Understanding Relations Between Scripts II

Early Alphabets

edited by

Philip J. Boyes and Philippa M. Steele

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Abbreviations

BDHesp. Hesperia: Databank for Palaeohispanic languages and epigraphies, available online: www. http://hesperia.ucm.es/

CIS   *Corpus inscriptionum semiticarum* (1881–)

EG   Guarducci, M. (1967–1978) *Epigrafia greca.*

IC   Guarducci, M. (1935–1950) *Inscriptiones Creticae*, vols. 1–4, Rome.

ID   Inscriptions de Délos (1926–1972)

KAI   Donner and Röllig (2002) *Kanaanäische und aramäische Inschriften*, 5th ed., Wiesbaden.

KTU   Dietrich, M., Loretz, O. and Sanmartín, J. (2013) *The Cuneiform Alphabetic Texts from Ugarit, Ras Ibn Hani and Other Places.* 3rd ed., Münster.

MLH   Untermann, J. (1990) *Monumenta Linguarum Hispanicarum, Band III: Die Iberischen Inschriften aus Spanien*, Wiesbaden.
         Untermann, J. (1997) *Monumenta Linguarum Hispanicarum, Band IV: Die Tartessischen, Keltiberischen und Lusitanischen Inschriften*, Wiesbaden.

SEG   *Supplementum epigraphicum graecum* (1923–)

Chapter 1

Introduction: Issues in studying early alphabets

Philip J. Boyes and Philippa M. Steele

Within the Western world, the Alphabet (with a capital A) has become an icon of culture, knowledge and education.[1] It is among the first things learned as part of a formal education and in the form of alphabet charts and abecedarian literature is visually and conceptually ubiquitous as young children are first forming an awareness of what education is. In a sense, the alphabet has come to be identified with that education. Knowing the alphabet, being literate in that specific writing system, is seen as a watershed in intellectual development; the achievement of a certain minimum standard for the participation in mainstream, civilised society.

Of course, this is true to differing degrees with any modern writing system that is taught within a formal educational infrastructure and it is not unique to alphabets that writing can become closely bound up in ideas of identity and educational status. However, the West's historically-rooted cultural and political hegemony has allowed those socialised within it to normalise, privilege and arguably fetishise 'the Alphabet' in ways that are less open to users of writing systems without such a cross-cultural global reach and centuries of political and ideological dominance to back it up. For many, both in academia and the wider culture, the temptation has been to see alphabetic writing as the pinnacle of the development of human writing, with other writing systems either implicitly or explicitly relegated to primitive stages on the way, with corresponding implications for the societies that used and continue to use them.

For those of us who study alphabetic writing, we must walk the line between illuminating the history and importance of such scripts and fetishising them as part of a teleological and eurocentric historical and cultural narrative. Indeed, we must resist the very idea of 'the Alphabet' as a reified, single thing with a cohesive, unilinear evolutionary trajectory. As the contributions to this volume show, from the

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1 Cultural histories of the alphabet are surprisingly few and far between. For one, albeit rather eurocentric and art-historically focused, see Drucker 1995.

outset alphabets have been plural, fuzzy-edged and characterised by experimentation. Even the question of what constitutes alphabetic writing is less straightforward than it might initially appear. Does a script count as an alphabet if it only represents consonants and not vowels? Some would say not, but it would be inconceivable to discuss the history of alphabets without considering the consonantal Semitic systems of the Bronze and Iron Ages. And even modern orthographic systems, which we tend to think of as alphabets with full vowel repertoires, can also allow for additional signs which function outside the alphabetic system. Ideograms (signs which represent entire concepts or ideas) can be used, such as for numbers; or logograms, where the sign stands for a word, as in £ or $. Even the emojis which are now increasingly a feature of electronic communication can be seen as extra-alphabetic supplements to the writing system, sometimes specifying and clarifying the sense in which a word or sentence is to be read (like determinatives in other writing systems) or conveying other information on emotional or incidental context ☺. Similarly, writing systems which operate primarily along non-alphabetic lines may also include alphabetic elements, as Egyptian hieroglyphs did, or modern Japanese Rōmaji (employing Roman letters which supplement the already existing logographic and syllabic repertoires of the Japanese writing system).

Alphabets do not stand apart from and supersede other forms of writing, then, but co-exist with and blend into them. The contributions to this volume demonstrate that alphabetic writing can only be understood within the context of – and in relation to – other writing systems. This is true not just for the early period this volume is most concerned with, but throughout the history of alphabets, up to the present day. We will begin by looking in more detail at the questions of what alphabets are, then consider their early histories before moving on to explore what their importance and cultural impact has been, and how this has shaped, and continues to shape, research.

What is an alphabet?

As we have already seen, it is not necessarily obvious what counts as an 'alphabet' and what does not, and this depends in part on how we view the classification of writing systems. From a linguistic point of view, there are several ways in which the signs (or graphemes) of a writing system can be arranged to reflect the language represented, corresponding broadly to different ways of breaking the language up into units. The type of grapheme that is often thought of as the least analytical is the logogram, which stands for a whole word without breaking it up into smaller units, resulting in a writing system that could potentially consist of thousands of signs in order to allow full representation of the underlying language.[2] In practice, however, writing systems with logographic signs typically employed other types of sign and/or could

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2 Other terms regularly encountered are 'ideograms', which we have already discussed, and 'pictograms', referring to a deliberate visual representation of a concept/word in the form of its

read the sign with a different type of value, like the logo-syllabic cuneiform systems of Mesopotamia or the combination of logography and phonography (the latter applied to signs representing individual sounds or combinations of sounds) found in Egyptian hieroglyphics. Other types of notation can break language into smaller units, or segments, for example a sign for a whole syllable or a sign for a single phoneme, the latter broadly categorised as alphabetic; in either case, this involves a further step in analysing language by sound units (whether whole syllables or individual phonemes) and so relies on an attempt to represent the phonological repertoire of a given language. Syllabic scripts typically have a larger repertoire of signs than alphabetic ones because more combinations of phoneme+phoneme(+phoneme) grouping are being represented, while an alphabetic script minimises the number of signs needed by narrowing down further to one sign per phoneme. Consonantal scripts, sometimes classified as 'abjads' (on which, see below), essentially analyse language units at the same level as those that are often referred to as 'true alphabets' (like the Greek and Roman ones), but the difference is the extent to which or way in which certain phonemes (in this case the vowels) are marked.

The famous evolutionary model of the development of writing espoused by Ignace Gelb (Gelb 1963, esp. 220 ff.), whereby logo-syllabic scripts gave way to syllabic scripts and they in turn gave way to alphabetic scripts, viewed the more analytical systems as essentially better than the less analytical systems, such that only unidirectional development along this trajectory was possible. He envisaged the history of writing as a journey from semasiographic pre-writing (pictures for concepts) via the rebus principle (recognising the sounds of the word represented in the picture) to various stages of phonography (logo-syllabic, syllabic and then alphabetic systems), with each step representing an improvement on earlier versions of writing. Gelb's study was undoubtedly an important one that marked a turning point in scholarship on the history of writing, but even though its ambitious attempt to analyse and categorise different types of writing system sparked widespread new interest in this field of study, which Gelb named 'grammatology', its legacy was for a long time an overemphasis on the evolutionary principles Gelb advocated. Indeed, twentieth century eurocentric discourse on the Greek alphabet as a civilising vehicle, which in turn enabled the progress of human thought, owed a considerable debt to Gelb's work (see below).

One of Gelb's more peculiar claims was that the consonantal scripts used to write West Semitic languages (Phoenician, Hebrew, Aramaic, Arabic, *etc.*), and with them the phonographic component of Egyptian writing, were in some sense syllabic, since each sign took for granted the inclusion also of adjacent vowels (Gelb 1963, 147–153); the suggestion was followed by, and refined in, Swiggers 1984. The advantage for Gelb's line of argumentation was that this would place the West Semitic consonantal scripts at an earlier stage in the evolution of writing, making

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sign. Such signs may often be logographic but they are not necessarily. For a consideration of this issue in relation to Linear B, for example, see Thompson 2012.

the addition of dedicated vowel signs and the move towards a 'true alphabet' (the accomplishment of the Greeks in his view) the ultimate achievement and end goal of human literacy. But consonantal writing systems are significantly different from the syllabic systems with which Gelb tried to group them, a key difference being that syllabic systems (like the linear scripts of the Aegean or the cuneiform scripts of Mesopotamia) will always specify the vowel involved in the syllable represented by a given sign, while the purely consonantal scripts entirely omit any indication of the presence or absence of vowels, as well as any specification of vowels that may be present in a given sequence.[3]

More recent work on writing systems has begun to redress the overemphasis on evolutionary principles found in Gelb's work, but uncertainty or disagreement over the classification of types of system has lingered. Since we are particularly concerned here with the systems that encode language at the phonemic level (as opposed to syllabic or lexical), given that this is a volume themed around 'Early Alphabets', the different classifications proposed by Peter Daniels (Daniels 1990, 1992, 2006, 2018) cannot be overlooked. He separated 'alphabets', *i.e.* scripts with dedicated separate signs for vowel notation alongside consonant notation (containing 'characters that denote all or most of the individual segments, the phonemes, of a language, both vocalic and consonantal': Daniels 1990, 729), from two other types: scripts that denote consonants only and do not have signs for vowels ('abjads') and scripts that do have vowel notation but via some kind of diacritical marks rather than separate signs ('abugidas'). The last category ('abugidas'), represented by scripts such as Ge'ez or Devanagari, used for Ethiopic and Indian languages respectively, does indeed represent something slightly different from phonemic notation, because the sign to which a vowel-denoting diacritical mark is added starts with a basic *syllabic* value; this apparent mixture of phonemographic and syllabographic properties has given rise to other terms for such scripts, including 'neo-syllabary' (Février 1948) and the more prevalent 'alpha-syllabary' (Bright 1992, 2000). There have been many more attempts to create a typology of writing systems that distinguishes between such types effectively, usually with slightly different results each time; we have neither the space nor any intention to review or summarise this wealth of scholarship here.[4]

Whether or not phonemographic scripts with signs for both consonants and vowels are grouped together with scripts with signs for only consonants (not vowels) may appear from the to-ing and fro-ing of grammatological scholarship to be an entirely academic question; but there are some important underlying issues here, which also lie at the heart of our decision to group them both under the general heading of 'alphabets'. The first is that, as we have seen, both types of script are based on

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3 'Specification' here should be understood usually as an indication of the quality of vowel, while vowel quantity was far less likely to be distinguished in other early writing systems.

4 There are some recent typological studies that give helpful accounts of the developments in the field over time (*e.g.* Joyce and Borgwaldt 2011; Gnanadesikan 2017).

language analysis at the level of individual phonemic units. If they differ in their extent of coverage of a given language's phonemic repertoire, this can be observed to be more of a scale than an either/or scenario. For example, the Greek alphabet does not achieve full phonemic representation, given that phonemic vowel length is not distinguished in many early Greek alphabets; some West Semitic scripts do develop ways to write vowels (the system of *matres lectionis* used in Aramaic being a good example); the early Latin alphabet *over*-represents its velar phonemes with the allophonic C/K/Q signs; the modern English alphabet's sign values show a very high degree of variation that has been strongly influenced by historical orthographic traditions (*e.g.* spellings reflecting older pronunciations and/or differing linguistic derivations); and so on. Even though the level of language analysis is at its basis the same, the script used for any one language is not a simple one-for-one phoneme-grapheme correspondence; rather it is a product of choices about which phonemes need or do not need to be represented, which may in turn be driven by language-dependent motivations such as the need to avoid ambiguity (see Meillet 1919 and, on choices related to vowel representation specifically, Crellin Forthcoming).

A second issue, and one often overlooked in typological studies, is that writing is determined and affected by its social and cultural as well as its linguistic context. Militating against Gelb's contention that alphabets are the ultimate evolutionary outcome of the human development of writing, there are numerous instances of syllabic writing systems developed from alphabets (such as the Palaeohispanic scripts) or used in spite of familiarity with alphabetic writing, both in the ancient world (see *e.g.* Steele 2018, chapter 5, on Cypriot writing) and more recently (for example the alpha-syllabaries used for Cree and other languages or the Cherokee syllabary). Indeed, very often we can observe that the choice to use, or the development of, a particular writing system is determined far less by a desire for faithful language representation than by the purposes for and contexts in which it is used. In the case of supposedly inefficient syllabic scripts, for instance, it has been pointed out that assumptions about their unwieldiness for a given language (*e.g.* that Linear B is ill suited for writing Greek) are often inaccurate or overstated and fail to take into account the social landscape in which documents written in them operated (see Consani 2017 on Linear B; also Consani 2003 and Miller 1994 on linguistic motivation for design of syllabic scripts). As we shall see later, however, previous scholarship surrounding the cultural importance of alphabetic writing itself needs to be revisited with a critical eye.

The historical development and spread of alphabetic writing systems in antiquity

The developmental trajectory of alphabetic writing has traditionally been something of a paradox, both well understood and rather ambiguous. There has never been any doubt that it came to Europe from the Levant – Herodotos clearly stated as much (Histories 5.58), and the Greeks referred to their own system as φοινικήια γράμματα – 'Phoenician

letters'. Subsequent studies, both pre-modern and modern, have amply demonstrated the correctness of the ancient view. Until comparatively recently, however, there was much less interest in the alphabet's origins within the Levant – for many it was enough to know that it was Semitic in origin; the details of its invention were apparently of lesser importance to early modern scholarship (Delcor 1991).

Increasing light began to be shed on the origins of the alphabet in the late nineteenth and, especially, the early twentieth centuries. A key event was Flinders Petrie's discovery of early alphabetic inscriptions (which, in common with later Semitic writing systems, only record consonants and do not write vowels) in the Bronze Age mine-workings of Serabiṭ el-Khadim in the Sinai peninsula. As Ben Haring illustrates in his contribution to this volume (pp. 53–67), while the date and translation of these texts remains subject to some controversy, it seems clear that these so-called Proto-Sinaitic inscriptions represent an early stage of the Levantine linear alphabets from which the Phoenician script developed. The more recent discovery of additional inscriptions of similar kind in the Wadi el-Ḥôl of Egypt's Western Desert (Darnell *et al.* 2005) confirms that these should be dated early; indeed, it pushes the likely date of the first creation of the alphabet back into the Egyptian Middle Kingdom, around the beginning of the second millennium BC. As Haring discusses, it is generally thought that these first alphabetic systems were created by Canaanite miners and soldiers who were drawing on and adapting ideas and signs from the Egyptian hieroglyphic and hieratic repertoires.

The development of the alphabet in the Levant during the second millennium BC remains ill-defined due to the rare and sporadic nature of the evidence (Finkelstein and Sass 2013; Sass 1988, 2004–5), but it is clear that this was a time of experimentation in which several related variants of linear alphabets were in use, and that they were gradually developing into the recognisable repertoire and sign-forms that would be standardised in early Phoenician around the turn of the first millennium BC.[5] The processes of this standardisation are explored by Reinhard Lehmann in his chapter (pp. 69–90).

We should not, however, characterise the development of the alphabet in this period as straightforwardly, well ... linear. Alongside the linear descendants of the Proto-Sinaitic inscriptions, other writing systems were in use in the Levant – principally the logo-syllabic scripts of Mesopotamia and Egyptian hieroglyphics. The influence of these other writing systems contributed to attempts to take the idea of the alphabet in different directions. Perhaps the most notable example is the alphabetic cuneiform writing system of Ugarit, which blended influences of the linear alphabets with those of the Mesopotamian cuneiform tradition to create a unique system of its own. In her chapter in this volume, Silvia Ferrara (pp. 15–28) explores issues relating to the emergence of this system. While undoubtedly productive within Ugarit – being

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5 Finkelstein and Sass 2013 place the differentiation of the non-Hebrew scripts slightly later, around the eighth century.

used for thousands of texts, including the first surviving works of literature written down in an alphabetic script – alphabetic cuneiform is often regarded as something of an idiosyncratic cul-de-sac, strongly associated with only a single city and remaining in use for only a few decades before being extinguished in Ugarit's destruction at the end of the Bronze Age. Philip Boyes (pp. 29–51) argues that we should not see it as so divorced from the wider processes of alphabetic development in the Levant, examining its involvement in the wider networks of scriptal experimentation beyond Ugarit's scribal elite, focusing in particular on a tantalising example of its use to write the Phoenician rather than Ugaritic dialect.

The transition from the Bronze to the Iron Age around the beginning of the twelfth century BC was marked by substantial upheavals in the societies, politics and international networks that had previously characterised the Eastern Mediterranean and Near East. Tangled up in these disruptions – both as a contributing factor and result – was the expansion and increasing significance of the coastal trading cities in what is now Lebanon (Boyes 2013). It was within the context of this commercial expansion – and the similar but slightly later expansion of the resurgent Greek polities, especially those of Euboea – that the adaptation of the Phoenician script for writing Greek is generally assumed to have taken place. Most classicists place this around the eighth century BC, probably at one of the mixed communities where Greeks and Phoenicians mingled, such as one of the Euboean colonies. Several semitists would prefer an earlier date, however, a question which Willemijn Waal addresses in detail in her chapter (pp. 109–124) alongside a consideration of the wider spread of alphabetic writing in areas such as Anatolia and Italy.

The key innovation found in the Greek alphabet was the redeployment of mostly unused consonantal signs to represent vowels, creating what has often been labelled the first true alphabet. The question of vowel representation is explored here in depth by Roger Woodard (pp. 91–107), who compares examples of this phenomenon in a number of systems. As we will see below, the creation of vowel signs has sometimes been seen as a revolutionary step in the development of human writing and cognition. We should be sceptical of such 'quantum leap' hypotheses, however. Semitic speakers were no strangers to experimenting with vowels, both in the form of *matres lectionis* (consonant signs used, whether sporadically or systematically, to write vowels) and Ugaritic's three ʾ*alephs*, which were selected based on their associated vowels. Moreover, the addition of dedicated vowel signs manifestly did not result in a single new alphabetic system. Around the end of the ninth century and during the eighth century BC, a whole range of new alphabetic systems, all sharing the innovation of the vowel signs, begin to be attested in the epigraphic record. Alphabetic writing emerged in Phrygia and Italy too, while even in Greece there was not a single system but rather a set of regional alphabets with their own distinct features, as discussed here by Philippa Steele in a chapter using ancient Crete as a case study to consider the processes of standardisation that created these fixed local scripts (pp. 125–149). Giorgos Bourogiannis's contribution (pp. 151–180) takes a different approach to similar questions, looking at some of the

earliest surviving Greek inscriptions alongside contemporary texts in Phoenician and Aramaic, examined against the background of cultural contact and multilingualism that must have influenced literacy in the eastern Mediterranean area. Indeed, there continued to be considerable long-term experimentation and variation in the signs and repertoires of alphabetic systems as time went on, a fact highlighted in Karin Tikkanen's discussion (pp. 181–196) of alphabetic writing in the Italic peninsula, with a particular focus on the Umbrian alphabet.

The movement of the alphabet is often presented as rather unidirectional, an *ex oriente lux* from the Levant to the Mediterranean and thence, via the Greeks and Romans, across Europe. However, alphabetic writing certainly travelled in other directions. The spread of Aramaic writing east into Mesopotamia, for instance, had massive repercussions for the region's traditional cuneiform culture, and ultimately supplanted both the writing system and the ancient scribal establishment it entailed. To the west, on the other hand, the adaptations of alphabetic writing in the Iberian Peninsula, discussed in this volume by Coline Ruiz Darasse (pp. 197–206), show that there was potential for quite drastic changes to the whole system, with some of the Palaeohispanic scripts being based on semi-syllabic principles. Such developments emphasise the fact that movements and adaptations of writing do not follow pre-determined or predictable trajectories, but rather are dependent on a whole range of linguistic, practical and/or socio-cultural factors.

The cultural significance of alphabetic writing

During the mid- to late-twentieth century, a highly influential school of linguists and anthropologists built on the evolutionary ideas of Gelb to propose the thesis that the invention of alphabetic writing marked a sea-change in human cognition, culture and civilisation. A key figure in this was the classicist Eric Havelock, who, in his *Preface to Plato* (Havelock 1963) and subsequent work, argued that the creation of the Greek alphabet was unique in first bringing about large-scale literacy, allowed human thought to transcend the limitations of 'the oral mind' and permitted sophisticated philosophy, logic and scientific enquiry.

> May not all logical thinking as commonly understood be a product of Greek alphabetic literacy? (Havelock 1986, 39)

According to this formulation, the creation of the alphabet is directly responsible for all the higher forms of human thought; and, by extension, a significant cognitive rupture exists between the alphabetic cultures of the classical world and Europe on the one hand, and on the other their predecessors in the Near East who used other forms of writing, such as Sumerian or Akkadian cuneiform and Egyptian hieroglyphs, not to mention those more geographically distant cultures with non-alphabetic writing systems, such as Chinese and Mayan. Havelock followed Gelb in re-analysing the linear scripts of west Semitic as syllabaries in which vowels are implicit rather than explicit.

The alphabet was thus reserved purely for the Greeks, and the supposed revolution in human cognition could be aligned squarely with the ascendancy of classical civilisation and the European tradition. This done, alternative and earlier forms of literacy outside this tradition could be elided completely as irrelevant.

> The Greeks did not just invent an alphabet; they invented literacy and the literate basis of modern thought. (Havelock 1982, 82)

Havelock was not alone in such sentiments. His ideas were foundational for anthropological commentators on literacy such as Jack Goody and Walter Ong, and it was here, rather than in his home discipline of classics, that arguably he had his greatest impact (Halverson 1992b, 148). Goody and Watt's (1963) initial statement of what came to be known as the 'literacy thesis' was published around the same time as Havelock's and expressed a similar notion that alphabetic literacy prompted a cognitive revolution. It even went further, extending the repercussions of alphabetic writing into the realm of socio-political organisation, suggesting that this new mass literacy and more sophisticated modes of thought allowed for and in a sense prompted the emergence of Greek democracy.

> To begin with, the case of alphabetic reading and writing was probably an important consideration in the development of political democracy in Greece: in the fifth century a majority of the free citizens could apparently read the laws, and take an active part in elections and legislation. Democracy as we know it, then, is from the beginning associated with widespread literacy; and so to a large extent is the notion of the world of knowledge as transcending political units: in the Hellenic world diverse people and countries were given a common administrative system and a unifying cultural heritage through the written word. Greece is therefore considerably closer to being a model for the world-wide intellectual tradition of the contemporary literate world than those earlier civilizations of the Orient which each had its own localised traditions of knowledge. (Goody and Watt 1963, 332–333)

It goes without saying that these ideas are highly helleno- and euro-centric; eliding the distinction between literacy and use of alphabets, misguided in their effacement of the achievements of the ancient Near East and jumping through hoops to disqualify the earlier alphabetic traditions of the Levant from their alleged cognitive revolution. Unsurprisingly, alongside their undoubted influence, they have garnered widespread criticism, which, over the last three decades especially, has largely eroded their credibility (Halverson 1992a, 1992b).

It is probably true that reading and writing have the potential to change the way individuals think (Dehaene *et al.* 2015; Olson 1996), and have clear implications for society and culture more broadly, ranging from how a society engages with its own past and cultural memory, to how people access law or engage with religion. What is less clear, however, is that there is anything qualitatively different about the cognitive effects of *alphabetic* literacy as compared to other forms of writing. The literacy thesis focuses on just that – literacy – but generally fails to make (or even acknowledge the need to make) any argument for why this revolution should be associated with

the alphabetic writing of the Greeks rather than Sumerian cuneiform, Egyptian hieroglyphs or Chinese logograms.

The quantitative aspect is also unlikely: it no longer seems that large-scale literacy was inaugurated by the Greek alphabet while prior Near Eastern writing systems were restricted to the rarefied world of elite scribes and palace and temple bureaucracies. On the contrary, even within the notoriously difficult logosyllabic system of Akkadian cuneiform, we have letters written between merchants and their families – both male and female – as early as the Old Assyrian *karum* or trading colony at Kaneš in the twentieth century BC (Larsen 2015, 54 ff.). Mesopotamian scholarship is becoming increasingly comfortable with the idea that there may have been relatively extensive cuneiform literacy beyond formal scribal infrastructures right up until the writing system began to be supplanted by alphabetic Aramaic (Veldhuis 2011, 73). On the other hand, the ease of learning alphabetic systems and the resulting likelihood of mass literacy may well also have been overstated, as Rollston (2010) has argued for first-millennium Israel. In both cases, we might plausibly reconstruct a situation where the highest levels of literacy were dominated by an elite associated with the palaces and the temples, but where a significant degree of wider literacy existed, which nevertheless fell some considerable way short of what we might term 'mass literacy'. A similar model of relatively few, highly-educated literati and a larger, but by no means mass or universal, literacy in the general populace would not seem implausible for alphabetic writing in early Greece.[6] In Cyprus, meanwhile, syllabographic writing lasted well into the Hellenistic period (despite demonstrable knowledge of the alphabet used for Greek elsewhere) and is attested in a range of inscription types, from official dedications to humble graffiti, pointing again towards relatively widespread competence in writing that nevertheless undoubtedly falls short of mass literacy.

This raises the question of what we actually *mean* by literacy in a given writing system. For a long time now it has been recognised that one can identify varying degrees of literacy, but there remains little consensus on what are the most appropriate and useful categories (Rollston 2010, 127; Thomas 2009). Any schema must differentiate, for instance, sophisticated scholarly proficiency that often includes multilingual and historical dimensions; the ability to read or write a full range of 'everyday' or non-scholarly material; the ability to work competently with a relatively limited range of texts relevant to a particular activity – such as labelling pots, or the basic ability to simply write one's own name. We might also want to account for proficiency in standard versus non-standard forms of writing, or differences between ability to read and ability to write, or for the possibility of understanding the principles upon which a writing sequence operates without necessarily knowing how to actually read or write it. 'Literacy' is a broad church, and when we think about how one writing system or another affects it, we cannot afford to be overly reductive.

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6 As starting points on alphabetic literacy in ancient Greece, see Harris 1989; Thomas 1992; Robb 1994; Small 1997; Pébarthe 2006; Johnson and Parker 2009; Missiou 2011.

Although Havelock never altered his views to any significant degree, Goody rowed back from many of the more controversial implications of his original thesis in later publications. A recent re-issue celebrating the thirtieth anniversary of Ong's *Literacy and Orality* (Ong 2012), which strongly endorsed the Goody hypothesis, now includes a retrospective chapter by John Hartley which is critical of several aspects of the literacy thesis, including the idea that 'literate' and 'oral' societies are in some way distinct and opposed, rather than being aspects of human society which can coexist in various combinations and to varying degrees.

Where does this leave the significance of the alphabet? Can it be said to have had any particular impact beyond simply being another form of writing system that happened to become established in Europe? The answer may well be ideological rather than functional. While alphabetic writing in itself may not have had the near-mystical effects proposed for it by the likes of Havelock, *ideas* about the alphabet, about who it is for and its special qualities, have proven potent and persistent, as the influence of the literacy hypothesis itself demonstrates.

Regardless of the degree to which alphabetic systems are or are not in reality easier to acquire as a first writing system than alternative systems, it is arguable that throughout its early history, alphabetic writing maintained a certain association with the masses and the subaltern rather than the privileged highest echelons of society. The most likely setting for its creation seems to be among miners and soldiers, far from their Levantine homes and in the service of the Egyptian state. In the Bronze Age Levant, alphabetic inscriptions are generally less standardised and appear on quite different kinds of objects and in quite different contexts to the Akkadian texts of the elite. Some of these seem to be functional or commercial items such as coarse-ware jars, which hint at the sub-elite 'middle classes' of artisans and traders being an important locus for experimentation with such writing (Boyes, this volume). Alphabetic writing is first clearly associated with the state in Ugarit at the end of the Late Bronze Age, where it appears as a comparatively late counterpart to Akkadian cuneiform, the traditional prestige writing system of international administration. Unlike Akkadian, alphabetic cuneiform is used almost exclusively to write the local vernacular language of Ugaritic, and it is noteworthy that the important works of Ugarit's literature, religion and identity are written in this script. It first appears at a time when the city is increasingly asserting its independence within the imperial structures of Bronze Age globalism, and parallels other 'anti-globalist' or 'vernacularising' trends elsewhere, such as the expansion of hieroglyphic Luwian in Anatolia. Arguably, the adoption of alphabetic cuneiform writing by the Ugaritian state should be seen as part of an ideological push by the ruling elite to assert its local identity and cement solidarity with the general population, an act of resistance against imperial pressures and homogenising international norms (Boyes 2019).

In this connection, it is notable that after the crisis at the end of the Bronze Age put paid to the structures of international trade, diplomacy and political domination which had hitherto existed, it was the substrate alphabetic writing systems and the

vernacular languages which remained. Ugarit may have gone, but elsewhere in the Levant, from Phoenicia to Israel/Palestine, there had been a clear shift in the balance of power away from the culturally and politically hegemonic scripts of Mesopotamia and Egypt and to the indigenous, 'grass-roots' alphabetic systems, a shift which is also paralleled in other areas of cultural practice and display (Boyes 2013). This was not a uniquely alphabetic phenomenon, however. The same processes allowed the burgeoning logo-syllabic Luwian hieroglyphs of Anatolia to finally supplant Hittite cuneiform and become the principal writing system of the former Hittite vassal states of northern Syria during the early first millennium. However, like these so-called Syro-Hittite polities themselves, the Luwian hieroglyphic script proved relatively short-lived. As Aramaean groups became increasingly significant in the region, their Aramaic language and its Phoenician-derived alphabetic script became predominant (Van den Hout 2006; Yakubovich 2008a; Payne 2010; Boyes 2019).

It is impossible to say whether this early status of the alphabet as the script of vernacular languages, in opposition to the globalised writing systems of the great empires, contributed to its lingering reputation as democratic, progressive and well-suited to mass literacy; but it certainly established early on several themes which, as we have seen, recur again and again in the cultural reception of alphabetic writing.

Across the Mediterranean, the starting point for alphabetic writing was very different. It was predominantly in the Aegean area that Mediterranean literacy flourished for a period in the Bronze Age, with the syllabic scripts of Crete and wider Greece that became strongly associated with economic administration.[7] Although that relationship may have been present from the outset of Cretan writing (Cretan Hieroglyphic and Linear A both being strongly associated with sealing practices as well as, to different degrees, documents in the form of clay tablets), what is striking is that literacy clearly existed outside of the centralised administrative sphere for a long time as well (on some related issues, see Steele 2017a). By the time Linear B was developed for the use of the Greek-speaking Mycenaean administrations, however, the surviving examples of non-administrative writing almost completely dry up, suggesting very strongly that literacy became restricted over time. This in turn can explain what looks like a complete loss of literacy at the time of the fall of the Mycenaean palaces around the end of the thirteenth century BC: when the palaces fell, the primary context in which writing had been used for perhaps the last two centuries disappeared. So, when alphabetic writing arrived in Greece, it was demonstrably a newly established phenomenon that must have followed a period of illiteracy, and had nothing to do with the earlier use of syllabic writing. Only in Cyprus did syllabic writing continue in an unbroken tradition from the Bronze to the Iron Age.

Judging from our earliest surviving attestations from the eighth century BC, when alphabetic writing surfaced in Greece it was being used for very different purposes

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7 The Aegean scripts were the focus of the first *Understanding Relations Between Scripts* volume (Steele (ed.) 2017b).

from those that lay at the heart of Mycenaean administrative writing. Two important trends emerged. One was the use of writing in broadly-speaking elite circles and especially in symposiastic contexts (see recently Węcowski 2017); the use of hexameter in some of the longer inscriptions of this type has often been remarked on, but Barry Powell's corresponding thesis that the alphabet was adopted and adapted specifically for the purpose of recording the Homeric epics certainly stretches the available evidence too far (Powell 1991). The second trend, which saw the alphabet emerging in short inscriptions (including often-overlooked single-sign ones) in contexts that appear to be related to trade and exchange, indeed militates against Powell's Homeric theory and suggests that quotidian use of writing for more mundane purposes may have been part of the story from the beginning. The earliest surviving phase of alphabetic literacy in Greece probably incorporated both these elements, which should also be understood within a wider context of what may be non-literate markings (Thomas forthcoming). In all cases, pottery vessels are overwhelmingly the most popular objects upon which surviving early Greek alphabetic inscriptions appear.

Perhaps one of the most important oversights in studies of the development of the alphabet in the Mediterranean, however, is to see the phenomenon as a purely Greek one. Both the Italian and Anatolian peninsulas have provided specimens of alphabetic writing, almost identical in form to early Greek alphabetic writing (*i.e.* not only very similar sign shapes but most notably also the inclusion of the same dedicated vowel signs), that pre-date the earliest surviving Greek alphabetic texts.[8] There could be an element of chance in what has survived and what has not, but it is clear that alphabetic writing in the earlier part of the first millennium BC was by no means restricted to Greece. Whatever we think about how Greece, Etruria and Phrygia adopted alphabetic writing and the relationship between these traditions (which remains a topic of continued debate as shown by some contributions to this volume), from a material point of view one thing is clear: Phrygia and Etruria display some very similar trends to Greece in terms of the media on which their surviving early alphabetic texts are written, especially in clay vessels of various kinds (some high status, some not) bearing short inscriptions. Reconstructing the exact path of the alphabet from one area to another may be beyond hope in the current state of evidence, but on the other hand we can go much further in observing the participation of societies around the interconnected Mediterranean sea in very similar modes of elite behaviour, trade and literacy.

Conclusions

It should be clear by now that there is no such thing as 'The Alphabet', a single reified landmark of human cultural and social evolution that superseded all other forms of

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8 In Italy an inscription from Gabii dated to *c.* 770 (Bietti Sestieri 1990, 83–88), in Turkey the earliest Phrygian texts (see Brixhe 2004, 2007).

writing. Rather, alphabetic scripts have taken many forms, and their meaning and importance have also differed greatly depending on the social, cultural and political contexts in which they found themselves. The global ascendancy of alphabets has had less to do with a simple narrative of evolutionary progression resulting from their inherent 'superiority' than with alphabets being in the right places at the right time, filling cultural or ideological niches, and the societies that adopted and adapted them quickly finding practical uses for them. The spread of alphabetic writing must be understood, then, as fundamentally contextual and tied in at least as much with questions of human agency as the intrinsic qualities of the writing systems themselves.

The contributions in this volume present a series of case-studies that explore various aspects of early alphabets and considerably flesh out the framework we have presented here. They cannot, of course, be exhaustive in their coverage of every feature of early alphabets, but in their diversity of approach, areas of interest and chronological focus, they open a set of windows on to the development, adoption and adaptation of alphabetic scripts by people in cultures across the Mediterranean and Near East, allowing both the similarities and differences to shine through.

Chapter 2

A 'top-down' re-invention of an old form: Cuneiform alphabets in context[1]

Silvia Ferrara

This chapter, following the spirit of a contribution to the first VRBS publication (Ferrara 2017), is fundamentally theoretical and aims to reconstruct the archaeological and historical setting of alphabetic cuneiform at large, with a specific focus on the Ugaritic varieties, in parallel with other alphabetic systems attested elsewhere in the Levantine area. This broad perspective is a necessity, since Ugaritic studies appear to be bedevilled by a division, felt also in other parts of the ancient world, between epigraphy and archaeology, context *and* language, treated as separate domains of investigation and at times almost surgically separated. This should prompt scholars to adopt a multidisciplinary outlook that combines linguistic analysis with a solid archaeological reconstruction – it's an old adage that has been stressed many a times, but it is all the more necessary when faced with material creations such as scripts.

A few issues tied to methodology will therefore be addressed, considering the big overarching questions related to the inception of the alphabet in this part of the world. These questions will contend with origin, but will be necessarily tied to the motivation behind the origin, 'how', but especially 'why', as it were, the creation of the cuneiform alphabetic script took place. A clear distinction will be made between the Ugaritic cuneiform alphabetic script proper, and other instances of alphabetic scripts in the same area, whose documentation is less than substantial.

The textbook narrative regarding their origins will be briefly mentioned, in an effort to contextualise, as fully as possible, the Ugaritic cuneiform alphabet, and strike a comparison with the settings of the other varieties of cuneiform alphabets found outside of Ugarit. The socio-cultural realm is of interest here, all the more important in light of the necessity to reconstruct the linguistic *and* archaeological context tied to the varieties of cuneiform alphabets in the Syro-Palestinian region and Ugarit itself.

Linear source *vs.* invention

The cuneiform tradition impresses wedges with a stylus on clay. It was normally used to write logo-syllabaries, until it was borrowed lock stock and barrel for an alphabetic system. This, in all likelihood, should have happened at Ugarit, where the official scribal class was extremely well versed in writing syllabic cuneiform. Therefore, from an epigraphic perspective, the cuneiform tradition provided the template – this element is related specifically to the manner of inscription, namely wedge-shaped signs impressed on clay. From a palaeographic perspective, instead, the inspiration originated from a linear version of the alphabetic script, which was contemporary and geographically close – this conclusion hinges on the original shapes of the signs (Pardee 2007, with refs).

If a 'linear' (as opposed to 'cuneiform') type of script was the original prompt, it left no trace in the archaeological record (Stieglitz 1971; Lundin 1987; Pitard 1992). Our evidence for the source is thus indirect and circumstantial, and forces us to rely on *ex post* reconstruction of the sign shapes, following the the letter-by-letter sequences that we find in linear alphabets of the first millennium BC. This implies that the cuneiform alphabet *as a system* is not an invention, of any kind, on both epigraphic and palaeographic grounds. The alphabetic principle could already boast a long-standing tradition by 1200 BC, despite the hot debate on precise dates (Dietrich and Loretz 1989; Sass 1991; Kammerzell 2001; Goldwasser 2006; Hamilton 2006; Pardee 2007; Morenz 2011; Vernus 2015). Sass, for instance, places this quite late, as opposed to the linear attestations that are commonly ascribed to the beginning of the second millennium BC in the Sinai peninsula (Proto-Sinaitic), in Canaan (Proto-Canaanite), and in the western desert of Egypt, the Wadi el-Ḥôl inscriptions (Darnell *et al.* 2005).

So, formally, the alphabetic cuneiform (AC)[2] is nothing but a calque. Yet, Ugarit is often made out to be the place where the 'first alphabet' was invented, in an effort to create a false mythical legacy, disseminated by commercial merchandise (Fig. 2.1), despite the attempts of those who rightly decry it as 'a straw man' (Pardee 2007).

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2 As the term 'Ugaritic alphabet' is often conflated with 'cuneiform alphabet', I have chosen to use the latter (AC).

The Canaanite Alphabet of Ougarit
The Oldest Alphabet in the World-Syria, 1400 B.C.
أبجدية اوغاريت - سورية القرن الرابع عشر ق.م
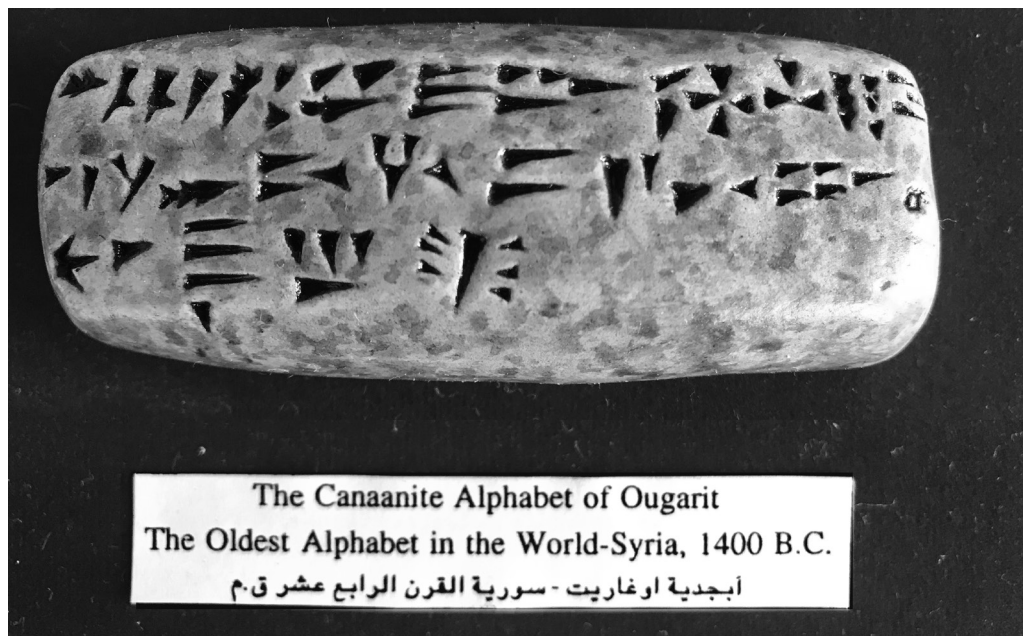
Figure 2.1. Alphabetic replica of tablet RS 12.063 from Ugarit, as displayed in the Museum of Damascus, 2007 (photo by S. Ferrara).

Dismantling Babel: Writing (and speaking) at Ugarit

Matters are not helped by the fact that the alleged birthplace of AC, Ugarit, is often made out to be a cauldron of multilingualism and multigraphism, to extents that are overstated. While representing an undoubtedly important trading outpost, located at the crossroads between east and west, the city is portrayed as a veritable Babel of scripts and languages (as defined by Palaima 1989), home to eight different languages (Sumerian, Akkadian, Ugaritic, Hurrian, Hittite, Luwian, Egyptian, Cypro-Minoan) and six different scripts. Offering a proper context to the presence of these scripts and languages is a key aspect, for the inflated cosmopolitanism ought to be nuanced *vis à vis* their significance and purpose. Only once the settings for the alleged multitude of different scripts and languages are rationalised (Malbran-Labat 1999), will the picture gain in authenticity.

It will be apparent that the contrastive opposition is not so much language-bound, but script-bound, and that the peculiar aspect of Ugarit does not lie so much in its multiplicity of scripts (or languages, for that matter), but in the stark contrast between the two types of cuneiform systems, the alphabetic and the logosyllabic. This perspective will be developed in the following section. But in the meantime, following the reasonable stance taken by Malbran-Labat, the presence of this variety needs to be contextualised, through, as it were, a reductionist lens.

Sumerian only occurred as a cultural reference in the logographic system in Akkadian cuneiform (Arnaud 2007). Egyptian Hieroglyphic can be found sparsely (Schaeffer 1962, 124, 133–5; Matoïan 2015, 48–9), and especially on imported objects (Malbran-Labat 1999) and although it may point to a presence of Egyptians in the city (Vita and Galán 1997), it does not tell us much about its extent, or whether it was spoken at all (Grimal 2013).[3] As for Hittite or Luwian, the data is even more limited: these languages are represented very little, with fewer than ten texts altogether. The Cypro-Minoan script, and its unknown language/s, is attested on fewer than a dozen inscriptions, some of which appear to have been sent from Cyprus, while some were perhaps part of intriguing experiments with an 'exotic script' on the part of the Ugaritic scribal class (Ferrara 2016).

So, even from a cursory survey of the literate population in the town of Ugarit, we surmise that language diversity was, as expected, a key feature of its resident population, but the complexity of this phenomenon needs to be modulated, and, to an extent, played down. Branding Ugarit 'a Babel of languages' fosters a misleading trope. Ugarit was a diverse city, where many foreigners may have been permanent or temporary inhabitants. But this should not, in any way, imply or explain the extent of multilingualism. Writing things down regularly and transmitting the practices involved in the process was the prerogative of scribes, seldom (if ever) the domain of laypersons. Our window is forcibly tied to this bias.

