination, so typical of modern coinage, remain very rare. A central conclusion: 'Coinage in the Greek world was guaranteed by the people'.

Among the regional papers, Whitley's on Crete is the most explicitly sociological. It challenges what is often known as the Goody thesis, which sees alphabetic literacy as opening a path to rationality, democracy and modernity.[30] (A Theban counter-case was also mentioned above.) Returning to and defending an earlier argument that has been contested, he emphasizes the paradox that Crete, the region of the Greek world uniquely rich in inscribed laws, is in the 6th and 5th centuries strikingly poor (in its central segment at least) in less formal forms of writing such as dedications and graffiti. Writing would thus be a tool of the oligarchic elite who commissioned inscription of the laws (which a majority of those subject to them probably could not read). This divergence between Crete and the informal literacy known e.g. from Attica (Langdon, above!) underlines the need for a regionally differentiated approach; but even within Crete differentiation is needed, since the east of the island is much richer in casual writing, much poorer in laws, than the centre. And this division of Crete into different 'archaeological cultures' is a reminder that these do not coincide with ethnic or linguistic boundaries.

In relation to Epiros, Johnston challenges the assumption that we can speak of one local script at all. The lead question (and occasionally answer) tablets from the oracle at Dodona are the all but unique evidence that we have for early writing in the region. It is not a surprise that they display a variety of forms, given that consultants came from many places and may often have inscribed their own questions. But some and probably a majority will have been local, and some tablets are likely to have been written by locals on behalf of the consultant. None the less, Johnston argues, no clearly defined Epirote 'local script' can be

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[30] See especially Goody and Watt (1963).

detected; usages, particularly as revealed by the huge residue of new Dodona material in Greece published in 2013, seem to have been fluid. He suggests that standardisation or the lack of it may be a function of political structures: poleis imposed or in some other way created norms, *ethne* tolerated divergence. This conclusion finds support in traces of eclecticism in another ethnos region, Thessaly, even if only on its margins. But, he stresses, all arguments based on the Dodona tablets remain provisional until the big task of assessing the new material has advanced much further.

The issue of fluidity versus standardisation arises elsewhere. Benelli argues that the Etruscan script was not eclectic but can be derived exclusively (with the possible exception of san) from Euboean script or rather scripts, because 'it is now clear that early Euboean lettering had a degree of variability which can explain almost any Etruscan grapheme.' He argues in support that early Attic was also variable, and these two well-attested cases suggest that 'The establishment of the well-known 'poliadic' or 'ethnic' archaic Greek alphabets must consequently be considered the final stage of the history, instead of its starting-point.' Papazarkadas in his study of Boeotia notes from a descriptive point of view that the same letter can assume different forms within a single inscription, and that marking the aspirate seems to have been a 'haphazard phenomenon'. One perhaps needs to define the terms with some precision. Does fluidity mean evolution of forms, or a pick and mix from a range of different alphabets? Of course, variation within a single local script is not controversial, and the famous controversy over three- and four- barred sigma in Attica seems to have shown that 'early' and 'late' forms of a particular local letter can co-exist.[31] But despite Papazarkadas' observation about varying letter forms, a main conclusion of his study is to reinforce Jeffery's claim that the script in use throughout Boeotia is the same. A striking new discovery appears to show (with Herodotus but against the modern consensus) that the region was politically unified under Boiotarchs by the early fifth century; however that might be, the uniformity of script shows, he argues, that political unification, when it came, was grounded in a prior cultural homogeneity. And since Boeotia is an ethnos, his conclusion goes against Johnston's suggestion that standardisation was peculiar to polis regions.

Matthaiou's study of Attica and the Aegean islands can add pieces that were missing from Jeffery's jigsaw. She listed (*Local Scripts*, 291) 6 islands of the Central Aegean whose archaic script was unknown: but material has now emerged from Kythnos and Astypalaia.

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[31] As stressed by Matthaiou, p. 00 below. .

He also notes a succession of minor discrepancies from familiar local norms. Little Sikinos in the southern Cyclades once, perhaps twice, uses H for epsilon, a usage apparently not found elsewhere. A 6th c. graffito abecedary from Attica contains san, a letter not used in that region. Such 'dead letters' within abecedaries are a familiar phenomenon, products of the conservatism with which existing alphabet rhymes are maintained within an established tradition;[32] it is more shocking that Matthaiou has 'most probably' detected an instance of *san* in actual usage in an 8th c. graffito from Andros, a part of the world where it looks thoroughly out of place. An apparent second case of Φ for Θ from Naxos may, as Matthaiou argues, reflect a local pronunciation. But an isolated occurrence on Amorgos to indicate gamma of a form found on several islands for beta (*Local Scripts*, 289, β1) must be a graphic, not a phonetic variation.

The regional studies by Papazarkadas and Matthaiou converge on M Parnes, where dedications have been found written both in Boeotian and Attic script. That herders from Thebes and Corinth came together on M. Cithaeron has always been an incidental fact that the historian can extract from Sophocles, *Oedipus Tyrannos* (1110-1140); we now see from the scripts that herders came up to the sanctuary of Zeus on M Parnes from both the Attic and Boeotian side.