However many scripts are represented, when it comes to re-enacting the daily life of its citizens, what languages would we hear spoken across the streets and squares of Ugarit? The largest section of the population would have used Ugaritic as their mother tongue, but also as a second language acquired by the *emigrées* resident in the town. We could infer the presence of Assyrians at the high levels of the society, in the capacity of scribes and high officials, but also of Hurrian people involved in the cultic sphere or employed in the translation business. So, even if it is true that eight languages are attested in the archives, only three were *de facto* written down: Akkadian, Hurrian, and the local Ugaritic language. That the former may have been presumably spoken with the same regularity as the latter, if at all (van Soldt 1991), is to be doubted. Hurrian may have been spoken in smaller (if strategically placed) segments of the society.

Akkadian logo-syllabic *vs* alphabetic cuneiform

The stark opposition is thus neither linguistic, nor embedded in a sea of multilingualism. The contrast is, instead, set out in terms of graphic differentiation, between a logosyllabic script (LS) of long-standing tradition, and a cuneiform alphabet (AC) of

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3 The Egyptian inscriptions are peculiar. They seem to depict a Canaanite deity, with pointed headdress, streamer and horns. Ben Haring (pers. comm. 28 March 2017) suggested to me that 'the inscription refers to local (Ugaritic/Syrian) deities, and that the inscription in question could be a local product, made by experts since the hieroglyphs look entirely Egyptian, Ramesside to be more precise'.

local flavour. To shed light on this contrast, archaeology comes to the aid. The precise contextual associations in which AC and LS texts were distributed at the site and its archives show illuminating patterns, that hinge on four aspects: 1. AC and LS receive equal attention in terms of quantities; 2. They almost never contaminate one another, even though they can be found in close proximity, or even on the same tablet, but such cases are very rare (cf. for instance Urtenu's archives, Bordreuil, Pardee, Hawley 2012); 3. The genres are, broadly speaking, kept separate; 4. They project a different perception of literacy. On this latter point, the socio-cultural significance of LS at that time, and not just at Ugarit, worked towards projecting international officialdom, positioning local rulers in strategic communication through linguistic accessibility. It thus fostered institutional status, keeping international relations international. As such, LS worked as an open system, as opposed to a closed vernacular. Therefore, let us concentrate on AC, and what makes it 'special'.

The bulk of the documentation for both LS and AC comes from a rational distribution of texts in the archives of the Royal Palace and it also comes from a number of private archives of important individuals. These individuals (Yabninu, Urtenu, Rashapabu and Rapanu) were active in various capacities on behalf of the central administration, but also involved in private entrepreneurial activities, as merchants in contact with polities scattered around the eastern Mediterranean.

In total, the texts written in AC amount to *c*. 1500, if we add the corpus that was recently published from the house of Urtenu, adding up to some eighty new tablets (Bordreuil *et al.* 2012). What is extraordinary is that the distribution of these documents across the whole town, in eleven different archives, is meticulously organised, and their classification is, more often than not, arranged thematically to high degrees of precision. The palace archives occupy several wings of the building (Fig. 2.2). These buildings housed tablets that focused on administration and management of towns and villages in the kingdom, personnel, and commodities. A small percentage, also, dealt with religious matters and school texts.

The residences attributed to specific individuals who were employed by the central organisation, but who also carried out private business (shaded in black), instead, had a more varied thematic breadth. What is interesting to note is that all AC texts tied to administration and the economic workings of the town seem to involve the royal family directly. This is significant, yet seldom emphasised: it seems that the scribal class is piloted, guided and directed to recording all things local that specifically involve royal influence and royal affairs. A particular emphasis is given to the involvement of the queen's business, as if her individual chancellery were less '*akkadisé*' than that of the king (Malbran-Labat 1999, 78).

In terms of graphic split, the space occupied by AC never contaminates that of LS. This orderly separation is taken to such a level of organisational order that whenever the rigour slips off, which happens less than rarely, it is assumed, by the editors of the texts, to be an *odd feature*, sometimes so utterly unexplainable as to be baffling. To be sure, as apparent in the recently published AC texts from Urtenu (Bordreuil *et al.* 2012),
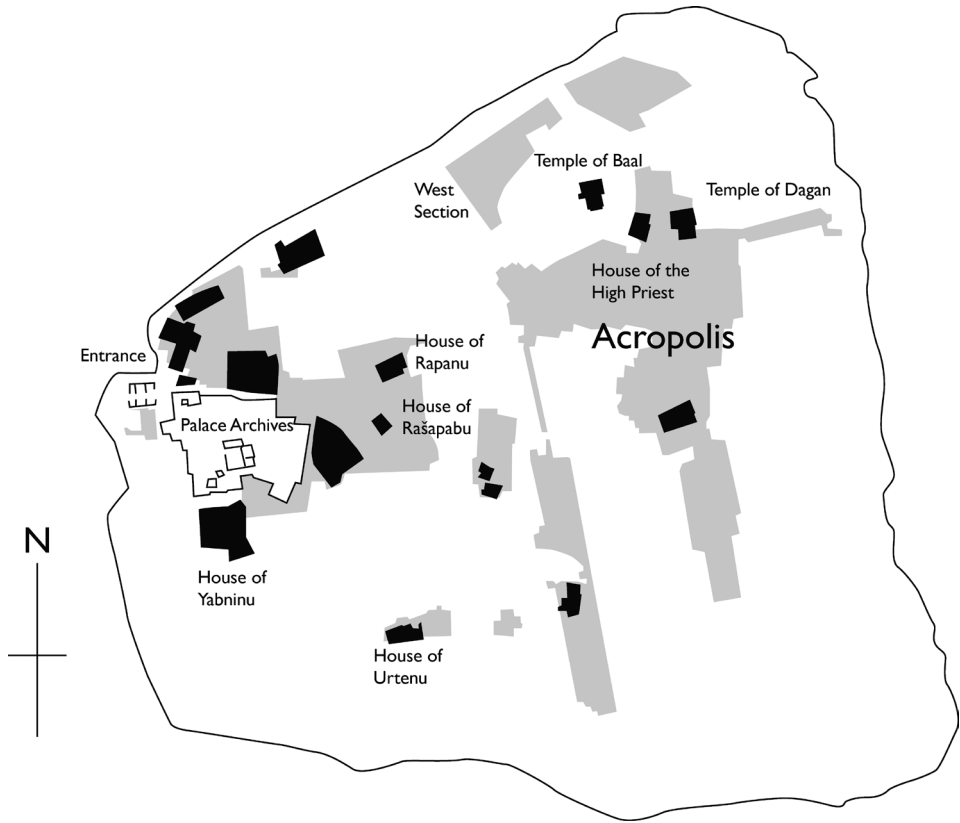
Figure 2.2. Distribution of the cuneiform alphabetic script attestations at Ugarit-Ras Shamra (drawn by S. Ferrara and P. Boyes, after Yon 2006, fig. 1).

the incidental slips into interlinguistic contagion show that the scribes were at ease with switching from one language to the other, and that the transition automatically involved the script. Total separation applies on a tablet dealing with a memorandum of corporations, a text that lists the same workers in both languages, one side AC, the other LS (RS 94.2519). Why write in both is unclear: we would expect this to be a mundane list registered in Ugaritic, but maybe the syllabic version was made to show off the Akkadian erudition of the Ugaritic scribe. More interesting is this (almost) monolingual AC tablet dealing with a distribution of foodstuff, with an LS colophon as an extra insertion (RS 94.2276). On one side of the tablet we have a nice Ugaritic list of foods for animals and their carers, pistachios, almonds, oil and wine, then a list of silver and oil in Akkadian and then we end with an Ugaritic word *dblt*, the word for fig cakes. This is a case of total bilingualism. It is as if the scribe is writing in his second language, Akkadian, but the word for fig cakes comes naturally in his mother tongue.

This ease with code-switching casts light on an important aspect, namely the training of Ugaritic scribes in becoming bi-scriptal. The Mesopotamian curriculum is

the evident template upon which the structure of the alphabetic training is moulded. And nowhere is this clearer in the Ugaritic training than when scribes went back to basics, in the compilation of abecedaries (Hawley 2008a, 2008b). These, in turn, represent the crucial factor to which we must turn when investigating the origin of the cuneiform alphabet. But not before we have introduced a third factor into this dual and neat arrangement (and separation) of scripts.

Tertium comparationis: Hurrian

The Hurrian situation is *sui generis.* It seems almost surprising that full columns were devoted to Hurrian in multi-lingual lexical lists, on bilingual documents written also in Akkadian, and on ritual tablets also written in AC. An example of this code switching is most famous: the earliest music notation on a tablet in Hurrian (RS 15.30+49+17.387, Schaeffer and Nougayrol 1968, 462–496), with the guidelines on reading notes written in LS, presumably for easier access and wider dissemination. This may indicate that Hurrian was not just recorded for the sake of literate documentation, but that it was actively spoken and used. Whether this may reflect that a contingent of Hurrians was resident in the city cannot be safely concluded, but if that is indeed the case, the likelihood is that these residents may have enjoyed a privileged social position. The occurrences in which Hurrian appears are particularly significant: in lexical texts, in bilingual and trilingual dictionaries. This can lead us to conclude that this integration was, in all likelihood, still a work-in-progress: that translations were needed and that multilingualism was in the process of being formally instituted within the scribal class. The motivation behind this is that there was, clearly, a wish to disseminate it.

Hurrian also appears to be highly specialised, tied to the cultic context. But its strength lies not so much in its specificity (which may be coincidental), but in its very flexibility, given that this language switches graphically, from AC in the Maison du Grand Prêtre, to LS within the royal palace. This is important: it speaks for scribal classes that receive differentiated training, and again, indicates that this graphic swapping was very much working towards instituting multilingualism (Roche-Hawley 2015). This hybridity is not accidental, of course. The Maison du Grand Prêtre itself is important (see Fig. 2.2), because its library is where the main concentration of the extensive mythological texts is housed, such as the Baal Cycle and the birth of the gods. All these texts are in AC. Within the library, several trilingual dictionaries were found (in Sumerian, Babylonian and Hurrian), and also a deposit of weapons and adze heads in bronze, with engraved dedications to the Grand Prêtre in AC (Schaeffer 1956, fig. 216). And the fact that Hurrian mingles with AC in this location should not be overlooked.

Considered to be the 'centre d'études et de pensée proprement ougaritique' – *the centre of properly Ugaritic studies and thought*, the Maison du Grand Prêtre has also been seen as the cradle of the Ugaritic alphabet (Malbran-Labat 1999, 73). Despite the obvious appeal of this statement, the very fact needs to be demonstrated. We have circumstantial evidence, not so much for proving that the alphabet was invented there,

but for its specific connection with Hurrian. This evidence is tied to the structure of the long alphabet. This represents the fully expanded version of this script, with three additional signs, two of which are glottal stops with a particular vocalic colouring. It seems now accepted that these were added to record other languages than Ugaritic (Pardee 2007; Vita 2013, *etc.*).

These must have been, *inter alia*, languages whose words may begin with a vowel, a feature not attested in the Semitic family. The Hurrian language fits the bill, as much as Akkadian does, but the latter was consistently recorded in LS in an inextricable duo, which means that no need was perceived to expand the basic sequence of the cuneiform alphabet for this language. This very fact is significant: could we surmise that the cuneiform alphabet itself was developed and fixed in its extended version for the sake of the Hurrian language, as well as for the Ugaritic? That this process went, as it were, in parallel, with Hurrian and Ugaritic being equal beneficiaries, and not by way of re-adaptation (Vita 2013, 208, but see also Giorgieri 2013, 179, who mentions a poor linguistic 'matrix' for the Hurrian texts at Ugarit)? If this is the case, the origin of the extended cuneiform alphabet must have been the city of Ugarit itself. But this cannot prove to be valid for the short alphabet as well, which could have been invented elsewhere and then imported at Ugarit, where it, to be sure, underwent changes that included the insertion of the supplemental signs.[4]

Whence the alphabet?

So what precise role did Ugarit play in the creation of the cuneiform alphabet? The extended sequence served to record other languages, and *not just* the local Ugaritic language, therefore it could have been 'formalised', prepared and polished to be transmitted in institutional format, but not necessarily created there. Ugarit is not the only site that yielded examples of cuneiform alphabet. There are very sparse, but significant, attestations of this shape as far south as modern Israel and as far west as Cyprus, and Tiryns in mainland Greece (Fig. 2.3). The distribution includes fewer than a dozen sites, but these are sufficiently widespread in the eastern area of the Mediterranean to indicate that the practice of using clay for an alphabetic script template was not uncommon.

Yet, it seems inescapable that the documentation overwhelmingly favours Ugarit as the birthplace. Several scholars confront this question directly, asking whether we should accept it as inextricably intertwined with the origin of the Ugaritians (Dietrich and Loretz 1989) to make their vernacular culturally visible in a political or ideological stance, tied to the recording of rituals for unity and collective redemption (Sanders 2009, 104). In fact, it seems to me that the opposite should instead be stated: that, indeed, the extended version of the alphabet appears as proof of an intention to make

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4 On the chicken-egg debate regarding the development of the long (extended) and short (22-letter 'Phoenician' alphabet), the so-called 'reduction theory', and the 'anti-reduction theory' see among others, Millard 1979; Dietrich and Loretz, 1988, 1989; Sass 1988; Pardee, 2007; Lehmann 2012.
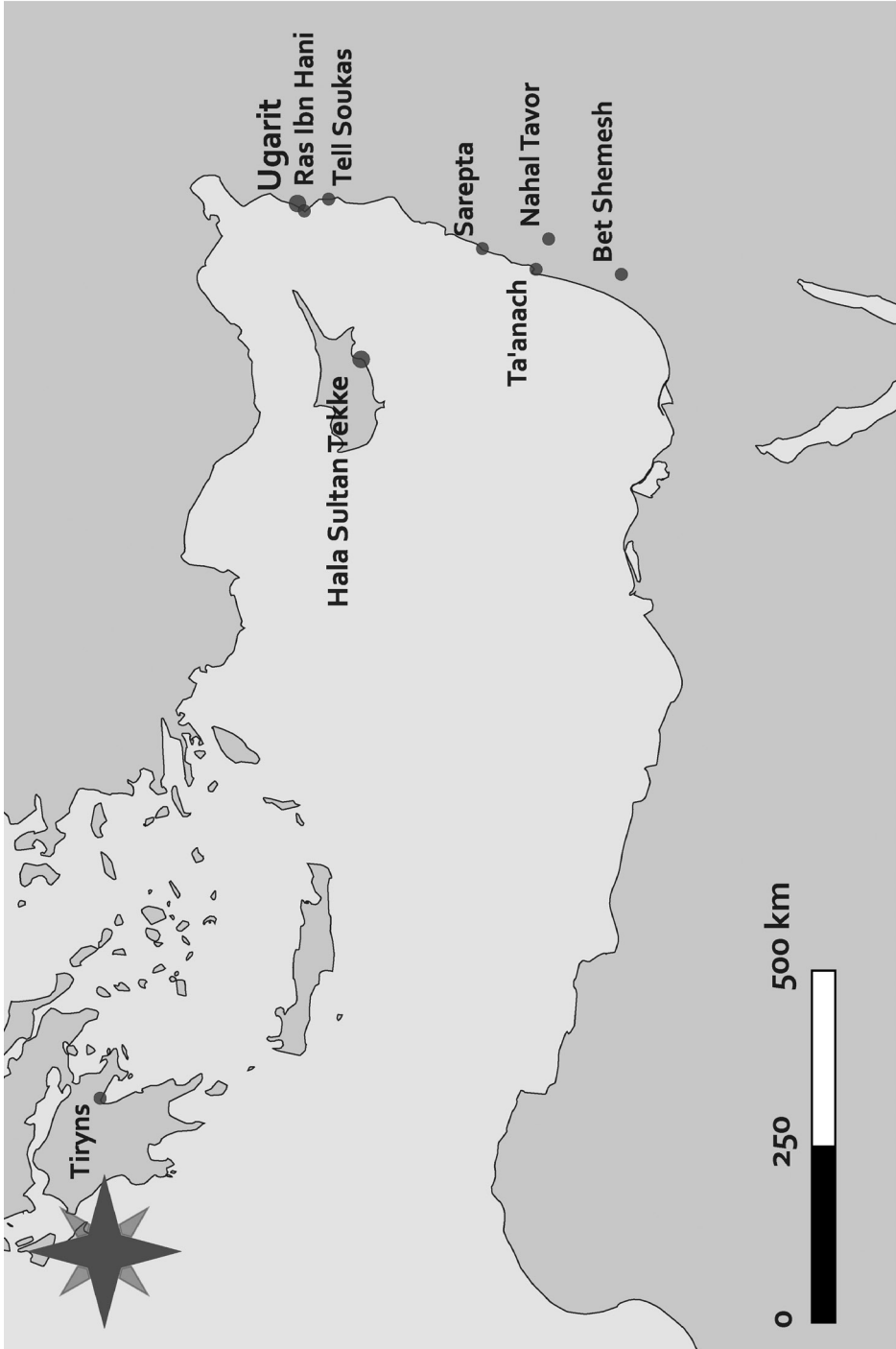
Figure 2.3. Distribution of the extant cuneiform alphabetic script attestations.

this form of alphabet universal and not local, to include the possibility of registering other languages than Ugaritic, to aspire to a degree of collective accessibility – collective not just for the Ugaritians, but for all its multilingual residents.

This would imply two things: that this process of 'universalisation' shows a high level of phonological awareness, which befits the Ugaritic scribes and their sophisticated expertise, and that this was implemented within an organised system that promoted literacy and its diffusion, and that this took the shape of a 'political' programme. The types of texts produced, the very quantities of these texts and their chronological horizon indicate that the process was fast, targeted, in bulk, and localised. Let us consider these factors in proper order.

Types and quantities of texts

If abecedaries in AC are attested around the Levantine area in scant numbers, a total of 18 is attested at Ugarit. These numbers speak of an intense dissemination of literacy – well embedded in the Ugaritian schools. Not only numbers of abecedaries at Ugarit outdistance all other attestations elsewhere, but only here do the three different alphabetic systems converge, in the *abgad* (in short and full format), and the *halaḥam* sequences. As is known, the *halaḥam* sequence of alphabet follows a different order and is later found in the South Arabian peninsula (Hayajneh and Tropper, 1997). At Ugarit, it is attested on a 27-letter example, neatly crafted (Fig. 2.4).

This tablet shows that the two orders of the alphabet were part of the Ugaritian school system, that the *halaḥam* order was as much at home there as the *abgad* (Bordreuil and Pardee 1995). So evidence shows that several versions of the alphabet had already been set into clay format at Ugarit. And while these are not the unique attestations, all the same, those found elsewhere help us to prove that the perception of this alphabet outside of Ugarit was different.

In today's Israel, not far from Jerusalem, a site that was a vibrant cultural setting for traders at the very close of the Late Bronze Age, Beth Shemesh, yielded a tablet with an abecedary bearing the *halaḥam* sequence. Although it is very damaged, the shape of this tablet, with one section tapering into a

Figure 2.4. Tablet RS 88.2215, registering the halaḥam sequence (courtesy of D. Pardee, all rights reserved).

sharp edge, seems to be reminiscent of the shape of a mould for casting metal weapons (Sanders 2009, 92). The alphabet sequence is odd, as it is to be read continuously from the left, by rotating it 180°. In the different treatment of the same concept, as shown by these two examples, the Ugarit abecedary and the Beth Shemesh tablet, we see a striking contrast: one is stubbornly compliant with a top-down system of standardisation, of regulated transmission of set practices, while the other is non-standard, free-form, idiosyncratic, almost haphazard. In the latter case, if Sanders and his expert consultants are right (Sanders 2009, 209, n. 62), a mould originally conceived for a specific purpose – casting metals – became useful for an unforeseen application – casting tablets.[5] This projects a completely different, almost opposite, perception of literacy.

Other attestations of these alphabets are not dissimilar, largely detached from a standardised format, and not absorbed by the demands of bureaucracy or scope for literature. They often have a personalising function, like the knife from Nahal Tavor (Yeivin 1945; Millard 1979; Dietrich and Loretz 1988, 244), or mark property and owners, and as such bearing a strong individualising character, such as the text from Sarepta (Pritchard 1975; Bordreuil, 1979; Boyes, Chapter 3, this volume). They also appear to be experimental, such as the tablet from Taanach (Hillers 1964; Moore Cross 1968), rather than linked to a collective voice or institution. Dietrich and Loretz claim that the discovery, *inter alia*, of the Beth Shemesh tablet demonstrates the doubtfulness of the claim that the birth of AC took place at Ugarit (Dietrich and Loretz 1989, 111) and that it is presently impossible to establish the location of its birth. This is an assumption that, on evidence, can be at least nuanced.

Four factors point in the direction of Ugarit as the original location of AC: 1) the number of abecedaries, and their varieties, at Ugarit exceed all other extant attestations; 2) the Ugarit school system favours the transmission of this script and thus may have triggered its launch; 3) the Mesopotamian scribal curriculum provides a fertile ground for the development of a clay-based, cuneiform-shaped system; 4) a 'court' institution, such as the Ugaritic, promotes the implementation of targeted boosts to literacy and its diffusion. These facts (alone) tip the balance, and do so quite compellingly, in favour of Ugarit as the birthplace of AC. In brief, there is no reason to envisage a different scenario (*pace* Dietrich and Loretz 1989).

Chronology

The chronological span of AC texts from Ugarit seems to be concentrated to a few generations of kings, the precise number highly debated, during the last centuries of the Late Bronze Age. Growing scholarly consensus places the introduction to the mid-thirteenth century (Roche-Hawley and Hawley 2013; Finkelstein and Sass 2013, 185). Some 1336 texts seem to be concentrated to the 1350–1200 BC phase, but there is reason to believe that the timespan may have been even shorter and far more focused.

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5 For a close comparison of the two tablets, see Bordreuil and Pardee 2001, 345–348.

Early evidence is available for the first documented Ugaritian king (Niqmaddu I) sometime at the beginning of the fourteenth century, known only from a seal, which is hardly a window into the development of literacy (but see Vidal 2006 for earlier kings, however shrouded in mystery). The bulk of our textual documentation spans the reigns of Ammistamru I to the last king Ammurapi, so we should be more confident in placing the birth of AC well into the thirteenth century. In fact, Pardee argues convincingly that this may have been the case (Pardee 2007, 189). This very fact gives us a mere *three* generations of use. The implications are easy to deduce: if this date is right, then 1) the script is short-lived or, indeed, *very* short-lived; and 2) the texts were part and parcel of an intent to apply this format as widely and intensely as possible. The next question is: why?

Fine-tuning the chronology of the texts is of crucial importance to answer this question. If most of the LS Akkadian texts are to be dated to the fourteenth century (and this is evinced by the names of the kings mentioned in them), the precise dates for the AC material is less certain. The Ugaritic texts seem to be substantially later. Pardee (2007) dates them to the late thirteenth century, perhaps belonging to the reign of Ammistamru II (1260–1230 BC). This implies that a great number of tablets were compiled and amassed within *a single* generation or reign.

We can draw estimates on the labour force involved in this ephemeral use of AC, bearing in mind, however, that a (not insubstantial) number of tablets may have not survived preservation, or undergone excavation. If we accept an intensive use of AC, and confine it to just one generation or so, inferences are that: 1) up to 50 tablets were compiled each year by the scribes; 2) this number encompasses a plethora of genres, with whole epic cycles and mythologies, administrative and legal, entire translations committed to writing; it needs to be noted that compiling different genres may well involve different time/energy investments: a literary text may take a lifetime, an administrative less than an hour, so this is a sweeping average 3) scribal institutions were high-intensity industrial hubs of text-production involving a rapid interface between oral and written transmission and translation.

The cuneiform alphabet as a singularity?

The process of committing all of this knowledge to clay was clearly very fast, and the reason for this is still unclear. But if we think about the setting, and the invention of AC itself, we can find some clues. It has been claimed that AC represents a singularity and a unique script (Sanders 2009) and that its cuneiform format possessed a certain 'cache' [*sic*] (Rollston 2010). This conclusion needs to be slightly tweaked. AC as a script is neither new, nor revolutionary. As a re-adaptation of a known structure (alphabet) into a well-established graphic format (cuneiform), it seems a pragmatic and efficient remoulding, rather than a stroke of creativity: 'ratchet effect' explains its genesis much more than the often invoked 'invention'. This script can only take that direction and that shape for contextual constraints and ease of use. Its birth was

piloted, perhaps even sculpted to fit the practices of the long-established, organised system tied to the Mesopotamian scribal expertise. What was new in this development was the endeavour, successful while it lasted, to standardise it, and make its potential application as expansive and universal as possible.

The premise is that the scribes realised that AC could be put to use to record local and native works, and their financial domain, but its potential impact was not confined to that only. This creation was not tied, as often suggested, merely to notating the local language. Indeed, if such were the case, the addition of supplemental 'foreign' signs attached to the basic alphabet would make no sense. Rather, AC aspired to become a tool that crossed linguistic boundaries. This is why this creation should not be made to be an ideological one, even though it may have been incentivised by socio-linguistic considerations. The fact that abecedaries and school texts were written in AC seems to suggest, from our vantage point of hindsight, a veritable rush to create a legacy in the making, setting the agenda for future generations – that this effort was ultimately stunted does not detract from its synchronic success.

Ugarit was a fertile spot for producing a different kind of alphabet that became standardised. And to do so, the scribes made use of what was already available: the cuneiform scholastic machine and a perfectly viable, if possibly underused, alphabetic principle. AC had a double inspiration (cuneiform and the alphabet) and was driven by expediency and speed rather than strictly ideological motives. Its creation was situated in a learned context that promoted experiments. In this setting, the Ugaritic scribes projected not a new writing, but a new idea of writing.

By adaptation, a real rupture was produced and this was achieved by careful planning. Its impact was more powerful *because of* its very cohabitation with a dominant Akkadian system, in a setting of highly unequal internal relations. Yet, despite this, and by sensible and practical reaction, the creators of AC built a scribal institution complete with schools and practice texts, geared towards transmitting (a key word, in my view) all aspects of their multilingual culture (Hawley 2015). They went to such lengths as to experiment with exotic scripts, such as Cypro-Minoan, declined in a local variant (Ferrara 2016). How was all this made possible?

The way we should envisage it, in light of the chronology and archaeological setting for the use of the Ugaritic script at Ugarit specifically, is as a top-down imposition: the royal court directed the royal scribal class, and especially the schools housed in the private residences, where experiments were conducted, towards a fast, systematic, momentous transcription of the Ugaritic and Hurrian packages into AC. The way that the scribes of Ugarit confront this implies no stroke of genius whatsoever, no singularity, and especially no invention. The particulars of the script they created are the result of linguistic and epigraphic compromise. Functionality, efficiency and exploitation of ready-made instruments were the key tactics.

The pivotal question they must have pondered over is: how can a large amount of complex information be recorded in the fastest, most efficient, and easiest possible way? Certainly not by using a linear script – which they had perhaps no daily exposure

to or familiarity with, and which did not fit the clay used for Akkadian LS. Thence the stratagem to turn to a support that accommodated their pre-existing training, implements and raw material included. Thence a cuneiform script. This is the reply to the key question pondered over by the Ugaritic scribes, goaded on by royal direction, confronted with the hurdles of linguistic constraints: pragmatic, efficient, and literally – given that clay is involved – down to earth.

Chapter 3

Variation in alphabetic cuneiform: Rethinking the 'Phoenician' inscription from Sarepta[1]

Philip J. Boyes

In 1972 the University of Pennsylvania's excavation in the Lebanese town of Sarepta (modern Sarafand) uncovered a fragment of a handle from a large vessel, bearing a brief inscription, written from left to right in alphabetic cuneiform, made before firing (Fig. 3.1). Like all alphabetic cuneiform, it is dated to the second half of the thirteenth century BC.

It is read by Bordreuil (1979, 65) as:

ʾgn z pʿl yd [?
r/nbʿl z lḥdš₂ bʿl [?

and by Dietrich and Loretz (1988, 234–235) as:

ʾgnn z pʿl yd*
n* bʿl z l ḫdšbʿl

In either form it would translate as something like:

The jar which Ydnbʿl made, which is for Ḫdšbʿl.

The inscription received preliminary publication in 1975 (Teixidor and Owen 1975). It was initially held by Beirut National Museum under the catalogue number SAR 3102, but was entrusted to the University of Pennsylvania during the civil war. Its whereabouts are currently unknown. It is included in the corpus of Ugaritic inscriptions, *The Cuneiform Alphabetic Texts from Ugarit, Ras Ibn Hani and Other Places* (conventionally abbreviated to KTU; Dietrich *et al.* 2013), as KTU 6.70, which is how I shall refer to it henceforth.
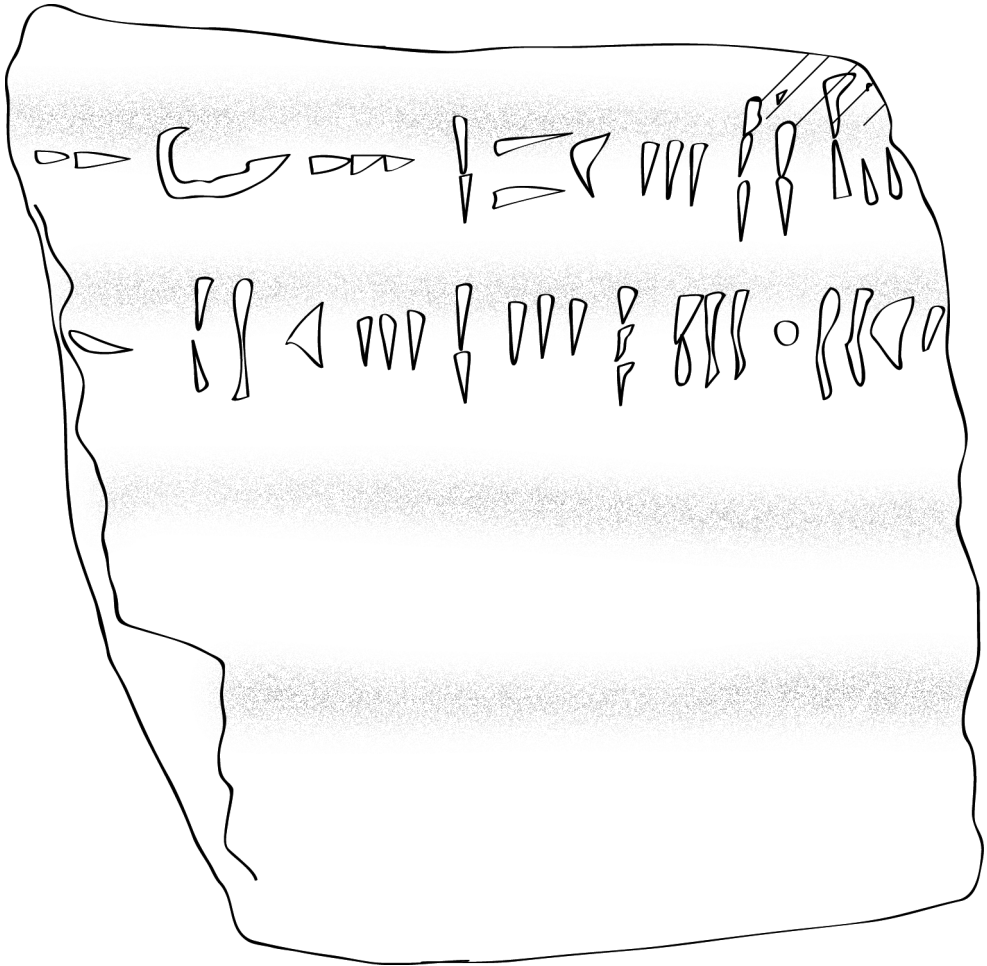
Figure 3.1. The Sarepta inscription (drawn by the author).

It was recognised in the preliminary publication that this is an example of what is generally known as the Ugaritic short alphabet, which has broad affinities with the long alphabet familiar from the vast majority of alphabetic cuneiform-inscribed material but also displays a number of important differences (Bordreuil 1981, 1983, 2012; Dietrich and Loretz 1988, 145 ff.; Hawley *et al.* 2015). As this chapter will go on to discuss, the defining characteristics of the 'short alphabet' can be rather fuzzy, with no single set of features existing which apply to all inscriptions that people have sought to classify in these terms. However, a number of broad tendencies can be identified:

- Most obviously a smaller sign repertoire – generally 22 signs (though naturally, not all signs are attested in every inscription, and an intermediate 27-letter alphabet is also attested in abecedaries such as that from Beth Shemesh and KTU 5.27).

- Variant spellings of words caused by the lack of some signs – for example, a single sign 𒀭 (long alphabet /ḫ/) covers what in standard Ugaritic would be /ḫ/ and /ẖ/.
- Certain signs have different forms (see Table 3.1).
- There is a general (but not universal) right-to-left direction of writing rather than the usual Ugaritic left-right.
- The script tends to be written on artefacts rather than purpose-made tablets.

Its Lebanese find-spot is far from surprising: the majority of short alphabet inscriptions have been found outside Ugarit and its surrounding area, several as far south as Palestine and one as far away as Tiryns on the Greek mainland. A second short alphabet cuneiform-inscribed handle from Sarepta was recognised by Puech in 1989.

It was swiftly realised, however, that if there is such a thing as a 'straightforward' example of short alphabet Ugaritic, KTU 6.70 is not it. In 1976 Edward Greenstein argued that it is not in fact written in the Ugaritic language at all, but Phoenician.[2] He adduced lexical, morphological and formal evidence to support this:

- The word *pʿl* – make/do – only occurs in this form in Phoenician and Hebrew; the Ugaritic equivalent is *bʿl*.
- The relative pronoun is the Phoenician *z*, not the Ugaritic *d*.[3]
- He sees the unusual *g*-sign ᴗ as the accidental use of a linear Phoenician *gimel* – ⅂ (reversed for the dextroverse direction of writing and carelessly rotated).

Greenstein had only been able to work from the drawings and rather murky photographs included in the preliminary publication. After examining the inscription itself in Beirut, Bordreuil supported Greenstein's classification of it as Phoenician, although not his identification of a stray linear *g*; rather, he saw the odd form of the inscription's second sign as a standard alphabetic cuneiform ⟨ with a 'tail' born of scribal laziness, not lifting the stylus sufficiently as he moved to write the following ⇴ (Bordreuil 1979, 65). Notwithstanding the question of whether we should speak of Phoenician as a separate language in the Late Bronze Age rather than a local Canaanite dialect that would eventually develop into Phoenician, Greenstein and Bordreuil's conclusions have received general acceptance (*e.g.* Dietrich and Loretz 1988), making this the earliest known 'Phoenician' inscription.

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2 When not used as a linguistic descriptor, 'Phoenician' in this article refers to the area of Levantine coast between Arwad in the north and approximately Tel Dor in the south. This is a conventional shorthand and does not imply cultural, political or ethnic unity for this area, or their distinction from their neighbours; although in practice the various polities covered had a great deal in common.

3 Greenstein actually believed the pronoun to have been accidentally omitted after a word divider, which is plausible if it is the similarly-shaped z (𒀭), but less so if the rather more distinctive *d*; however, with the advantage of being able to inspect the inscription itself rather than merely the published photographs, Bordreuil (1979) confirmed that what Greenstein took for word dividers are in fact z-signs.

Table 3.1. Sign differences between 'long' and 'short' alphabets.

	'Long Alphabet'	'Short Alphabet'
b	𒀸	𒀹
d	𒀺	𒀻
š	◁𝇋	○

This is essentially where research on KTU 6.70 stands, and all before the publication of the full site report covering its archaeological context (Khalifeh 1988). It is hardly surprising, then, that the character of the discussion has been almost exclusively epigraphic and palaeographic, with very little consideration of the inscribed handle as an artefact, its context or its wider cultural significance. Even if the additional information offered by the site report is hardly fulsome, it is still time we looked again at KTU 6.70 in this new light, as well as with the benefit of nearly 30 years' thinking on inscriptions not just as texts but as material, archaeological objects embedded within and contributing to a dynamic cultural milieu.[4]

The theory and practice of material culture studies have received a great deal of scholarly attention, but this work has figured very little in discussions of Near Eastern inscriptions to date. It often been overlooked that inscriptions are not free-floating and self-contained textual items but are written on – and are part of – actual *artefacts* that had uses, contexts and histories, from creation to discard and decay. Even where philologists and epigraphists have paid lip-service to the physicality of the inscription, rarely has there been much consideration of the nature of this materiality or how it relates to wider cultural questions. Especially over the last decade or so, a large body of material culture theory has encouraged us to recognise that artefacts are not passive instruments of human intentionality, *tabulae rasae* on to which meaning – and inscriptions – can be projected at will. Rather, objects have agency of their own, constraining, enabling and prompting human action through their physicalities, affordances and requirements. We can see an example of this dialectical relationship at a very basic level in the Sarepta inscribed handle – in order to make it easier to grip, the potter has shaped the clay of the handle into ridges. When the time came to inscribe the vessel, the ridges prompted a particular direction and placement of script – between the raised ridges and parallel to them – and through their interaction with the stylus would have affected the shapes of the signs. Perhaps the unusual ridging contributed to the slip that created the 'tail' on the *g*. This much is fairly obvious, and has been noted by commenters since the object was first published. But this is just the tip of the iceberg in terms of the interactions between humans and material object (and indeed between this and other objects

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4 There is a large and growing body of research on various aspects of materiality but see, for instance, Taylor 2011; Ellison 2015 and contributions to Piquette and Whitehouse (eds) 2013.

– such as the stylus, for instance). Theoretical approaches such as Actor Network Theory (Latour 2005) and contributions to Knappett and Malafouris 2008 have stressed how material culture is situated within complex webs of relationships, concerning everything from where raw materials are obtained, to how the object is used, understood and culturally construed, how it affects the behaviour of the people, animals and things around it, to its decay and discard. These webs are highly complex, highly contextually-contingent, and so very dynamic. No surprise, then, when Hodder talks about the relationship between material culture and the world around it in terms of 'entanglement' (Hodder 2012). These ideas shape my approach here: first I will examine the archaeological and material aspects of the inscribed handle itself, and compare it with similar items from other sites; then we will consider how these relate to the contents of the inscription itself. Finally, with these basics established, we can take a wider view and begin to consider the connections, relationships and ideas that embed and entangle this and other such objects in their wider socio-cultural contexts.

The inscribed handle as material culture

Sarepta is a small but archaeologically important coastal town approximately 6 km south of Sidon. Until the current British Museum excavations in Sidon it had the distinction of being the Lebanese coastal settlement whose Late Bronze and Early Iron Age levels had been most extensively excavated with modern methods and relatively full publication.[5] This site is situated in a typical Phoenician position on a promontory, affording it at least two harbours. Numerous imports at the site demonstrate its integration into regional and Mediterranean trading networks. The University of Pennsylvania's excavations of the late 60s and early 70s focused on two areas of the tell, uncovering industrial facilities for the manufacture of pottery which remained in use, without major change or discontinuity, from the Late Bronze Age II until the Persian period (Pritchard 1975, 1988; Anderson 1987, 1988; Khalifeh 1988).

The inscribed handle was found in Area II X, the part of the site with the greatest concentration of kilns, on the tell's lower slopes near the modern sea-shore. It came from a deposit south of a wall in a workshop, near to a kiln. This industrial area also included signs of textile-working and metallurgy. Although the preliminary publication reported stratigraphic problems with the context, it was eventually assigned to a floor in period V of the site, which has ceramic correspondences with Tyre's Stratum XIV and has been carbon-dated to 1290±52 BC. Taking together both

5 The sounding in Tyre carried out by Patricia Bikai (1978) was extremely limited in scope, while the Byblos excavations had major practical and analytical shortcomings which mean that with the exception of the royal tombs, evidence for these periods was almost totally overlooked. The ongoing excavations in Sidon are yet to be fully published, but regular interim publications are finally remedying this chronic lacuna of good evidence for the principal Phoenician cities.

ceramic and carbon dates, Khalifeh (1988, 113) suggests a date of 1275–1150 BC – that is, very much in line with the dates for other alphabetic cuneiform inscriptions.

While such dating confirmation is nice to have, the archaeological publication leaves a number of other questions unanswered. For example, nothing is said about the form and fabric of the vessel, or how it compares to others from that workshop or elsewhere in Sarepta. We do not know whether uninscribed handles of similar form were found, and if so how many. Even its dimensions are a matter of some obscurity, though from the scale on the published photographs the fragment seems to be about 12 × 9 cm. Crucially, it is not even entirely clear what kind of vessel it belongs to. Usually it is referred to as an 'amphora' (Khalifeh 1988, 28, 186), but it is also on occasion reported as a jar, jug or krater (*ibid.*, 28; Puech 1989; Dietrich *et al.* 2013, 634).[6] This being the case, and in the absence of typological or petrographic analysis, we cannot determine where it was manufactured, what the vessel's function was, or at what stage in its life-cycle it found its way into the archaeological record. Since the inscription was made before firing, we know it was inscribed as part of the manufacturing process rather than later, but we do not know for certain that this occurred in the workshop it was found in. Was it a newly-produced vessel, created and inscribed in the workshop but broken while it waited to be shipped off to its recipient Ḫdšbʿl? Was it produced elsewhere in Sarepta or in another town entirely, before finding its eventual way to this workshop? Did it contain a valuable commodity such as wine or foodstuffs, or was it a simple storage jar related to the industrial function of the complex – a container of water or slip for use in ceramic manufacture, perhaps? Such questions have a major impact on how we think of the potters of Sarepta interacting with this item, and with the cuneiform inscription it bore – whether it was a prized object of status or a forgotten piece of the everyday background of the workshop – or something in between. Unfortunately, these questions are very difficult to get traction on from the incomplete published information. To tease out further details, we can no longer think about it in isolation, but must approach it in comparison with other similar material.

Determining what constitutes 'similar material' can be less than straightforward since it is not always easy to correlate alphabet with object type. It is a measure of the priorities of the alphabetic cuneiform corpus that it does not even include a distinct category for recording the type of object bearing the inscription – it has to be assumed that everything not specifically labelled as something else is a clay tablet, but this is just an assumption.[7] Nor does it systematically record the version of alphabetic cuneiform texts are written in. Sometimes short alphabet inscriptions

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6 Bordreuil (1979) notes that *ʾagn* – the word used on the vessel to describe itself – seems to mean 'amphora' in Phoenician, Hebrew and Aramaic, but 'basin' in Ugaritic. It is possible, perhaps likely, that the ambiguity is entirely based on this word and that the actual shape of the handle itself has yet to be considered from an archaeological/typological standpoint at all.

7 Sometimes this information is provided under 'genre' along with information on the content of the inscription, but even then it is often vague (KTU includes 44 objects listed as 'ivory'; none specify what the ivory object actually *is*) and unsystematic.

are marked as such (or as 'mirror-writing'), but for a more definitive list of short alphabet inscriptions, we must cross-reference with the same authors' earlier monograph (Dietrich and Loretz 1988). Short of undertaking a new examination of the inscriptions themselves, there is no way to distinguish between inscriptions which actively display features seen as belonging to the long alphabet and those which do not provide sufficient diagnostic evidence one way or another. For the purposes of the following comparisons, I have had to lump everything not discussed as examples of the short alphabet in Dietrich and Loretz 1988 together as 'long alphabet', but with the recognition that this likely includes material which is more accurately thought of merely as 'alphabetic cuneiform', neither one sub-variety nor another.[8]

Looking at the corpus of all alphabetic cuneiform inscriptions in this way offers the following range of object types among the material not assumed to be 'standard' long alphabet clay tablets (see Table 3.2).[9] This can be further broken down, as seen in Tables 3.3 and 3.4.

The geographical split in the distribution of the two alphabets could hardly be more obvious. As has been universally recognised for many years, the vast majority of long alphabet inscriptions come from Ugarit and its associated sites of Minet el-Beida and Ras Ibn Hani, even when they are not on clay tablets. By contrast, short alphabet inscriptions are scattered across Syria, Lebanon and Israel/Palestine, even single examples from Cyprus and the Aegean.

Relative to the size of the corpora, the short alphabetic inscriptions come on a much more diverse set of objects than the long, and these are different in kind. The short alphabet inscriptions show an apparent tendency to be inscribed on everyday or utilitarian items: coarseware ceramics, a knife, an ostracon. The principal exceptions to this are the silver bowl from Cyprus and the small number of clay tablets, two of which come from Ugarit, where the strong tablet-writing tradition would obviously have exerted a powerful influence. Of the other two tablets, the Beth Shemesh one is also an unusual artefact, an abecedary showing a strange hybridisation of north-west Semitic alphabetic cuneiform and letter-order similar to the halaḥam one most familiar from later South Arabian abecedaries (Dietrich and Loretz 1988; Sass 1991). A second sinistroverse alphabetic cuneiform abecedary with a similar, but not

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8 On the wider merits of dividing up alphabetic cuneiform into taxonomies in this way, see below; for now, I use the long and short alphabetic categories which remain standard within much of scholarship.

9 As described, this takes its starting-point from KTU (Dietrich *et al.* 2013). Object types are generally not recorded for the unclassified material, but Dietrich and Loretz (1988) give KTU 5.29 (formerly 7.60) as an inscribed votive nail. Also included is the second inscribed handle from Sarepta (Puech 1989), and short alphabetic inscriptions from Tell Taanak and Beth Shemesh (Dietrich and Loretz 1988), which are not in KTU. I retain the category 'axe' as used in KTU, but from the photographs and drawings the objects in fact seem to be adzes, hoes or mattocks, and are described as such in the original publication (Schaeffer and Dussaud 1929).

Table 3.2. 'Non-standard' object types (i.e. not long alphabet clay tablets)

Object/Material	No.	Proportion of total (%)
Knife	1	<1
Lion-head cup	1	<1
Mycenaean pottery	1	<1
Clay votive nail	1	<1
Silver bowl	1	<1
Spindle whorl	1	<1
Ball	1	<1
Pithos shoulder/handle	1	<1
'Oracular Rod'	1	<1
Pithos Rim	1	<1
Sherd	2	2
Stele	2	2
Stamp seal	2	2
Clay tablet (short alphabet)	5	4
Cylinder seal impression	5	4
'Axe'/Hoe	6	5
Ceramic vessel handle	7	6
Weight	7	6
Cylinder seal	8	7
Label	17	14
Ivory	48	40

Table 3.3. Object types bearing short alphabetic inscriptions, with find locations

Object/Material	No.	Proportion (%)	Sites
Knife	1	7	Mt. Tabor
Silver bowl	1	7	Hala Sultan Tekke
Sherd	1	7	Qadesh (Tell Nebi Mend)
Clay votive nail	1	7	Ugarit
Pithos shoulder/handle	1	7	Kamid el-Loz
Cylinder Seal	1	7	Ugarit
'Oracular Rod'	1	7	Tiryns
Ceramic vessel handle	4	27	Minet el-Beida, Kamid el-Loz, Sarepta
Clay tablet	4	27	Beth Shemesh, Tell Taanak, Ugarit

Table 3.4. Non-tablet object types bearing inscriptions in the long (or unspecified) alphabet, with find locations

Object/material	No.	Proportion (%)	Sites
Lion-head cup	1	1	Ugarit
Mycenaean pottery	1	1	Ugarit
Spindle whorl	1	1	Ugarit
Ball	1	1	Ugarit
Sherd	1	1	Ugarit
Pithos Rim	1	1	Ugarit
Stamp seal	2	2	Ugarit
Stele	2	2	Ugarit
Cylinder seal impression	3	3	Ugarit,
Ras Ibn Hani			
Ceramic vessel handle	3	3	Ugarit
'Axe'/Hoe	5	5	Ugarit
Cylinder seal	7	8	Ugarit
Weight	7	8	Ugarit
Label	17	17	Ugarit
Ivory	48	48	Ugarit

identical, letter order was found at Ugarit in the House of Urtenu (Bordreuil and Pardee 2001; Bordreuil 2012).

This raises the question of the status of the scripts, and of the items inscribed with them. At first appearances, the short alphabet inscribed objects skew towards the mundane. Contextual information is vaguer than would be desirable, but by and large they do not seem to be particularly associated with high-status or administrative locations. As well as the industrial locations of the Sarepta inscriptions, one of the handles from Kamid el-Loz came from the area of the city wall; the other, while from the palace, was found in an apparent industrial/workshop area (*Wirtschaftshof*) (Wilhelm 1973; Hachmann 1986; Mansfeld 1986). The Hala Sultan Tekke bowl was found together with pottery – mostly coarse wares – inside a rubble wall beside a courtyard in the site's Building C (Åström and Masson 1982, 72). The sherd from Qadesh is merely recorded as coming from Late Bronze Age levels on the western side of the tell (Millard 1976, 459), and the tablet from Tell Taanak from a layer of ash and brick detritus covering a large building (Hillers 1964). The short alphabet tablets from Ugarit came from the southern part of the acropolis and the Ville Sud (Bordreuil and Pardee 1989). I was unable to find any contextual information for the Beth Shemesh tablet or Mt. Tabor inscriptions.

A different set of items and locations are apparent for inscriptions in the long alphabet. More than half of those not on tablets are ivory replica livers presumed to

have been used in divination (Gachet-Bizollon 2007); a large proportion of the remainder are administrative items such as labels, seals and sealings. While not necessarily élite or prestigious in character, these do seem to pertain to a different world than the sherds and tools of the short alphabet. This is borne out in the find-spots for the items: the majority of long-alphabet non-tablet artefacts were discovered in higher-status and administrative locations such as the royal palace archives or private archives such as that of the High Priest. Alongside these administrative artefacts, we find imports such as a piece of Mycenaean pottery painted with a cuneiform inscription and deposited in a tomb, or elaborate votives such as the lion-head vessel. There are, of course, everyday items too – a spindle whorl, a weight – but these are few and we should repeat the earlier caveat about small items that present insufficient evidence to be assigned to one alphabet or the other. There seems a reasonable *prima facie* basis to suggest that the items inscribed in the long alphabet tend to be higher-status and more closely associated with the administrative and religious establishments. These patterns, along with hints that some apprentice scribes at Ugarit may have had prior knowledge of the short alphabet, which they were being trained out of, led Dietrich and Loretz (1988) to see the short alphabet as a substrate writing-system, at least in Ugarit: indigenous and, to a certain extent, demotic, in contrast to the long alphabet which they believed to have been superimposed in Ugarit for official purposes by a foreign élite.[10]

   Status is dynamic rather than inherent, however. It depends on use, context, object history and the attitudes and ideologies of the person interacting with the item. It is, in effect, a property of material culture theory's networks and entanglements, not the items themselves. We must consider how the material object and the inscription interact (not just the content, but the specific realisation, as well as the very idea and connotations of the script and of literacy). An inscribed handle might mean something very different in Ugarit than it does somewhere else. Indeed, there is reason to believe this might have been the case. Within the range of utilitarian objects inscribed in the short alphabet, handles emerge as the most common, especially if we add to them other fragments from the upper portions of large storage vessels inscribed before firing: a storage jar shoulder from Kamid el-Loz (Wilhelm 1973; Mansfeld 1986)[11] and the sherd from Qadesh (Millard 1976, 459). Of these nine handles or similar objects, five are from what we might call 'Phoenicia'. Indeed, all the alphabetic cuneiform inscriptions from Phoenicia are written on such items. What are we to make of this? Should we see the practice of inscribing utilitarian ceramic vessels' handles as particularly Phoenician, or posit a Phoenician taste for such vessels imported from elsewhere?

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10 Their notion that Ugarit's elite originated in Arabia is highly questionable both palaeographically (see especially Sass 1991) and archaeologically – references to kings in Ugaritic texts suggest that the same dynasty ruled there from around the end of Middle Bronze I until the destruction of the city at the end of the Late Bronze Age; they have local, north-west Levantine names, not even Hurrian like the rulers of other nearby states such as Amurru or Karkemiš, and certainly not Arabian (Saadé 2011, 61–62). There is no noticeable sign of Arabian influence in the city's material culture.

11 It is incorrectly listed as a handle in KTU.

Before we can take this question further, we must make a brief detour to consider that the 'Phoenician-ness' of the short alphabet-inscribed material from Kamid el-Loz has been called into question: Dietrich and Loretz (1988, 223–226) read the inscribed handle (KTU 6.2) from the site *ḏ rb* – 'the one of the great one', with the relative pronoun *ḏ* showing that this is written in Ugaritic, not Phoenician (though this does not, of course, necessarily preclude its still having been written in Phoenicia). The more significant question concerns the inscribed pithos shoulder sherd (KTU 6.67), which they believe to have originated in Cyprus. Their basis for this is twofold – content: they read it as *ymn*, which they translate as '(made in) Cyprus', and character-form: they see a resemblance between its rounded wedges and those of the Hala Sultan Tekke silver bowl. This rounding, they say, recalls the 'teardrop' shape of Cypro-Minoan inscriptions and thus suggests they were made with a round Cypriot stylus (Dietrich and Loretz 1988, esp. 228–231; 1989).

This seems suspect on several counts. *Ymn* is apparently the same place that appears as *ymʾan* in the Baʿal epic (KTU 1.4 I, 42), but cannot be identified from the context there. It does not appear among the towns of the Kingdom of Ugarit known from the rest of the Ugaritic corpus (van Soldt 2005). In first-millennium Akkadian, *Yamanu* occurs as a place-name, with an associated gentilic *Yamani* which also occurs as a personal name, and has generally been taken as an attempt to render 'Ionian' and thus designating Greek peoples in general (Brown 1984. Late Akkadian underwent a sound-change that merged /m/ and /w/, although there is some debate as to which one changed to the other; regardless, they are both written with signs traditionally read as including /m/). This would be somewhat anachronistic the Bronze Age. The suggestion that it refers to Cyprus, or at least a place on the island, comes from Masson (1986, 188–191), who links it to her readings *i-le-mi* and *i-ya-mi-ne-ti* in Cypro-Minoan. Given that more than 30 years later the reading of Cypro-Minoan is still not agreed upon (Steele 2018), the reading of *ymn* as 'Cyprus' should be treated as speculative at best. Even if we accept this reading, there seems no clear reason why we must supply 'made in' before the 'Cyprus'. Any number of alternative interpretations suggest themselves other than it being a label of place of manufacture. There is no obvious way to choose between them that I can see. The argument regarding letter-forms is also highly problematic. We know little about the tools used for inscribing Cypro-Minoan, except that there was considerable variation in ductus, medium and, presumably, implements used (Ferrara 2012, 201). To stereotype rounded sign-forms as characteristically Cypriot is excessively simplistic, particularly when all but one of the examples they cite come from the Levant and we do not know where the bowl found at Hala Sultan Tekke was produced. A Cypriot origin for these items cannot be excluded, of course, but it is not proven; and given the strong clustering of this admittedly small set of items in Phoenicia, it is not, I think, the most likely.

But what of the inscribed handles which are not from Phoenicia? One, in the short alphabet, comes from Ugarit's harbour, Minet el-Beida (KTU 1.77). The others are from Ugarit itself. One (KTU 6.76) belonged to a Canaanite jar found in a possible

storage area in a fairly typical middle-class residence in the city centre (Yon 1987a, 82), one (KTU 9.413) is an unpublished surface find from the vicinity of the 'House of the Alabasters' in the residential district east of the palace, and the final one, (KTU 9.415) also unpublished, came from the large building in the north-west of the site known as the 'Residence Nord'. An inscribed pithos rim (KTU 6.106) came from the palace at Ras Ibn Hani. As usual, we have no good evidence to suggest where any of these vessels may have originated.

The data-set is, of course, tiny and we should be very careful of drawing far-reaching conclusions from it. But there is, I think, reason to wonder tentatively whether vessels with alphabetic cuneiform inscriptions on or about their handles had some particular significance in Phoenicia. Given that the examples from Phoenicia are mostly in industrial areas and those in Ugarit mainly residential, it is tempting to see a difference in how they were being used, or maybe even to imagine that these vessels were being produced in Phoenician workshops and sold to customers in cities such as Ugarit. Unfortunately, the archaeological evidence at present is simply too sparse for such notions to be anything more than speculative hypotheses. We have gone as far as we can by looking at the archaeological evidence alone: the time has come to turn back to the inscriptions themselves.

The writing on the inscribed artefacts

Much has been written about the epigraphic and palaeographic character of the shorter alphabet inscriptions, their interpretation and their implications for reconstructing the history of the development of alphabetic cuneiform (Bordreuil 1981, 1983; Dietrich and Loretz 1988, 1989; Sass 1991; Hawley *et al.* 2015). It is not my intention to rehearse or challenge that work here. Rather, what I am interested in is how this information, when combined with the archaeological evidence discussed above, informs our understanding of the place of these items and the scripts they bear in the cultures and societies in which they were found.

As I have already mentioned, the Phoenician inscription from Sarepta has been plausibly interpreted as a maker's signature and label of the recipient:

> *The jar which Ydnbʿl made, which is for Ḫdšbʿl.*

The content of other short alphabet inscriptions has been interpreted as follows. I have used English adaptations of the German translations offered in Dietrich and Loretz (1988) unless otherwise noted.

Personal Name labels

Hala Sultan Tekke bowl – owner's label ('*Bowl of Akkuya, son of Yiptaḥ-Addu*').
Mt. Tabor knife – recipient label ('*For Sillī-Baʿal, son of Pi/ulsī-Baʿal*')
Qadesh sherd – recipient label ('*]... for Mbǵl, the administrator*')

Minet el-Beida handle – sender and recipient label (ʾmry *brings herewith a sacri[ce.] B[ʿl]* *bless him. Bˈl bless him. From Mšk the Hittite for the residents of [xxxxx] a large jar for mixed* *[wine].*)
Kamid el-Loz handle – owner's label (*'the (jug) of the great one'*)
Sarepta non-Phoenician handle – personal name or title? *(ʾdn)* (Puech 1989)

Records and reports

Tell Taanak tablet – medical (?) report (Obv: *'Kkb has collected a stem from the Cypriot* *bushes. We will make use of it.'* Rev: *'The sick'*)
Ugarit tablets – economic records

Other

Ugarit clay nail – Very unclear. Dietrich and Loretz (1988) are unable to offer a coherent reading or translation, not even attempting the outer row of signs, which they deem 'untranslatable'. Object generally seen as votive
Beth Shemesh tablet – abecedary (Halaḥam letter order)
Kamid el-Loz pithos shoulder – place name (*ymn*)
Tiryns rod – *mšˈl[t]* – 'wish'/ 'carry'/ 'saying' (Tropper and Vita 2010).

The Phoenician inscription from Sarepta is, then, similar in type to the majority of short alphabet inscriptions, which concern the people with whom the object is associated – its owner, maker or recipient and, as Greenstein (1976, 53), points out, also bears a marked resemblance to typical northwest Semitic dedicatory formulae – as seen on the Aḥiram sarcophagus, for example:

> ʾrn zpˈl [ʾ]tbˈl bn ʾḥrm mlk gbl lʾḥrm ʾbh
>
> *The sarcophagus that ʾIttobaʿal son of ʾAḥiram king of Byblos made for ʾAḥiram his father.*
>
> (KAI 1.1, adapted from Greenstein 1976, 53)[12]

Kings, especially dead kings, are well on their way to divinity in the Late Bronze Age Levant, (Boyes 2013, 210 ff., with further bibliography) so this example can readily be taken alongside more obviously religious dedications such as those of the slightly later rulers of Byblos:

> mš zpˈl ʾbˈl mlk gbl byḥ[mlk mlk gbl] [lb]ˈlt gbl ˈdtw
>
> *The stele that ʾElibaʿal, king of Byblos, son of Yehimilk, king of Byblos made for Baʿalat Gebal, his mistress.*
>
> (KAI 6.1–2, adapted from Greenstein 1976, 53)

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12 The reading 'ʾIttobaʿal' is traditional but Lehmann (2015) has recently argued that the damaged name of Aḥiram's son should rather be reconstructed as 'Pilsibaʿal' *vel sim*. This is incidental to the present paper, but it may be noted that this same name occurs on the alphabetic cuneiform inscribed knife from Mt. Tabor.

Should we see the Sarepta text as a dedication, then, (as Teixidor and Owen 1975 did upon its discovery) or as a more prosaic example of exchange between humans? While not significant in the semantics of the Sarepta text, this question is rather important for our understanding of the cultural place of this object. Our best evidence for beginning to answer it comes with the item's recipient Hdšbl. This is generally vocalised as Hodešbaʿal, which is a compound of the ubiquitous theonym Baʿal and the common North West Semitic word for 'new' or 'new moon'.[13] Usually it is taken as a personal name, meaning something like 'Baʿal renewed' (Bordreuil 1979, 66), although this is not attested elsewhere. The name *bn ḥdš/bn ḥdṯ* occurs in both Ugaritic and Phoenician and is usually understood as meaning 'son of the new moon' *vel sim*. Gröndahl (1967, 134) sees this in purely calendrical terms, believing it to be a reference to when the individual was born and the supposed propitious nature of the new moon. Krahmalkov, on the other hand, believes it to be theophoric, referring to 'Ḥudis, god of the new moon' (Krahmalkov 2000, 177–178). We have, then, a number of potential ways Hdšbʿl could be read:

- A theophoric personal name: 'Baʿal is renewed'
- A theophoric personal name: 'Ḥodeš is lord'
- A theonym: 'new Baʿal'/'Baʿal of the new moon'
- A theonym: 'lord Ḥodeš'

We can exclude an additional possibility – that it is not a name at all but an adjective and noun combination meaning 'his new lord' or similar – since it lacks the definite article and possessive suffix. Phoenician adjectives usually follow the noun, for which reason the two theonyms proposed above can likewise be considered less probable. As far as I can tell, Krahmalkov's deity Ḥudis/Ḥodeš is not unambiguously attested anywhere else in NW Semitic, so the options including that element also seem unlikely. That leaves the most plausible reading as the one proposed by Bordreuil: a personal name meaning 'Baʿal is renewed', which we must simply accept is not attested anywhere else. This places the inscribed object firmly in the temporal and mundane world of a maker and a human recipient; it seems to record a gift or transaction rather than being a votive dedication, and this is consistent with its discovery in an everyday, workshop setting. It is also in line with the majority of other short alphabet inscribed objects: if we look again at the list above, the only other ones which seem to afford a religious interpretation are the possible votive nail and the handle from Minet el-Beida with its references to sacrifice and the blessings of Baʿal. It may be significant that both of these come from the Ugarit area.

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13 *ḥdš* in Phoenician and Hebrew; *ḥdṯ* in Ugaritic (though names incorporating it are rendered in Akkadian as *ḫu-da-ši* (RS 14.016:23) and *ḫu-dá-ši* (RS 15.132:5)). One of the features of the short alphabet is that the same sign ḫ is used for both ḥ and ḫ. Ugaritic regularly has ṯ where Akkadian has š.

We can seek parallels in other Bronze Age cultures.[14] The overwhelming focus of Assyriologists on tablet inscriptions and relative lack of interest in the objects being inscribed means that there is little published about inscribed pottery from Mesopotamia, so it is hard to assess whether, and if so, to what extent similar practices obtained there. We do have examples of inscribed storage jars used to store tablets in archives, which are labelled with brief summaries of the origins and contents of the tablets they hold.[15] The short alphabet inscribed pottery is evidently not being used in this way. Otherwise, inscribed ceramic material from Mesopotamia mostly consists of metric labels of the vessels' contents, without saying what these contents are or where they come from (Postgate, pers. comm.; Postgate 1978).

The inscribed stirrup-jars of the Aegean would seem to be a closer parallel: these are large, coarse-ware vessels bearing short Linear B inscriptions – usually personal or place names. Like the short alphabet-inscribed vessels, there is some evidence to suggest they were intended to be read from above (Van Alfen 1996–1997) and the numbers of inscribed examples are very low compared to the overall corpus of vessels. A range of interpretations have been proposed for these inscriptions, mostly centring around the production and distribution process for the vessels and the commodities they contained: some believed they labelled the producers of the pots or their contents, (Olivier 1996–1997; Van Alfen 1996–1997); others that they signalled the items as involved in a network of prestige gift-exchange (Duhoux 2011). Recently, Judson (2013) has affirmed their status as administrative marks, concluding that while the evidence remains equivocal, the inscriptions most likely refer to potters, but that some may be the names of regional 'managers' overseeing the production process. The low proportion bearing inscriptions may be due to a single pot being marked to stand for a whole batch.

Despite the apparent similarities, we must be wary when comparing the Aegean vessels to the Levantine ones. It is clear that whatever their exact purpose, the Aegean inscriptions are deeply embedded within the specific economic and administrative context of the Cretan and Mycenaean world. We should not expect the same situation to obtain in the Levant, and given the rather sparse evidence for economic and administrative structures in the region beyond Ugarit, it is very difficult to assess what the points of overlap are. Furthermore, there are important differences in both the context of writing and the production of the inscriptions which argue against overstating the closeness of the parallels. In the purely practical, the

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14 After this chapter went to the publishers, Cassandra Donnelly drew my attention to the phenomenon of Cypriot potmarks. These often feature Cypro-Minoan signs and occur on a very similar range of material culture to the alphabetic cuneiform examples we are discussing. Furthermore, numerous examples occur at Ugarit. I regret that this information came too late to incorporate fully into the discussion, but it seems very clear to me that this is a closely related phenomenon and our understanding of both the Cypro-Minoan and alphabetic cuneiform would be greatly enhanced by studying them together.

15 Postgate (2013, 90) describes three such vessels from the Offerings Archive in the Temple of Aššur, dating from the reign of Tiglath-Pileser I (1114–1076).

Aegean inscriptions were painted after firing, which makes sense if they are part of the process of administering batches of vessels or commodities. Most of the short alphabet inscriptions were pressed into the leather-hard clay before firing, which at the very least indicates a different production process. More significantly, Linear B seems to be exclusively administrative and economic, so far as we can tell from the surviving material, so it stands to reason that inscribed vessels should follow this pattern. Alphabetic cuneiform, however – even in the rarely-attested short alphabet – has a much more diverse range of uses, entailing not only a broader set of potential interpretations, but also a completely different cultural status for writing itself.

Despite the differences, it is probable, I think, that KTU 6.70 from Sarepta and most of the other short alphabet inscriptions on pottery are closer to the Linear B stirrup jars than anything more exotic such as being ideological or religious, and were concerned with the distribution of the vessels and their contents, but, unlike the Mesopotamian examples, not so much with what they actually contained.[16] In keeping with the evidence presented above that short alphabet-inscribed objects were not closely associated with places of prestige or centralised bureaucracy, we should see these distributive processes as being relatively decentralised, probably in the hands of individual potters who inscribed (or had someone inscribe on their behalf) the labels before firing. This would be in contrast, perhaps, to the more centralised situation in the Aegean. This is consistent with our general understanding of the Phoenician and wider Levantine economic situation in the Late Bronze Age as decentralised, profit-driven and without strict demarcation of 'public' vs. 'private' commerce, (Boyes 2013, esp. chapter 3, with further references), and surely has implications for our understanding of the extent of literacy and the cultural position of writing at the time.

The Cultural Status of Alphabetic Cuneiform in the wider Levant

For this final section, I want to explore what the evidence discussed above tells us about wider questions of script, culture and identity in the Late Bronze Age Levant. If we are correct in the belief that alphabetic cuneiform was being used by relatively lowly Phoenician pottery producers outside of any kind of centralised administration, then three obvious questions present themselves:

- What were the cultural connotations of this script?
- How widespread was literacy in the Late Bronze Age Levant?
- How does the use of alphabetic cuneiform relate to the development of the linear Phoenician alphabet?

I will address these in order.

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16 This is in keeping with first-millennium inscriptions on vessels from Phoenicia (see Cook 1925; Kempinski and Naveh 1991), although many of these are stamped or painted rather than directly incised, so the parallel is not absolute.

The Cultural Connotations of Alphabetic Cuneiform

I have already discussed the idea that outside Ugarit, alphabetic cuneiform does not appear to have been particularly associated with the élite establishment, so far as the evidence permits us to tell. That is not to say that literacy did not carry cultural capital and prestige, but the details of this are hard to get at. The question I wish to address here is how it relates to other forms of social identity, particularly ethnicity. I have previously argued that one of the key features of Phoenicia at the end of the Late Bronze Age and beginning of the Iron Age is a gradual shift in how social identity was constructed with regard to foreign referents (Boyes 2013). The Late Bronze Age might be crudely stereotyped as internationalist, with both élites and the general population seeking to assert their prestige and identity through the active engagement with, and deployment of, material culture from foreign powers. For the élites this principally meant Egypt, and in the Amarna period they adopted what I have called a discourse of vassalage to integrate themselves into the international system of the time. For the wider population – including the inhabitants of Sarepta – the engagement was with other foreign sources of prestige, particularly the Aegean. The instabilities of the end of the Bronze Age seemed to disrupt this system by weakening the prestige both of specific referents such as Egypt and of the whole idea of traditional internationalism. We see, among other things, an apparent shift to forms of display and consumption that place greater emphasis on the Levantine, and there are some signs that North Syrian, and especially Ugaritian, models served as a particular inspiration in Phoenicia – we observe, for example, Syrian parallels for the iconography of the Aḥiram sarcophagus, or the construction at Achziv of chamber tombs very similar to those under well-to-do Ugaritian houses (Boyes 2013, 80–83).

Considered against this background, the Sarepta handle prompts a number of further questions, not all of which can be satisfactorily answered at present. Should we see the use of Ugaritian-style alphabetic cuneiform as part of this process? How Ugaritic was this script seen as being, and did the fact that it was a form of cuneiform carry any vestigial connotation of Mesopotamian-ness that might perhaps have affected its perception as 'local' or 'foreign', particularly in comparison with any linear alphabets that may also have been current?

To answer these, we must consider the extent to which alphabetic cuneiform is a single, coherent 'thing'. It remains common to lump all alphabetic cuneiform under the umbrella heading of 'Ugaritic', with the main sub-distinction being the long alphabet/short alphabet dichotomy which this chapter has followed up till now, along with its associated geographical corollaries. However, this taxonomy is rather less clear-cut than its prevalence in the literature might suggest. Dietrich and Loretz (1988, 179 ff.) point to texts in the long alphabet which display apparent features of the short,[17] and to multiple variants of the short alphabet itself: some are in Ugaritic,

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17 These are school exercises, which the authors plausibly suggest show scribes already familiar with the short alphabet being instructed in the long. Key examples for this are KTU 5.11 and 5.10

one Phoenician, some could be in either language; some are written left-to-right, some right-to-left; some have rounded-looking wedges that they connect spuriously with Cyprus, others standard or elongated wedges; some inscriptions use entirely different signs to others; the Beth Shemesh abecedary uses sign-forms similar to those from Ugarit, but displays a south Semitic letter-order. Dietrich and Loretz rightly make the point that these variants are perfectly to be expected if we have various local schools, each with their own traditions, and also correctly say that the umbrella term 'Ugaritic' is unhelpful and should not be maintained (Dietrich and Loretz 1988, 266–267).

But while this is right so far as it goes, it is hard not to wonder whether it is appropriate to think of the short alphabet as a coherent entity at all. With so much variety in such a small corpus, even in items found at the same site, can we really speak of 'traditions' or 'schools'? I do not see that from so few examples there is any way we could distinguish those from the quirks, choices or mistakes of individual writers. The problem is compounded by the essential absence of any time-depth in the material. As we have seen, the dating for the objects inscribed with short alphabetic inscriptions, where they can be dated at all, is hardly more precise than 'the end of the Late Bronze Age'. Chronological distinctions are somewhat more possible in the long alphabet corpus – mainly because some tablets record the reigning monarch or geopolitical events – but even there, the surviving material belongs to a relatively brief period and does not display much in the way of diachronic change in either script or language. We cannot, in short, trace much in the way of internal development in practice within the alphabetic cuneiform corpus, which makes looking for 'traditions' or 'schools' highly speculative at best. Rather than trying to establish bounded, reified forms of a script and trace discrete variants as derivatives of these through a kind of family tree (whether the long alphabet is taken as the original and all other variations as essentially permutations of it, or vice versa, as Dietrich and Loretz would have it), it makes more sense to me to think in terms of a network of script-forms and practices analogous to how we think about culture more broadly – either utilising shared elements or innovating in ways driven by local contingencies and the agency of users (Fig. 3.2); nothing fixed or bounded but each attestation in some way an example of hybridisation (Bhabha 1994; Voskos and Knapp 2008).

From this perspective there is no such thing as 'Ugaritic' script, or even 'alphabetic cuneiform' as a coherent entity, but rather a mesh of interrelating but idiosyncratic realisations of the idea of writing using an alphabet of wedge-forms. While in some places, such as Ugarit, local élites may have promoted and reinforced particular bundles of practices, this does not grant them primacy and we should not assume that, for example, a Phoenician potter in Sarepta saw themselves as consciously 'Ugaritising' when they wrote using alphabetic cuneiform, any more than they believed themselves to be evoking the writing practices of Kamid el-Loz or Qadesh or Beth Shemesh.

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which are in the same hand and seem to show a progression towards greater proficiency in the standard orthography on the part of the scribe.
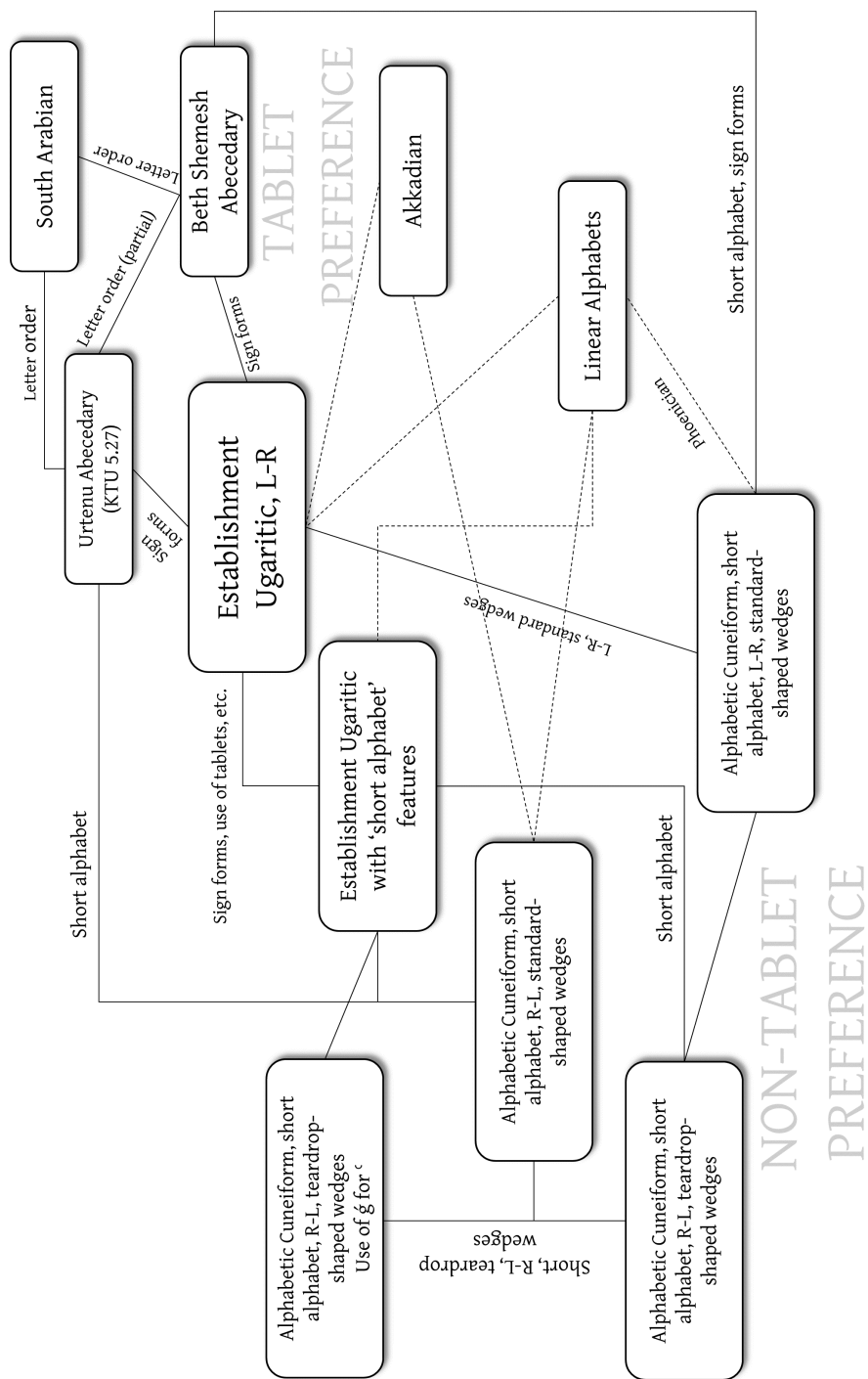
Figure 3.2. An attempt at drawing a mesh of relationships and links relating to Alphabetic Cuneiform. Such networks might be drawn in several ways based on various characteristics; this is intended to illustrate the method, not propose a rigid or definitive 'right answer'.

Of course, it may be that they did indeed see the script as particularly associated with a particular person, centre or tradition – at present the evidence is far too scanty to draw any conclusions. It would be premature to see Phoenician use of this script as part of a wider turn towards the local or Syrian.

Much the same will apply to questions of any Mesopotamian connotations the cuneiform script may have held. Certainly the idea of cuneiform came to the Levant from the east, and it has been suggested that some alphabetic cuneiform signs derive, at least partially, from Akkadian forms (Dietrich and Loretz 1988, 35 ff., 99 ff.), but if we see the relationships and inspirations of alphabetic cuneiform as a mesh or network, then there are a great many nodes between Sarepta and Mesopotamia. It is doubtful how much knowledge the average potter would have had of these more distant links, and how much day-to-day thought they would have given to them if they did. Probably no more than the average English-user gives to the Greek or Phoenician forebears of our own script.

The Question of Literacy

The second question is what this inscribed object tells us about literacy in Late Bronze Age Phoenicia. I have suggested that the inscribed handle from Sarepta is most likely the work of an individual potter, working outside a centralised administration or production structure. This implies that literacy was not confined to élite cadres of specialist scribes, but that other members of society may have been literate, particularly skilled artisans such as pottery producers.[18] There is a question, however, of what exactly 'literacy' means in such cases, and we should not make the mistake of assuming it was an all-or-nothing affair. On the contrary, in all lettered societies literacy is a spectrum, ranging from complete illiteracy at one extreme to complete mastery of sophisticated literary effect or detailed scholarly writing at the other.

Even among scribes it is likely there were different degrees of proficiency, with some having the multilingual, multi-script and historic knowledge attested by multilingual lexical tables such as those found at Ugarit, while others merely had the knowledge of Ugaritic or Akkadian necessary for them to carry out their regular tasks; once we move beyond the world of the establishment and its administrative and religious needs, writers could have been fully proficient in a script sufficiently

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18 It has often been assumed that literacy in the Near East was the prerogative of the elites only, even after the advent of the alphabet, which was considerably simpler to learn than the large, complex and multivalent repertoire of Akkadian cuneiform, *e.g.* Whitt 1995; Rollston 2010; however, while levels of literacy fluctuated over time, there is evidence that for much of the second millennium cuneiform writing was practised beyond elite circles (Vanstiphout 1995; Charpin 2010, 53 ff.; Veldhuis 2011). It is therefore far from unlikely that the same was true for the much simpler alphabetic scripts.

to serve their purposes – such as labelling the recipients of a commodity – without having anything like the breadth and depth of knowledge of writing of palace scribes.[19]

A potter might have full command of the writing skills necessary to be able to write or read any permutation of label of producer, recipient, place of origin or destination on a vessel, and might do so with full confidence; but they might struggle when faced with the rather different conventions of, for example, writing a letter. The short alphabet inscriptions vary greatly in the levels of skill and literacy they presuppose – the three signs of KTU 6.67 from Kamid el-Loz are a different proposition from the carelessly-written full sentence of KTU 6.70 from Sarepta, and different again from the wedges incised into metal on the Hala Sultan Tekke bowl (KTU 6.68) and Mt. Tabor knife (KTU 6.1). If these items imply a wider literacy beyond the scribal tradition, they do not point to a simple or uniform phenomenon, and we will need considerably more evidence before we can properly illuminate its full nature.

The Relationship between Alphabetic Cuneiform and Linear Alphabets in Late Bronze Age Culture

The earliest canonical inscriptions in the linear Phoenician alphabet are generally dated around the tenth or eleventh centuries BC, depending whether one wants to begin counting with the Aḥiram Sarcophagus or the inscribed bronze arrowheads found at various Lebanese sites.[20] It is clear that this script had an extensive and complex prior history, as attested by the several 'proto-Canaanite' inscriptions from the Levantine littoral, which point to a tradition stretching right back to the 'proto-Sinaitic' inscriptions made by Canaanite miners at Serabiṭ el-Khadim, apparently inspired by Egyptian hieroglyphs (Sass 1988, 2004–2005; Haring, this volume). Unfortunately, the relatively small corpus of material and its rather wide dispersal in time and place leave a number of major lacunae that make it exceedingly difficult to establish clear through-lines or relationships, to identify which script variants led to others and which were evolutionary dead-ends, and to say what the status of linear alphabetic writing was in any particular period or location.

This is evidently a subject that requires a much fuller treatment than space permits here, so I will confine myself to the uncontroversial statement that linear script almost certainly existed in the coastal Levant at the time these alphabetic cuneiform inscriptions were made, and likely in forms every bit as nebulous and multifarious as those of alphabetic cuneiform itself, though we might assume that one or more variants were coming to closely resemble early Phoenician script.

While the majority of proto-Canaanite inscriptions come from Palestine, a number of authors have argued for the linear script having been an important inspiration for

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19 For a discussion of these issues as they relate to Akkadian cuneiform, see Veldhuis 2011.
20 Benjamin Sass has recently argued for a lower date in the ninth century (Sass 2005, 2017; Finkelstein and Sass 2013).

the creation of alphabetic cuneiform, and linear prototypes have been suggested for a number of alphabetic cuneiform signs, occurring both at Ugarit and in varieties from elsewhere (Sass 1988, 5; Dietrich and Loretz 1988; Rollston 2010, 17). The convincingness of these identifications unsurprisingly varies greatly, and this is not the place to debate them in detail; certainly at least some are persuasive enough that contact and mutual influence between linear and cuneiform alphabetic scripts seems likely from internal evidence as well as the general common-sense assumption that two alphabetic writing systems in a relatively small, culturally similar region are unlikely to have developed entirely independently.[21]

We should, then, tentatively add linear alphabets into our imagined meshes of writing variants in play in the Late Bronze Age Levant, and it follows that users may have thought about their acts of writing as much in relation to these as to other forms of alphabetic cuneiform. As to what they may have thought, or why cuneiform may have been chosen over linear scripts, that will have to await further evidence, but I think it will probably be more productive to approach the issue from the basis that all these ways of writing were entangled together in a single mesh encompassing the various ways of writing available in the region, their relationships with each other and with the broader culture; it was not a straightforward linear/cuneiform dichotomy any more than it was a simple long/short alphabet dichotomy within alphabetic cuneiform.

Conclusion

In looking again at the inscribed storage-vessel handle from Sarepta, this chapter has had both methodological and specific intentions. Methodologically, I have sought to re-emphasise that inscriptions are not free-floating things-in-themselves that can be understood entirely through epigraphic and palaeographic techniques, but are physical artefacts whose materiality and archaeological contexts are crucial to how we understand their places in society. If we are to move forward in our understanding of the inscriptions, and of Phoenician and Ugaritic culture in general, we need to unite archaeology with epigraphy and think carefully about what inscriptions are written on, what these objects were used for and how they enabled, limited and required actions of the people who interacted with them. If, on asking these questions, this chapter has often been able to offer only tentative answers on the basis of the available evidence, this only reinforces the need for the physical objects to be looked at again, and for new discoveries to be given much more rounded, interdisciplinary publication than has often been the case in the past.

The more specific focus of this chapter was to elucidate the place of this early Phoenician-inscribed object, both within Phoenician and wider Levantine culture at the end of the Late Bronze Age, and in terms of its relationships with other alphabetic

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21 The most persuasive correspondence between the cuneiform and linear alphabets is between š 𐎌 and Phoenician s: 𐤔. See Pardee 2007; Dietrich and Loretz 1988.

cuneiform-inscribed objects. In spite of the scanty evidence, it seems likely that the Sarepta handle was inscribed by someone in the workshop of the potter who made it, a man by the name of Ydnbʿl. We do not know that he worked in the pottery workshop where the broken fragment was found, but Ockham's razor would suggest that is probably the likeliest possibility. An artisan rather than a scribe per se and not affiliated with any centralised bureaucracy, Ydnbʿl nevertheless had sufficient literacy to label his products with his own name and that of the intended recipient, using good grammar and phraseology similar to that seen in later dedications. We might never know why he chose the particular variety of alphabetic cuneiform that he did, or whether he felt he was doing anything significant in using his local, Phoenician, dialect rather than that of Ugarit, but it seems more likely that this was just another crystallisation of the shifting, nebulous, unstandardised mesh of writing practices current in the Levantine littoral towards the end of the Bronze Age.

Chapter 4

Ancient Egypt and the earliest known stages of alphabetic writing

Ben Haring[1]

Introduction

Ever since their discovery in the early twentieth century, the so-called Proto-Sinaitic inscriptions have fascinated Egyptologists and Semitists. Within a broader group of scholars interested in the history of writing systems, however, they never quite received the attention they deserve. The often-used reference work by Peter Daniels and William Bright merely devotes two paragraphs to Proto-Sinaitic, attributing a certain relevance to the early history of the alphabet, but not exactly suggesting its prime importance (Daniels 1996, 29; O'Connor 1996, 90). Shortly before the book appeared, and probably too recently for it to be included, a discovery had been made of inscriptions very much related to Proto-Sinaitic in the Wadi el-Ḥôl, in the Western Desert of Egypt (Darnell *et al.* 2005).[2] The discovery led to new discussions of the earliest alphabetic writing in the two decades that followed. The recent identification of an Egyptian ostracon as the earliest known alphabetic word list (Haring 2015) has proved to be another stimulus to these discussions.

These new discoveries and discussions, however, have not resulted in a clearer picture of the earliest development of alphabetic writing. Perhaps the main reasons for this are (1) that the Proto-Sinaitic inscriptions have largely remained undeciphered, the Wadi el-Ḥôl texts entirely so; (2) that the proposed datings of the texts in both locations are controversial. These circumstances make it very difficult indeed to appreciate the historical importance of the inscriptions, and of the script used for them. Thus, the earliest evidence for alphabetic writing remains a topic shrouded in mystery and controversy, and the extent of its inspiration by pharaonic Egypt, in whose cultural orbit the inscriptions were made, remains obscure.

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1 My English has kindly been corrected by Helen Richardson-Hewitt.

2 Their discovery was in the 1994–1995 season of the Theban Desert Road Survey led by John Darnell; see Darnell *et al.* 2005, 73.

Proto-Sinaitic and its interpretation

During his winter campaign of 1905–1906 in the south of the Sinai Peninsula, Sir William Matthew Flinders Petrie discovered inscriptions of an unusual type at Serabiṭ el-Khadim, the site of an Egyptian temple devoted to the goddess Hathor, 'Lady of Turquoise', and at the turquoise mines nearby (Fig. 4.1).[3] Petrie instantly recognised the inscriptions as alphabetic, and thought it was a script locally developed by workers of the turquoise mines, in which linear signs[4] were combined with Egyptian hieroglyphs (Petrie 1906, 131, 1932, 109). Indeed, some of the signs are reminiscent of hieroglyphs, although the actual extent of hieroglyphic inspiration remains uncertain (see below, Graphic and conceptual inspiration).