V. Italica

The two Italian papers bring us back in part to questions about the takeover of an alphabet, though here the alphabet taken over is the Greek. Several of those questions are easier to answer in this case, because the contexts in which Etruscans and southern Italians came into contact with Greeks are not in doubt; nor is it in doubt that those contacts went on (witness e.g. dedications in both Greek and Messapic from the same sanctuary), so that continued influence of Greek writing on Italian is much easier to postulate than of Phoenician on Greek.

In their joint paper Benelli and Naso seek to give the emergence of writing in Etruria a proper archaeological and sociological context. Naso describes the Etruria of the relevant period (broadly late 8th and early 7th centuries) as a period of great prosperity, increased social stratification consequent on that wealth, and a quest by the new aristocracy for new cultural forms through which to enjoy and display their wealth/status; extensive overseas

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[32] See Wachter, citing Lejeune, below p. 00. The find shows the caution of Jeffery's formulation (*Local Scripts* : 33) 'by the sixth century the abecedaria of *san*-users had lost the sign *sigma*, and, perhaps, those of *sigma*-users the sign *san*' to be justified.

contacts encouraged and were encouraged by that quest. The short 'ownership' inscriptions which are the main early documents of Etruscan literacy can then be interpreted in this context by Benelli through Gernet's theory of aristocratic gift-exchange: the point of the inscription is not to indicate who is the object's present owner but who it came from (as for instance we learn in *Iliad* 11. 20 that Agamemnon wore a breastplate given him by Kinyras), since the prestige of the first owner enhances its value. Difficulties posed by the ownership theory in a simpler form disappear in this light: it is no longer a puzzle why objects 'owned' by a male can be found in the grave of a female, or in up to five separate graves though 'owned' by the same male, if for 'owned' we substitute 'originally given'. The same approach also allows Benelli to answer his, to an epigraphist deeply shocking, question, 'Epigraphy: why?'. He points out that 'Epigraphy is by no means a necessary and immediate consequence of the adoption of writing skills', since single alphabetic marks are found in several places in Etruria prior to any longer inscription. 'Epigraphy', in the sense of the writing of longer texts, in this case emerges through the pressure created by the gift exchange system to preserve the memory of the giver. As for the technical matter of Etruscan graphemes, he argues, as noted above, that they can all except san be derived from Euboean forms, even if a Euboean origin for the Etruscan lunate gamma is only obliquely attested at this date.

Lomas in her study of south-east Italy, by contrast, argues that the Messapic script, though mostly derived from that of Tarentum, borrowed elements eclectically from other scripts; she sees (partly influenced by the supposed Etruscan eclecticism, contested by Benelli) such an experimental approach as typical of early alphabet transfers. She describes the various adjustments needed to fit Greek to the different phonemes of Messapia: the phoneme /f/, a problem in the graphic representation of all the languages of Italy, was here solved by assigning this value to digamma, which was still in use in the scripts of Tarentum and Metapontum. Both origin and phonetic value of a string of other Messapic letters remain in debate. Messapic becomes more standardized in the 4th c., but c. 300 a variant (or possibly a new independent reshaping of Greek) emerges in the north of the region, 'Apulian'. Two documents (an abecedary scratched on a black glaze cup where some Messapic characters follow the Greek; a black glaze pyxis inscribed in Greek with half an alphabet and a claim to have taught something [these letters?]) provide tantalising hints of the practicalities of script learning. Like Benelli, she stresses that writing is one thing, formal epigraphy of the kind that mostly survives to us is another. Odd scraps of writing on tiles suggest that practical,

commercial, artisanal uses may have been a main driver of literacy, but the majority of the documents that we have (inscribed cippi above all) are, initially, memorials of themselves left by the elite, subsequently also expressions of state authority.

VI. The End of Local Scripts

Papazarkadas points out, in courteous dissent from the implications of Jeffery's title, that 'local scripts' are not exclusively a phenomenon of 'archaic' Greece. Their disappearance has been much less studied than their emergence, but we know that the local script of Attica was officially abolished only in 403 by the decree of Archinus,[33] and that of Boeotia survived even longer, as witnessed by a Theban treaty of 377/6 inscribed in local script. Its abandonment, he suggests, was a 'change initiated by Thebes and imposed by her on the other Boiotian cities, in her effort to pursue a panhellenic policy via the Boiotian *koinon* after the battle of Leuktra in 371'. As earlier the use of a shared Boeotian script had expressed Boeotian cultural unity, so now its abandonment was a means of reaching out to a broader Greek world. Boeotia yields more than one instance of metagrammatismos, the publication of an Ionic version of an inscription beside its original in archaic letters. It seems unlikely that the old version would have been incomprehensible without transliteration: this was more a gesture to modernity. Such was the end of one local script; the end of others seems to await its chronicler.

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[33] On which see D' Angour (1999).

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