In an article published in 1916, Sir Alan Gardiner gave his interpretation of the inscriptions, arguing that the signary includes (1) graphs inspired by Egyptian hieroglyphs (*e.g.* 𓃾, 〰, 𓉐), (2) signs resembling later Semitic alphabetic letters such as Hebrew and Phoenician, and (3) icons apparently related to letter names known from Biblical Hebrew (*e.g.* ʾ*aleph* 'ox', *bêt* 'house'), while the writing system as a whole rendered a Semitic language (Gardiner 1916). Just as in later Semitic alphabets, the individual signs stood for single consonants, and the connection between graph and sound was made through acrophony, *i.e.* the consonant expressed was the first one of the word for the object represented. Thus a square sign, supposedly a house plan, stood for *b*, from *bêt* 'house', while an ox head was for ʾ (glottal stop, from ʾ*aleph* 'ox'). Such interpretations are supported by the letter names in Biblical Hebrew: ʾ*aleph* and *bêt* are the names of the first characters of the Hebrew alphabet.[5]

Several more characters could be explained in this way, but the phonetic reading and graphic derivation of others remain highly problematic to this day. Even the total number of different signs in this writing system remains unclear.[6] As a result, there is no consensus on the interpretation of the Sinai inscriptions apart from a few clusters of signs. The most convincing of these clusters is the string *b-ʿ-l-t* (*bêt* – ʿ*ayin* – *lamed* – *taw*), which is found in several inscriptions. Petrie, although not yet able to read the characters, already felt that the string was a phrase of religious significance (Petrie 1906, 129). Gardiner suggested that it should be read as Semitic *bʿlt* 'lady',

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3 Additional Proto-Sinaitic inscriptions have been discovered throughout the twentieth century, and even after. The most recent discoveries have been made by a French (IFAO-Sorbonne) expedition directed by Pierre Tallet, and discussed in Dalix 2012.

4 'Linear' in this paper means: non-pictorial and non-cuneiform.

5 Obviously, the precise forms of the hypothetical letter names underlying Proto-Sinaitic characters are unknown.

6 Sass (1988, 183, table 4) lists 22 signs with phonetic identifications, five of them with a question-mark, beside several unidentified and unclear signs. The quasi-absence of *g*(*imel*) is especially disturbing (Sass 1988, 112–113; Hamilton 2006, 55–56). Its single occurrence in Sinai 367 (as supposed by Sass) is not convincing and was identified as *y*(*od*) by Hamilton (2006, 111). The latter author distinguishes 31 different signs in the Sinai corpus, not counting *g*(*imel*) and *ǵ*(*ain*), and assuming that seven consonants (*b, d, h, y, n, ṣ, θ*) were each expressed by two different signs (Hamilton 2006, 254–268).
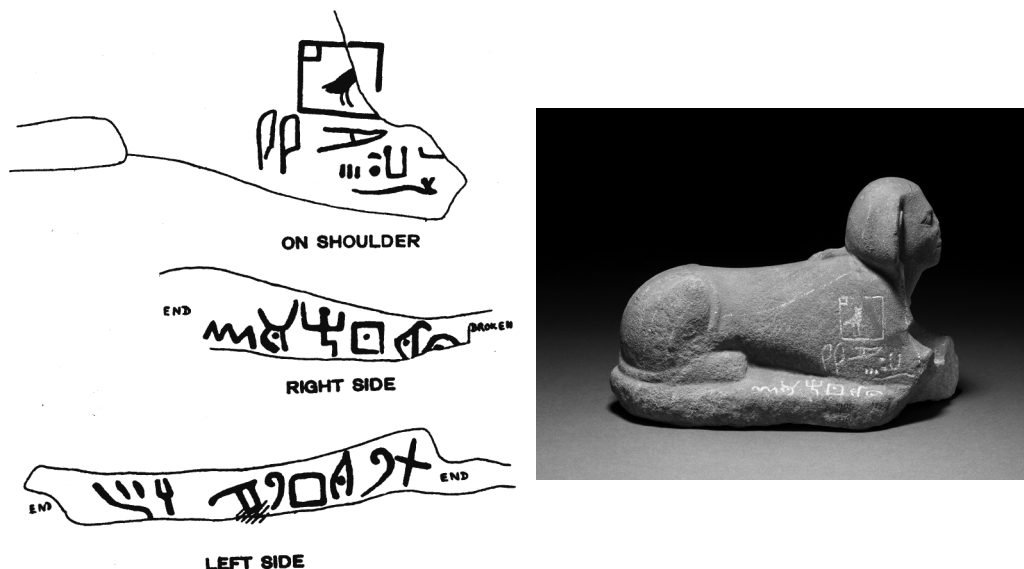
Figure 4.1. Hieroglyphic and Proto-Sinaitic inscriptions on sphinx BM EA 41748 from Serabiṭ el-Khadim. Facsimiles from Gardiner and Peet 1952, pl. lxxxii, no. 345. The chalk filling of the inscriptions is modern (photo © The Trustees of The British Museum). All rights reserved.

and probably referred to the same deity as the one called Hathor in the Egyptian hieroglyphic inscriptions from Serabiṭ el-Khadim. Longer strings composed with this name are *l-b-ʿ-l-t* 'for the Lady' and *m-ʾ-h-b-ʿ-l-t* 'Beloved of the Lady', both of which are known from several inscriptions, including the well-known sphinx from Serabit in the British Museum (Fig. 4.1).[7] The longer string *m-ʾ-h-b-ʿ-l-t* is even an almost literal translation of the Egyptian inscription above it: 'Beloved of Hathor, [Lady] of Turquoise'. That inscription is an epithet of the Egyptian king represented by the sphinx, whose name was given on the base, between the sphinx's paws, but apparently consists of only one obscure sign that might be ◁ (a sickle, phonetic *mꜣ*).[8] This circumstance adds to the chronological controversies connected with the inscriptions, for which see below. Gardiner did not venture beyond the suggested *b-ʿ-l-t* 'lady'. The longer strings given above are

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7 For a very recent analysis of the inscriptions on the sphinx see Wilson-Wright 2013.

8 Possibly to be connected with ⬚◁▽ *Nb-mꜣꜥ.t*, the Horus name of King Snofru of the Fourth Dynasty, whose deification is expressed in Middle Kingdom inscriptions from Sinai. The graphic and material quality of the hieroglyphic signs on the sphinx's right side is as poor as that of the Proto-Sinaitic ones (and indeed as poor as the sphinx itself), and suggests that they were not made by a very accomplished sculptor. This, together with the rough sandstone surface, makes reliable copying exceedingly difficult. Note, for instance, the discrepancy between the hand copy of ▨ 'Hathor' by Gardiner and Peet (Fig. 4.1, left) and the same sign in modern chalking on the sphinx (Fig. 4.1, right).

the hypotheses by other scholars elaborating on Gardiner's hypothesis (*l-b-ʿ-l-t*: Sethe 1917, 451–452; *m-ʾ-h-b-ʿ-l-t*: Eisler 1919, 32). The explanations by Gardiner, Sethe and Eisler were broadly accepted at the time, and stand to this day. Work by later scholars (*e.g.* Albright 1948; Sass 1988) included even more interpretations, ranging from the plausible and attractive to the speculative and idiosyncratic. The script is nowadays known as 'Proto-Sinaitic'; 'Proto-' serving to distinguish the script from the later Nabataean inscriptions from Sinai (Daniels 1996, 29).

Dating the Proto-Sinaitic script

From the moment they were discovered and tentatively deciphered, the Proto-Sinaitic texts have been assigned different dates by scholars. Petrie (1906, 131) saw the reign of Thutmose III of the Egyptian New Kingdom as the most likely period of their creation, and dated them about 1500 BC.[9] Gardiner (1916, 13–14) suggested the reign of Amenmenhet III (Middle Kingdom, about 1800 BC) as an alternative, but drew no definite conclusions. Broadly speaking, both alternatives are still being upheld, besides even earlier and later dates.

Many Egyptologists and some Semitists are, in fact, still in favour of a Middle Kingdom date, even more specifically in favour of the reign of Amenemhet III. This is because hieroglyphic inscriptions from that reign at Serabiṭ el-Khadim mention Egyptian expeditions coming to Sinai and including persons with non-Egyptian names and of non-Egyptian appearance. Most prominent among these on the Serabiṭ stelae is a certain *Ḫbddm*, who is called 'brother of the Ruler (or: a ruler) of Retjenu'. 'Retjenu' is an Egyptian name for the Levant or part of it, so *Ḫbddm*, and other non-Egyptians at Serabiṭ, were probably of Canaanite origin. The participation of these Canaanites in Egyptian expeditions in Sinai would seem to offer itself as a perfect background for the use, according to some even for the invention, of Proto-Sinaitic. Invention at Serabiṭ el-Khadim in the nineteenth century BC has been argued by Orly Goldwasser (*e.g.* 2006, 2016) and Ludwig Morenz (2011). In a dispute with Christopher Rollston about whether the inventors were the Canaanite elite like *Ḫbddm*, who may have been perfectly familiar with Egyptian culture and writing, or rather the illiterate workers in the Sinai turquoise mines, Goldwasser decidedly opts for the latter (Goldwasser 2012).

Be this as it may, one may question the assumption that Proto-Sinaitic represents a writing system invented in Sinai, just as one may question the nineteenth century BC as the date of such an invention. The main argument against these assumptions is a set of two small inscriptions found in the Wadi el-Ḥôl, in the deep south of Egypt, with characters very similar to the Proto-Sinaitic ones (Fig. 4.2). These inscriptions have already been mentioned in the Introduction (see above). Although no convincing interpretation has yet been offered for either text, or even for substantial sequences within them, it is very likely that they represent a related, if not the same script.

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9 The reign of Thutmose III is currently thought to have begun in 1479 BC.
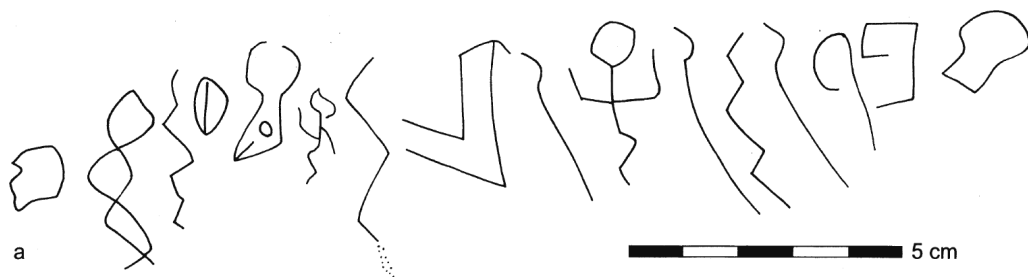
Figure 4.2. Alphabetic inscription no. 1 at Wadi el-Hol. From Darnell et al. 2005, 75 (reproduced with kind permission of J.C. Darnell and the American Schools of Oriental Research (ASOR), all rights reserved).

The discoverers favour a Middle Kingdom date, more precisely, again, the reign of Amenemhet III. This is not so much because of the similarity of the script to Proto-Sinaitic, but rather because Egyptian texts in the Wadi el-Ḥôl left by military expeditions include one mentioning an 'army general of Asiatics' called Bebi. 'Asiatics' is the usual Egyptological translation of ꜥꜣm.w, a designation of Levantine people. Just as in Sinai, the co-occurrence of Egyptians and Canaanites may explain the co-occurrence of Egyptian and alphabetic inscriptions in the same place (Darnell *et al.* 2005, 86–90, 102–105). But Darnell *et al.* went further and argued that the palaeography of the alphabetic signs betrays the origin of the script in an even earlier phase of the Middle Kingdom (*ibid.*, 90). More precisely, the signs would have found their origin in a mix of cursive and monumental hieroglyphic writing, with the nearest Egyptian prototypes of some of the signs being known from the early Middle Kingdom or even from the preceding First Intermediate Period (*c.* 2120–1980 BC). Thus, the Wadi el-Ḥôl texts 'would be among the earliest (if not the earliest) specimen of alphabetic writing discovered to date' (*ibid.*, 90).

The suggested derivation of the Wadi el-Ḥôl alphabetic signs from both cursive and monumental Egyptian writing is itself attractive, the more so since Egyptian rock inscriptions are often in a hybrid script that displays characteristics of monumental hieroglyphic as well as cursive writing (*i.e.* hieratic and cursive hieroglyphs). On the other hand, with only two short inscriptions that together amount to no more than 28 characters, which may be reduced to only 14 different signs, the basis for palaeographic comparison is even smaller than that of the Proto-Sinaitic corpus. A more extensive corpus might very well show more graphic diversity, as Proto-Sinaitic does, and make it more difficult to find prototypes of alphabetic characters within Egyptian monumental and cursive writing. We will return to this problem below (see 'Graphic and conceptual inspiration'). Meanwhile, the fact that very similar inscriptions are found so widely apart (Sinai and Wadi el-Ḥôl), in combination with a hypothetical dating to the (late) Middle Kingdom, would suggest that the underlying writing system, or at least its principles, were already widely spread before that time.

From this earliest extreme we must jump to the (equally hypothetical) later datings. Petrie argued for a date about 1500 BC for the Proto-Sinaitic alphabet on the basis of early New Kingdom pottery and architecture found near Proto-Sinaitic inscriptions, and the material of the British Museum sphinx (red sandstone), which he argued was only used by Thutmose III (Petrie 1905, 131). The latter argument can be discarded – the use of any material is not likely to be unique to one reign specifically, and the sphinx is nowadays commonly dated to the late Middle Kingdom.

A different argument has been presented by Françoise Briquel-Chatonnet, who is in favour of a dating to the Second Intermediate Period (*c.* 1650–1550 BC). She argued that over fifty per cent of the alphabetic inscriptions are found near one mine (numbered L) where there is no sign of Egyptian presence. Rather than being the product of a bilingual Egyptian/Semitic milieu, the Proto-Sinaitic inscriptions would have been made in a period of Egyptian absence from the turquoise mines, such as the Second Intermediate Period (Briquel-Chatonnet 1998). Far from representing the birth of alphabetic writing, the Sinai texts would merely be one trace of its existence (*ibid.*, 59).

Gordon Hamilton, who has produced the most thorough palaeographic survey of Proto-Sinaitic and related Canaanite inscriptions so far, argued that the Sinai material reflects a palaeographic development that took place between *c.* 1850 and 1500 BC. One core group of 12 Sinai inscriptions, together with the Wadi el-Ḥôl texts, would represent an early stage (*c.* 1850–1700: Hamilton 2006, 300), while a further eight Sinai inscriptions, including the sphinx, are assigned by him to a later period (*c.* 1700–1500: Hamilton 2006, 304),[10] and one highly linear text is even dated much later, *c.* 1250 BC (*ibid.*, 377–380).

Such a very late date had, in fact, already been proposed for the entire Sinai and Wadi el-Ḥôl corpus by Benjamin Sass. Sass, who in his seminal work *The Genesis of the Alphabet* still favoured a date in the Egyptian Twelfth Dynasty (*i.e.* twentieth to eighteenth centuries BC),[11] reconsidered this in a later publication and suggested a date around 1300 BC (Sass 2004–5, 157). By this redating, the hypothetical development of alphabetic writing in the Near East would lose the period of approximately six centuries that separated its supposed birth during the Middle Kingdom from the securely dated and interpreted cuneiform alphabet of Ugarit.[12] To Sass and to other scholars, those six centuries represented a 'standstill' in the sense that they show little or no palaeographic development, and virtual archaeological silence. Sass observed that 'No pre-14th-century, perhaps no pre-1300 BC alphabetic inscription from Palestine can be pointed out with any confidence' (*ibid.*).

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10 More texts are tentatively assigned to the same stages in his Appendix 1 (Hamilton 2006, 323–400). Sinai inscription no. 363 is incorrectly mentioned for both periods (*ibid.*, 300 and 365).

11 Sass 1988, 144 – by no means excluding a later date, in the Eighteenth Dynasty (seventeenth to fourteenth centuries BC). Sass made his choice on the basis of 'indirect and circumstantial evidence' which 'does not contradict, and to a certain extent it even reinforces, the dating of the Proto-Sinaitic inscriptions to the 12th Dynasty'.

12 For the Ugaritic alphabet see the contributions to this volume by Silvia Ferrara and Philip Boyes.

Other relevant inscriptions from Egypt and the Near East

The above quote by Sass refers to possibly alphabetic material other than the Proto-Sinaitic and Wadi el-Ḥôl inscriptions, which has been found in the Levant, in Egypt, and even in Mesopotamia, and for which dates have been suggested that range from *c.* 1850 to 1300 BC. These supposed alphabetic inscriptions are all very short, including no more than a handful of signs. They occur on objects of different kinds, mostly on pottery sherds though also on clay tablets, as well as on stone and metal objects and surfaces. Most of them are described and discussed in the catalogues compiled by Sass (1988, 53–105)[13] and Hamilton (2006, 322–400),[14] with photos and drawings. Although each inscription offers little information in itself – indeed, every single one seems to add more riddles than it provides answers – together they indicate that the period between *c.* 1850 and 1300 BC is not entirely empty with respect to the continuation and historical development of alphabetic writing.

This article is not the place to discuss these inscriptions at length. For the period under consideration here, the relevant inscribed objects discussed by Sass and Hamilton are, more or less in chronological order: an incised wooden heddle jack from El-Lahun, Egypt, a bronze dagger from Lakhish, an incised pottery sherd from Tell en-Nagila, another one from Gezer, a decorated limestone plaque from Shekhem, marked pottery vessels from Gezer, an incised sherd from Tell el-Hesi, and a fragment of a pottery bowl from Lakhish. With the exception of the heddle jack, all of these objects were found during excavations in Israel, and some of these were in identified Middle and Late Bronze strata (Lakhish dagger MB II, Nagila sherd and Gezer jars late MB/early LB, bowl fragment Lakhish Stratum VI).

The Lakhish dagger (Fig. 4.3) may well be the oldest of the Near Eastern finds, with a suggested date of *c.* 1750–1650 BC (Sass 1988, 53–54; Hamilton 2006, 390–391; Goldwasser 2016, 14–142). The relevance of the Gezer pot marks (seventeenth/sixteenth century BC) to alphabetic writing was refuted by Sass (1988, 98) but has been defended by Hamilton (2006, 18, note 30) and Goldwasser (2016, 142–143). The Lakhish bowl fragment may be from the thirteenth, or even the twelfth century BC (Sass 1988, 62–63). The wooden heddle jack found during Petrie's excavations at El-Lahun (Kahun) is inscribed with linear signs believed by many scholars to be alphabetic (Fig. 4.3). Petrie dated the object to the Twelfth Dynasty, stating that the sort of object was not in use in Egypt in later periods (Petrie 1912, 10; 1921, 2),[15] but

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13 Sass's catalogue includes many inscriptions from the last centuries of the second millennium and from the early first millennium, which are not considered here.

14 Here integrated with the Proto-Sinaitic and Wadi el-Ḥôl inscriptions. See also Goldwasser 2016, 139–156.

15 Petrie (1921) also includes an incised sherd from the same place and period (now kept at University College London like the heddle jack), which he and later authors have claimed to be a combination of alphabetic and Egyptian hieratic. I agree with Sass (1988, 104) that the entire inscription is Egyptian: it is a crude (because incised) hieratic, and apparently records a delivery from a palace treasury.

that is actually far from certain (Gallorini 2009, 118–119, with a recent drawing of the object and its inscription). The inscription has been read as ʾḥṭb (Eisler 1919, 125 and 172), ʾḥṣb (Dijkstra 1990, also allowing for a dating as late as the fourteenth century) or ʾdʿṣb (Hamilton 2006, 331: eighteenth–seventeenth century). The object remains an isolated find of uncertain date, with an inscription of uncertain interpretation. A cylinder seal with linear signs known as the 'Grossman Seal' or 'St Louis Seal' comes from the art market and was dismissed as a forgery by Sass (1988, 99), but not by Hamilton (2006, 397–398), who dates it to *c.* 1400 BC.

Possibly older than 1300 BC is a pottery ostracon from the Valley of the Queens near ancient Thebes, Egypt, which is now in the Egyptian Museum in Cairo (Fig. 4.3). Sass (1988, 104) dismissed it as being a combination of hieratic characters and workmen's marks, but in fact neither of these notations seems to be used here.[16] Joseph Leibovitch (1940, 119–120) interpreted the inscription as Proto-Sinaitic; Albright (1948, 12, note 33) suggested that the signs in the top compartment on the ostracon might be read ʾmht 'maidservants' from right to left. There are also other New Kingdom ostraca from the Theban royal necropolis that may turn out in the future to be relevant to the history of alphabetic writing.[17] The following, more recent finds from New Kingdom Egypt are also possibly relevant to the topic, but too recently discovered to be in the catalogues compiled by Sass and Hamilton. A statue from Aswan, dated to the reign of Amenhotep III by Hans Goedicke (2006, 125), bears a column of five signs, at least some of which resemble Levantine linear alphabetic signs. A sherd from the Ramesside residence at Qantir and dated to the thirteenth century BC bears two signs that might just be ʾ*aleph* and *bêt* according to Dijkstra (2007). An inscription at Timna, admittedly not in Egypt but very much within Egypt's political and cultural reach, has been connected with alphabetic writing by Stefan Wimmer (2010), and dated by him to *c.* 1400–1150 BC.

A quite spectacular discovery is that of linear signs on the edges of several Babylonian cuneiform tablets of the late sixteenth or fifteenth century BC, first published and discussed by Stephanie Dalley (Dalley 2009, 15, pl. clxxv;[18] see also

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16 See Haring 2018, 19–20. The ostracon is incorrectly stated there to be in the Egyptian Museum in Turin. It was found by Giulio Farina, Director of that museum, in 1935, together with a limestone ostracon bearing a necropolis workman's mark (Leibovitch 1940, 119–120). The latter did end up in the Turin Museum, where it has the provisional number 6198. I wish to thank Susanne Töpfer for allowing me to search through the museum's unpublished ostraca.

17 Haring 2018, 20. Three are represented in Petrie 1912, pl. I (top right, middle left, bottom left), together with ostraca bearing necropolis workmen's marks. The ostracon depicted top right is very similar to Cairo JE 66837 by arranging groups of signs in compartments, and by using some identical signs (cross for *tau*, vertical zigzag for *mem*?). This is not the place to discuss Petrie's 1912 book *The Formation of the Alphabet*, which must have been considered idiosyncratic even at the time it appeared, arguing that the earliest alphabets were graphically inspired by identity marks (Haring 2018, 16–20). For such marks see below, 'Graphic and conceptual inspiration'.

18 Dalley refers to other, possibly comparable linear inscriptions including the Proto-Sinaitic and Wadi el-Ḥôl texts, and linear signs on clay cylinders (tags?) found at Umm el-Marra in Syria, dated
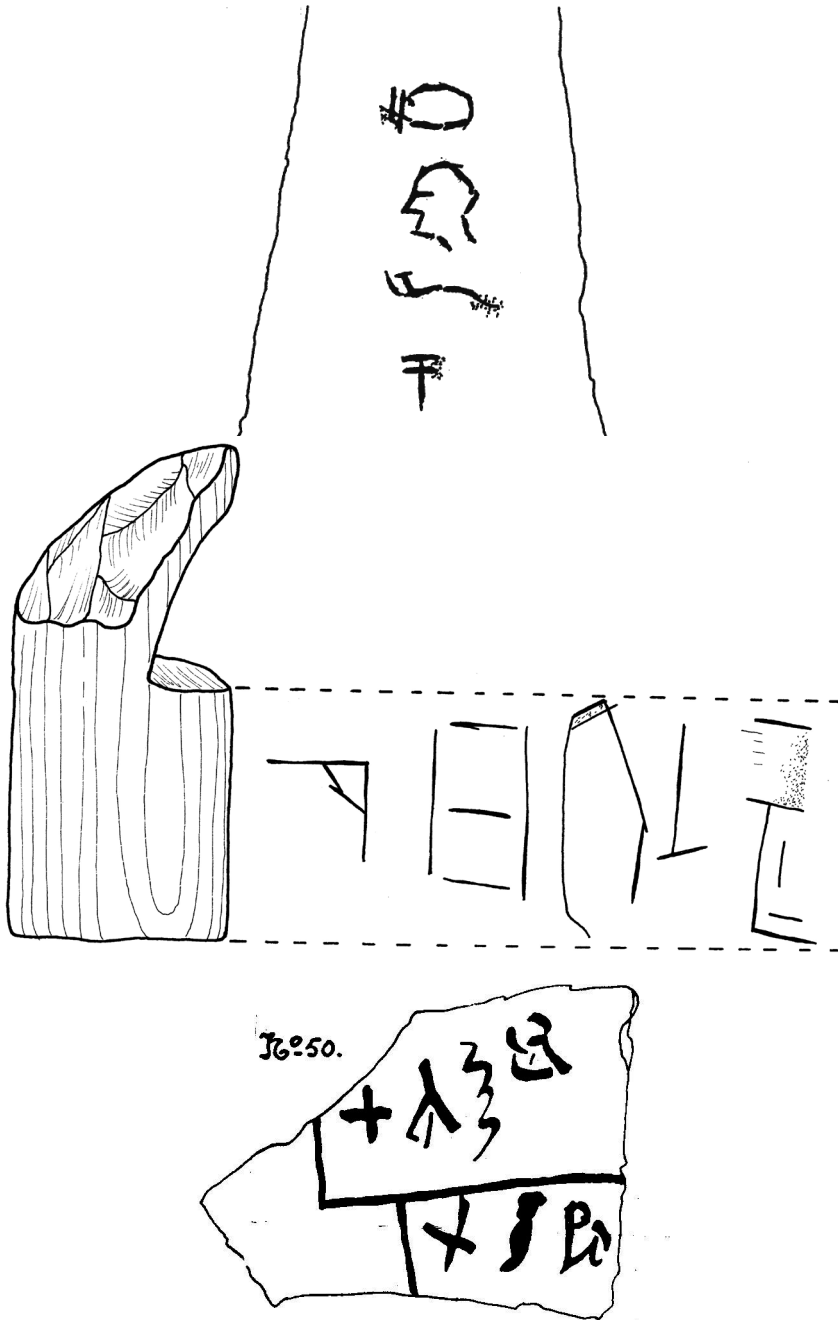
Figure 4.3. Inscriptions on the Lakhish dagger (Hamilton 2006, 390), the Lahun heddle jack (from Gallorini 2009, 119), and ostracon Cairo JE 66837 from the Valley of the Queens (Leibovitch 1940, pl. xix) (Lakhish inscription © J.C. Hamilton, reproduced with kind permission; image of Lahun heddle jack © C. Gallorini, reproduced with her permission. All rights reserved).

Colonna d'Istria 2012, and especially Hamidović 2014). The presence of these inscriptions in Babylonia at such an early date is unexpected, and their suggested interpretations are as tentative as those of the inscriptions mentioned so far.

Together, the finds mentioned in the previous paragraphs go far to suggest the widespread use, in the early and mid-second millennium, of one or more alphabetic writing systems, ranging from highly iconic (Wadi el-Ḥôl, Lakhish dagger, Shekhem plaque) to linear (*e.g.* Babylonian tablets, Aswan statue, New Kingdom ostraca). However, many of them lack clear datings, and none of them has been read convincingly, so that strictly speaking we cannot be certain that any of them is really an alphabetic text.

The *halaḥam* ostracon from Theban Tomb 99

Given our dramatically insufficient understanding of the supposed alphabetic inscriptions predating the thirteenth century BC, any additional source that promises a better foothold is more than welcome. A recently identified alphabetic list on a New Kingdom ostracon is therefore of paramount importance with respect to the presence of alphabetic writing in Egypt and/or its immediate surroundings (Haring 2015; Fischer-Elfert and Krebernik 2016; Schneider 2018). The ostracon is not associated with royal tomb-building like the ones mentioned in the previous section, but was found in a Theban private tomb, that of the treasurer Senneferi from the time of Thutmose III (1479–1425 BC). Although a secondary deposit (the ostracon comes from a shaft that was added to the tomb much later, together with other objects from different periods), it can be dated to the Eighteenth Dynasty by its hieratic palaeography (Haring 2015, 189–191).

It appears to be a list of words (some of which are known as Egyptian words, others of which are not) aligned to the right, with associated signs aligned to the left. The relation between the words and the signs appears to be semantic or iconic (with the sign depicting what the word says, *e.g.* a rejoicing man with the word *hy-hnw* 'to rejoice' a bird for *gr* 'bird'). In lines 1–4 on the obverse, the initial consonants of the words are *h-r-ḥ-m* respectively. This sequence reflects the *halaḥam* alphabetical word order that is well known from demotic texts of Graeco-Roman Egypt, as well as from Ancient Arabian and Classical Ethiopic.[19] It is also known from thirteenth-century

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to the twenty-fourth century BC. Schwartz (2010) suggests these may be either semasiography or writing, but probably not alphabetic (perhaps the same is true for supposedly alphabetic signs on a third-millennium sherd from Tell Khuera (*ibid.*, 387; Moortgat-Correns 1978–1979, 198–199). Reference is also made by Dalley to the Baluʿ stela, of uncertain date, from Moab. It is highly uncertain if the (rather iconic) signs on this stela are alphabetic, or even writing at all; see Bosshard-Nepustil and Morenz 2003, 83–84.

19 Egyptian hieroglyphic and hieratic writing originally had no specific sign for /l/ (meaning that /l/ was not a phoneme in Old and Middle Egyptian). By the New Kingdom, Egyptian writing had developed the habit of notating /l/ as a new phoneme and in foreign words and names with signs that originally stood for /n/ and /r/, or with a combination of these.

BC Ugarit, there together with the *ʾ-b-g* order that would become our modern ABC (Haring 2015, 193–196). Three of the signs associated with these consonants are the same as in Proto-Sinaitic and in possibly related alphabetic inscriptions: ℰ for *h*, ⌁ for *l*, and ⌁ for *m*. They are an explicit confirmation of the consonantal readings of these signs as already proposed by Gardiner (1916), Sethe (1917) and Eisler (1919). Unfortunately the remaining signs cannot be clearly connected with Proto-Sinaitic and later alphabetic characters, but even the partial agreement noted makes the TT 99 ostracon an important landmark for any attempt to map the geographical spread and the historical development of alphabetic writing in the second millennium BC. It shows that the highly iconic forms of the signs for *h*, *l* and *m* were known and used in the fifteenth century BC, and in so doing it provides new fuel for discussions of the dating of inscriptions showing very similar signs.

Graphic and conceptual inspiration

Any reconstruction of the historical development of the earliest alphabetic script(s) and individual characters depends on the dating and relevance of the inscriptions discussed in the previous sections. It is thought by many, but is far from certain, that this development may be reconstructed between the eighteenth century BC (or even earlier) and the thirteenth century BC, the latter being the time of the cuneiform alphabet of Ugarit and of several dated linear alphabetic inscriptions.[20] It is tempting to think that there was an overall development from iconic to linear, but more clarity in the chronological controversies is required in order to test what may turn out to be a preconceived idea. Goldwasser (2016, 148–150) argues that it was precisely the iconicity that made the earliest alphabetic characters persist from the eighteenth until the thirteenth century, when professional scribes developed a standardised linear script. Iconic writing, she proposes, should not be thought of so much in terms of precise graphs, but rather as being worked with recognition cues, making *e.g.* a human head recognisable as such without sticking to fixed graphic conventions: the signified counted, rather than the precise form of the signifier. This brings us to the phenomenon of 'concrete' pictorial signs, for which see below. For the earliest users of alphabetic notation, who according to Goldwasser were not professional scribes, such a notation was relatively easy to master as long as the signifieds, and hence the *names* of the signs were sufficiently internalised (and for this in turn a fixed alphabetic order, such as *h-l-ḥ-m* or *ʾ-b-g*, would have been a help).

But what was the initial inspiration for such an iconic script, in which a limited set of pictorial characters was used to represent the consonants of a Semitic language? Ever since the discovery of Proto-Sinaitic at what is basically an Ancient Egyptian site, and a place very much dominated by hieroglyphic epigraphy, that inspiration has been traced by scholars to Egyptian hieroglyphs. Even if Serabiṭ el-Khadim were

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20 In addition to the Lakhish bowl fragment (see above), there is the thirteenth century Lakhish ewer (Sass 1988, 60–61; Goldwasser 2016, 152–152 – there called 'the earliest example of the linear alphabet').

not the place where the alphabet was invented, other witnesses to early alphabetic writing still point to either Egypt itself or its immediate surroundings as the area where this invention took place. That area, even if outside Egypt proper, would have felt the dominance of Egyptian culture and writing in the Middle Bronze, and even more in the Late Bronze Age.

Petrie himself thought that the non-Egyptian users of the alphabetic script he had discovered had their own linear signs, and 'mixed many hieroglyphs with it, borrowed from their masters [*i.e.* the Egyptians]' (Petrie 1906, 131). Sass (1988, 142) stated that the Proto-Sinaitic characters were 'mostly derived from hieroglyphic prototypes'. 'Mostly' that is, but not all, and several signs even resist convincing hieroglyphic derivation. Egyptological researchers basically think of solutions to this problem in two different directions. One is to connect some Proto-Sinaitic and similar signs to cursive Egyptian writing (*i.e.* hieratic and cursive hieroglyphic inspiration in addition to monumental hieroglyphic; Kammerzell 2001, 145–151; Darnell *et al.* 2006, 76–82, 84–85).[21] This approach has already been mentioned in the section 'Dating the Proto-Sinaitic script' above. Although certainly valid – cursive forms just might have inspired the inventors of the earliest alphabetic script – it poses the danger of self-confirming hypotheses. The search for prototypes in a vast Egyptian textual corpus of widely different genres, on different material supports, and in different sorts of monumental and cursive scripts is bound to be at least partly successful. But an even more compelling reason to be very cautious about this sort of analysis is that the corpus of Proto-Sinaitic and apparently related material is so very small, and therefore hopelessly insufficient for palaeographic comparison.

The other solution is to step away from Egyptian writing as the *exclusive* source of Proto-Sinaitic characters, and to allow for 'concrete', or 'real-life' inspiration in some cases (Goldwasser 2006, 135–146, 2016, 128–134). That is, the idea of iconic writing (including the forms of many signs, together with consistent scaling and the organisation of text in lines and columns) may have been taken from Egyptian examples, but the same idea possibly made the users of the new script develop their own iconic signs. Whereas some signs, such as the rejoicing man 𓀠 for *h*(*e*) and the lamp wick 𓋹 for *ḫ*(*arm*?) find possible or even compelling prototypes in Egyptian hieroglyphs, others, like the hand for *kaph* and the 'corner' for *pe*, are unlikely to have been inspired by hieroglyphic signs (see Fig. 4.4). The *kaph* sign typically shows a vertical hand with four individual fingers, whereas the hieroglyphic 'hand' is usually horizontal, and concentrates on outline, with only the thumb separately indicated.

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21 The approaches by Kammerzell and Darnell are different. Kammerzell's argument is in line with a scholarly tradition that goes back to the mid-nineteenth century, and which sees hieratic characters as the origin of linear alphabetic ones (such as Phoenician) and even of Ugaritic cuneiform signs (see also Hodge 1969). According to Kammerzell, the earliest alphabetic signs not only took their graphic shapes from Egyptian hieratic characters, but also their phonetic references, without the application of acrophony. Darnell, as we have seen, pleads for a combination of monumental hieroglyphic and cursive inspiration for the graphic shapes of the Wadi el-Ḥol alphabetic characters.

Figure 4.4. He, ḥarm, kaph and pe in Proto-Sinaitic and their supposed hieroglyphic prototypes (facsimiles from Hamilton 2006 (see there for more samples of these and other signs) reproduced here with kind permission of the author. All rights reserved).

It is, therefore, extremely unlikely that the hieroglyphic or hieratic shape, or shapes of the Egyptian ideogram for 'hand' (which is also the phonogram for *d*) were the basis for the *kaph* sign in Proto-Sinaitic. The Proto-Sinaitic corner used for *pe* and the very similar Egyptian hieroglyph might appear to be a successful match (the Egyptian hieroglyph being the 'unambiguous' prototype according to Darnell 2005, 81), but that hieroglyph is a very rare sign (mainly used as the ideogram for *qnbt* 'council'), and the chances of finding it in hieroglyphic inscriptions at any given site are extremely small. Both this sign and the *kaph* hand, and possibly others, are therefore more likely to have had real life or concrete prototypes: a human hand, and perhaps the try-square as a craftsman's tool (both already suggested by Goldwasser 2006, 140–141, 154–155). If this is true, we may be dealing with a notation system that started off graphically as a mixed mode, some of the prototypes being characters of the Egyptian writing system(s), and others being concrete referents. Such a mixed-mode approach may be more productive than forcing all Proto-Sinaitic signs into a hieroglyphic matrix.[22]

An exemplary case of a new notation system inspired by writing, though also including concrete signs, is the system of identity marks used by the royal necropolis workmen of the Egyptian New Kingdom. These workmen, who were living at what is now the site of Deir el-Medina near Luxor, each had their own personal mark, and used it to mark their property (such as tools, furniture, and pottery vessels and dishes), to mark their presence in the form of graffiti, and to compose administrative records on ostraca (see Haring 2018). Thousands of sources make it possible to reconstruct this system and its functioning during almost the entire New Kingdom. In the second half of the New Kingdom, the Ramesside Period, the system even developed into a pseudo-script, in which identity marks were combined with icons for commodities supplied to the workmen, with symbols for months, and with hieratic numbers for quantities and for calendar dates. In the same period, the number of marks inspired by characters of writing (mainly hieroglyphic) increased, but this never led to the disappearance of signs differently inspired. Concrete signs depict vessels, birds, other

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22   The 'pseudo-hieroglyphic' inscriptions of Middle Bronze Age Byblos (so far undeciphered, and not likely to be an alphabetic notation; Daniels 1996, 29–30) may represent a similar graphic mix. Cf. Schwartz 2010, 388: '...this writing system includes several characters that might have been inspired by Egyptian hieroglyphs together with many others that seem to be of independent origin.'

animals and objects without having hieroglyphs for examples. As a consequence, their precise graphic shape was not important: it was the signified that counted (a 'vessel, a 'bird'), with its recognition cues. Graphic diversity of one and the same sign could therefore be considerable.

The Deir el-Medina marking system also included abstract signs, which do not depict anything, although some may go back to concrete icons that have been heavily stylised. In the Proto-Sinaitic repertoire, such may be the case with the cross for *tau* 'sign', which has not necessarily been derived from one or more cross-shaped hieroglyphs (themselves also highly abstract). The stance of the Proto-Sinaitic *tau* cross may be horizontal as well as diagonal (Hamilton 2006, 248–249), and Egyptian hieroglyphic signs include potential examples for both, but one may wonder if hieroglyphic derivation is necessary for such a basic geometric shape.

Admitting the possible presence of concrete and abstract signs together with prototypes from writing, within the same system of notation, obviously raises the questions of 1) whether one of these principles of derivation was dominant, and if so which one, and 2) how many signs precisely were actually inspired by Egyptian hieroglyphic or hieratic characters. In the case of the Deir el-Medina marks, hieroglyphic writing seems to have been the principal supplier of graphs, but it is difficult to establish the precise derivation for every individual sign. The divisions between the three types of signs are not always clear (Haring 2018, 227–231 for these 'fuzzy borders'), and it is sometimes difficult to establish the nature of a sign as truly abstract, and to distinguish hieroglyphs from other iconic signs. Indeed, the Egyptological mind may be inclined to see more hieroglyphic influence than was really there.

It has been suggested earlier in this section that Egyptian writing may have been the conceptual source of inspiration for the earliest known alphabetic writing as much as the graphic one. The very combination of iconic signs, consistent scaling, and organisation both in lines and columns, suggests a relation to Egyptian hieroglyphic. But conceptual inspiration probably also had a linguistic aspect. Before the consonantal alphabet emerged, Egyptian hieroglyphic and hieratic were the only scripts known to have been used in the Middle East whose phonetic notation was in consonants. In Old and Middle Egyptian, purely phonetic notation (*i.e.* writing words and names without ideograms) was even done with monoconsonantal signs, the total number of which was twenty-four. The same signs could be used as abbreviations of names in lists; in some cases they stood for the initial consonant. The 'alphabetic consciousness' thus reflected (Gardiner 1947, 12) may have been a major impulse in the creation of the consonantal alphabet, as was argued by Kammerzell (2001, 123–125). Even the principle of acrophony may have reached the inventors of the alphabet as part of the package that was Egyptian writing. The practice of abbreviating names by their initial consonants was known in Egypt as already stated, although it may not have been a prominent practice. A 'weak' form of acrophony was even involved in the development of the monoconsonantal hieroglyphic signs, some of these having been obtained by omitting the following vowel or weak consonant that was present in the

word for the object depicted (*e.g.* ⌣ *r* from /rV/ 'mouth'), or the feminine grammatical ending *–t* (*e.g.* ⌐ *ḏ* from *ḏt* 'cobra'). This form of 'acrophony' was a linguistic process rather than a conscious practice such as abbreviating a multi-consonant word to a single consonant, which may be called 'strong' acrophony – this highly important distinction was pointed out by Pascal Vernus (2015). If the hypotheses by Gardiner (1916) and later scholars about Semitic consonantal notation and letter names are correct, the Proto-Sinaitic signary was the result of strong acrophony, a conscious and systematic process (Vernus 2015, 160). Future research will have to discover to what extent this and other aspects of alphabetic writing, conceptual and graphic, were inspired by pharaonic Egyptian writing.

Chapter 5

Much ado about an implement! – the Phoenicianising of Early Alphabetic

Reinhard G. Lehmann

'I must profess I know enough to hold my tongue, but not enough to speak.'

Elias Ashmole, 1652[1]

Introduction

Since the days of William Foxwell Albright (1891–1971) a great many scholars have published about the early alphabetic writing of the second millennium BC and the labyrinthine paths by which it developed into the alphabet now called the 'Phoenician'. Much has been asserted about matters concerning which we do not have nearly enough material to say anything for sure, and even now there is a running debate about how to reconceptualise the earlier phase(s) of the Levantine alphabetic scribal culture from 'Early Alphabetic' up to a presumed 'Phoenician' writing, and from the Late Bronze to the Early Iron Ages and beyond (Sass 2004–2005; Goldwasser 2011, 2015, 2018; Finkelstein and Sass 2013; Hamilton 2014; Sass and Finkelstein 2016). Yet sometimes one gets the impression that new findings call previous evidence to be updated faster than new theories can be established.[2]

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1 Elias Ashmole, *Theatrum Chemicum Britannicum*, 1652, Prolegomena, 5 ff.

2 Cf. also Hamilton 2014, 30: 'The scholarly consensus about the periods of early alphabetic scripts has virtually collapsed during the last decade.' For example, Sass and Finkelstein 2016 themselves chased after a new idea on the basis of another new, tiny two-letter-fragment, revoking what they wrote only few years before (Finkelstein and Sass 2013): the later article is filled with 'we now realise's, 'we now believe's and similar corrections (2016, 26, 27, 28, 30, 39, note 22). This, to be sure, is not at all to blame the authors! Rather it is to illustrate the current state of research and scholarly discourse.

'Early Alphabetic'

The term 'Early Alphabetic' was coined by Albright in 1948,[3] and has since then become established as a concept of its own.[4] In fact, besides a conventionally set time frame from *c.* 1900–1000 BC[5] there seem not to be any useful definitions of what 'Early Alphabetic' is at all:

> The small corpus of known early alphabetic writings [...] consists of the so-called "Proto-Sinaitic" inscriptions (early alphabetic writings recovered from the turquoise mines and temple complex of Serabit el-Khadim and the nearby wadis) and the handful of other early alphabetic inscriptions from Palestine. (Darnell *et al.* 2005, note 5)

The starting point of 'Early Alphabetic' is simply given by the oldest alphabetic inscription(s) known at any given time, which for Albright still was the Sinai/Serabiṭ el-Khadim inscriptions alone but is currently also set by the Wadi el-Ḥôl inscription (Darnell *et al.* 2005). At any rate this was some time in the early second millennium BC and somewhere in Egypt, the Sinai or even in the southern Levant (see Haring, this volume).

    The lower end of an 'Early Alphabetic' phase, however, is a different and fuzzier question, the answer to which sometimes gives the feeling of being rather arbitrary. The simple but crucial question however is as follows: at what point is the Levantine segmental system which we call 'alphabet' no longer early-looking enough to be ticketed as '*Early* Alphabetic'? In other words: what made alphabetic writing 'early', or by changing what features does it lose its 'earliness'?

    The most prominent distinction was developed in the footsteps of Albright in a number of publications by Frank Moore Cross (Cross 1954, 1979, 1980, and more; Hamilton 2014, 30). Cross distinguished a *Proto-Canaanite* or *Early Alphabetic* from an *Early Linear Phoenician* phase, the latter starting around 1050 BC – which was simply a date set by and shortly after the most commonly accepted date for the Aḥīrōm (Ahiram) sarcophagus inscription(s) (Lehmann 2005, 2008b, 2015) as a demarcating border line.[6] Yet this is no longer as easy as it seemed to be less than half a century ago. In more recent research, the date of the Aḥīrōm inscriptions has been much more controversial (most recently Sass 2017). Although I myself made the most recent critical re-edition of the Aḥīrōm inscriptions, I nevertheless refused to join in the often all-too-optimistic date stamping of Aḥīrōm, which ranges from the thirteenth century up to 850 BC. Albright first set it at *c.* 1000, Edith Porada (1973) and Ellen Rehm (2004) tried to raise the date up to the thirteenth century on the basis of its decoration and

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3 Albright 1948, and see Hamilton 2002.

4 See, for instance, Healey 1990.

5 Or 1900–900 as, for instance, Hamilton 2010, 1, similarly also Hamilton 2015, 127.

6 For instance, Niesiołowski-Spanò 2007, 175: the inscriptions of Aḥīrōm and Yehimilk 'mark the border line after which a relatively uniform Phoenician script in Canaan quickly becomes clear' and their date around 1000 BC 'suggests that the *creation of Phoenician script* must be dated at ca. 1050 BCE. It means the terminological division of earlier forms of script, called proto-Canaanite or Canaanite (to which group the Sinaitic inscriptions belongs) and later simply Phoenician' (emphasis mine).

other art-historical factors, while Ronald Wallenfels (1983) and Benjamin Sass (2005) from a more archaeological and palaeographic point of view made efforts to lower its date down to the mid-ninth century.[7] Anyway, in most of these approaches it appears that the majority of arguments for dating the Aḥīrōm sarcophagus *inscription* use more features of the coffin itself and its art and decoration than of scribal or content-related aspects. However, even if one still adheres to a conventional middle date of *c.* 1000, there remain obstacles to taking the date of Aḥīrōm as the the general watershed time for *Early Linear Phoenician.*

First, alongside the Aḥīrōm *sarcophagus* inscription (KAI 1) as a supposed chronological pivot, there is the often disregarded inscription on the tomb's *shaft* (KAI 2) – which, from a technical point of view, is clearly *not* a graffito but a chiselled incision (Lehmann 2005, 39–54).[8] According to the long-standing and most conventionally accepted (but nevertheless questionable – see Sass 2017, 116 ff) 'Albright–Cross–Harvard' scale, however, the shaft inscription appears to be typologically older in stance than the sarcophagus inscription(s). Nevertheless, it has been much overlooked for the last decades in any debate about Early Alphabetic. Taking the Aḥīrōm shaft inscription into serious consideration may, however, cause some turbulence within the time frame of later 'Early Alphabetic' – depending on the assessment of an inner chronology of both the Aḥīrōm sarcophagus *and* the shaft inscriptions ensemble altogether (Lehmann 2005, 53–54).

Second (the shaft inscription aside), taking the Aḥīrōm sarcophagus inscription(s) as a typological or palaeographic border line only makes sense under the premise that its script was the landmark of an outstanding scribal innovation within a narrow time slot of some fifty years. This, however, cannot be proven and is not even probable. Rather, as I demonstrated some years ago (Lehmann 2008b, recently accepted by Sass 2017), an in-depth calligraphic analysis of the sarcophagus inscription shows that it already must have had a presumably multigenerational tradition of calligraphic know-how and experienced flat writing craftsmanship in its background.[9] This either means

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7 For the most recent but very polemical Aḥīrōm discussion, without reference to the most recent scholarly re-edition of these inscriptions in Lehmann 2008b, see Finkelstein and Sass 2013, 181 ff., Rollston 2010, but also Sass 2017, 119 in part referring to Lehmann 2008b.

8 Also, as regards of subject matter and genre of text, the shaft inscription is clearly not a warning against tomb raiding, as it has been interpreted in its traditional reading. By the new decipherment of Lehmann (2005) it is clear that this short incised inscription belongs to the wider field of either funerary cult, such as the Near Eastern *kispu(m)* or *palingennesia*-initiation ritual, or is part of a kind of *danse macabre* burial celebration similar to texts like KTU 1.161. Recent objections by Jenni (2015, 122–124) and Theis (2015) are philologically fallacious or far-fetched.

9 Nevertheless, I do not adhere to a 'lost papyri' theory, as Orly Goldwasser (2015, 129) recently charged me. Rather, I had simply tried (Lehmann 2012, 31) to emphasise that the 'considerable degree of scribal experience, skill, and craftsmanship' already evident in the Phoenician royal inscriptions from Byblos at the turn of the millennium (Aḥīrōm!) is unlikely to have come from scratch. I did not claim that this had already taken place in the Middle Bronze Age. Yet it might well have been *after* the alphabet was appropriated by urban administrative and elite environments from, according to Goldwasser, roaming-at-the-fringes carriers or, as I prefer to say, freelancer

that the 'set date' 1050 by Cross must be lowered some 100 years (much welcomed by Wallenfels or Sass) or that we are to raise the end of 'Early Alphabetic' and the beginning of linear Phoenician by some generations, *i.e.* by some hundred years or so, into the end of the eleventh century at least. For the time being my impression is that a consensus is not possible, at least not that way.

Millard summarised the crucial objection to granting the Aḥīrōm and other Byblian inscriptions a central position in early alphabetic history (2012b, 411):

> Byblos is best known for inscriptions in the early Phoenician alphabet [...]. That alphabet already existed before the 12th century BCE and presumably arose in Phoenicia. The fact that it is best attested at Byblos may be an accident; it could have been current simultaneously in other Phoenician centers, so allowing for local variations, as the later Phoenician alphabets show. Therefore, when an inscription is discovered, the Byblos inscriptions deserve to be used for comparison, but they should not necessarily become the paradigm. Furthermore, the fact that they were engraved on hard surfaces may mean they do not reflect precisely the current hands of scribes using cursive script with ink on papyrus or leather.

If we dispense with a fixed date, it seems most feasible to define 'Early Alphabetic' as every alphabetic writing which is not yet discernible as Phoenician.

'Phoenician'

'Phoenicia is an anachronistic term' (Schniedewind 2013, 54).[10] 'Phoenicia' accounts for a conventional concept that derives and reproduces itself as an heirloom of the western reception of antiquity[11] – and so is 'Phoenician script'. There was no Phoenicia. There is not, and never has been, any ethnic, political or 'national' entity that understood or labelled itself as 'Phoenicia', nor has there ever been any Phoenician people. Rather, to say it more pointedly with the late Brian Peckham (2014, 559):

> Phoenicia was a Mediterranean state of mind, it created a world it could fill, mapped it, and outlined it loosely.

The idea of Phoenicians, the blue-and-red dye-maker merchants of the Levant, is a modern construct, rather a modern identification than ancient identity. And like all constructed identities in history, it is methodologically flawed:

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guilds of scribes, in the very Late Bronze or Early Iron Age. Even Goldwasser admits that something similar took place with Ugaritic (2011; 2015, 128), which is manifest in the immense alphabetic cuneiform records, and the same could have taken place (and it most likely did) with flat writing on perishable material like papyrus.

10 Or: 'Phoenicia, like all history, is a construct, a product of historiography, an answer to questions, a companion of interest' Peckham 2014, xix.

11 Millar 1993, 264 ff; Markoe 2005, xviii ('maritime trade, not territory, defined their sphere'); Küster 2006, 171–177; Abulafia 2011, 63 ff; Moscati 2001, 17–19; van Dongen 2010; Aubet 2001, 1–13; Kerr 2014, 155: Quinn *et al.* 2014. Most recently, see Quinn 2017; López-Ruiz 2017.

> Religious affiliations, mythical origins and ethnic identities are human constructs, and we simply falsify history by fathering on peoples in the past identities which they did not construct, or had not yet constructed, for themselves. (Millar 1993, xix)

Nevertheless, like 'Early Alphabetic', '(Early) (Linear) Phoenician' too has long since established itself as a concept of its own. There is still a tenacious adherence as to the term 'Phoenician' as well as to the term 'Phoenician script'. This derives in large measure from the work of Frank Moore Cross, who for almost half a century advocated the grammatological nomenclature '(Early) (Linear) Phoenician'. The term gained a certain notoriety because the available data according to Cross (1980 [= 2003, 213–230]) allows for the most likely assumption that the 'Hebrew script' was derived from an 'Early Linear Phoenician alphabet'.

Thus, in palaeography and historical graphematics we are long since much too accustomed to tracking down a seemingly uniform, not-yet-diversified-but-already-linear, non-pictographic alphabet as 'Phoenician'. Its commonly accepted parameters, following Cross and the late Joseph Naveh, are defined as:

- fully linearised letter forms (abandonment of pictographs)
- reduction to eventually 22 letters (abandonment of long-alphabet devices)
- *ʾabgad* order (abandonment of *halaḥam* or other sequences)
- exclusively sinistrograde writing direction (abandonment of dextrograde and boustrophedon)

But in more recent research, and triggered by findings of the last decades, all this seems rather less simple. Anyway there is the question left over: why 'Phoenician' at all? Is it not true that this script series was also used by carriers who were not seen as 'Phoenicians' by anyone, as for instance in Azatiwata's Luwian stronghold Karatepe-Aslantaş in Cilicia, which he himself called Azatiwadaya?[12] Calling this and other examples 'Phoenician script' – though their language is undisputably Phoenician-Canaanite – might falsely suggest that some until then underdeveloped and formerly illiterate population somewhere had simply adopted the τέχνη γραμματῶν, the writing practice of people who were allegedly literarily superior, as for instance the Byblian, Tyrian, Sidonian and other Levantine folk that might have called themselves 'Phoenicians' – which is not true at all. There is no unambiguous evidence for the export of 'Phoenician' script into underdeveloped or maybe illiterate regions and populations. In any case it was not simply 'Phoenician'. And there is no basis for the romantic-and-monocausal notion that Hebrew-Israelite, Moabite and other scribes had adopted just '*the script*' of just '*the Phoenicians*' (whosoever these might have been) before eventually something like their own regional or 'national' (if ever one might use this term) script ductus evolved.

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12 Çambel 1999. For the very best photographs, see Çambel and Özyar 2003. For the phenomenon of multilingualism (and multigraphism) in Cilicia see Payne 2007.

Labelling a certain manifestation of 'the' early alphabet as 'Phoenician' is a mere aftermath of modern antiquities reception that has viewed and still often views these oriental Levantine folk, the 'blue-and-red-dye-dealers' from eastern shores, through the glasses of the Greeks, οἳ παραλαβόντες διδαχῇ παρὰ τῶν Φοινίκων τὰ γράμματα – *'who took up the letters after being taught by the Phoenicians –* and declared these letters to be called 'Phoenician' (Φοινικήια κεκλῆσθαι);[13] and whom Pliny the Elder later hailed as a *gens* in*'magna gloria litterarum inventionis' – of great glory (because) of their invention of letters.*[14] The overpowering force of this tradition and classicists' reception of antiquity still has impact on both the Western view of Levantine people *and* the classicists' appreciation of the alphabet. It also explains why Frank Moore Cross (1921–2012), the grand master of West Semitic epigraphy in the last century, succumbed to the term 'Early Linear Phoenician'.[15]

Depending on how we assess finds in any given region, one might argue that what some would call a 'Phoenician' ductus or script type *per se* did not evolve earlier than the eleventh century. But if the adjective 'Phoenician' is not apt as an ethnonym at all, we should also replace it when referring to palaeography and the history of writing. Even if 'Early Linear Phoenician' was only meant as a technical term, '*Phoenician* Script' and even the German term 'Phoenician Mutterschrift' (though used in English, which is even worse)[16] have become historically unsound and semantically

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13 Herodotos *Hist.* V 58.2. In *Hist* V 59.1 (778–780) there follows: εἶδον δὲ καὶ αὐτὸς Καδμήια γράμματα ἐν τῷ ἱρῷ τοῦ Ἀπόλλωνος τοῦ Ἰσμηνίου ἐν Θήβῃσι τῇσι Βοιωτῶν (for Καδμήια var. lect. Καδμεῖα) – *I have myself seen Kadmeian writing in the temple of Ismenian Apollo in Boeotian Thebes.*

14 Pliny *Nat. Hist.* 5, 13 (67). Elsewhere, in *Nat. Hist.* 7.57 (192–193), in a learned summary of knowledge, Pliny wrote a whole paragraph on the then-known theories about the emergence of writing. With regard to the origin of the Greek alphabet, like Herodotos he strengthens the Phoenician position: *utrique in Graeciam attulisse e Phoenice Cadmum sedecim numero – to each in Greece Cadmus brought from Phoenicia, sixteen in number.* A summary and documentation of the ancient sources about the emergence of writing is found in Ceccarelli 2013 [2014] appendix 2.

15 But see already Cross' cautionary albeit often overlooked note (1980 [2003, 226]): 'It should be emphasized that this does not mean that the scribes of the United Monarchy in the late eleventh or early tenth century went to Tyre or another Phoenician center and adopted a new alphabet. The term "Early Linear Phoenician" was arbitrarily devised by the writer as a designation for the alphabet which emerged in the course of the eleventh century, and was used broadly in Syria-Palestine *by various national groups*, including the Phoenicians, the Aramaeans, and the Israelites. [...] The chancelleries of the Early Monarchy in Israel may have been influenced directly by Phoenician chancelleries, as they evidently were later by Aramaean chancelleries in the course of the ninth century. [...] However, it is also possible that the Early Linear script was an inheritance from North Israelite scribal circles in close touch with Phoenician centers, and whose dialect had numerous isoglosses with Phoenician.'

16 As mentioned above, the whole terminological congeries is rooted in the work of Cross (1967, 1979) who loved to use the term 'Early Linear Phoenician', but only seldom 'mother [Phoenician linear] script' (1980 [2003, 225], 1982 [2003, 349]). But recently Rollston has gone further by using its German translation 'Phoenician *Mutterschrift*' (2006, 502/503; 2007, 97; 2008, 73 f; 2010, 20 and *passim*) in. He ostentatiously did so in his 2010 book (Rollston 2010, 20, 30, 42, 44 f, 105) and even in

misleading.[17] Incidentally, it is not easy to define a Phoenician language (Röllig 1983, Knauf 1990) nor what the diagnostic feature of Phoenician script is at all. In many cases indeed, namely where documents of what some would call 'Southern Phoenicians' (Xella 2017, 153) are concerned, it seems that the main diagnostic feature is more 'non-standard Hebrew' linguistics and a 'non-Yahwistic' (rather 'Aštartic' or ''Ešmunatic' *etc.*) onomasticon than a positive definition.[18]

And so what about the suitability of a term '(linear) Phoenician script'?

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the glossary (147) with an explanation that is, from a linguistic perspective, at least, disputable. As a matter of fact, *Mutterschrift* is not a customary term in German, either in everyday language or in scholarly discourse. Quite the contrary, sometimes nationalistic circles use it to deny any foreign influence in what they hold to be a genuine 'Germanic' script. Hence it is strongly recommended not to introduce a misleading German term when discussing the history of the alphabet!

17 Even recently and quite influential as an adherent to the 'Cross-Harvard system', Rollston is taken by the temptation of an ethno-cultural and linguistic narrowing of 'the Phoenicians': 'The Aramaic and Old Hebrew alphabets developed not from Early Alphabetic, but from the Phoenician alphabet.' His rationale is the limited Northwest-Semitic grapheme repertoire of 22 signs which, as he claims, only fits to the Phoenician language with its only 22 consonantal phonemes: 'Of course, the answer is simply that the Arameans and Hebrews adopted the Phoenician script for writing their languages, even though the alphabet was designed for the smaller number of phonemes in Phoenician.' (Rollston 2014, 72) – What, however, if the Phoenician language at the time of the emergence of the 22-letters alphabet, had more than 22 phonemes (Lehmann 2012, 36 ff)? Rollston invokes Zellig Harris (1939). The importance of Harris' *Grammar of the Phoenician Language* (1936) is not easily over-estimated (Gzella 2008): more than half a century after Paul Schröder's *Die phönizische Sprache* of 1869 it gained its incontrovertible place in the history of research as the very first reference grammar of Phoenician in the twentieth century. Some insights or assumptions though, which at that time were simply the state of the art, are no longer as plausible as they were three quarters of a century ago. Nevertheless it has been repeated again and again with reference to Harris that Phoenician was a 'mumbling' Semitic language with only 22 consonant phonemes. In this regard, however, it is generally overlooked that Harris himself was not as certain himself as his followers are. Already in his grammar of 1936 Harris explicitly conceded that his assuming a Phoenician 22-consonants-only phoneme repertoire is merely an 'argument from silence' (Harris 1936, 17 n. 21), and only one page later he pointed out that the Phoenician orthography was plain etymological, thus 'hiding all changes in pronunciation' (*ibid.,* 18). A similar indecisiveness is still found in Harris' later and most prominent *Development of the Canaanite dialects* (1939). This book is still the main basis for most recent arguing for a reduced Phoenician consonant phoneme repertoire (*e.g.* Rollston 2014, 72). Here Harris wrote: 'It *probably* included all the consonantal phonemes of the central and southern Phoenician cities during most of the period studied here', and: 'The orthography in the inscriptions *seems* usually to represent the current local pronunciation.' (Harris 1939, 25, my emphasis). With all due respect, Harris' assumption spread as a purported basic truth and gained highest notoriety by scholarly reception, but nevertheless today it is less than ever supported by philological facts. The danger of circular reasoning is obvious. For a detailed discussion and a new model see Lehmann 2012.

18 Most of the famous so-called Phoenician linguistic features are also found at least in parts of the Hebrew scriptures, and on the other hand it is much easier to explain difficulties in Phoenician texts with the help of Hebrew than the other way round, cf. Lehmann 2008a, also Knauf 1990.

'(Early Linear) Phoenician' script and similar expressions are henceforth only suitable as an *umbrella term* for a transnational (*koine-*) alphabetic script standard in the Levant in the late second and early first millennia BC. To escape false subliminal ethnic, 'national' or linguistic prepossessions it might be better avoiding labels such as 'Canaanite' or 'Phoenician', and using instead another, neutral term. For this, Hamilton recently offered the helpful concept of a three-stage model of early alphabetic scripts in the Levant (Hamilton 2014, 30). He proposed 'three periods of *one continuous tradition* of alphabetic writing to be designated with the *most neutral identifiers* available: Early Alphabetic A, ca. 1900–1400 BCE; Early Alphabetic B, ca. 1400–1000/950 BCE; and Early Alphabetic C, ca. 1050–after 900 BCE (or to the rise of distinctly national scripts).' The most interesting period here is his third phase, Early Alphabetic C, which 'witnesses a direct continuation of the earlier forms of letters but shows considerably less variety in terms of their shapes or stances' (*ibid.*, 31). The transition from B to C may have been a long, possibly centennial 'overlapping period' as a 'time of transition to a newer way of writing exclusively from right to left in horizontal lines':

> The change from multidirectional to single-directional ways of arranging alphabetic writing probably occurred over the course of several generations; for people living in Canaan during this period of transition, no change may have been perceptible. Nothing abrupt need be envisioned—no supplanting of an indigenious script tradition by that of a close relative; no change in writing styles to imitate scribes in a distant royal court [...]. (*ibid.*, 49 f)

This third phase of Hamilton's answers largely to Cross' 'Early Linear Phoenician' but evades its factual aporias:

> I would change the name 'Early Linear Phoenician' to 'Early Alphabetic C' to express the continuity of this third phase with preceding periods of early alphabetical handwriting *and to avoid any suggestion that there were national scripts late in Iron Age I or early Iron Age II.* (*ibid.*, 43, emphasis mine)[19]

However, to think about continuity and 'periods *of one continuous tradition*' (above) seems to me a bit too optimistic. As a matter of fact, such continuity cannot be proven, and with new findings this becomes even more improbable.

Rather, in my judgement, the late second- and early first-millennium scribes in Tyre, Sidon, Byblos *etc.* and in the territories of the later kingdoms of Israel, Judah, Ammon, Aram, Moab and so on acted on the same common *graphemic* platform of something that we may call a 'Levantine linear *koine*', which in principle was the same as of their respective neighbours, whatever the vehicle of its diffusion might have been. This breeding ground of a shared scribal culture was primarily *not* the

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19 Another term to avoid all 'national' and other aporia is what Sass and Finkelstein 2016 recently called 'post Proto-Canaanite'. This, however, goes along with new aporias that cannot be discussed here.

outcome of shared educational traditions (which appeared only later as an additional trigger), but lies first and foremost in the rooting of a still very small intellectual elite of linear alphabet scribes in the Late Bronze Age who, as supra-national and trans-lingual freelancing sustainers of a still quasi-arcane knowledge of segmental (*i.e.* phonemic-alphabetic) writing (which even might have been also a kind of 'disruptive innovation', Goldwasser 2018), acted on their own accounts.

   This *graphemic* platform could stand (and in fact it did stand) in *individually* different stances and ductūs, *i.e. graphetic* differences that did not interfere with readability within a very small literate elite. Rather, it might have discerned them as mere allographs.[20] In the Late Bronze/Early Iron Ages we have a loose and spacious trans-regional, non-hegemonic and even supra-lingual standard. It is not a typological standard set by a local administration or school, rather by means of writing technique. This *technically induced typographic standard* is not yet discernible in Hamilton's 'Early Alphabetic B', but then in nearly all 'Early Alphabetic C' inscriptions (Hamilton 2014, 43 f, figs 10–11), in the *punched* inscribed arrowheads,[21] Byblos Azorbaal-spatula and Tekke bowl,[22] and also in some more metal-*incised* (Kefar Veradim[23]) or stone-*chiselled* (Aḥirōm, Šipiṭbaʿal *etc.*) inscriptions of what then is called Early Linear Phoenician. Many of them give the impression of being typographically reduced to an image that is put together of homogeneous, uniform-length strokes.

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20 In later times with much more source material available to research, there is sufficient evidence for different but simultaneous states of development, shape, stance, ductūs, and typological 'normalisation' or typological realisation even at the same place, *e.g.* the Samaritan mixed scripts from Mt. Garizim, the Tobiah-inscription from Iraq al-Amir, and more. And there is no reasonable argument for the often tacitly made assumption that the same should not also have been possible in the fledgling phases(s) of a still 'normalising' alphabet's history, *i.e.* in the late second millennium. Quite the contrary, I suppose. The then still very small elite of freelance scribal guilds did not need to care for tiny differences in stance or length of downstrokes and the like to provide readability for a broader public.

21 Today there are more than 60 inscribed arrowheads known. Because all except one (Ruweiseh 1926) stem from the antiquities market they are, however, to be handled with the utmost care in respect of their authenticity – which I do not assess too highly. However, because, from a *technical* point of view, some of these are very similar to objects from controlled excavations like the Tekke bowl (Lehmann 2018) or the Azorbaʿal spatula, it is possible to include them here with all due caution as additional (but not as basic!) evidence. Especially the arrowhead-script (if ever there had been something like that, which I consider more mere fancy) is because of its *technical* conditionality (hallmarking) no archaic norm but a mere field of allographs; also seemingly early diversifications of letter shape are mostly just technically induced and therefore typologically inoperative and chronologically feeble, as is the case for instance with alef as crossed (⟡) versus non-crossed (quasi-K) shapes. As a 'skeleton standard' however, these are close to the notion of a 'Phoenican typewriter'.

22 Sznycer1979, 89–93; Cross 1980, 1–20 [= 2003, 213–230]; Puech 1983; and most recently, with a new and improved facsimile drawing, Lehmann 2018.

23 Alexandre 2006, recently also Lehmann 2018.

Most of our knowledge of early Phoenician script is still taken from such inscriptions. The shapes of scores of these are in part determined by technical constraints such as the gauge of a chisel's blade, the Kefar Veradim inscription, small fragments like the Reḥov sherds and newly discovered but hitherto unpublished Gezer fragments aside.[24] Single or double-length strokes are the normal consequence (exceptions more often than not only made with typologically rounded letters like *lamed* or *ʿayin*) and determine the basic shape of the linear-alphabetically standardised letter-forms, as they are nowadays accessible for us – 'Phoenician' only because most of them are found in a territory that the Greeks deemed to be the origin of the Phoenicians.

Accordingly, for example, the identical length of the five and three strokes of *mem* and *nun* respectively on the Byblian Azorbaʿal spatula (Fig. 5.1) should not be regarded easily as 'early features' (Rollston 2014, 76, the same misjudgement already in Rollston 2010, 20, and *passim*). Many authors miss, *inter alia*, that almost *all* letters of this punched text have almost identical stroke length according to the width of the respective tool's blade. This chisel or punch was used, as was normal in bronze (and also in certain kinds of stone),[25] for vertical thrust only. Domes are made only where typologically required, as for instance with *ʿayin*, *waw* and, as a surprise, also with *yod*, strokes are extended by double-thrust as an exception only where it was *typologically* inescapable (*i.e.* with *pe* and *lamed*). Most interestingly, it was *technically* not possible to fall *below* a given stroke length, as can be easily seen by the left horizontal protrusions in *ḥet* (lines 3.4) and by the bottom crossings of *šin* (line 2)!

This *technically* induced typological concentration to almost straight-cut strokes in single or double length, which is indeed found in the majority of the early linear Phoenician, *i.e.* Hamilton-C or 'post Proto-Canaanite' (Sass and Finkelstein 2016) inscriptions, was a kind of 'typewriter-like' structural simplification. This also became or was the precondition to decode every local or individual figurative idiosyncrasies in letter stance and shape as mere allography of the one letter matrix. This again only made it possible later, in the course of speeding up the writing process, to fan out the 'Phoenician' standard into several regional (but not 'national') script types.

An intermediate script or a transitional phase?

To me, it seems inadvisable to suppose a 'mixed script' (*e.g.* Finkelstein and Sass 2013 *passim*) to escape the straits of having too little Iron I material for a differentiation between professional scribes (who may have used different material, as for instance papyrus) and the occasional scrawlers, the output of which we only have preserved in clay.

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24 The unpublished Gezer sherds will be edited by the present author in the near future. On the Kefar Veradim inscription, see Lehmann 2018.

25 For different chiselling techniques depending on the type of stone, see Keimer (2015).
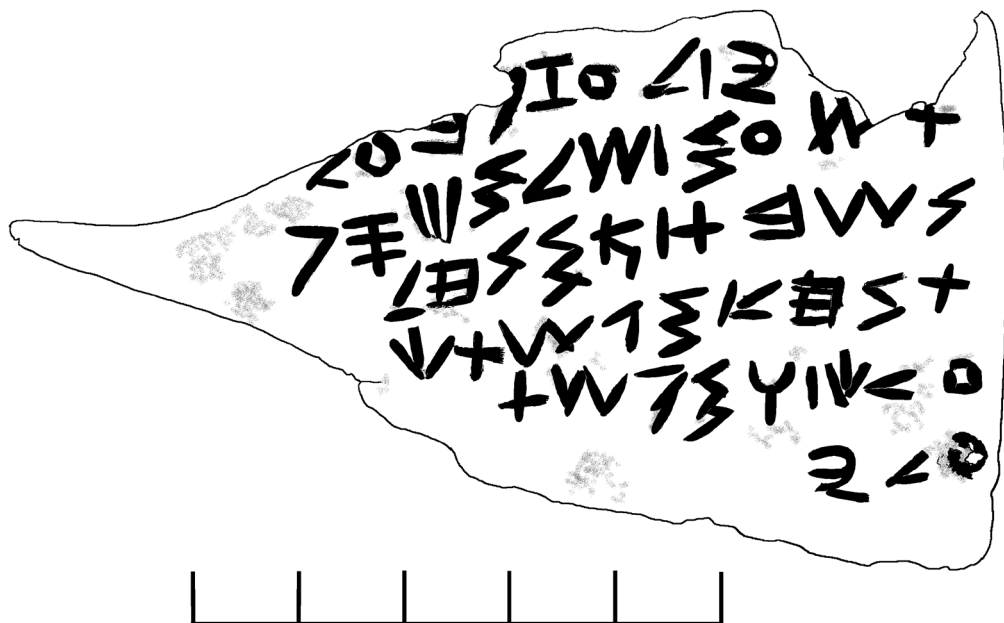
Figure 5.1. Facsimile-drawing of the Azirbaal spatula (KAI 3). Drawing by Reinhard Lehmann.

There is a most recent tendency, prominently advanced by Finkelstein and Sass to assume from certain sparse data a considerably long transitional phase where some kind of type mixing was *en vogue*, or was the predominant 'scribal' attitude. At the end of the day this involves the presupposition, or existence, of a certain 'intermediate' or 'transitional script', that could be described by essential, distinct and distinctive, unique features. However, as I understand it, this is not the case. Rather, different unexpected features are found here and there, and do not fit all together in one framed picture within a given time slot. Because nowadays we are accustomed to the stabilised, normative-looking appearance of mostly printed script (but similar even so with mediaeval and older manuscripts), we find it hard to tolerate a less standardised script appearance. Nevertheless such mixed-looking or really 'mixed-script' phenomena must not rashly be ascribed to a non-stabilised or barely-literate stage of script typology, since these appear also in realms and periods of obviously higher literacy – though we do not know the exact reasons for this: see, for instance, the Mt Garizim inscriptions from the third century BC, in some of which, palaeo-Hebrew and Judaeo-Aramaic letters are mixed together (Dušek 2007, Stadel and Lehmann forthcoming).

Also, support and confirmation from archaeological data seems to be less useful for the epigrapher and palaeographer than it is for the archaeologist. It is maybe not advisable too, to parallelise ceramic typology and letter typology, which both
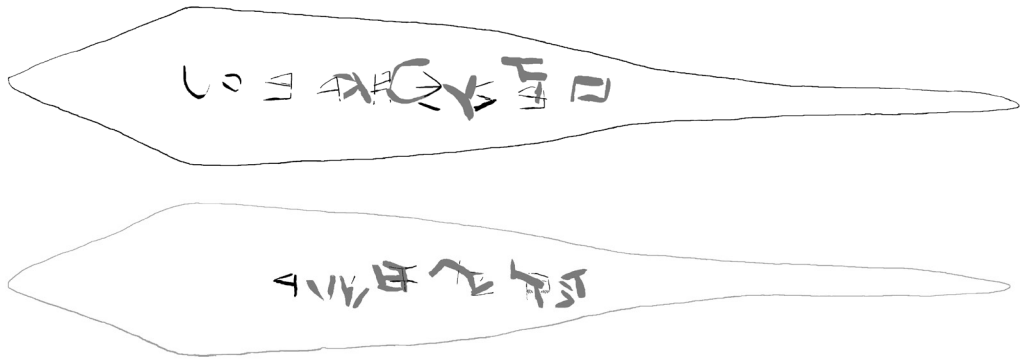
Figure 5.2. Facsimile-drawing of the so-called Rapa arrowhead, front (a) and back (b). Sub-text in black, upper text in grey. Drawing by Reinhard Lehmann.

might demand a different approach because of the very dissimilarity of the available material alone. The outcome of the problem is obvious, as stated by Sass and Finkelstein (2016, 28): 'If ceramic typology points to the end of Iron Age IIA while letter typology favours early Iron IIA, something is clearly amiss in one of these typologies. [...] It would moreover imply a Proto-Canaanite-to-cursive transitional phase of matchless length, roughly four generations, for which we have no parallels and no ready explanation.'

Examples for such inscriptions where the data do not fit together are, from several different points of view, the so-called 'Rapa' palimpsest arrowhead (Fig. 5.2) (Martin 1962),[26] the Fakhariya bilingual (Abou-Assaf *et al.* 1982) because of its curled *lamed* and dotted *ʿayin* letters (which for Sass [2005] are reason to label its script as 'eccentric' and 'archaising'), and more besides. The scarcity in particular of earlier epigraphic material, as it is preserved on second-rate (*i.e.* ceramic instead of papyrus) flat-writing material alone and is used by predominantly second-class non-professional and occasional-only 'scribes', would provide enough explanation.

A crucial point here is also how to deal with cursivisation and with the emergence of cursive traits in particular. It is not beyond any reason to conclude that cursivisation of a script is a marker of standardisation or at least of a commonly accepted and applied writing standard – maybe but not necessarily centralised – and maybe also of increasing literacy. At the same time, however, cursivisation *technically* originates

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26 A new and improved reading will be given by Lehmann (in prep.). The so-called 'Rapa'-palimpsest arrowhead, in possession of the Beirut National Museum, was published in 1962 by Martin. Its lower text looks typologically much older than the upper text – at least according to the 'Albright–Cross–Harvard scale'. A new examination shows clearly that the established reading must be abandoned. Instead, the upper and later, but according to the established scale seemingly older text reads ḤṢ WLʾ ‖ BN YḤŠ, which means that the arrowhead should be renamed from 'Rapa' to 'Wala'.

in flat writing. Its spread into incised writing therefore indicates the increase of flat soft surface material (*i.e.* papyrus). I would not so persistently adhere to a 'lost papyri theory'. But as a matter of fact it is neither easy to prove that the 'lost papyri' once really existed nor to explain why regional graphemic differences first appeared after the rise of cursive standards. At any rate, this is not so easy an issue as it seems at first glance simply because there is no proper definition of what really a *cursive trait* is, and how many cursive traits in a single inscription are sufficient or necessary to flag an inscription as cursively written.

This is particularly difficult if only two broken letters are preserved, as is the case for instance in the Megiddo sherd featured by Sass and Finkelstein (2016), who nevertheless claimed it as cursive: 'the two Megiddo letters belong to the earliest cursive or "post Proto-Canaanite" phase of the West Semitic alphabet, at the same time still flipped left to right, a last relic of the waning Proto-Canaanite tradition' (*ibid.*, 24). What really is cursive with these two fragmented letters must remain an open question.[27] Only a meagre definition is given by Sass and Finkelstein, though cursivisation seems to be an important issue (2016, 30): 'Cursive or "post Proto-Canaanite" characteristics include for instance the acute angles and/or inclination towards the next letter of *he* and *ḥet*, and the lengthened downstrokes of *mem*, *nun* and *samek*.'

So one is forced to admit that there is a certain vagueness even in the argument. At least one can say that cursivisation is an effect of speed-up in writing that causes – depending on the writing angle – either a flattening of letter-heads or a lengthening and curvature of downstrokes, or both. However, it is not possible to treat every flattening or lengthening of a letter as a cursive trait. The problem arises if it is not an ink-written but chiselled (in stone) or punched (in metal) inscription, which by definition cannot be cursive in itself but only display a reverberation of cursivisation effects which had taken place in flat-and-ink writing. So it does not help to flag one or two letters on the Azarbaʿal arrowhead as being cursive to deduce that the inscribed arrowheads straddle all three script-phases from the Proto-Canaanite (El-Khadr 1–3) through some mixed 'Proto-Canaanite and cursive' (Rapa, Ruweiseh, Gerbaʿal, Pères blancs, Zakarbaʿal) to fully cursive (Azarbaʿal - Fig. 5.3) arrowheads, the latter exhibiting 'marked cursive inspiration in the elongated *lamed* and *nun*, low *zayin* and

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27 See already the recent demurs of Vanderhooft 2017. Vanderhooft also reconstructs the left broken letter differently as *samekh* (not *he*), which I hold to be dubious because then both letters do not stay on track in the line-of-writing. Anyway the angle of either the *bet* or the allegedly reconstructed *he* (or *samekh*) is not fitting, *i.e.* there is no correct tracking of both letters anyway, which again rules out a 'cursive' writing. Further there is indeed to doubt also the reconstruction of the presumptive *bet*. In the published photographs this looks as if there is another faint upward stroke to the head, thus 'closing' the figure which then cannot be any longer a *bet*. Because the inscription is written top-down (or bottom-up) as demonstrated by Sass and Finkelstein 2016, fig. 1c and d, it is but the clumsy head of a vertically standing *qof* with a short or broken stem (if not a decorative element at all).
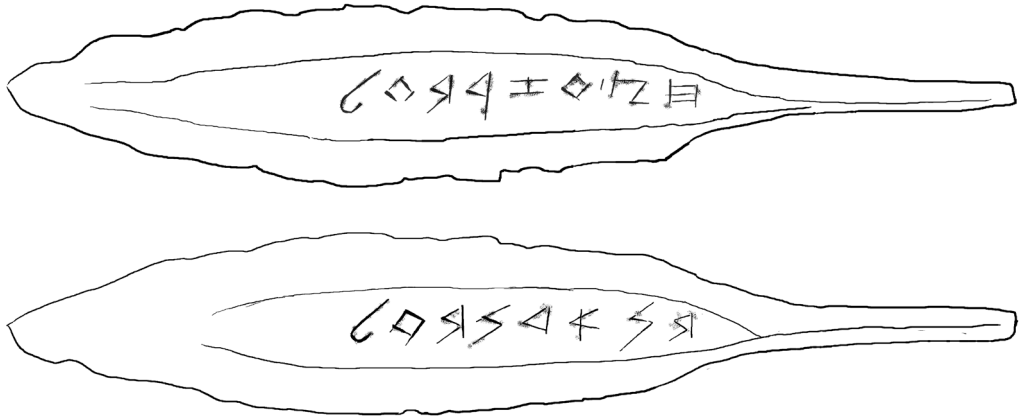
Figure 5.3. Facsimile-drawing of the Azarbaʿal arrowhead (TSSI 3,1). Drawing by Reinhard Lehmann.

no trace of the Proto-Canaanite style or mirror-image letters' (Sass and Finkelstein 2016, 33, 36 and table 2). As long as there are no fully (*i.e. not*-mixed) cursive *and* ink-written inscriptions that display at least most of the letters of the alphabet, a theory about an 'intermediate' or mixed script in the transitional phase from Proto-Canaanite to 'Phoenician' and beyond is too speculative.

Cursivisation, moreover, is not a pre-determined supra-regionally decreed innovation of West Semitic expert scribes.[28] It is rather the technically induced calligraphic result of a new writing implement, which at first hesitantly only established itself in the Early Iron Age, before it eventually became the overall powerful implement of the fast-and-fluent tachygrapher-scribe in the early first millennium. As a consequence, as far as (even late) Early Alphabetic is concerned, it is unlikely that an inscription bears cursive and non-cursive forms together – at least not in a way that can be interpreted by means of typology and palaeography. Or, to say it the other way round: cursivisation in itself is not apt as a distinguishing feature for typological stratification – all the less, if cursive and non-cursive traits are found together in one inscription or in one single word.[29]

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28 Ironically Stephen A. Kaufman (1986, 3): 'But is not such wide ranging uniformity a trifle strange? It almost requires us to imagine the following scenario: Every twenty years or so the council of Phoenician scribes meeting together for their national academic conference would decide on a few changes in letter stances and shapes. Whereupon not only would all of that group begin to use such forms in their own inscriptions, but the illustrated proceedings of that meeting would be disseminated instantly all over the Ancient Near East, so that all those scribes who could not afford the fare to get to the assembly would be able to incorporate the proper forms into their own inscriptions.'

29 For example, if the extreme left-slanting downstroke prolongation of both the ‹M› and the ‹N› letters of the 'extremely similar' (Aḥituv and Mazar 2014, 43) Tel Amal and Reḥov 5 jar inscriptions, which both read LNMŠ (Levi and Edelstein 1972, 336 and pl. 25:4.; Aḥituv and Mazar 2014, 194 fig. 6,

Rather, the degree of cursivisation and its assessment by modern scholars depends on where and how three millennia ago a professional scribe and his (new) implement prevailed. As long as the linear alphabet was not a domain of any royal court or another centralising administration, this alphabet could have looked very different from region to region at the same time (this, *inter alia*, is what the so-called Rapa arrowhead proves). And *vice versa* later.[30]

Thus, in contrast, I hold that there was neither an intermediate 'post-Proto-Canaanite' *script* as such (Sass and Finkelstein 2016, 26 *et passim*), nor any transitional *script phase* as a quasi-overlapping period (see Hamilton, above), which both seems too unidimensional/unidirectional a model. Rather I prefer to imagine a '*transitional phase of scribes*'. By this, I mean a *period of vagrant freelancer scribes* in the very late Bronze and early Iron Ages working on their own accounts. These scribes seem to have been even specialists in different script types (cuneiform, hieroglyph, alphabetic), but were not bound to any court, kingdom, local warlord or administration; rather, they worked on demand, at their own risk and own expense in the Eastern Mediterranean 'bazaar of writing systems' (Singer 2000, 27).

Already in the Amarna period there were royal courts with scribes. But there is increasing evidence (Millard 1999, 318, recently Vita 2015) that some of these scribes were not courtly officers of one single city or state, but rather migrant specialists ('specialized retainers', Byrne 2007, 16, 22) and freelancers who had a certain radius

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43 ff. and 193, fig. 5), really were a true cursive trait, why then is the ‹Š› in both the same small inscriptions so apparently stiff and obviously non-cursive? And why, furthermore, do both the two more examples of the same name from the same region and of the same time frame, which are written *below* the shoulder in Reḥov 6 (Aḥituv and Mazar 2014, 44 ff. and 195, fig. 7) and on the broken body sherd Reḥov 4 *ibid.*, 193, fig. 4), *not* display this peculiarity? Aḥituv and Mazar note that this discrepancy in appearance might be chronological or 'due to the style of writing' (2014, 45). An additional close observation helps to clear this point for an easier and more plausible explanation: in both first mentioned cases (Tel Amal and Reḥov 5) the word is written *above* the shoulder of the respective jars. This obviously influenced the extreme left-slanting completion of the letters which normally require a bit more space underneath for their prolonged but still non-slanting downstroke. But it is most noteworthy here also that the *complete* letters ‹M› and ‹N› – only their downstroke prolongations – are slanted due to the missing bottom space on the shoulder of the jar: the ‹M› and ‹N› of Reḥov 5 for instance both are slanted by –47° and –33° respectively in comparison with the same writing in Reḥov 6, but as opposed to the adjacent letters which do not require additional downstroke space.

30 One should be careful, for instance, also with the commonly hold opinion (for example Sass and Finkelstein 2016, 30) 'that the Hebrew script-variant was born concurrently with the cursive itself.' Rather, if the low angle appeared first, extreme cursivisation would be the inevitable effect, resulting in an appearance many would flag as 'Hebrew', even though it is merely a low-angle cursive. See also Sass and Finkelstein 2016, 30 note 23: 'The Hebrew identification is by the closeness of the lettershapes in inscriptions from Rehov and Ṣafi [...] to those of the Mesha Stele and Samaria ostraca, decades younger.' Q.e.d. — the effect was areal, not 'national' (however, many scholars would not refrain from judging the Mesha script for 'Hebrew' for political reasons).

within which they worked (Vita 2015, 137–150). But this, to be sure, was cuneiform writing.[31]

A segmental alphabetic flat writing, on the other hand, was something entirely new. Apart from Ugarit, where *alphabetic cuneiform* was the predominant writing system, *linear* alphabetic first was the domain of migrant experts who worked supra-regionally. The technical difference, alphabetic cuneiform versus linear alphabetic, underscores also the socio-cultural difference: it was the 'subversive innovation of the cultural and geographical periphery', which 'remained on the fringes of the canonical script-repertoires [...]. It was not promoted by any institution, state or group of power holders' (Goldwasser 2011, 284).[32]

During the collapse of the Late Bronze Age Levantine networks the administrative and prestige version of the alphabet, that is, alphabetic cuneiform, also came to an end, and it was those vagrant freelancer scribes who filled the vacuum. They were not only accustomed to multiple, changing, writing implements, but they also developed a new and powerful implement of their own: the 'chisel shaped broad nib reed pen'.

The implement – the calligraphic turn

It is perplexing to see how, once standardised, a 'late Early Alphabetic' (as I prefer to call it) fanned out into so many different Northwest Semitic alphabet traditions within only a few hundred years in the first half of the first millennium. But this clearly came along with the invention and introduction of a new writing implement that caused an acceleration in writing and calligraphic proficiency: it was the so-called *chisel-shaped broad-nib pen* instead of the brush-like implement which remained in use in Egypt and also in Eastern Asia. With the decline of the Egyptian hegemony over the Levant, the rush brush-tip pen was subsequently given up, and a triumphant rise of the rush *broad nib pen* in the Levant began.

This implement, as for instance seen in the palette-box of the scribe's orthostat from Zincirli (KAI 218),[33] was a reed pen cut from the ubiquitous, cosmopolitan rush

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31 It is, as a side note, the disadvantage of both the important books of Carr (2005) and van der Toorn (2007) to overly rely on putative comparative evidence from Egypt and Mesopotamia, or from the considerably later Graeco-Roman world. The alphabet as a segmental system, and to a greater extent the linear alphabet, was something entirely new and different.

32 'It is very unlikely that the invention [of the early alphabet] itself took place under the auspices of a political or cultural Canaanite center, such as the one in Byblos. In this case we may expect that such an attractive communication tool born and sustained by Canaanite officialdom would gain priority and would show examples of state and administrative discourse, and a quick standardization. This process is nicely exemplified by the Ugaritic alphabet.' (Goldwasser 2015, 128, similarly 2018)

33 There is good reason to assume that it was indeed a *chisel-shaped broad-nib* pen that he used. This is proven indirectly by the inscriptions accompanying this and contemporary artefacts from the same site, which already incontrovertibly display traces of this very calligraphic tradition – as

variety *juncus maritimus.* Writing with this implement gained a lasting effect, which was based upon the inherent mechanics of writing itself. Moreover, here the mechanics of path dependence[34] triggered an irreversible script differentiation from *allography* to *typology*. The new implement caused another important feature, which in interplay with writing surface and scribe's hand posture triggered far-reaching distortions of letter shapes and, consequently, the birth of 'new' scripts. Earlier, in the late second millennium, the crucial decision had been the divergence in writing *direction, i.e.* dextrograde or sinistrograde – and no-one knows exactly why. However, now in the first millennium BC, the parting of the ways was considerably more manifold and ended up in an almost total divergence of scripts at the end of the first millennium, based on a clear and surprisingly simple rationale: *speed* and *angle of writing.*

In his unpublished 1986 doctoral dissertation, the Dutch scholar Gerrit van der Kooij identified the parameters for what became crucial when speeding up writing by professional scribes.[35] A close investigation of the Northwest Semitic script traditions of the first half of the first millennium BC has shown that script changes leading to seemingly different 'national scripts' depend almost exclusively on changes in the scribe's hand and the different dynamics of regional development, and influence of dominant scribal schools.[36]

I contend that van der Kooij's approach, though only poorly taken notice of, explains much of the surprisingly fast development of letter stances and ductus and the eventual divergence in the realm of the West Semitic alphabet in as surprisingly short period of less than half a millennium. With only a little exaggeration we might say that van der Kooij (maybe unwittingly) got the theory of everything here, while others were still collecting data.

The main factor, as van der Kooij proved through painstaking analyses, was the position of the hand when forming a letter, which results in the *angle of writing, i.e.* the angle of inception that starts the main vertical stroke of a letter. What van der Kooij found was an obvious regionalisation and that theses regions can generally be

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for instance dovetailing and pair-kerning or the thickened, 'quasi-italicizing' bases of the Zincirli letter *bet* (Lehmann 2008a, 149–151, 151–154 and table 19).

34 'A *path-dependent* sequence of economic changes is one of which important influences upon the eventual outcome can be exerted by temporally remote events, including happenings dominated by chance elements rather than systematic forces.' (David 1985, 332).

35 Van der Kooij 1986, 90–93, 244–251, 253. Compare also his study on palaeography in van der Kooij 1976, 37 ff.

36 Van der Kooij 1986, 90–93, 244–251, 253. As long as there is no better explanation, we must assume that also the earlier change and fixing of writing direction(s) had the same cause. However marginal the reason might have been: once a dominant writing direction had been set, the canon of 'path dependence' became the rationale for all further development and did not allow any reconversion, either of direction or of shape.

distinguished as politically and often culturally defined population groups – all of which now points to underlying spatial and well organised school traditions:[37]

> The main differentiation is based on the difference in size of the angle of inception, and it soon isolated the script traditions for primarily the Hebrew and probably also southern Trans-Jordan from those used for the Phoenician and the Aramaic Language. (Kooij 1986, 244)

In short: a small angle of writing (45° to *c.* 10°) was used for *Hebrew texts.* This was the reason why no very considerable changes within the composition of the letters came about, *i.e.* why there were no considerable deviations from the 'Phoenician typewriter'. On the other hand this script exhibited powerful developments in cursive writing.

A larger angle of writing of *c.* 45–50° was used in the ductus of texts in the Trans-Jordanian region, 'Ammonite', and in Phoenician areas, where the angle later reached *60°.* But instead of inherent changes of ductus and form as happened in the Aramaic context, here the enlargement of the angle results in a left-inclination or 'slope' of up to 45° to the left.

The most considerable enlargement of the angle of writing takes place particularly in the *Aramaic* script tradition and also in some *trans-Jordanian* sites like the ink-written scripts used on inscriptions from Deir ʿAlla, probably starting about the end of the eighth century BC or somewhat earlier. This angle of writing was 50–60° and caused more serious changes of graphs.

To sum up, with words by van der Kooij (1986, 250):

> [...] all writing has been spread by way of ink writing 'schools'. This, then, implies that almost all writing, with all kinds of material-implement combinations including those that presuppose a very specific technical skill, had been accomplished by people trained in ink writing, or put into practise by craftsmen copying ink-written texts.

The 'new scribe' wrote faster, and in fact he wrote differently, *i.e.* with a different hand posture, which was distinct from that of Egyptian scribes with their almost vertical brush-holding posture, and also remarkably different from the cuneiform tablet scribe. This sparked a *calligraphic turn* which should not be underestimated, as, for instance, a simple comparison of the Early Alphabetic Lachish Ewer with any Judaean Lachish ostracon shows (despite more than half a millennium of alphabet history in between, which is not within the scope of this paper): both are written with ink on fired clay, but with different implements, and this is what makes the difference in ink-drawn stroke management.

There was, however, also a great disadvantage of this new, fast and universally available implement: it responds extremely sensitively to minimal shifts of the hand´s posture. Thus it necessitates a new and stern discipline of the scribe's hand which,

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37 'This points to a politically centralised teaching of writing at one or more interrelated royal courts.' (Van der Kooij 1986, 250)

as it seems, was formerly unknown in Levantine flat writing.[38] This, however, results in a finger-controlled, remarkably constant angle of inception,[39] which became the main precipitating factor for the creative *calligraphic turn.*

This angle is the main parameter for a quantifiable recording of calligraphic proficiency and its regional distribution. For its calligraphic potential see for instance the famous eighth-century Deir ʿAlla plaster inscription from Jordan with its constant angle of 50° and the elegant bottom fading of downstrokes (Hoftijzer and van der Kooij 1976), or the more ancillary ostracon 2 from Lachish in Judaea (seventh century) with a likewise constant but significantly lower angle of only 17°, as was typical for the south.

Yet the effect of thicker and thinner strokes due to the constant hand posture of a skilled scribe is increasingly imitated in chiselled inscriptions in stone, which means that at this point eventually it already has become part of the typological repertoire.

The different angles of inception, their changes and their calligraphic potential were also responsible for the divergence of at least three main calligraphic script 'channels' or ductūs in Northwest Semitic and eventually also beyond. Theese can be described at first by simple technical terms – an angle of inception of I. ± 50° (mainly early Aramaic and later Phoenician), II. ≥ 60° (Aramaic), and III. < 45°, which was in use in southern Trans-Jordan scripts and generally in Hebrew (van der Kooij 1986, 222). This may be illustrated by a sample of van der Kooij's painstakingly drawn graph of general script type series (Fig. 5.4a–c).[40]

Again, it was *the master's hand* and not *the king's speech*, that changed the alphabet. Although we do not know this master's identity and name, the reverberation of *their* writing skill and expertise is visible in the change of the alphabetic script. It was the master's guide and example that turned the 'typewriter' into calligraphy and smoothed the way from the proto-Canaanite arrowhead letters into Hebrew or Aramaic, to Syriac and Arabic calligraphy, and beyond.

Invented tradition and scripted origin

There are two main lines to explain how Early Alphabetic became Phoenician. First is a technical point. This is what I have described by the development of a new implement

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38 Van der Kooij 1986, 82, 90. This finger-tip-controlled (not wrist-guided!) exactness in mark-making may have had its root already in the Ugaritic technique of cuneiform writing, which has been impressively demonstrated by Ellison 2015.

39 The term is already used and illustrated by one of the most famous modern calligraphers, Edward Johnston (1872–1944). Nevertheless, van der Kooij was the first to introduce it into the assessment of ancient Semitic palaeography and calligraphy.

40 The graphs are extracted from a digitised version of van der Kooij 1986, fig. 16 (pp. 349–353) which will be the basis for a print publication in the *Kleine Untersuchungen zur Sprache des Alten Testaments und seiner Umwelt* series (in prep.). For a detailed caption and explanation see van der Kooij 1986, 220–234.
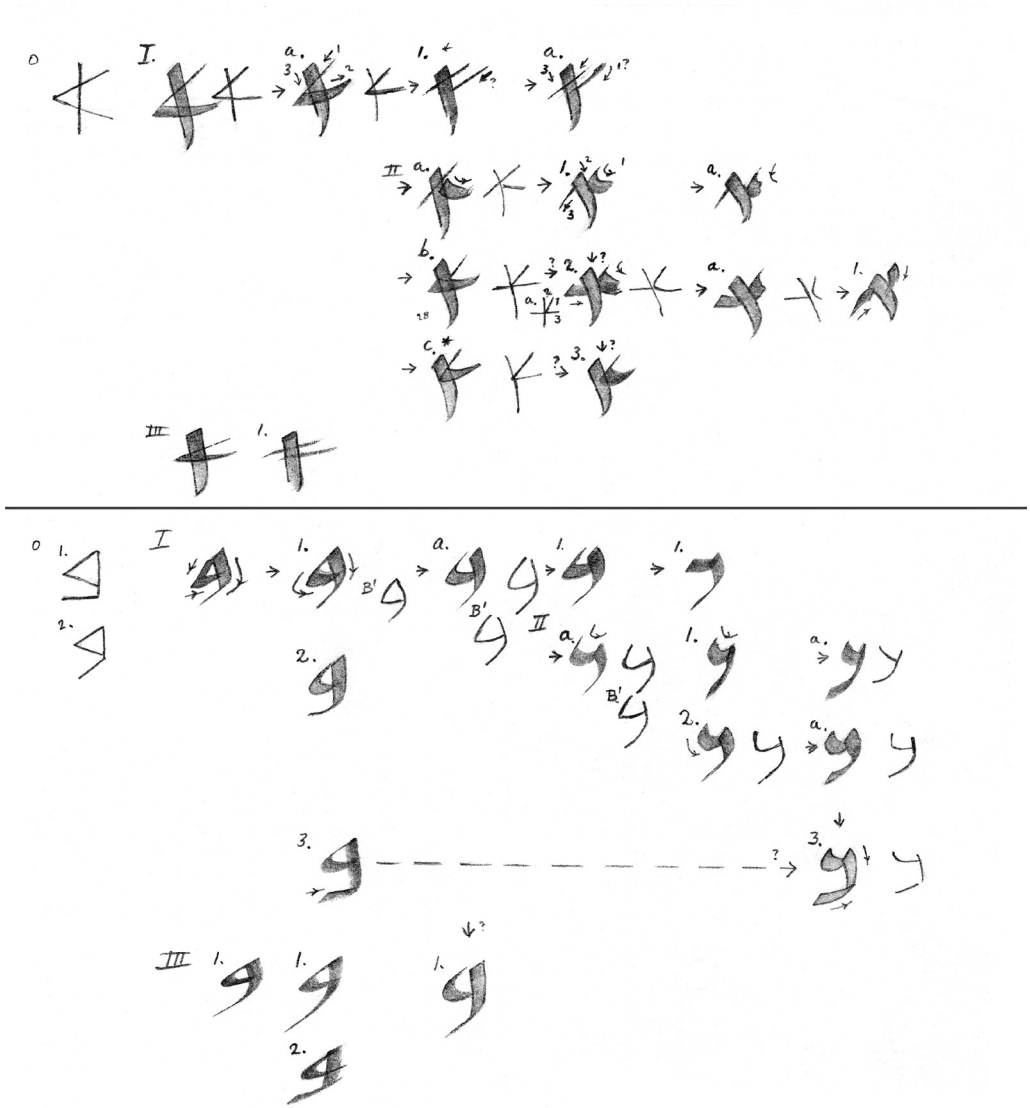
Figure 5.4a. Diagram of general development of the letters ʾaleph and bet (van der Kooij 1986, fig. 16. All rights reserved. Reproduced with permission).

and its implications for the style of writing and writing technique and the shape of letters and its standardisation. But there is still the question remaining: why should we call this Phoenician at all?

To recall again the late Brian Peckham, Phoenicia is a 'Mediterranean state of mind'. As for the classification as 'Phoenician', there seems to be much more modern identification than ancient identity. Everything which had been said
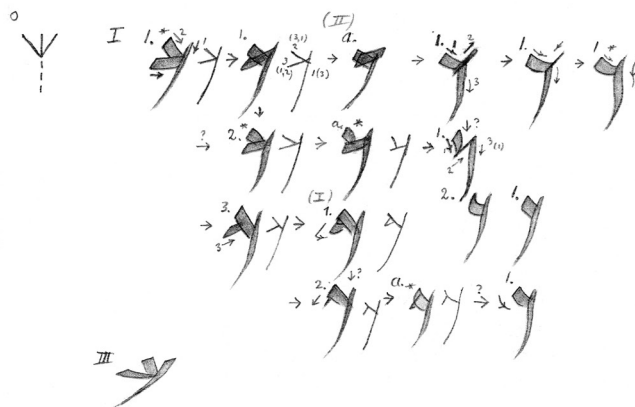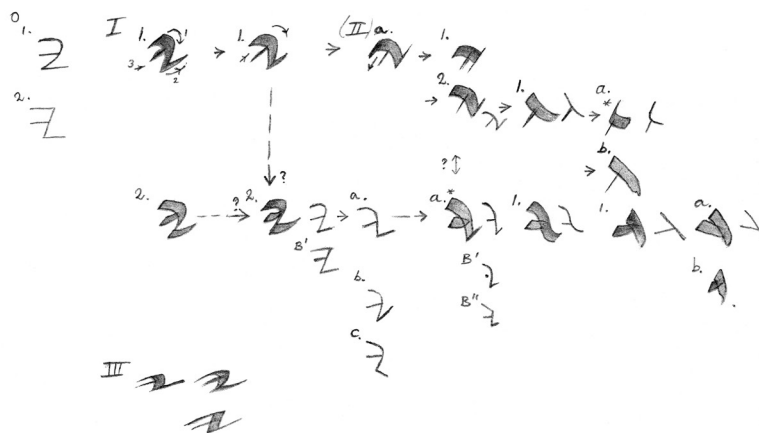
Figure 5.4b. Diagram of general development of the letters yod *and* kaf. *(van der Kooij 1986, fig. 16.*

about being 'Phoenician' is under general suspicion of being merely an 'invented tradition' (Hobsbawm)[41], that is: the factual or putative main actors and parameters of 'phoeniciandom' or 'phoenicianness' being at least to some extent of 'scripted origin'. Phoenicia is a 'western fabrication', though, to be sure, not a modern one.

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41 Eric Hobsbawm 2010 [1983], 1–2: "'invented tradition" is taken to mean a set of practices, normally governed by overtly or tacitly accepted rules and of a ritual or symbolic nature, which seek to inculcate certain values and norms of behaviour by repetition, which automatically implies continuity with the past. In fact, where possible, they normally attempt to establish continuity with a suitable historic past. [...] However, insofar as there is such reference to a historic past, the peculiarity of 'invented' traditions is that the continuity with it is largely factitious. In short, they are responses to novel situations which take the form of reference to old situations, or which establish their own past by quasi-obligatory repetition.'
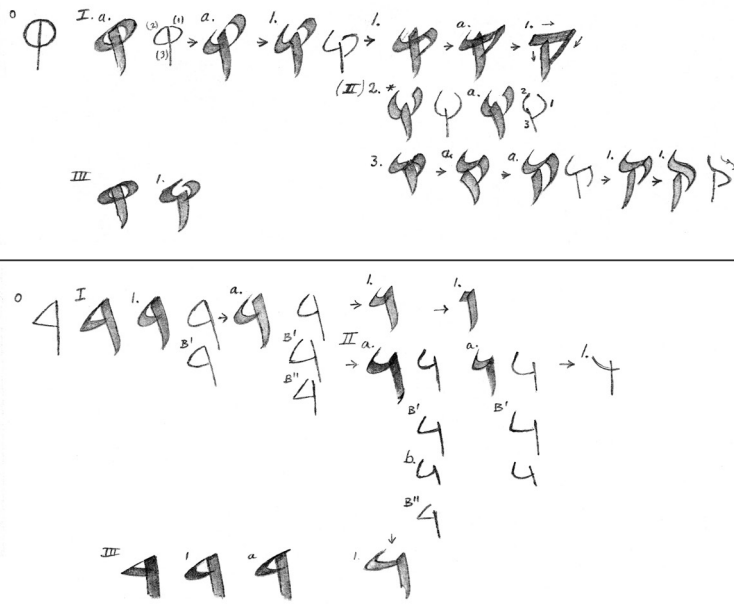
Figure 5.4c. Diagram of general development of the letters qof *and* reš. *(van der Kooij 1986, fig. 16.* *All rights reserved. Reproduced with permission).*

Rather it is an already ancient western fabrication, forged and coined by the Greeks. Nevertheless it became again a *modern* western fabrication, and all too often our view of the Levantine coast of the late second and early first millennia BC is still in danger to be seen through the glasses of Herodotos and others. However, *if* Phoenicia is a fabrication of the modern imagination, the *Phoenician script* has become a fabrication of the modern imagination too.

I argue that it is not the Phoenicians, but rather a Levantine intellectual 'internationale' which formed, by the virtuoso use of a new and powerful implement, a new script type and style of writing which eventually overcame every script that had been seen before. I further recommend that in future we use the term 'Phoenician script' as an *umbrella term* only for any kind of 'typewriter-like' proto-standardised script in the early first millennium Levant, to call it 'Early Alphabetic C' (Hamilton) or, as Benjamin Sass and Israel Finkelstein recently proposed, 'post Proto-Canaanite'. Anyway, a script that was not yet discernible as a regional or areal script — which formerly and by many scholars was labelled 'national script(s)', such as a Hebrew, Moabite, Aramaean *etc.* 'national script'. I myself for good reason refuse to do so. But that is another story.

Chapter 6

Vowel representation in the Archaic Greek and Old Aramaic scripts: A comparative orthographic and phonological examination

Roger D. Woodard

Introduction

The single most transformative feature of the segmental script devised for spelling the Greek language in the ninth (or eighth) century BC was the incorporation into that script of symbols that represent vowel characters, thus rendering it the first fully alphabetic system, if by the term *alphabet* one identifies a segmental script regularly spelling both consonant and vowel sounds. The Northwest Semitic script that was adapted to create this Greek spelling system, Phoenician, was one that fundamentally operated using only symbols for consonants. This Greek development of distinct characters for vowels stands as a major conceptual advance in the history of writing. As is well known, however, the advent of the Greek alphabet does not mark the beginning of the written representation of Greek vowels. Both of the Greek scripts that are antecedent to the alphabet, Linear B and the Cypriot syllabary, operate fundamentally as vocalic scripts: that is to say, *every* symbol of those two syllabic scripts that spells a consonant *also* encodes a vowel value (*i.e.* CV and CCV symbols), and each of the syllabaries includes symbols for spelling a vowel that is not accompanied by a consonant (*i.e.* V symbols). In addition, as is also well known, Northwest Semitic consonantal scripts, *other than Phoenician*, operated with a spelling strategy that utilised consonant characters to mark the presence of a vowel – the characters conventionally called *matres lectionis* 'mothers of reading'. In the pages that follow it is argued that, while it was Phoenician symbols that provided the Greek alphabet with its initial set of vocalic *letter-forms*, there is evidence for Greek adaptation of a *system* of *matres lectionis* that characterised Aramaic scribal practice. The discussion will thus entail an examination of Greek utilisation of certain Phoenician consonantal symbols (ʾ*alep*, *he*, *ḥet*, ʿ*ayin*, *yod*, *waw*) to represent Greek

vowel sounds and, in some instances also Greek consonant sounds, vis-à-vis Aramaic orthographic procedures for signalling the presence of /ī/ and /ū/ with the consonantal symbols *yod* and *waw*, and the presence of word-final /-ā/ (and /-ē/ and /-ō/) with *he*.[1]

The phonology of Greek vowels and their orthographic representation

As a starting point for this investigation let us begin with Greek phonology and consider the phonemic inventory of archaic Greek vowels. The early Greek vowel phonemes form, *grosso modo* (refinements will be made below), a symmetrical triangular system, with vowel length being phonemic throughout the system:

High	ī/ĭ	ŭ/ū
Mid	ē/ĕ ŏ/ō	
Low	ă/ā	

In both the Mycenaean and Cypriot *syllabic scripts* distinct symbols exist for spelling each of the *qualitatively* distinct vowels, but, in contrast, vowel *quantity* is not distinguished in syllabic spelling. In other words, long vowels are not distinguished graphically from qualitatively corresponding short vowels.

This spelling practice of not distinguishing phonemic vowel quantity also by and large characterises the archaic local Greek *alphabets*. One might imagine that this was a necessary consequence of the finite quantity of graphemic raw material that the Northwest Semitic consonantal script could contribute to its Greek adapters. In other words, the available Semitic *consonantal* graphemes had to provide both *consonantal* and *vocalic* symbols to the Greek alphabet, and in order to accommodate, vowel length was ignored. A necessary premise to this view is the *permissibility* of not distinguishing phonemic vowel length in Greek spelling practice, which is on display in the Greek syllabic scripts.

The Greek vocalic adaptation of Semitic consonantal symbols

Moving vertically within the oral cavity, from low to high vowel positions, the Greek adaptation of Semitic consonantal characters for spelling Greek vowels can be set out in the following way. Here the adapted Semitic script is identified as Phoenician, as is the widely-held position; Aramaic has been at times proposed to be the donor script (as by Segert 1963), though the proposal has not been judged convincing (see McCarter 1975, 125 note 1 and the discussions of Greek and Phoenician letter-forms on pp. 65–102; and see more recently Krebernik 2007). In terms of phonetic value,

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1 The author wishes to express his heartfelt appreciation to Prof. P. Kyle McCarter (Johns Hopkins) and Prof. John Huehnergard (Texas) for their kindness in reading the manuscript of this chapter and offering invaluable feedback.

the *adapted* Phoenician consonantal characters are of two types: (1) symbols used for spelling obstruents (both stop and fricative sounds) and (2) symbols used for spelling glides (that is, so-called semi-vowels). Obstruent symbols are adapted for spelling low and mid vowels, glide symbols for spelling high vowels.

The adaptation of the Phoenician obstruent symbols

The initial symbol of the Semitic script, *ʾalep*, spells a phonemic glottal stop /ʔ/; Greek had no such phonemic consonant and the adapters assigned to *ʾalep* the value of short and long low central vowels /ă, ā/. Semitic *he* represents a voiceless glottal fricative /h/. The occurrence of such a phoneme in Greek is a matter of dialect variation: it is absent from some dialects, such as East Ionic; it is present in others, such as Euboean (*i.e.* West Ionic) and Attic. In most dialects of the alphabetic period that have a glottal fricative /h/, the sound occurs prominently in word-initial position (so-called rough breathing, or the *spiritus asper*; see Woodard 1997, 88–89). One dialect with a more extensive distribution of /h/ than many appears to have been Cypriot, though this is not transparent in the syllabic script of the Cypriot Greeks (see Woodard 1997, 89–90). The Greek adapters of the Phoenician script assigned to *he*, however, not its Semitic consonantal value of the glottal fricative /h/ but, instead, jettisoned its consonantal function in order to use the symbol to represent solely mid front vowels, short /ĕ/ and long /ē/. The Phoenician letter *ʿayin* likely spells a voiced pharyngeal fricative phoneme /ʕ/, a consonant sound quite foreign to all Greek dialects. The Greek adapters utilised *ʿayin* to spell the mid back short and long vowel phonemes /ŏ/ and /ō/. The Greek vocalic symbols based on *ʾalep*, *he*, and *ʿayin* appear in the Greek alphabet in the same positions that the respective consonantal symbols appear in the Phoenician script. These then are the adapted obstruent symbols of Semitic, *minus one*, to which we shall return: discussion of this remaining obstruent symbol is delayed as it patterns in Greek in a way that is similar to the adaptation of Semitic glide symbols.

The adaptation of the Phoenician glide symbols

The case of the adaptation of Phoenician glide symbols, *yod* and *waw*, is at once both simpler and more complex. The automatic phonetic relationship between glides and vowels that leads to the alternation of consonantal [y] and vocalic [i] and of consonantal [w] and vocalic [u] in the appropriate conditioning contexts gives a naturalness to the Greek choice to adapt Semitic *yod* for spelling the short and long vowel phonemes /ĭ/ and /ī/ and the choice to adapt *waw* for spelling /ŭ/ and /ū/. Precisely the same strategy occurs in Old Aramaic, as we shall see, and thus there is quite clearly historical orthographic precedent within Semitic as well. This is a 'simpler' aspect of the Greek adaptation of *yod* and *waw* for vowel representation.

    The Greek adaptation of *yod* parallels the adaptation of *ʾalep* and *ʿayin* in that each of these three Semitic symbols spells a consonantal sound which is not part of the

phonemic inventory of Greek in the early first millennium BC. The adaptation of *yod* differs, however, from the adaptation of ʾ*alep* and ʿ*ayin* in that the Greek language of the adapters was undoubtedly characterised by the presence of a *non-phonemic* [y] that occurs automatically as the tongue moves into and out of certain articulatory positions (for discussion with bibliography, see Woodard 2014, 61–62). Such an articulation of [y] finds widespread expression in local Greek alphabetic spellings, being represented by an *iota*, as in, for example, Pamphylian διια (*i.e.* διγα) for διά, 'through'; Argive δαμιιοργοι (title of officials [IG IV.506]; and Ionic Διιοφανης. This continues the practice of the antecedent syllabic scripts of Greek; compare Mycenaean *i-je-re-u* for ἱερεύς 'priest', Cypriot *i-ya-te-ra-ne*, for the accusative of ἰατήρ 'physician'. The Greek letter *iota* is the adaptation of Semitic *yod*, and *iota* appears in the Greek alphabet in the position occupied by *yod* in the Phoenician consonantal script.

The outcome of the Greek process of adapting *waw* for spelling the short and long vowel phonemes /ŭ/ and /ū/ shows divergence from the regular Phoenician-Greek positional correspondence that we have thus far observed. The Greek vowel character dubbed *u-psilon*, adaptation of *waw* for vowel spelling, appears as a supplement to the Phoenician abecedarium, added immediately after the final letter *taw* (source of Greek *tau*). There is, nevertheless, a symbol that appears in the Greek script at the position of *waw* that shares both the name and the value of the Semitic consonantal character, but not its shape. The shape of this symbol, Greek *wau*, spelling the glide /w/, would appear to have been influenced by the form of the preceding letter, *epsilon*, that vocalic character adapted from Semitic *he*.[2]

Summary of the adaptation of the Phoenician consonantal symbols

These several Greek adaptations of Phoenician consonantal symbols for use in spelling vowels, as well as consonants, are summarised in Figure 6.1.

Notice that Phoenician obstruent symbols supply the Greeks with letters that represent only vowels, while the glide symbols provide letters that can spell both Greek vowels and consonants. This is not, however, the entire Greek story, as we have already noted. But before completing that story let us consider the use of consonantal symbols for vowel representation in Old Aramaic script.

The phonology of Old Aramaic vowels and the *matres lectionis*

The inventory of vowel phones in Old Aramaic (the language of the ninth and eighth centuries BC being that of principal interest for the present investigation)[3]

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2 Some, such as Jeffery (see Jeffery and Johnston 1990, 18, 24–25), would find a protoform of Greek *wau* in the cursive *waw* seen in Samaritan sherds.

3 On the periodisation of Aramaic, its background, and inevitable problems, see, *inter alia*, the remarks of Gzella 2015, 47–48. For a succinct inventory of the major texts of the ninth century (Kilamuwa, KAI 24 [representing 'the use of Phoenician as a prestige language in a primarily

| Phoenician | | Greek Adaptation | |
Phoneme	Grapheme	Grapheme	Phoneme
V /ʔ/	⟨ 'alep	⟩ alpha	/ă/ and /ā/
V /h/	�ヨ he	Ɛ e-psilon	/ĕ/ and /ē/
V /ʕ/	○ 'ayin	○ o-micron	/ŏ/ and /ō/
V /y/	⟨ yod	⟨ iota	/ĭ/ and /ī/
C		⟨ iota	[y]
V /w/	⟨ waw	⟨ u-psilon	/ŭ/ and /ū/
C		Ⅎ wau	/w/

Figure 6.1. Greek Adaptation of Phoenician Consonantal Symbols.

can be charted in the following way, though the status of the mid vowels and their vocalic quantity in this early period of the attestation of Aramaic is a matter of some disagreement (see, *inter alia*, Andersen and Freedman 1988, 17, 44; Creason 2004, 398; Gzella 2014, 81; 2015, 38):

High   ī/ĭ   ŭ/ū
    Mid   e   o
        Low   ă/ā

In the writing of Old Aramaic, consonantal symbols – *matres lectionis* – could be used to mark the presence of vowels: specifically, the relevant consonantal symbols are (at the least) *yod*, *waw*, and *he*. In this way Aramaic writing differs from the recording of Phoenician language, though *matres lectionis* do occur at times in the Phoenician writing of foreign names (see Millard 1991, 109, with bibliography in note 7). The

Aramaic Context' (Pardee 2009, 51 note 2); *i.e.* the inscription is written in Aramaic script but records Phoenician language and, à la Phoenician scribal practice, uses no *matres lectionis* (see, *inter alia*, Cross 1995, 395–396 for discussion of the phenomenon)]; Tell Halaf, KAI 231; Tell Fekheriyeh, KAI 309; Melqart stele, KAI 201; Tel Dan, KAI 310) and the eighth century (Sam'al, KAI 214–218; Zakkur stele, KAI 202; Sefire treaty inscriptions, KAI 222–224; funerary inscriptions from Neirab, KAI 225–226; Kuttamuwa, Pardee 2009; Bukan stele, KAI 320) see Merlo 2014, 109–110.

Aramaic *matres lectionis* – *yod*, *waw*, and *he* – constitute a subset of those five letters that we have seen, thus far, to have been adapted for the writing of Greek vowels. One significant difference between the Greek use of Semitic consonantal symbols for spelling vowel sounds and the Old Aramaic use of *matres lectionis* is that in the Semitic case *only long vowels* are so marked, whereas in Greek practice a single symbol can mark a vowel for quality irrespective of its quantity.

There is some local variation in the use of *matres lectionis* within the Old Aramaic period. Gzella (2014, 78) would characterise such variation in the following succinct manner. Materials from Sam'al (Zincirli-Höyük), in southern Anatolia, show only the use of *matres lectionis* in word-final position; central Syrian inscriptions show the use of *matres lectionis* word finally and occasionally word internally (see, *inter alia*, remarks of Fitzmyer 1967, 144–145; Rollston 2006, 63); while in the early Aramaic inscription (*c.* mid-ninth century) in Phoenician script (see Andersen and Freedman 1988, 44; Cross 1995, 395–396, 408–409; see also Kaufman 1982, 142–143)[4] from Tell Fekheriyeh in eastern Syria, *matres lectionis* are used to register the presence of long vowels both word finally and, teasingly, word internally (see, *inter alia*, Kaufman 1982, 155–157; Sasson 1985, 87; Andersen and Freedman 1988, 42–47; Millard 1991, 108–109). Such a distribution, Gzella suggests, 'may result from a greater familiarity with cuneiform spelling in eastern Syria': it is an interesting notion that clearly references the intrinsic vowel representation of the largely syllabic script of the Assyrians. The idea that the very introduction of *matres lectionis* into Aramaic spelling practice occurred under the influence of Assyrian syllabic spelling is found at least as early as Muraoka 1983–1984 (see Gzella 2014, 86–87). The origin of the *matres lectionis* is likely to be sought in the phenomenon of 'historical spelling' (see below) in word-final position. Any Assyrian influence in the matter of vowel representation would likely be limited to a sort of secondary enhancement, following from Aramaean familiarity with Assyrian orthography.

Old Aramaic matres lectionis and Greek glide symbols

There appears to be overall consistency in the *quality* of the vowels signalled by the use of the *matres lectionis* in Old Aramaic. *Yod* is used to register the presence of /ī/ and *waw* the presence of /ū/. Thus, *mutatis mutandis*, their use in this regard is identical to the Greek adaptation of *yod* and *waw* for spelling the high front and high back vowels. This agreement in Aramaic and Greek use could of course be viewed as coincidental and attributed to the cross-linguistic phonetic relationship between high vowels and glides (*i.e.* semivowels) to which we earlier drew attention. Yet the phonetic relationship between high vowels and glides would not necessarily obviate the possibility of some historical connection between the two practices, Aramaic and Greek.[5]

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4 On comparison with other Aramaic inscriptions of the ninth century (possibly late tenth for the Gozan text), with bibliography, see Cross 1995, 394–399, 405.

5 In instances in which *yod* and *waw* mark the presence of the second element of a diphthong, /ai/ and /au/ respectively, the eventual contraction of the diphthong, to /ē/ and /ō/, would result in *yod*

In contrast to the Aramaic use of *yod* and *waw*, the third *mater lectionis*, *he*, is used only in word-final position (not word internally) and signals the presence of the final long vowel /ā/, and at a certain moment the final long vowels /ē/ and /ō/ as well. Let us recall that the absolute chronology of the appearance of these mid vowel phonemes in the linguistic system that we can label 'Aramaic' is a matter of some disagreement. Yet in that early period of Old Aramaic with which we are here centrally concerned – the ninth and first half of the eighth centuries – final *he* can be demonstrated to enjoy already this expanded use, revealed by the Tell Fekheriyeh script of the ninth century (see, *inter alia*, Cross (1995:401).[6]

The letters that serve as Aramaic *matres lectionis* – *yod*, *waw*, and *he* – of course also continued to be used as consonantal symbols, representing /y/, /w/ and /h/ respectively. If the Greek adaptation of Semitic consonantal symbols for vowel spelling differs from Aramaic *matres lectionis* in tolerating quantitative ambiguity, the two practices, Greek and Aramaic, agree in allowing a dual consonantal/vocalic use of the relevant symbols (where 'relevant' will be defined through the ensuing discussion). We have already drawn attention to the case of *iota*, Greek adaptation of Semitic *yod*, that was used for spelling not only the short and long high front vowels /ĭ/ and /ī/ but also the phonetic glide [y] that arises automatically in movement of the articulators from one oral position to another. The very same dual role is realised through the Greek adaptation of *waw*: as *u-psilon* the adapted symbol regularly spells the high back vowel phonemes /ŭ/ and /ū/; as *wau* it spells phonemic /w/, but as with *iota*, *wau* can also be used to represent the comparable automatically occurring glide phone [w] in spellings such as Euboean δυϝο (Chalcidian) and δυϝε (Eretrian; both for δύο 'two'). Spelling of the same automatic phonetic phenomenon is again attested in the two antecedent Greek syllabic scripts; compare Mycenaean *ku-wa-no*, an oblique case form of κυανος 'lapis lazuli', and Cypriot optative *tu-wa-no-i* from *δυανω 'to give' (see Woodard 2014, 62–63, with bibliography). But more than this, in the earliest form of the Greek alphabet, that one coterminous with the Phoenician script (as seen on the copper plaques from the Fayum [see Scott *et al.* 2005; Woodard 2014 *passim*]), and so lacking the supplemental vocalic character *u-psilon*, the *w*-symbol *wau* must have been used for spelling both the consonantal phoneme /w/ and the vowel phonemes /ŭ/ and /ū/ (see Woodard 2014, 65–66), thus, *mutatis mutandis*, agreeing with the Aramaic use of the *mater lectionis waw*. The Greek practice of using *wau* to spell the *u*-vowel phoneme continues long enough to be attested in the representation of diphthongs in certain local alphabets: for example, Locrian Ναϝπακτιōν (with αϝ for αυ in Ναυπακτίων) and Cretan σποϝδδαν 'haste, speed' (with οϝ for ου; compare Attic σπουδήν [see Buck 1955, 33; Bile 1988, 138]).

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and *waw* effectively also marking the presence of mid vowels – one instance of so-called 'historical spelling' (see, *inter alia*, the thoughtful discussion of Andersen and Freedman 1992, 81 and *passim*).

6 Early examples have been claimed also in the eighth-century inscription of Barrakib from Samʾal (Zincirli-Höyük; KAI 216.15–17; see Tropper 1993, 137).

Thus in archaic Greek, as in Old Aramaic, the glide symbols spell both consonant and vowel phones.

ʾAlep as an Old Aramaic mater lectionis

There has been a good bit of back and forth regarding the prospect of a fourth *mater lectionis* in use in Old Aramaic writing practice – namely the letter *ʾalep* (see, *inter alia*, the discussions in Cross and Freedman 1952; Garbini 1956; Koopmans 1962; Fitzmyer 1967; Degen 1969; Segert 1975), which we saw to provide the Greeks with a vowel character, *alpha*, spelling the short and long vowels /ǎ/ and /ā/. The most recent thorough examination of the matter is Andersen and Freedman 1992, in which the authors reach, broadly, the same conclusion as set out 40 years earlier in Cross and Freedman 1952. This conclusion is principally negative: Andersen and Freedman contest or dismiss most claimed instances of a *mater ʾalep*, both word finally and word internally (at least earlier than what they allow to be the use of word-internal *ʾalep* to spell /-ā-/ in the period of the Dead Sea Scrolls [see Anderson and Freedman 1992, 84]). They can do so by making recourse to the notion of 'historical spelling.' That is to say – *ʾalep* spells a glottal stop (/ʔ/); there are instances in which a glottal stop occurring adjacent to a vowel ceases to be pronounced through sound change, while the *ʾalep* that had represented the glottal stop remains fixed in the spelling: thus, the *ʾalep* would appear to serve no consonantal function, but this is only a consequence of orthographic persistence (*ibid.*, 82–83, 85–86, 88). In other instances, in which the etymology of a word is less clear, they argue that an *ʾalep* which has been interpreted as a *mater lectionis* likely actually does symbolise a glottal stop, notably in the case of the suffix -א that indicates definiteness, which they would read as /-āʔ/, as opposed to /-ā/ (*ibid.*, 83–85); though they allow (p. 83) that orthographic perseverance might possibly also be at work here (*i.e.* that the glottal stop had ceased to be pronounced).

The most likely possibilities for the use of *ʾalep* as a *mater lectionis* in Old Aramaic are provided by certain particles, chiefly the clitic conjunctions spelled as *wʾ* and *pʾ* in KAI 214 and 215, eighth-century inscriptions from Samʾal, products of the reigns of the Aramaean kings Panamuwa I (ruled *c.* 790–750 BC) and Panamuwa II (ruled *c.* 743–733/732 BC), respectively (on whom see, *inter alia*, Younger 2016, 413–419; for the inscriptions from Samʾal, see Tropper 1993). The spellings with *ʾalep* contrast with expected *w-* and *p-*. Andersen and Freedman are quick to embrace the possibility that the particles spelled with *ʾalep* actually end in a glottal stop, being variants occurring 'in a regional dialect' (1992, 87), and fall back on a default position expressed throughout the study: 'Why didn't they use *he*?' – a reference of course to the recurring Old Aramaic use of *he* to record word-final /–ā/. Might the answer here be that the *ʾalep* is recording the presence of a clitic-final – not actually word-final – vowel? And/or, might the vowel it is marking be short /-ǎ/ – which is surely the anticipated vowel in at least the case of *w-*? In the end the authors appear to give some allowance to

the prospect that in the eighth-century Aramaic of Samʾal ʾalep might serve as a *mater lectionis*, writing (*ibid.,* 87):

> And even if these *alephs* were used as vowel letters rather than the well established *he*, the practice was restricted to a few special particles, and very circumscribed in both space and time; that is, it cannot possibly be recognized as a central and lasting contribution to Aramaic spelling.[7]

Concerning the use of ʾalep as a *mater*, it should be noted too that in the consonantal script of the Phoenicians of Cyprus ʾalep is frequently used in word-initial position to signal the presence of a prothetic *e*-vowel. Thus, the demonstrative pronoun, masculine ᵉzdé and feminine ᵉzdō (for the masculine compare Punic spellings in Latin script, *esde* and *esse*), is spelled ʾz, attested already in the eighth century BC (see Harris 1936, 23–24; Woodard 1997, 172; Krahmalkov 2001, 17–18, 21–22, 76–77; Hackett 2004, 367, 376; Steele 2013, 196–199).[8]

He *and the mid front vowel phonology of Archaic Greek dialects*

As Andersen and Freedman have just reminded us, *he* is the Aramaic *mater lectionis* that records the presence of the long vowel /ā/ in word-final position. Let us recall as well that *he* can also signal word-final mid vowels /-ē/ and /-ō/ as early as the Tell Fekheriyeh inscription. When Semitic *he* was adapted as a Greek vowel character, *i.e. e-psilon*, it was used to spell both short and long *e*-vowels as was noted above. This characterisation, however, requires further explication in that one can identify more than a single long mid front vowel in ancient Greek dialects. On the one hand, there is that long *e*-vowel that continues Proto-Greek *ē (as in the final syllable of Attic μήτηρ, Doric μάτηρ, from *mātēr 'mother'). On the other, there is a *qualitatively* different long mid front vowel that arose secondarily (as in εἰμί [spelled with an ει digraph], from earlier *esmi 'I am'). The former (inherited) is typically judged to be a somewhat lower vowel than the latter (secondary) mid vowel; plotting this lower vowel (/ę̄/) into Greek vowel space would produce an arrangement of front and central vowels such as the following:

High	ī/ĭ	
Mid		ē/ĕ
		ę̄
Low		ă/ā

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7 To this they add (p. 89): 'Admittedly it is a difficult case, but even if it were agreed that the *aleph* in these circumstances is a vowel letter rather than a consonant, then it should also be noted that this usage of *aleph* was experimental, sporadic, and evanescent, since it was not carried forward in the standard spelling procedure of later Aramaic inscriptions.'

8 The word for 'two' is also spelled with a prothetic vowel signalled by ʾalep in an inscription from Larnaca (CIS 1.10.3).

In some local archaic Greek alphabets *e-psilon* is used for spelling both of the long mid front vowels (/ē/ and /ẹ̄/), but not in all. Although Attic and Ionic are closely related dialects – forming a dialectal subgroup – archaic Attic and Ionian alphabets differ in this regard, with distinct symbols being used for the two long mid front vowels in Anatolian, *i.e.* East, Ionian alphabets but not in Balkan, *i.e.* West, Ionian or in archaic Attic alphabets, which thus tolerate a degree of qualitative, as well as quantitative, ambiguity. In Aegean insular, *i.e.* Central, Ionian alphabets the situation is different still, and to this matter we shall soon turn.

The Attic-Ionic shift of /ā/ to /ẹ̄/

With regard to the Attic and Ionic dialects we need to peel back yet another layer of phonological complexity in the matter of the long mid front vowels. Common to Attic-Ionic is the shift of inherited long /ā/ (the low central vowel) to /ẹ̄/ (the lower mid front vowel). In other words, in Attic-Ionic the inherited long vowels /ā/ and /ẹ̄/ merge as /ẹ̄/ (as seen in the two syllables of Attic μήτηρ from *mātēr 'mother'). This is usually understood to be a change that was initiated in a Proto-Attic-Ionic period – in other words, prior to the migrations of Ionic speakers to Anatolia, *c.* 1050–950 BC (on the migrations, see recently Herda 2013, 426–428). The change was thoroughgoing in Ionic (including West Ionic), but in Attic /ā/ was preserved when it followed the vowels /i/ and /e/ and when it followed the consonant /r/ (cf. Ionic χώρη and Attic χώρᾱ 'space'). It is generally held that the Attic-Ionic diachronic shift of /ā/ to /ẹ̄/ passed through an intermediate stage in which the changing phoneme was manifest as a long low front vowel /ǣ/; in other words, /ā/ → /ǣ/ → /ẹ̄/. The failure of the shift to occur in Attic after the sounds /i/, /e/, and /r/ is commonly interpreted as an Attic *Rückverwandlung* – a *réouverture* – from /ǣ/ to /ā/ in this phonological context. Some instances of the secondary long vowel /ā/ arose early enough to take part in the change to /ẹ̄/; others developed subsequent to the completion of the change and remained /ā/ (see, *inter alia*, Szemerényi 1968; Lejeune 1982, 235–236, 369; Ringe 2003, 247–250).

The chronology of the Attic-Ionic shift

An absolute chronology of the changes is a matter of approximation (on the relative chronology of the change, see Lejeune 1982, 369; Gates 1976). Alan (1987, 23) suggests about 900 BC for the shift of /ā/ → /ǣ/: if correct it would mean that the realisation of /ǣ/ was achieved independently in Attic and Ionic (as they had separated by this date), a feasible scenario, though one might wonder if the date is a bit too late and that the shift was in progress prior to the Ionian migration. For the further shift of /ǣ/ → /ẹ̄/ Alan (page 24) would propose a date of *c.* 700 BC for Attic, which is perhaps about right for Attic: the seemingly earliest attestations of the shifted inherited */ā/ are spelled with

e-psilon (*c.* 625–600 BC; see Threatte 1980, 130–132; see also Jeffery and Johnston 1990, 71), though even if the Attic vowel sound were still somewhat lower than /ẹ̄/, *e-psilon* might very well have been the letter co-opted for its representation. In any event, at least non-Balkan Ionic must have lagged somewhat behind a 700 BC date in light of the apparent alphabetic attestation of the low front vowel /ǣ/ in Central Ionic *c.* the middle of the seventh century, to which we shall return shortly.

Ḥet as a Greek consonant and vowel symbol

These observations regarding the shift of /ā/ to /ẹ̄/ return us to considerations of the Greek adaptation of Semitic consonantal symbols for vowel spelling, as there is one additional instance of such adaptation beyond the five cases considered thus far: those of ʾ*alep*, *he*, ʿ*ayin*, *yod*, and *waw*. The Semitic letter ḥ*et*, representing in Phoenician another obstruent – a *voiceless* pharyngeal fricative /ħ/ (on ḥ*et* and its value see Woodard 1997, 136, with notes 9 and 10; Hackett 2004, 367–370) – was adapted as the Greek letter *eta* or *heta*, the latter being the earlier name of the letter, which will be used herein. Much as in the case of *iota* and *wau*, the letter *heta* could be used to spell both a consonant and a vowel of Greek. The consonant that it represents is the glottal fricative /h/; the vowel is the lower long mid front vowel that we have just been considering, *i.e.* /ẹ̄/, as spelled, for instance, in archaic East Ionian alphabets. In the various attested local archaic Greek alphabets these two values are distributed, to a certain degree, in a complementary fashion: some use the symbol for its consonantal value and some for its vocalic value, and these latter are the alphabets that record the so-called *psilotic* dialects – being those that appear to lack conspicuously the consonantal phoneme /h/ in word-initial position – the position to which occurrence of this consonant is commonly restricted in the Greek language of the first millennium BC. East Ionic is one such dialect, as is Lesbian, the Aeolic dialect of Asia Minor. That Lydian too is a language that fits this description clearly suggests that absence of word-initial /h/ is a Sprachbund feature of western coastal Anatolia, as Oettinger (2002) has argued (see also Melchert 2014, 70; regarding so-called *psilosis* in Carian see Herda 2013, 422 note 5, with bibliography). This is further borne out by the Ionic dialectal divergence in occurrence of word-initial /h/: only East Ionic is so characterised, revealing that the loss of /h/ occurred relatively late, after the dialectal separation of Central and East Ionic from one another.

    This complementarity in the use of *heta* in epichoric alphabets may reasonably be viewed as the consequence of several factors: of the phonemic inventory of Greek dialects; of accepted Greek spelling practices; of the process of the spread of the alphabet within the archaic Greek world. Thus, if a dialect lacks the consonant /h/, self evidently its speakers would have no need for an alphabetic symbol representing that sound (at least for writing their own dialect). Greek alphabetic practice tolerates quantitative ambiguity; hence, the letter *e-psilon*, from Semitic *he*, would effectively constitute the default symbol for representing both the short and the long mid front vowel – and, as we have noted, it was in fact so used in various archaic Greek alphabets

(even if this entailed some qualitative difference). Given such tolerance, when a dialect possessed the consonant /h/, then *heta*, one might imagine, was preferentially employed for consonantal, rather than vocalic, use, with *e-psilon* reserved for the latter.

However, there are archaic alphabets in which *heta* serves both functions, consonantal and vocalic (for additional considerations of a still broader use of *heta*-symbols in archaic Greek alphabets, see Woodard 2014, 36–46). For example, in the alphabet of Rhodes, in the southeastern Aegean, where a Doric dialect was spoken, *heta* (either Ͱ or Ⴘ) was used to spell both /h/ and the long mid front vowel (see Jeffery and Johnston 1990, 28, 345, 348–349). West of Rhodes, in the Cyclades, the same bivalent arrangement characterises the alphabet of Doric-speaking Thera (see Jeffery and Johnston 1990, 308, 317).[9] To the north of Thera, on the Cycladic island of Paros, home to a Central Ionic dialect, *heta* (Ͱ) regularly spells the vowel and sometimes the consonant (see Jeffery and Johnston 1990, 28, 289, 294). Compare the alphabet of Rhodes' neighbour Knidos (also Doric speaking) in which *heta* again serves both a consonantal and vocalic function but with the difference that in its use to spell the long mid front vowel the form of the symbol (Ͱ or Ⴘ) was modified to ☐ : Knidos thus uses different symbols for the short and the long mid front vowels, *epsilon* and *heta* respectively,[10] but at the same time retains (unmodified) *heta* for spelling the glottal fricative /h/ (see Jeffery and Johnston 1990, 28, 345–346, 351). A similar, though different, situation may obtain in the alphabet of Doric-speaking Corinth. In the Corinthian alphabet *heta* is used to spell the consonant /h/ while a single letter is used for both the short and the inherited long mid front vowel, but that letter appears likely to be a modified form of the *heta*-symbol Ⴘ, one produced by rounding the forward-facing vertical segments to give the shape Ḃ (Jeffery and Johnston 1990, 24, 28, 114–115).[11]

Perhaps most interesting of all is a still different permutation. In the mid-seventh-century BC archaic alphabet of the Cycladic island of Naxos (Ionic speaking), *heta* (Ⴘ) is again used to spell both the glottal fricative /h/ and a long vowel (on the so-called Nikandra statue [SEG XIX 507]; see, *inter alia*, Jeffery and Johnston 1990, 291 and pl. 55, **2**; EG 1, 154–156, with figs 38 *a–c*; Buck 1955, 189–190; Heubeck 1979, 124–125, with Abb. 52; Woodard 2014, 38). The vowel that is so spelled, however, is only the vowel that arose in Attic-Ionic from inherited /ā/. In contrast the inherited long mid vowel /ẹ̄/ is spelled with *e-psilon*. That the *heta*-symbol is reserved in Naxian Ionian practice for spelling only the shifted vowel most probably reveals that the quality of this vowel in this attested dialect is distinct from that of the inherited long mid front vowel. In other words, Naxian spelling is usually understood to preserve the long low front

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9 On both Rhodes and Thera, *heta* is used to spell both inherited /ē/ and a vowel /ē/ that arose secondarily by lengthening; see Buck 1955, 28–30.

10 For the secondary long mid front vowel, the alphabet of Knidos sometimes uses *heta*, but not most commonly; see Thumb and Kieckers 1932, 197.

11 Jeffery contends for this interpretation of Corinthian e-symbol c, following Gercke 1906, 547–548. For the view that the Corinthian character is a modification of *epsilon* (rather than *heta*) see McCarter 1975, 81. For the dialect phonology see Buck 1955, 30.

vowel /ǣ/ – the intermediate vowel in the Attic-Ionic shift /ā/ → /ǣ/ → /ẹ̄/. Thus, the Ionic dialect of the Cycladic island of Naxos of *c.* 650 BC shows an array of front and central vowel phonemes of this configuration:

High	ī/ĭ
Mid	ē/ĕ
	ẹ̄
Low	ǣ
	ă (ā)

A similar array is attested by inscriptions in the alphabets of the Ionian islands of Keos and Amorgos (see Smyth 1894, 167). The long low central vowel /ā/ is here placed in parentheses. One fully expects that the shift to /ǣ/ was no longer a productive process in this period and that new instances of the long vowel /ā/ had been generated (on the phonology and its relative chronology, see, *inter alia*, Lejeune 1982, 131–132, 369). By the last quarter of the seventh century a Naxian example is in fact attested in the aorist participle ποιεσᾱς 'having made', found in a dedication on the base of the Euthycartides kouros (ID 1; see Jeffery and Johnston 1990, 291; on the inscription see recently Hurwit 2015, 3–10). The distribution of this secondary long vowel /ā/ would, however, have been somewhat restricted in comparison to /ǣ/. Allen (1987, 23–24) would date the appearance of the new instances of /ā/ to about 800 BC. If the date is accurate, or even close, this could very well mean that the crafting of the Greek alphabet began at a moment when Ionic possessed /ă/ and /ǣ/ but lacked /ā/. In contrast, outside of Attic-Ionic, inherited /ā/ would have still been robustly attested in this period.

There are further alphabetic corollaries to these phonological observations. One corollary is that at the time of the Greek adaptation of the Phoenician script *alpha* would have been used relatively more frequently, if not exclusively, for representing the *short* vowel /ă/ among Ionian speakers. Furthermore, if the shift of /ǣ/ → /ẹ̄/ occurred *c.* 700 BC, or somewhat later, as must be the case in the eastern Mediterranean, then at the time of the Greek adaptation of the Semitic script the vocalic value assigned to *heta* among Ionians would have been /ǣ/. Other dialects present in the eastern Mediterranean in the ninth century lacked this vowel, still possessing /ā/ instead. Cypriot is a notable example. For speakers of a dialect such as Cypriot, *heta* could function to represent the glottal fricative /h/. For speakers of Central Ionic dialects, such as Naxian, *heta* would serve both functions, spelling /ǣ/ and /h/. And let us recall that the loss of /h/ from *East* Ionic must have been relatively late.

I am of course here operating with the premise that the Greek adaptation of the Semitic script took place within a particular dialect context; in other words, the phonological inventory of some particular dialect – or, in the right setting, dialects, as I believe was the case – provided the targets for assigning Greek values to Semitic

| Phoenician Original | | Greek Adaptation | |
Phoneme	Grapheme	Grapheme	Phoneme
C /ħ/	**ᴎ** *ḥet*	⊟ *heta*	/h/ and
V			/ǣ/ in Ionic and
V			/ē̦/ eventually

Figure 6.2. Greek Adaptation of Ḥet.

characters. In any case *heta* will acquire dialect vocalic values as the Greek alphabet spreads. Moreover, as that alphabet spreads so will the use of *heta* to spell the glottal fricative /h/. What this means is that with the spread of an abecedarium there is an accompanying spread of what might be called para-alphabetic knowledge, one element of which is the knowledge that *heta* can be used to spell either a consonant /h/ or a long non-high front vowel, part of a rudimentary pedagogical tradition. Summarising these various observations, a Greek adaptation of *ḥet* can be schematised as shown in Figure 6.2.

Heta and he as functional equivalents

It has often been remarked upon that for representing the Greek glottal fricative /h/, the adapters utilised not the Semitic symbol having that value, *i.e. he*, but used instead *ḥet*, the symbol for the *pharyngeal* fricative /ħ/.[12] What has not been noticed before, I believe, is that Aramaic *he* and Greek *heta* (from *ḥet*) show a degree of functional similarity. As we have seen, Old Aramaic *he* spells both the consonant /h/ and, as a *mater lectionis*, the long low central vowel /ā/, in word-final position only. Archaic Greek *heta* spells both the consonant /h/ and the long low front vowel /ǣ/ (which

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12 See, for example, the comments of Jeffery and Johnston 1990, 28 and Einarson 1967, 6. It is a somewhat curious thing. One might suspect that it has nothing to do with the phonetic nuances of Greek aspiration, as Einarson himself seems to understand the matter. Perhaps the arbitrary (on arbitrariness see McCarter 1975, 95 n.77; Woodard 1997, 206–207, 237 n.8; 2010, 29) decision to use *ṭet* (a so-called 'emphatic' [perhaps glottalised] voiceless dental stop) to spell the Greek *aspirated* stop /th/ (the sound of *theta*), the only one of the three Greek aspirated stop phonemes to be provided for in the core alphabet, led to the decision to use the neighbor of *ṭet, i.e. ḥet*, to encode the glottal fricative (*i.e.* the aspirate) /h/.

had shifted historically from the long low central vowel /ā/, though this shift must have been pre-alphabetic). While there is no indication that the use of *heta* was ever limited to word-final position, nor would that be anticipated, the vowel that archaic *heta* spelled, *i.e.* /ǽ/, which later shifted to /ę̄/, had a disproportionately heavy and conspicuous morphological distribution in word-final syllables, owing to its occurrence in the paradigmatic marking of the Attic-Ionic first declension – the predominantly feminine noun declension, as in this Ionic paradigmatic pattern:

	Singular	Plural
Nominative/vocative	-η	-αι
Genitive	-ης	-εων
Dative	-ηι	-ηισι
Accusative	-ην	-ᾱς (from *-ανς)

Heta, then, in its vocalic role, spelling /ǽ/, carries a heavy functional (that is, morpho-semantic) load in word-terminating morphology.

Is it possible that the Old Aramaic vowel /ā/ in word-terminating phonological contexts was pronounced as a lower front vowel, phonetically similar to Ionic /ǽ/? Possibly – at least in some subset of such contexts. Gzella (2015, 38) suggests that it was 'presumably' in the early Old Aramaic period (by which he means ninth to eighth century BC, the period that here interests us) that 'syllable-final glottal stops began to disappear ... with the typically Aramaic shift of /aʔ/ to /ē/, which suggests that /a/ sounded like [e] before /ʔ/.'[13] The very idea of such a shift, however, seems mired in controversy. In any event, word-finally instances of both /ā/ and /ē/ were spelled with *he* (functionally equivalent to Greek *heta*) as early as the ninth-century script of the Tell Fekheriyeh bilingual, whatever the phonetic particulars of the vowels.

ʾ*Alep*, symbol for the glottal stop consonant, was adapted for spelling Greek short and long /a/. Is it possible that a locally restricted Old Aramaic practice of using ʾ*alep* to spell /a/ in limited contexts provided inspiration for a Greek adaptation of ʾ*alep* for spelling the *a*-vowel phoneme? Notice *a*-vowels occur conspicuously in alternation with /ǽ/ (later /ę̄/) in the first-declension paradigmatic pattern illustrated above. Does a local Aramaic alternation of *he* and ʾ*alep* for spelling (phonetically variant) forms of the Semitic *a*-vowel inform the Greek adaptation of ʾ*alep* to *alternate orthographically* with *heta* – functional equivalent of *he* – in spelling a paradigmatic pattern showing *phonological alternations* of /a/ with /ǽ/ (later /ę̄/)?

We have just noted again that Greek *heta* provides a *functional* equivalent to Old Aramaic *he*. There is another important observation that leads on from this. In the Greek adapters' decision to make the formal substitution of *ḥet* for *he*, each of the three

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13 Here I have slightly modified Gzella's transcriptions for the sake of consistency with the system used in the present study.

	Old Aramaic Values			Greek Adapted Values	
Phoneme	Grapheme			Grapheme	Phoneme
/y/	*yod*	=		*iota*	[y]
/ī/	*yod*	=		*iota*	/ĭ/ and /ī/
/w/	*waw*	=		*wau*	/w/
/ū/	*waw*	=		*u-psilon*	/ŭ/ and /ū/
/h/	*he*	ʄ=		*heta*	/h/
/ā#/ (later /ē#/)	*he*	ʄ=		*heta*	/æ/ (later /ę̄/)

Figure 6.3. Summary of Old Aramaic Matres Lectionis Values and Greek Equivalents.

matres lectionis of Old Aramaic, *mutatis mutandis*, would also provide Greek speakers with letters having *both* consonant *and* vowel values – exactly as in conventional Old Aramaic writing practice, as summarised in Figure 6.3.

The pattern of Old Aramaic – Greek equivalency in the use of these dual value symbols of course does not extend to ʿ*ayin*, which is not a *mater* in Aramaic script and provides solely a vocalic value to the Greek script. Likewise Old Aramaic *he* itself provides only a vowel symbol to the Greek alphabet, its dual vocalic and consonantal function as an Aramaic *mater lectionis* having been effectively neutralised in Greek adaptation by the functional substitution of *ḥet* for *he*: in other words, the Greek adapters treat *he* as if it were merely a Semitic consonantal character, unneeded consonantally, and, hence, readily available for Greek vocalic use.

We appear to see a bifurcation here in the Greek use of Semitic consonantal characters. Old Aramaic *matres lectionis*, *mutatis mutandis*, serve both a consonantal and vocalic function in Greek alphabetic practice; other Semitic consonantal characters serve only a vocalic function in the Greek script. ʾ*Alep*, however, would present a slight departure from this emerging pattern of bifurcation if in fact, as would seem to be the case, ʾ*alep* has restricted use as a *mater* in some local forms of Old Aramaic script. Unlike the case of the conventional *matres lectionis*, however, Greek has no use for a symbol having the consonantal value of ʾ*alep* as Greek has no phonemic glottal stop /ʔ/. One could counter this observation by pointing out that Greek has no palatal glide phoneme /y/ yet still adapts Semitic *yod* (an Old Aramaic *mater*) for consonantal, as well as vocalic, spelling, using it for non-phonemic [y]. But this objection can itself be reasonably countered: the alphabetic representation of non-phonemic [y] characterises the orthographic practice of both of the Greek syllabic writing systems

that preceded the alphabet. The adapters' decision to utilise the *mater lectionis yod* to represent a Greek non-phonemic glide [y] represents a transference of knowledge from an earlier Greek writing system to a later one, in a way that is consistent with other such transferences from Cypriot syllabic script for which I have argued elsewhere, most striking of which, I believe, is the incorporation of a [k + s] character (*i.e.* ξ) into the alphabet (on ξ see Woodard 1997, 146–160, 208–216, 248–249 [and *passim* for other Cypriot syllabic characteristics manifesting themselves in the alphabet]; see also 2010, 32–34 and forthcoming).

In view of the several observations presented above I would end by offering a few conclusions regarding the Greek adaptation of the Semitic script:

1. The Old Aramaic system of *matres lectionis* was incorporated into the Greek alphabet by the adapters.
2. As Phoenician letters provided the prototypes of the Greek alphabetic symbols, the adaptation was ultimately realised in a multilingual Aramaic, Phoenician, and Greek setting, such as one that exposed Greek speakers not only to Phoenician speakers and their script but also to the operations of Aramaic-using scribes. The adapters had knowledge of syllabic Cypriot writing practice, and a phase of experimentation in the adaptation must have been localised in Greek-Phoenician communities of Cyprus.
3. The local setting of a phase of adaptation may have been one in which the adapters encountered ʾ*alep* serving as a *mater lectionis* for spelling /a/ in limited contexts.
4. The adaptation was made to serve the linguistic needs of East Ionians, in whose dialect /ā/ had shifted to /ǣ/, but also of speakers of Greek whose dialect(s) contained a phonemic glottal fricative /h/, such as Central Ionians and Cypriotes – and possibly even East Ionians if the loss of /h/, an areal feature of southwestern coastal Anatolia, occurred sufficiently late.

Chapter 7

Mother or sister? Rethinking the origins of the Greek alphabet and its relation to the other 'western' alphabets

Willemijn Waal

According to prevailing opinion, the alphabet – the origins of which can be traced back to the beginning of the second millennium BC in Egypt – was introduced to Greece via the Phoenicians in or shortly before the eighth century BC. The introduction of this script to Greece meant the re-introduction of writing to the Aegean after an illiterate Dark Age of some 300 years – the preceding syllabic Linear B script had been in use till *c.* 1200 BC. In this view, the Greeks adjusted the Phoenician script, most importantly by adding vowel signs, and the resulting Greek alphabet was the mother of related scripts such as the Anatolian and Italian alphabets.

The above paradigm was strongly advocated by Rhys Carpenter (1933) and has been generally accepted since. This scenario is, however, not without problems and from early onwards there have been voices, mostly of Semitists, arguing for an earlier transmission date. The emergence of new data over the last decades that are difficult to reconcile with the present model make it worthwhile to re-address this debate.

This article aims to challenge the current paradigm on two fronts. First, it will propose that there was no sudden 'explosion' of writing in the eighth century after a long dark age, but that writing (on perishable materials) was already introduced to Greece around or before 1050 BC. It is further hypothesised that the other 'western' alphabets are not derived from Greek, but rather that all these 'western' alphabets (including the Greek) go back to a shared (unattested) ancestor, which may already have featured some shared innovations such as (some of the) vowel signs.[1]

Problems with the current paradigm: The date of the introduction of the alphabet to Greece

In classical studies, it is the *communis opinio* that the alphabet was introduced in or shortly before the eighth century BC, when the first attestations of Greek alphabetic writing appear.[2] The paradigm was first advocated by Rhys Carpenter (1933).[3] In the field of Semitic epigraphy, however, scholars overall tend to favour an earlier transmission date (eleventh–ninth century BC), especially since the influential article of Joseph Naveh (1973) who argued for a transmission in the eleventh century BC.[4]

As I have argued elsewhere (Waal 2018), there are a number of significant facts that are hard, or even impossible, to reconcile with the late transmission date proposed by Carpenter. Since these arguments are of relevance for the present article, I will briefly present the most important ones below.

The diversity and wide geographic spread of the archaic Greek alphabets

From the eighth century onwards, Greek alphabetic inscriptions regularly turn up in a large area including the Greek mainland, the Aegean islands, Italy and Sicily. These early inscriptions show regional variety; no less than 33(!) different versions of the alphabet can be distinguished. These local or epichoric scripts are generally divided into the following main groups after Kirchhof 1887: the blue (further split into light blue and dark blue), red and green alphabets.

Despite their obvious differences, however, these alphabets all share certain innovations, such as vowel signs, which means that they must ultimately go back to the same source (*e.g.* Wachter 1989; Jeffery and Johnston 1990, 6). Since all these different, yet related alphabets are attested from the very start of the eighth century, the current model enforces the assumption of an incredibly rapid adoption, development and spread of alphabetic writing throughout the Mediterranean, which is hardly conceivable (see already Ullman 1934). The explanation that such unparalleled development speed was possible because the Greeks were 'intensively active people' (Carpenter 1938, 69) is not satisfying, if only because it assumes an undemonstrated cultural superiority (see also below p. 123).

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2 Literature about the date of introduction of the alphabet to Greece is vast and cannot all be discussed within the scope of this paper. For an overview of previous scholarship, see, *e.g.*, McCarter 1975, 1–27; Heubeck 1979, 75–76; Bernal 1990, 1–26 and Bourguignon 2010.

3 Notable exceptions of classical scholars who have argued for an earlier date are, *e.g.*, Cornelis Ruijgh (1995, 1998) who has pleaded for a date around 1000 BC and Martin Bernal (1990) who dates the transmission of the alphabet to the fifteenth/fourteenth century BC. Colvin (2014, 76) pushes the date back to at least the mid-ninth century, possibly earlier.

4 A noteworthy exception in this field is Benjamin Sass (2005) who has proposed a late introduction date.

The archaic scribal habits of the Greek alphabet

Another awkward fact for the current model are the archaic writing habits of the early Greek alphabets. The Greek alphabet shares certain characteristics with West-Semitic inscriptions *before c.* 1050 BC, as has already been pointed out by Naveh (1973). These include

(a) *The direction of writing.* The writing direction of the earliest Greek inscriptions is not yet fixed and the letters may be written from right to left, left to right, or boustrophedon (horizontally and vertically). Only from *c.* 500 BC onwards the dextroverse writing (*i.e.* from left to right) became the norm. The early Greek alphabets share this feature with the early West-Semitic inscriptions, which could also be written in any direction: right-to-left, left-to-right, vertical, and boustrophedon (vertically and horizontally). From around the middle of the eleventh century, however, the writing direction became stabilised and the letters were written only horizontally from right to left (Naveh 1982: 42; Millard 2012a: 17–18). With respect to the direction of writing, the early Greek inscriptions are thus more archaic than the Phoenician script, in which the direction of writing had been established from right-to-left.

As observed by, *e.g.*, Naveh (1973) it is remarkable that (a) the Greeks would have operated a less developed system if they had the standardised ninth–eighth century retrograde Phoenician example at their disposal, and (b) that their system coincidentally mimicked writing practices that existed much earlier. It is further telling (c) that the eventual writing direction of the Greek alphabet (left-to-right) is the complete opposite of that of Phoenician (right-to-left). It is more logical to assume that these different writing directions are the results of independent developments from a writing system whose writing direction was not yet fixed, than that the Greeks would have ignored the already established Phoenician writing direction and eventually chose for the opposite direction.

(b) *The use of word dividers.* Some, though by no means all, of the early Greek inscriptions make use of word divisions by means of multiple dots and/or short vertical strokes. Similar kinds of word division are attested in the early West-Semitic inscriptions, but not in later Phoenician inscriptions, which are written in *scriptio continua.*

(c) *The instability and variety of letter forms.* The early Greek inscriptions show a great variety in letter shapes. Naveh (1973, 1982) explains this diversity by assuming that the alphabets stem from a proto-type which had unstable letter forms. This implies that the alphabet was introduced in or before the eleventh century, when the West-Semitic script did not yet have fixed letter forms. Alternatively, one could see the regional diversity as the result of local developments, which must

have taken place over a longer period of time.[5] Both scenarios imply an earlier date for the introduction of the alphabet (see also Waal 2018).[6]

The text genres of the first Greek inscriptions

The first Greek inscriptions that have survived are of a private nature, such as proprietary inscriptions on pottery and tombstones and rock graffiti (for an overview, see Powell 1991). As observed by Teodorsson (2006, 173), this early private use of writing would indicate 'an astonishingly broad and rapid propagation among the population'.

It is further of interest that some of the oldest known inscriptions, namely the Nestor cup of Pithekoussai, the Dipylon inscription from Athens and the Hakesander cup from Methone (see now Janko 2015) present elaborate poetic verses in perfect hexameters. Some have taken these early literary attestations as proof that writing was invented by the Greek for the sole purpose of recording Homer (Powell 1991). Generally speaking, however, poetic and fictitious texts and erotic rock graffiti are unlikely candidates for primary use of writing.[7] A more pragmatic explanation may be that writing was already in use for documents of an economic and administrative nature – typically the first kind of records for which writing is used – on perishable materials, before the first surviving inscriptions on more durable materials (see, *e.g.*, Ruijgh 1995, 37).

Linguistic arguments

Since the Phoenician consonantal script was not entirely suited for the Greek language, some changes and adjustments were made. Letters were added and some Phoenician letters acquired a different sound value in the Greek alphabet. Though this remains a hotly debated topic, some of these modifications appear to be better explained if one assumes that the alphabet was introduced to Greece already before the ninth or eighth century. As argued by Cornelis Ruijgh (1995, 1997), for example, an earlier introduction date would explain the choice for the letter *heta* for /h/. It would also offer an appealing solution to the longstanding problem of the origins of the letter

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5 The valid suggestion of Luraghi (2010) that the local alphabets were consciously created and associated with ethnic boundaries and dialects still leaves the problem how this all happened so rapidly.

6 It has further been claimed that the Greek letter shapes at times more resemble the archaic West-Semitic rather than the Phoenician forms (Naveh 1973). However, this is arbitrary and Carpenter (1938) has claimed the exact opposite, arguing that they are more similar to the Phoenician letters (see also Waal 2018).

7 For an elaborate critique of Powell's claim, see Woodard 1997, 253–256.

phi (Brixhe 1991).[8] By contrast, to my knowledge there are no linguistic arguments that favour a later date.[9]

Summary

In the present model, in which the Greeks took over the Phoenician alphabet in the late ninth or earlier eighth century BC, one has to assume that the Greeks ignored certain accomplishments of the Phoenicians, such as a fixed direction of writing and standardised letters, but instead turned it into a more primitive script without fixed direction of writing or standardisation of letters, accidentally imitating the situation in the Proto-Canaanite phase. The Greek alphabet subsequently would have spread, developed and diverged with enormous speed over a large geographical area and instantaneously circulated among the population being used for all kinds of private purposes – facts that are all the more remarkable after a long 'dark age' of some 300 years in which writing is assumed to have been unknown.

If, by contrast, one allows for an earlier date, *i.e.* in or before the eleventh century (as advocated by Naveh 1973), a more plausible scenario unfolds itself: the Greeks took over the script and writing conventions (writing direction, letter shapes and word dividers) in the form in which it was in use at that time. The Greek alphabet then gradually spread and developed, which accounts for the regional divergences, as well as the dissimilarities between Greek and Phoenician writing. In all likelihood, writing was in first instance primarily used for administrative and economic records, like in most other ancient societies. These earliest records have not survived, as they were written on perishable materials. In the same way that the cuneiform script was closely connected to the durable writing material clay, alphabetic writing was (and for the most part still is) mostly tied to ephemeral materials such as papyrus, wood, parchment and leaves. It was only in a later phase, when the use of writing extended to other (private) domains, that it also became to be used on more durable materials – such as pottery and stone.

Further problems with the current paradigm: The relations between the Greek alphabet and the other 'western' alphabets

The problems with the current paradigm do not end here. When the Greeks took over the consonantal script of the Phoenicians they are thought to have introduced vowel signs, which is why for some the Greek script is the first 'true alphabet' (see also below p. 120). As the Greeks are seen as the inventors of the vowel signs,

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8 An earlier introduction of the alphabet to Greece could further account for the fact that the already partly obsolete F was present in all alphabets, though other explanations for this are certainly possible as well.

9 Note that the objections of Slings 1998 against the arguments of Ruijgh for an earlier date do not necessarily call for a later date.

all other alphabets that have vowel signs are automatically considered to be derived from the Greek alphabet. As a consequence, these alphabets are often ignored in the discussion about the date of the Greek alphabet (see also Young 1969, 253). However, as will be shown see below, there are a number of facts which plead against the idea that the Anatolian, Iberian and Italian alphabetic writing traditions are all descendants of the Greek alphabet.

The Anatolian alphabets

The contemporary, independent tradition of the Phrygian alphabet

Like the archaic Greek inscriptions, the earliest Phrygian inscriptions are written from left to right, right to left and in boustrophedon (Brixhe 2004, 778). As word dividers, multiple dots may be used, but this is done irregularly (*ibid.*, 2004, 781; see also Fig. 7.1).

It is clear that the Phrygian and Greek alphabets are closely related and it has long been assumed that the Phrygian alphabet was derived from the Greek. There is, however, no clear single Greek alphabet that can be identified as the source (see, *e.g.*, Young 1969, 254; Diakonoff and Neroznak 1985, 4). The Phrygian alphabet bears most resemblance to the red group, but some elements are more similar to other local alphabets, notably that of the green group. A crucial new development in this discussion has been the redating of the destruction of Gordion. The first Phrygian inscriptions have turned out to be some 100 years older than previously thought. They can now be placed at around 800 BC (Brixhe 2007a, 278), which makes them earlier than the oldest Greek inscriptions.

The fact that Phrygian inscriptions now predate Greek inscriptions does of course not automatically imply the reverse scenario, *i.e.* that the Greeks received the alphabet through the Phrygians, but it does force us to rethink the current hellenocentric model.[10]

It is further of interest that the Phrygian alphabet underwent some clearly independent developments, such as the addition of the extra, non-Semitic sign ↑ for /ts/ (Young 1969, 295, see also p. 120 below). This sign is also attested in other Anatolian alphabets, as well as in some of the Italic and Palaeohispanic alphabets (see below p. 117).

Last but not least, the earliest inscriptions demonstrate that the Phrygian alphabetic tradition was already well established at the beginning of the eighth century. This has been explained by Brixhe (2004, 277, 2007a, 278–279) as the result of a much longer development, which must go back to at least the ninth, if not the tenth century.

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10 That this is not the case is evident from, *e.g.*, the presence of the Phoenician letter *thet* in the Greek alphabet that was not part of the Phrygian alphabet (cf. Brixhe 2004, 284, 2007a, 279).

Alphabet(s)	Date of first attestation	Writing direction	Presence of Word Dividers (not excluding the simultaneous use of scriptio continua)
Northwest Semitic	19th c.–	All directions	Yes (dots, vertical lines)
Phoenician	11th c.–	Right → left	No
Greek	8th c.–	All directions Classical period: Left → right	Yes (dots, vertical lines)
Phrygian	8th c.–	All directions	Yes (dots, inconsistent)
Etruscan	8th c.–	All directions Classical period: Right → left	No (in later inscriptions use of dots)
Lydian	7th c.–	All directions Later: Right → left	Yes (dots, vertical lines)
Carian	7th c.–	Egypt: Right→ left Caria: Left → right	Yes, but only sporadic
South-Western	7th c.	All directions	Sporadic (vertical lines)

Figure 7.1. Writing direction and word division in the earliest inscriptions of the Phoenician, North-West Semitic and main 'western' alphabets.

The Carian alphabet

The corpus of Carian texts consists of some 200 inscriptions of which the oldest date to the seventh century. Some have been found in Anatolia, but the majority stems from Egypt. The inscriptions show a number of local alphabetic varieties (Adiego 2007d, 205–228), but they do all share the same innovations, which must mean that they go back to a common source. The more archaic Egyptian inscriptions are written from right to left, the Anatolian ones from left to right. *Scriptio continua* is frequent, and the use of word dividers sporadic (Melchert 2004, 609).

The Carian alphabet resembles the Greek alphabet, though, as in the case of Phrygian, no single Greek variant can be identified as its ancestor. A great unsolved enigma is the fact that some of the Greek letters have deviant sound values in Carian. To explain these abnormal sound values, the 'chaos hypothesis' has been proposed, which assumes that the Greek letters were just randomly attributed to phonetic values. However, this does not explain why the other signs did retain their Greek value.

Another proposed solution is that the Carian alphabet underwent a strong process of cursivisation, dramatically changing the form of many letters. At a certain point this graphic system underwent a change to 'capital' letters, for which the Greek capital letters were used as models – but now only from a formal point of view, disregarding their phonetic values (Adiego 2007d, 231). Both these solutions are, however, altogether far from satisfying and difficult to accept (*ibid.*, 233).

The Lydian alphabet

The Lydian alphabet is attested in some 115 inscriptions, of which the oldest date to the late eighth century/beginning of the seventh century. The most archaic inscriptions (eighth–sixth century) are written from left- to-right, right-to-left and boustrophedonically. From the classical period onwards, the script is exclusively sinistroverse (Gusmani 1964, 21; Melchert 2004, 602; Gérard 2005, 28) – in contrast to the dextroverse Greek alphabet. Most words are divided by means of a blank space, but single or multiple dots and vertical lines may be used as word dividers. *Scriptio continua* is attested twice (Gérard 2005, 28).

It is generally assumed that the Lydian alphabet is derived from the Greek alphabet, but the exact relationship remains unclear (Melchert 2004, 602 with references).[11] For fourteen signs there is a more or less direct correspondence with Greek letters, but a number of letters (six) represent a different sound value in the Greek alphabet and yet others (five) do not stem from the Greek alphabet (Gérard 2005, 24–26).

The Lycian, Pamphylian and Sidetic alphabets

Of a slightly later date, but of interest nonetheless, are the Lycian, Pamphylian and Sidetic alphabets: The *Lycian alphabet* is attested in some 170 inscriptions (including two in Milyan or Lycian B) dating to the fifth–fourth century BC and some 150 (distinctive) coin legends. The script runs from left-to-right and most text use single or multiple dots as word dividers, though not consistently (Melchert 2004, 592). Similar to the other Anatolian alphabets, the relationship with the Greek alphabet is opaque (Melchert 2004, 592). Over 80% of the letters can be matched with the Greek alphabet, but the remaining signs are considered to be either original creations or borrowings from other writing systems. The value of some signs is still a matter of debate (Swiggers and Jenniges 1996, 282).

The *Pamphylian alphabet* is most closely related to the blue Greek alphabet, but it also contains some unusual, possibly archaic features (Swiggers and Jenniges 1996, 282). The *Sidetic alphabet,* usually written in *scriptio continua*, is not completely deciphered. There are about half a dozen inscriptions and some coin legends, which probably date to the third and second centuries BC. Its origins are unclear, but a few letters can be linked to those of the Greek alphabet (*ibid.*, 282).

The Italic alphabets

The Etruscan alphabet

More or less simultaneously with the Greek and Anatolian alphabets, several alphabetic scripts emerge in Italy from the eighth century BC onwards, of which the Etruscan alphabet is best attested.[12] The archaic Etruscan inscriptions (seventh–fifth century

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11 Swiggers and Jenniges 1996, 284 assume it is based on the 'red' alphabet group, just like Lycian.

12 The oldest currently known alphabetic inscription from Italy stems from a flask found in a

BC) are written from right to left and occasionally boustrophedon. The earliest texts are written in *scriptio continua*, but from the sixth century onwards words may be divided by two or more dots.

The Etruscan alphabet most resembles the western or red Greek alphabets, but there are also significant differences. This is most apparent in the case of the sibilants. In the Etruscan alphabet, both the letters *sigma* and *san* are retained, whereas none of the Greek alphabets contains both these letters: they have all chosen one of the two sibilants. This circumstance has been explained by assuming that the Etruscan alphabet was taken over in a period when the Greek alphabet still had both these letters, that is before its split into the blue and red groups (Bonfante and Bonfante 2002, 45). This scenario would imply an earlier date for the origins of the Greek alphabet than its first attestations.

The other Italic alphabets

Apart from Etruscan there are some more scarcely attested Italic alphabets, such as those of Bolzano, Magre, Sondrio, Novilara and the 'East Italic', Messapic, Venetic, Lepontic and Sicel alphabets. These alphabets were used for several Pre-Italic languages and dialects (Ligurian, Lepontic, Raetic, Venetic, Messapic, Sicel, East Italic).[13] They are usually considered to be derived from the Etruscan alphabet, but some features seem to point at direct knowledge of the Greek alphabet. In addition, other, possibly Anatolian, influences can be detected (Whatmough 1933, 502; Penney 2012, 1–2, see also below p. 120).

The Palaeohispanic alphabets

From at least the seventh century onwards (and possibly already earlier, de Hoz 2010a, 358–361) there were several related writing systems in use on the Iberian Peninsula, which are referred to generically as the Palaeohispanic scripts. It has been suggested that these Palaeohispanic scripts (excluding Graeco-Iberian, see below) have a common origin: the so-called South-Western (SW) script, although this cannot be established with certainty (de Hoz 2010a, 489, 2010b, 200–219). The corpus of SW texts, of which the underlying language is unknown, comprises nearly 100 inscriptions. They mainly stem from Portugal, supplemented by a modest number from Spain. The direction of writing is not stable: inscriptions may be written leftward, rightward or in boustrophedon. Word division is rare, but at times words are separated by vertical strokes.

The origins of the SW script are much-debated, except for the later Graeco-Iberian script which is derived directly from Greek and is attested from the fifth century BC

cemetery in the Osteria dell'Osa at Gabii (Bietti Sestieri *et al.* 1990, 83–88). The flask has now been radiocarbon dated to *c.* 825 BC at the latest (Nijboer *et al.* 2000, 173–174), but the language of this inscription cannot be established with certainty. The earliest Etruscan abecedaria date to the second quarter of the seventh century (Cr 9.1: 447 and Fa 9.1: 416, see Meiser 2014, 447 and 416 respectively).

13 For a succinct overview of these alphabets, see Bonfante 1996, 297–311.

onwards (de Hoz 2010b: 175–177).[14] For the other scripts, a Phoenician derivation of the script is now favoured by most scholars (Valério 2008, 112; de Hoz 2010a, 487–517). However, this does not explain the fact that the script also shares similarities with the Greek alphabet (de Hoz 2010a, 488–500) as well as with the Anatolian (and some of the Italic) alphabets (see, *e.g.*, Gomes 1997, 18–19). Therefore, Greek (Schulten 1940, 39), Greek/Phoenician (Untermann 1997) and Greek/Anatolian intermediates (Gomes 1997, 18 with references to Beirão) have also been proposed.

Summary

From *c.* 800 BC onwards, several different alphabets are in use in Anatolia, Italy and Spain. They are clearly related to the Greek alphabets, but at the same time display some significant differences. None of them can be attributed to a single (Greek) source and some share additional signs that are not present in the Greek alphabet. At times, there is no correspondence to the sound values of the Greek alphabet, for which only unsatisfying *ad hoc* solutions have been offered. Further, the alphabets already reflect well-established local writing traditions from the very start.

An alternative scenario

The above facts are all hard to reconcile with the current paradigm which holds that (a) the alphabet was introduced to Greece only in or shortly before the eighth century and (b) the Greek alphabet was the mother of all 'western' alphabets (see Fig. 7.2a). A different scenario is therefore suggested, in which:

(a) the introduction of the alphabet to Greece took place around or before 1050 BC, several centuries before its first attestations. Rather than an 'alphabetic big bang' after three centuries without writing, the script spread and developed at a more natural pace. The first records, in all likelihood largely of an economic and/or administrative nature, were written on perishable materials and have therefore not survived. It was only much later, in the eighth century BC when the use of writing extended to other domains and became more widespread among the population, that the script was also used on more durable materials, such as proprietary inscriptions on pottery and graffiti on stone.

(b) the Anatolian, Italic and Iberian alphabets are not derived from the Greek alphabet(s), but rather go back to a shared (unattested) common ancestor. This ancestor already contained certain shared innovations such as (some of the) vowel signs. The various alphabets derived from it subsequently underwent independent developments before their first attestations (see Fig. 7.2b). This scenario that would account for the existence of the many regional varieties, which display

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14 Note that this Graeco-Iberian script is also the only purely alphabetic system; the other scripts may best be defined as 'semi-syllabaries'.

a

b
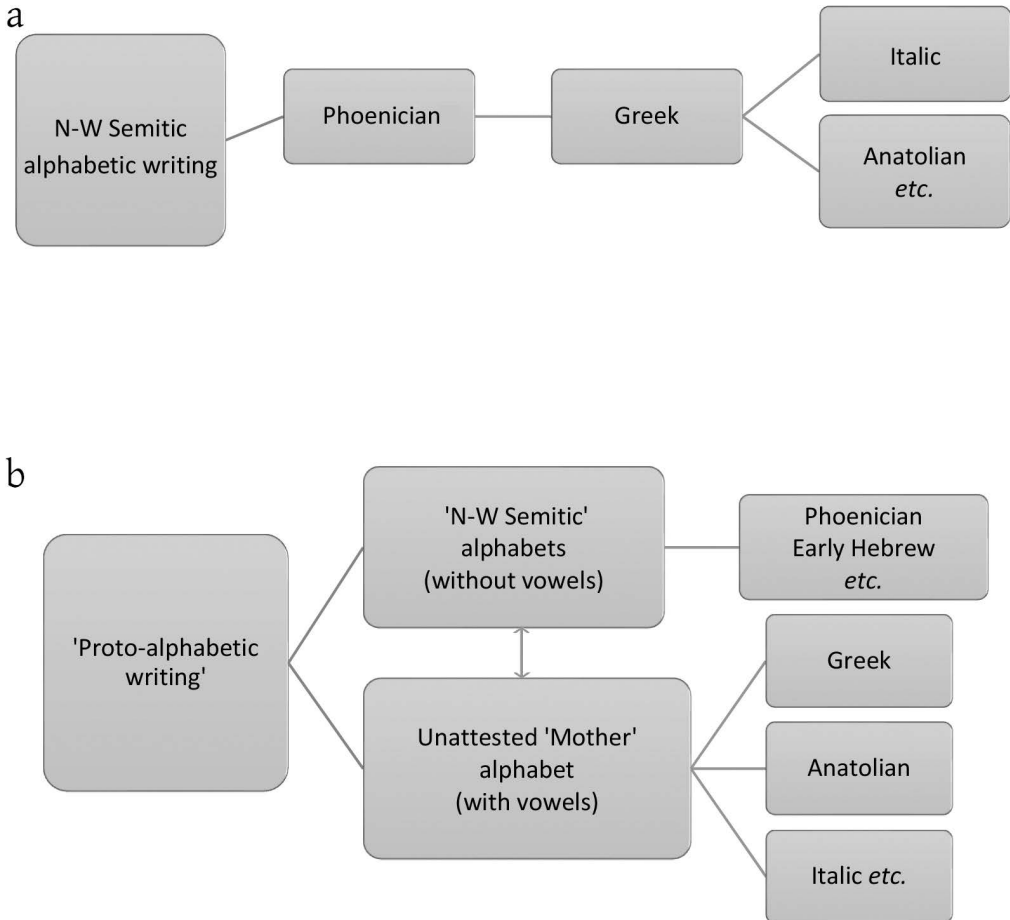
Figure 7.2 a: Current paradigm (simplified) b: Alternative model (simplified).

obvious similarities but also discrepancies from the very start, as well as for the fact that not in a single case a clear Greek source can be established for the western alphabets.[15]

In search of a common ancestor

The above-proposed model, in which the Greek alphabet is not the mother, but rather a sister of the Anatolian, Italic and Iberian alphabets, has several advantages. It would not only account for the fact that the Greek and the other alphabets display

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15 Note that a similar suggestion has been made with respect to the Greek and Phrygian alphabets by Young (1969, 256) who suggests that they stem from a common ancestral alphabet that already contained vowels.

both differences and similarities from the very beginning, but it could also offer new possible solutions for the above-discussed 'abnormal' sound values in the Anatolian alphabets. If the Anatolian alphabets are not derived from the Greek alphabet, it is not so alarming that some values differ from their Greek counterparts, as they may be the result of independent, internal (possibly phonological) developments, which took place over the course over a long period of time.

The model would further account for the above-mentioned interesting similarities between some signs that occur in the Anatolian, Italic and Paleohispanic alphabets, but which are not present in the Greek alphabet. An interesting case in point is the non-Semitic sign ↑, which is used for the sound value /ts/ in the Phrygian alphabet. This sign occurs with the same value in other Anatolian alphabets as well as in the Raetic alphabet (Bonfante 1996, 3.04 table 23.2). In addition, the sign is attested in the Paleohispanic alphabet, but here it is uncertain if it has same the sound value (Gomes 1997, 18–19; Valério 2008, 130–131). Though these parallels may of course be a coincidence, they could also point to a common origin.[16]

The same holds true for the often-noted remarkable fact that the Lydian and Etruscan alphabets both use the sign 8 for the sound value /f/. This correspondence is usually explained as pure chance, or a later borrowing. Proposals that they might go back to a common source have in the past been made (see, *e.g.*, already Sommer 1933), but they have overall received (too) little attention (cf. Gérard 2005, 26 with note 58).

It is further worthwhile to entertain the possibility that the unattested common ancestor also contained (some of) the vowels, which were thus not necessarily a Greek invention. As has long been observed the vowels *a, i* and *u* which are shared by all western (Valério 2008, 116), were already used as so-called *matres lectionis* in Cilicia in bilingual Aramaic and Hieroglyphic-Luwian (an Indo-European language) inscriptions. In the Aramaic inscriptions, the Luwian vowels *a, i* and *u* are rendered with the consonants ʾ*aleph*, *yod* and *waw*. Therefore, some scholars assume that the Greeks received the vowel-letters (*matres lectionis*) together with the alphabet (see *e.g.* Lipiński 1994, 29–30), but this view is not generally accepted (see *e.g.* Naveh 1982, 183; Powell 1991, 44–46; Ruijgh, 1997, 573).

As kindly pointed out to me by Alwin Kloekhorst, it is of interest that the Greeks only added signs for long vowels in a later stage. If they had been the original 'inventors' of the vowel signs, would it not have been more logical that they would have made a distinction between long and short vowels from the start? This circumstance may be seen as an indication that the vowel signs were 'invented' for a language in which vowel length was not as relevant as it was for Greek.[17] When discussing vowel

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16 As has been observed before (Gérard 2005, 26–27; Melchert *apud* Valério 2008, 130) this sign is very similar to the Hieroglyphic Luwian sign which represents the sound value /zi/. This could be an interesting indication for the possible place of origin of the assumed common ancestor – an intriguing question that falls beyond the scope of this paper.

17 Compare, *e.g.*, the Linear A script, which was also less suitable to write the Mycenaean language (see recently Colvin 2014, 35). Note that the Cypriot syllabaries which are also derived from Minoan

invention, it is further important to bear in mind that the vowel signs are not typical for 'western' alphabets, but that vocalic components were developed independently in different regions of the globe such as Ethiopia and India (Rodriguez 2002).

New discoveries and insights since 1933

The above scenario implies that (a) the alphabetic script was in use much earlier and on a larger scale across the Mediterranean than is now generally assumed and (b) there were extensive contacts in the Late Bronze Age/Early Iron Age between the regions in which the 'western' alphabets were used. In the previous, it has been shown that there are a number of indications that the Greek alphabet is much older than its first attestations. Likewise, the first inscriptions of other western alphabets, such as the Etruscan and Phrygian alphabets show certain characteristics that imply that they must go back to an older tradition.

Further, new finds and insights made over the last decades support the idea that (alphabetic) writing was more widespread and that cultural contacts were more intense in the Late Bronze Age Mediterranean than was long thought. It is important to realise that since the current paradigm was established in 1933, there have been important discoveries that have fundamentally changed our understanding of the historical context in which the transmission of the alphabets took place. The most important ones are listed below.

Discoveries of more (and earlier) alphabetic inscriptions

In the last decades, our corpus (and knowledge) of early alphabetic inscriptions has significantly increased. Discoveries at Wadi el-Ḥôl have shown that the earliest alphabetic traditions date back already to 1900–1800 BC (Darnell *et al.* 2005). Further, there are growing indications that the alphabet was regularly used in the ancient Near East from at least the fifteenth century onwards (Haring 2015).[18]

Within the Aegean, the number of early Greek inscriptions has steadily grown since 1933 and some discoveries have led to a revision of some 100 years for the first attestations of the Greek alphabet from *c.* 700 to *c.* 800 BC (possibly even earlier, see Janko 2015). Among these new finds are the hexametric inscriptions on the Nestor cup from Pithekoussai (found in 1954) and the recently discovered Hakesander-cup from Methone (see also above p. 111), which date to the eighth century BC. These two objects show that already at that time, the practice to use writing for poetic and private ends was not confined to Athens – where the contemporary Dipylon inscription was found in 1871 – but that this occurred in a wide geographic area which included Italy.

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scripts, also do not have vowel length (Panayotou-Triantaphyllopoulou 2003, 203–215).

18 For a recent overview of the early history of the alphabet, see Millard 2012a. See also the contribution of Ben Haring in this volume (chapter 4).

A further significant new insight is the above-mentioned redating of the Phrygian alphabet, which is now contemporaneous of even older than the earliest Greek attestations (see above p. 114).

The decipherment of Linear B

When discussing the introduction of the Greek alphabet, it is important to bear in mind that the Aegean has a long a history of writing: from at least *c.* 1700 till *c.* 1200 BC several writing systems were in use, most notably Cretan Hieroglyphs, Linear A and Linear B. Michael Ventris' decipherment of the latter script in 1952 revealed that it was used for the Mycenaean language. The Linear B script, of which the oldest texts probably date to *c.* 1450–1400 BC, is attested at various sites on the Greek mainland and Crete. Thus, a firmly established and widespread tradition of writing a 'forerunner' of the Greek language existed for at least 200 years. This makes the assumption that a period of some 300 years without any writing would follow less likely, especially in light of new insights about this period (see below).

Interconnectivity in the Mediterranean

The last decades, insights about interconnectivity in the ancient world have altered drastically. It has become clear that the Aegean world was not isolated, but stood in close contact with its eastern and western neighbours. The now available textual and archaeological data show that an international network of trade and/or diplomatic contacts across the Mediterranean existed from at least the third millennium onwards, intensifying in the second millennium BC (recently Broodbank 2013, esp. chapters 8–9). In the following 'Dark Age' our sources are scanty and interaction may have been less intense, but they were certainly not absent (see below).

Archaeological evidence from Italy has revealed that there were trade contacts with the Eastern Mediterranean in the Late Bronze Age (Broodbank 2013, esp. chapters 8–9). Data from Spain and Portugal are scarcer, but not absent. Recent excavations at, for example, the Late Bronze Age site La Bastida in the southeast of Spain, have revealed that this settlement bears a strong resemblance to contemporary ancient Near Eastern cities, demonstrating that the intercultural contacts may have been more intense than hitherto assumed (Lull *et al.* 2014).

In short, we know now that the necessary infrastructure for a transmission of the alphabet was already in place long before the traditional date of its assumed introduction in the Aegean and beyond.

New light on the Dark Age

Not only our views on intercultural contacts in the ancient world, but also our perception of the Greek Dark Age has changed. Recent archaeological studies have

shown that this Dark Age was not as dark as was long assumed. Apart from obvious decline, there was a substantial amount of prosperity, certainly in places like Knossos and Lefkandi (*e.g.* Crielaard 1995, 264). Further, though it was certainly a period of change, there are also signs of continuity with the preceding Late Bronze Age. Maritime activity continued and there was still exchange with the Near East (*e.g.* Dickinson 2006, 196–218, see also above). The fact that this period has proved to be not all bleak and regressive, and that the Greeks remained in continuous contact with the Phoenicians (and other people), who made use of writing, make a scenario in which Greece, as the only region in the area, would have remained illiterate for over three centuries, less appealing.

Unthinking Eurocentrism

The study of classical antiquity has long been dominated by a Hellenocentric view. The 'Greek Way' has been presented as unique in world history and it is viewed in a special relation with the modern Western civilisations. Among the many achievements attributed to the Greek brilliance is the 'invention' of the first 'true' alphabet (Colvin 2014, 27).

An eloquent illustration of this very biased way of thinking is the reaction of Carpenter (1938), already briefly referred to on p. 110, when his theory was criticised by Ullman. When Ullman expressed his doubts about the incredible speed in which the Greek alphabet must have spread and developed in Carpenter's scenario, Carpenter replied that he held it 'worse than absurd, *un-Greek* and hence unthinkable that it should have lingered for any considerable lapse of time among this *intensely active people*, in passive abeyance, known but unutilized' (Carpenter 1938, 69, emphasis my own). The acclaim of the 'dynamic Greeks', implicitly setting aside the Phoenicians as inactive, is typical for the Eurocentric view in which the 'west' is seen as the only agent in world history, and the rest of the world is merely a passive bystander (see, *e.g.* Marks 2002, 8; Hobson 2004, 4).[19]

However, since Edward Said's *Orientalism* (1978) has ruthlessly exposed the (unconsciously) eurocentric outlook prevalent in academia, the 'legend of the Greek wonder' has been under increasing attack. It is more and more being recognised that ancient Greece was not isolated, but formed an integral part of the ancient Mediterranean world and should be studied and appreciated as such.[20]

The paradigm of Carpenter is clearly a product of its time, in which a pivotal role for the Greeks and their alphabet was seen as self-evident and unavoidable. This view, however, has become obsolete and out-dated.

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19 See also Bernal 1991, 8–15, who sees Carpenter's views in the context of intensified anti-Semitism.

20 Of great importance have been the pioneering works of West (1997) and Burkert (1984–1992), for recent studies see, *e.g.*, Rollinger 2004; Henkelman 2006, Haubold 2013, Bachvarova 2016.

Absence of evidence is not evidence of absence

Though virtually all parameters have changed in the last decades, the paradigm itself has remained remarkably intact. The only argument for a late introduction date that is currently still standing is the *argumentum ex silentio*: there are no certain Greek alphabetic inscriptions attested before the eighth century BC. Yet, an argument from silence is never more than that: it remains inconclusive, however deafening this silence may be. Moreover, this particular silence is hardly surprising nor unique.

First of all, it is clear that the dominant writing mediums for alphabetic scripts were perishable materials such as leather, wood or papyrus. Due to their ephemeral nature, their survival (under Greek climatic conditions) is not to be expected. The oldest papyrus from Greece dates from the fourth century BC, but no one seriously claims that this material was not in use before to record writing (Ruijgh 1997, 536).

Secondly, this 'silence' not only occurs in Greece, but throughout the entire region in which alphabets were used – which is of course linked to the perishable nature of the writing materials. The situation for, *e.g.*, the Hebrew alphabet is very similar (see, *e.g.*, Cross 1979, 109; Bernal 1990, 55; Naveh 1991, 150).

Against the argument from silence stand the above-discussed new discoveries, that have resulted in a substantial revision of our views of the early origins of the alphabet. Not only do we know that the alphabet is much older than long assumed, the date for the earliest Greek inscriptions have also been pushed back by a century (see p. 121). These new finds are a clear warning of the dangers of relying too heavily only on the evidence presently available to us.

Final remarks

Needless to say, the above scenario is inevitably tentative and many issues, such as the modes of transmission, or the language(s) and location(s) of the supposed common ancestor, have not been addressed here. This paper is first and foremost meant as an incentive to break away from the current paradigm, and to open up new horizons for research. In the present debate, the assumption that the introduction of the Greek alphabet took place around 800 BC is treated as an established fact and it forms the starting point of virtually all new research, preventing real progress. New facts and insights are being forced into the existing paradigm – at times with far-fetched *ad hoc* explanations – whereas these new facts should instead force us revise the paradigm. Paraphrasing Sherlock Holmes, the facts are insensibly twisted to suit the theory, instead of theories to suit facts (Doyle 1892, 7).

A different approach, allowing an earlier date for the introduction of the Greek alphabet and a less decisive role for the Greeks in the transmission of the alphabet to the 'west', may yield new insights and help us to better understand relations between (alphabetic) scripts.

Chapter 8

The development of Greek alphabets: Fluctuations and standardisations[1]

Philippa M. Steele

However alphabetic writing arrived in Greece – a question that continues to be debated – we know that a number of different regional variations of the Greek alphabet (local scripts with some significant differences in sign repertoire and sign shapes) arose at an early stage, making it appropriate to speak of alphabe*ts* in the plural. There are various models for thinking about how such a situation might have arisen, as represented for instance by the opposing camps advocating monogenesis (a single initial adaptation followed by local differentiation involving additions/reductions to the repertoire and other changes) or polygenesis (multiple initial adaptations following separate local trajectories); the former remains the more popular (see *e.g.* the lengthy exposition in Wachter 1989). Further problems often discussed are the date and place(s) of adaptation, the source script(s) from which the adaptation was made (usually assumed to be Phoenician but Aramaic has been suggested as a possibility) and the relationship between the Greek alphabet and other early ones, particularly in Phrygia and Italy. This last aspect is especially important because it is by no means certain that Greek speakers alone (or at all?) first borrowed and adapted a Semitic consonantal alphabet and added dedicated vowel signs to it, and it would perhaps be better to think of this alphabet-with-vowels as a Mediterranean rather than Greek phenomenon. The framing of all these issues as 'problems' and 'questions' may alert the reader to the fact that, despite some at times quite intense debate, little ground has been gained other than some prevailing opinions. An attempt to move the debate

forward, particularly in regard to the date and earliest stage of development, is indeed at the heart of Willemijn Waal's chapter in this volume (see also Waal 2018).

The present chapter does not aim to deal with the problems outlined very briefly above,[2] but they must nevertheless be flagged up at the outset because the way we think about the genesis of alphabetic writing in the Mediterranean affects the way we think about the starting position for the Greek alphabet(s). Indeed, the above questions may be considered unanswerable, at least with any degree of certainty or specificity. Even the motivations behind the original adaptation of the Greek (/Mediterranean) alphabet and its usage in its earliest years remain a matter of some contention in scholarship: the idea that recording hexametric poetry was the sole motivation (Powell 1991) has given way to a range of more nuanced views emphasising the roles of trading networks, religious practice at international sanctuaries and international elite symposiastic behaviour in the spread of writing (see for instance the papers in Strauss-Clay, Malkin and Tzifopoulos 2017). Nevertheless, the possibility of recovering or reconstructing something of the circumstances in which the alphabet first appeared and subsequently developed remains high on the agenda of current scholarship.

My aim is rather to explore and to some extent rethink the nature of the evidence for the regional variation in Greek alphabetic writing during the first centuries of its existence. It has been eloquently illustrated by Nino Luraghi (2010) that the existence of the regional variants of the Greek alphabet has everything to do with conscious choices on the part of Greek speakers in connection with perceived political, linguistic and ethnic boundaries. Alan Johnston has also questioned (1998) and emphasised (2012) links between local alphabets and the *poleis.* There can be no doubt that the geopolitical landscape of the Greek-speaking world in the Archaic period bore a close relationship with, and was to some extent enshrined in, the use and maintenance of writing systems that were visibly distinct from each other despite obviously being closely related. However, an important caveat is that this state of affairs is only clearly demonstrable for the later part of the Archaic period, let's say at least partially by the second half of the seventh but more fully when we get to the sixth century BC. It is precisely because the distinct local alphabets are so well established by this period that it is possible to provenance many inscriptions on the basis of letter forms.

By contrast, the earliest Greek alphabetic inscriptions, from the mid-eighth to the mid-seventh century, often cannot be as easily pigeonholed – not only because of the admitted scarcity of the evidence, but also because the distribution of evidence does not quite fit what we might expect based on the later distribution. In Luraghi's words, this earlier period features 'a surprisingly high number of cases of local use of

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2 I will instead point the reader in the direction of some of the most recent pieces on the early years of the Greek alphabet, which, taken together, will give some impression of the current state of debate: Papadopoulos 2016; the papers in Strauss-Clay, Malkin and Tzifopoulos 2017; Bourogiannis 2018; Waal 2018. At time of going to print, the forthcoming volume by Parker and Steele will also be of relevance, as will the papers by Elvira Astoreca and Whitley in Boyes, Steele and Elvira Astoreca (forthcoming).

letter forms that will not figure in the local alphabet once the evidence becomes more abundant and consistent forms of local alphabets start becoming visible' (2010, 73). The most economical explanation for this state of affairs could be that the regional alphabets simply had not yet acquired their fixed forms at this stage – with the caveat that local processes of standardisation may indeed have taken place at different rates, in different contexts.

A useful parallel in Cyprus

Before turning to the Greek alphabetic material, culminating in a case study focused on the Cretan alphabet, a brief excursus on Cypriot writing can provide a useful parallel. During the Iron Age, Cyprus was divided into a number of independent city kingdoms, with their own kings, political structures, coinage and territory. Some of the earliest evidence for this political division of the island comes from external sources during the period of the island's inclusion in the Assyrian empire: official inscriptions of the Assyrian kings Sargon II (late eighth century BC) and Esarhaddon (early seventh century BC) list seven and ten Cypriot kingdoms respectively, and these kingdoms can for the most part comfortably be identified with ones that are well attested from later historical sources (see Yon 1987b, 365–367, with particular attention to the Qartihadasht problem, and O. Masson 1992a). There also exist two seventh-century BC Cypriot inscriptions, commissioned by kings of independent Paphos (a kingdom in western Cyprus) who refer to themselves by the Greek term *basileus*.[3] Over time, it can be demonstrated that writing – in its peculiar syllabic form in the case of Cypriot Greek and Eteocypriot[4] – was appropriated by the city kingdoms as a significant tool of administration and local power (Iacovou 2013).

There is an obvious and important difference between Cyprus and the Aegean concerning developments in literacy. In Cyprus, the skill of writing in a syllabic script remained in use without interruption (albeit with some changes) from the Late Bronze Age through to the age of the city kingdoms, which themselves had their roots in an earlier situation of political diversity on the island (on the longevity of regional political centres on Cyprus, see Snodgrass 1994 and Iacovou 2002, 2007). In Greece, on the other hand, the sudden demise of Mycenaean civilisation around the end of the thirteenth century BC coincided with the complete loss of literacy in most or all areas, and the resurgence of writing attested from the eighth century onwards (now alphabetic, not syllabic like the Mycenaean Linear B script) followed a period of illiteracy. Nevertheless, Cyprus exhibits a trend in writing that is both comparable and more-or-less synchronic with the appearance of regional alphabets in Greece.

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3 Gold bracelets of king Etewandros (*ICS* 176), silver gilt bowl of king Akestor (*ICS* 180a), both found at nearby Kourion.

4 There were also centres of Phoenician political activity on Cyprus (using Phoenician language and script in official inscriptions and coinage), of which Kition was probably the, or one of the, earliest.

The Iron Age embodiment of syllabic Cypriot writing, usually termed the 'Cypriot Syllabary' or 'Cypro-Greek Syllabary' to distinguish it from the earlier undeciphered Cypro-Minoan of the Late Bronze Age, began to appear in force in the eighth–seventh centuries BC. When this occurred, neither the technology of writing nor the politically diverse set-up of Cyprus was new, but there were nevertheless some clear changes both in administration and in the uses of writing that led to a very striking situation of epigraphic regionalism during the seventh–fourth centuries BC, namely the existence of fixed local variations of the Cypriot syllabic script. There were two main variant syllabaries: the Paphian (used in the area of Paphos) and the Common (used at other Greek-speaking and Eteocypriot-speaking kingdoms). Within the latter grouping, some further local variations can also be seen, for example particular distinctive sign shapes such as the *o* and *so* of the southern city of Amathus, which otherwise uses what is basically the repertoire of the Common syllabary.[5] The differences between the Paphian and Common syllabaries that became enshrined in their usage included differences of repertoire (different sign shapes for some sign values), of palaeography (*e.g.* the more angular signs typical of the Paphian syllabary) and of direction (Paphian was written left-to-right, Common right-to-left).

The establishment and regional appropriation of these variations in writing were so successful that by the fifth and fourth centuries BC, the period from which the greatest volume of epigraphy survives, authors of inscriptions in both public and private spheres were evidently both aware of and attached to the established differences between the scripts. Particularly striking is the collection of graffiti made by Cypriot mercenaries on the walls of the temple of Achoris at Karnak, Egypt, which feature a number of different named authors from different Cypriot cities. The authors of these graffiti observed all the traditional properties of their home variant of the syllabary, such that for example Onasas from Paphos wrote from left to write using the sign shapes of the Paphian syllabary, while Ages from Ledra wrote from right to left and used the distinct sign shapes of the Common syllabary.[6]

At the earlier end of the chronological spectrum, however, some surviving inscriptions suggest that the division of the Paphian and Common syllabaries was something that grew up and became fixed only once writing came to be strongly associated with administration and public display by the city kingdoms. The earliest inscriptions – like many of their alphabetic counterparts in the Aegean – tend to consist of ownership statements and/or private dedications, often written on portable items that sometimes have intrinsic commercial value. Some of these inscriptions appear to pre-date the fixed repertoires of the later Paphian and Common syllabaries, for example the inscription on an eighth century BC vase from Kouklia-Paphos shown

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5 Although Amathus was a primary locus of the use of the Eteocypriot language, it can be demonstrated that the local differences in the syllabary used there are just that – there was no separate 'Eteocypriot syllabary' (Egetmeyer 2010a).

6 Discussed in Steele 2018, 216–219. Some of the authors of these graffiti show further interest in writing by using the Greek alphabet, sometimes digraphically alongside the Cypriot syllabary.

Figure 8.1. Cypriot Syllabic vase inscription from Kouklia-Paphos. Drawn by the author after O. Masson (1961/1983) 18c, p.187.

in Figure 8.1, which reads *to-ro-to-so-si* from left-to-right and uses distinctively Paphian *to* alongside distinctively Common *so* (the *ro* and *si* are common to both syllabaries although palaeographically they are closer in appearance to Paphian variants). In fact one particular inscription from the earlier Cypro-Geometric I period (1050–950 BC), the *Opheltau* inscription from a tomb of the Palaepaphos-Skales cemetery, already shows what could be interpreted as mixed Paphian/Common features, although the stage of script development attested in this and contemporary inscriptions remains a bone of contention in scholarship (see *e.g.* Duhoux 2012; Egetmeyer 2013; Steele 2018, 55–83).

Whatever we make of the earlier evidence, the existence of texts in the eighth–seventh centuries with mixed Paphian/Common features is a clear indicator that the regional syllabaries acquired their fixed attributes only after this time; in fact, it is anachronistic to speak of these texts in terms of 'mixed features' given that there was evidently no distinction between Paphian and Common variants of the script at the time when they were written. The regionalisation of Cypriot syllabic writing was a response to a developing political situation across the island as the city kingdoms began to use writing for local purposes, and with it came a process of standardisation that resulted in the attribution of obligatory features to the regional syllabaries.

There may be more to this than a convenient comparandum for the regional Greek alphabets. Despite some distance and distancing, deliberate or otherwise, between Cyprus and other Greek-speaking areas, I would like to suggest that it is no accident that the timelines for developments in Cypriot syllabaries and Greek alphabets look so similar. The same could be applied to other areas too, such as the Italian peninsula, where early abecedaria (seventh century) follow a Greek model without all the modifications that characterise later examples (*e.g.* reductions of the overall repertoire), and where the earliest stages of writing (*c.* 800 BC onwards) display experimentation with orthography (*e.g.* in representations of the /f/ phoneme) that would later be standardised.[7] Phrygia's early epigraphic record is very slim and more difficult to judge, but it is perhaps noteworthy that, while the very earliest surviving inscriptions from the Grand Tumulus at Gordion (perhaps late ninth century, see Brixhe 2004) are too short and lacking in diagnostic features to be helpful, a few slightly later ones from the

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7 See Cristofani 1978a, 1978b on the spread of Etruscan writing, Pandolfini and Prosdocimi 1990 on the Etruscan abecedaria, Hartmann 2005 on various issues of dating, script and orthography in the earliest Latin texts.

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Figure 8.2. Phrygian alphabetic texts from Gordion. Drawn by the author after Brixhe and Lejeune (1984) G-105 and G-108.

same site (second half of the eighth century) display some but not all distinctive local traits. Note for example the *sigmas* of varying lengths (five-barred and three-barred) alongside the earliest attestation of the exclusively Phrygian supplemental sign ↑ in G-105 and the three-barred *epsilons* but seven-barred *sigma* in G-108 (numeration from Brixhe and Lejeune 1984; see Fig. 8.2); later inscriptions from the same site are strongly characterised by the appearance of multi-barred *sigmas* and *epsilons* (almost always four-barred or more, with *sigmas* sometimes having as many as ten bars).

In perhaps some (or more probably all) these areas, fixed forms of local scripts did not yet seem to exist in the eighth–seventh centuries BC, while from the seventh–sixth centuries onwards the local scripts had undergone or begun to undergo a process of standardisation. It could be argued tentatively that, across the central-eastern half of the Mediterranean, very similar processes were affecting developments in writing in several areas. Whether the scripts in question were related to each other (Greek, Italic, Phrygian alphabets) or not (Cypriot syllabaries), it seems that the seventh century was the crucial period during which these writing systems moved away from experimentation and fluctuation and towards standardisation and fixedness. Changes in writing must have been linked with other kinds of social change, potentially including urbanisation, political control, wealth and status display, social stratification, mortuary practice, not to mention literacy itself (and with it factors such as inscription type, writing methods and education). This is a major issue that deserves in-depth treatment far beyond the scope of this paper (incorporating also writing in other scripts and languages present during this period that I have not mentioned, such as Phoenician, Aramaic, Luwian, *etc.*), and I can only highlight it here as an area for future study.

Regionalisation and the Greek alphabet

As has already been pointed out above and in previous scholarship, the development of regional Greek alphabets associated with local epigraphic practice was closely related to the development of regional political structures and associated perceptions of ethnic boundaries (see especially Luraghi 2010; Johnston 2012). This was reflected in a strong attachment to the features of regional alphabets (surfacing in the faithful reproduction of these features in inscriptions) and in a very clear awareness of the existence of and differences between regional alphabets (evident most clearly in an inscription like the digraphic Phanodikos stele, or in the efforts of an author from

Figure 8.3. Abecedarium written around the belly of a cockerel-shaped bucchero ware vase. New York Metropolitan Museum (www.metmuseum.org), Fletcher Fund, 1924. Public Domain Image.

one region to write in the alphabet of a different region; discussed further in Luraghi 2010, 76–83). As we have just noted, this looks quite similar to the situation that grew up in Cyprus, if across a much wider geographical range, and the processes of regional standardisation appear to have taken place on a similar timescale in both areas. However, one key difference remains, namely that alphabetic writing was a new acquisition in Greece, while in Cyprus syllabic writing was part of an unbroken tradition of literacy originating in the Late Bronze Age and developing over time to suit changing political, social and linguistic needs. This inevitably raises the question of the starting point for the Greek alphabets: what was the situation before regional alphabets acquired their fixed forms? And as we have already seen, this is not a question we can answer definitively based on surviving evidence.

There are, however, indications that early forms of Greek alphabet could have featured some key differences from later incarnations. Surviving Greek alphabetic inscriptions from the eighth century BC are relatively rare and are often short texts, making it difficult to extrapolate a full set of features for the alphabet with which the author of such a text was familiar. This is an important point because an author of a relatively complex text must have been working from knowledge of a whole repertoire of signs, not only the ones needed for the current inscription. Abecedaria could potentially help with this problem by illustrating the perceived repertoire of an alphabet as it was learned, but such inscriptions are very sparsely attested in Greece in the period of interest, and when they do occur they preserve only small portions of the alphabetic sequence, usually the beginning (which could, conversely, suggest a limited degree of literacy in those cases).

The earliest surviving complete abecedaria (labelled variously by scholars as Greek or Etruscan) are found in the Italian peninsula and date to the seventh century BC, such as the one written on a cockerel-shaped vase from Viterbo (detail in Fig. 8.3;[8] Buonamici 1932, 103; Pandolfini and Prosdocimi 1990, 22) and an ivory replica of a writing tablet from Marsiliana (Buonamici 1932, 101; Pandolfini and Prosdocimi 1990, 18). What is striking about these abecedaria is that they contain a larger repertoire of letters than any one of the regional Greek alphabets is thought to have

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8 Note that in the cockerel inscription, the *sigma* is repeated in the place of *chi* (which is in its correct place in the Marsiliana abecedarium). This could potentially reflect confusion over the sibilant signs.

contained, notably with more sibilants: they have both sigma and san (individual Greek alphabets have only one or the other of these two signs) and they have *xi* as well as an X-shaped *chi* sign that may be assumed to have the value /ks/ in common with the red Greek alphabets and the ones that developed for local languages in Italy.[9] By Etruscan standards, this is not over-representation because the Etruscan phonological inventory simply contained more sibilants and had a use for more signs. But what these abecedaria show, whether you think of them as Greek or Etruscan, is that there once existed at least conceptually an alphabet that contained not only the full set of sibilant signs borrowed from the Phoenician alphabet, in their correct order in the alphabetic sequence, but also the full set of innovating vowel signs that mark out Greek/Etruscan/Phrygian from the West Semitic alphabets,[10] as well as the new supplemental letters *chi*, *phi* and *psi*. In other words, this is a system that occupies an important position in the development of alphabetic writing from the Phoenician to the Greek (and Etruscan) scripts. This version of an abecedarium – even though the mentioned attestations of it do not surface until the early seventh century BC – must reflect a stage in alphabetic development that post-dates certain Greek innovations (the pan-Greek assignment of a set of vocalic signs/values, also shared by the Italic and Phrygian alphabets, as well as the introduction of supplemental letters at the end of the sequence) but pre-dates the individual choices of the regional Greek alphabets to reduce the number of sibilants and assign certain values to them.

The above line of reasoning further suggests a chronology for the development of the regional alphabets that involves an early stage where the innovations of the vowel and supplemental signs were made, followed by a later stage (or stages) involving reduction of the sign inventory for use in the regional alphabets. Attempts to reconstruct the latter stage(s), it should be noted, have to be based predominantly on usage because of the scarcity of early Greek abecedaria (the only near-complete Greek abecedarium of comparable age, the sixth-century BC Samos abecedarium, demonstrates the reduced number of sibilant signs as well as another newer innovation, the letter *omega*). As many have noted before, it would be entirely possible for a conceptual abecedarium to include 'dead' letters that are not currently used in local writing, as indeed seems to be the case for the earliest Etruscan abecedaria before the sign sequence was reduced to reflect the non-use of signs for voiced stops, phonemes that do not exist in Etruscan. The same could evidently be the case for the earliest manifestations of the regional Greek alphabets, namely the availability of a sign repertoire that includes a larger number of signs than were ever used in the region's inscriptions. We should note, however, that the evidence as it stands does

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9 Also relevant is a fragment suggested to be a partial abecedarium found at Eretria, preserving what may be a 'boxed' *xi* like the ones in the Etruscan abecedaria, in a sequence *pi-omicron-xi* from right-to-left (Kenzelmann Pfyffer *et al.* 2005, 60, no. 3). Eretria, as home of a red Euboean alphabet, did not use *xi* and used the X-shaped *chi* sign with the value /ks/.

10 Of the vowel letters, four maintain their position in the alphabetic Phoenician alphabetic sequence while *upsilon* is added after the last Phoenician letter, *taw/tau*.

not preserve such a phenomenon: in fact, as far as the sibilants are concerned, each regional alphabet once it is attested seems already to have made its choice about whether to use *sigma* or *san* for the phoneme /s/. At this point it is helpful to return to the question of the nature of the evidence, and to explore the development of the features of regional alphabets through a case study.

Crete: a case study for regional standardisation in writing

This paper starts from a working hypothesis that the regional Greek alphabets are the result of local processes of standardisation, and that these processes are (or at least can be) closely related to the development of local social and political structures, especially ones that involve public writing and so provide a context in which there is some pressure for the local writing system to be consistent across multiple texts. So rather than seeing regional differences as stemming from the original process of transmission of alphabetic writing, as is often implicitly or explicitly assumed (see for instance Jeffery and Johnston 1990, 40–42), here the differences are viewed as largely symptomatic of a wider cultural phenomenon, namely the development of distinct local practices and political/civic institutions in different Greek-speaking areas. Crete has been chosen as an island that presents some advantages as a test case for such a hypothesis, principally in the attestation of a reasonable corpus of inscriptions dated to the eighth–sixth centuries BC, which includes a number of official texts in the form of legal codes, the latter displayed in public, usually religious, spaces. Where possible, the late seventh century is considered the cut-off date for inscriptions included in this survey, although inevitably it is sometimes necessary to stray into slightly later material (however, see the brief discussion below on the matter of dating Cretan inscriptions).

In considering the standardisation of the Cretan alphabet, the repertoire of alphabetic signs and sign shapes is of principal but not exclusive interest. Standardisation of script is ultimately a usage-based phenomenon, whatever its context, and surfaces not only in sign values and shapes but also in orthography, punctuation, formatting features and layout of text. That a standard form of writing might have been desirable or expedient in Archaic Crete is also suggested indirectly by the known existence of a high status official scribe, *poinikastas*, attested in an inscription on a bronze mitra that probably originated from late sixth-century Lyttos (Jeffery and Morpurgo Davies 1970). This piece of evidence may not be directly applicable to the earlier situation in any of the Cretan *poleis*, but is nevertheless strongly suggestive of official importance attached to writing in a local political context, which may indeed have had earlier precedents or at least may have been motivated by a longstanding atmosphere in which the keeping of written records was important enough to require a specialist official. It should further be emphasised that writing habits in Archaic Crete were strongly regionalised. This does not mean that different areas of Crete were not using essentially the same alphabet in terms of the majority of signs and their values, but we should be alert to the fact that one *polis*

might use a different letter form from another or make other orthographic innovations (consider the regionalism apparent in attempts to render a long /o:/ phoneme: see Thompson 2006, 94–97), or that writing habits might vary significantly in different areas of the island (considered recently by Whitley forthcoming).

Recent scholarship has shown considerable interest in the question of literacy in the Cretan *poleis* – could citizens read and write, and were the monumental legal codes accessible to them or not? James Whitley (1997, 1998, forthcoming; also Stoddart and Whitley 1988) has argued strongly against widespread literacy in Crete, suggesting that evidence for personal/private inscriptions decreases as the legal inscriptions become more numerous going into the sixth century BC, potentially representing a restriction of literacy to those in an elite and/or scribal circle. There has been a backlash against such a view, with arguments from Paula Perlman (2002, 2004) and Zinon Papakonstantinou (2002) that Whitley underestimated the extent of literacy outside of the monumental/legal sphere, which is in fact represented by a small but important corpus of personal inscriptions on stone, pottery, bronze, *etc.* A significant factor, however, is the degree to which writing was 'entangled' with other social activities, such as religious practise and the symposium, and arguably it was considerably less so in Crete than in other literate areas of the Greek-speaking world (see Whitley 2017, 90–94). This debate is ongoing, and I do not intend to contribute to it in any significant way in this paper since it is of tangential importance to our immediate aims here. My intent is rather to shift the focus away from interpretive models that seek to reconstruct the extent of literacy or its social context and towards the evidence for the systemic development of the Cretan alphabet itself. We will return to the problem of interpretation later, and begin first with the alphabet as it appears in Crete's early legal codes, which will then be compared with non-legal inscriptions.

The legal codes

The analysis of the present section would ideally be based on only the earliest surviving Cretan legal codes, with a view to observing the first attestations of monumental and official writing. A caveat is necessary from the outset, however, because these are texts that do not contain any internal reference to dates and that were found in circumstances that make them very difficult to date by any other means. Our dating of the inscriptions therefore relies almost completely on their palaeography, which itself already necessitates assumptions about what writing looks like at different chronological stages. In Anne Jeffery's words (Jeffery and Johnston 1990, 311), 'any attempt at precise dating of Cretan inscriptions before the fifth century is most uncertain, for we have only the letter-forms themselves on which to form a judgement, qualified by the knowledge (derived from the fifth-century material) that the Cretan alphabet was distinctly conservative in its retention of old forms and methods'. The circularity of basing any chronology of the development of the alphabet on material dated by palaeography is evident – but this is an issue that cannot be overstepped or circumvented. Perhaps the best progress that can be made is in attempts to establish

regional chronologies for alphabetic developments in the individual Cretan poleis (*e.g.* Ikonomaki 2010), but for most sites this is of little help for the earliest legal codes, with the exceptions of Dreros and perhaps Gortyn. In spite of these chronological problems, there is a broad general consensus that the earliest legal codes (especially the earliest ones from Dreros) date to the mid–late seventh century BC.

In general, the sign shapes used in the earliest legal codes are quite homogeneous except for a few trends in which certain shapes seem to (provided our chronological assumptions are correct) develop over time. These are schematised in Table 8.1 (for signs reversible depending on direction of writing, both forms are given). Below the table, some brief comments are offered on each sign, drawn from an examination of each text; the comments inevitably are often similar to those of Jeffery (Jeffery and Johnston 1990, 308–309) but are tailored towards the present discussion. The survey was primarily conducted on a selection of inscriptions: the eight from Dreros (seven Greek, one Eteocretan) usually dated to the mid-late seventh century BC, and for comparison some further texts from Eleutherna (Greek), Eltynia (Greek), Gortyn (Greek) and Praisos (Eteocretan), all of which are considered more likely to be *c.* 600 or later.[11] Although the Eteocretan texts cannot be read and so assessed in terms of content, they are included here alongside the Greek legal texts because of their similar monumentality.

The letter shapes are discussed in turn below (see Table 8.1 for illustration):

A: The crossbar almost always slopes downwards in the direction of writing, although occasionally can be straight.

B: Attested very few times. Two certain examples feature in Eteocretan inscriptions, in the standard *beta* shape with a double bow, and may be relatively early. In general *beta* is quite sparsely attested, especially in the texts dated tentatively to the earliest phases. A variant with a single, curled bow also exists in several inscriptions from Gortyn, none of which is likely to pre-date the sixth century.

Although the *beta* with a single curled bow has often been remarked to be closer to the Phoenician *beth* and so to demonstrate the antiquity of the Cretan alphabet (e.g. Jeffery 1990, 310), there is no evidence for it in what are probably the earliest monumental inscriptions (e.g. at Dreros, where one later seventh-century BC Greek text features a damaged letter that was probably a double-bowed *beta* and an Eteocretan text has a certain double-bowed example) and it could indeed be a later development, showing a localised reduction from the double-bowed version of most regional alphabets. Note also that the Cretan single-bowed *beta* never features the crooked stem that is the primary distinguishing feature of the Phoenician *beth*, distinguishing it from other signs of similar shape like *daleth* and *resh*.

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11 The Greek legal codes are collected in Gagarin and Perlman 2016 (Dreros 1–7, Eleutherna 1, Eltynia 1, Gortyn 1), with further references and some with drawings; the early Gortyn code is also published in *IC* (Guarducci 1935–1950) iv.1–40 with drawings and photographs. The Eteocretan inscriptions are collected in Duhoux 1982 (Dreros 1 and Praisos 1), with the available drawings and photographs included.

Table 8.1. Cretan alphabetic letter forms as found in the earlier law codes

A	B	Γ	Δ	E	F	Z
ΑΛ	ΒΒ ϱϙ	ΓΓ Λ	Δ	ΕϽ ΕϽ	ϜϞ Ϟ	Ι

H	Θ	I	K	Λ	M (mu)	N
(enclosed eta)	⊗ ⊕	Ƨ2	ΚΚ	ΛⅤ Μ	ΜΜ	ΝΜ

O	Π	M (san)	Q	P	T	Y
○	ΠΠ	Μ	Φ	Ρϙ	Τ	ΥΥ Ⅴ

Γ: The hooked *gamma* either co-exists with the 'Phoenician'-oriented *lambda* (i.e. hook at the bottom) or appears in inscriptions where *lambda* is not attested. The *gamma* in the shape of an inverted chevron tends to co-exist with a *lambda* very similar in shape to the hooked *gamma* (*lambda* with hook at the top); since this form of *lambda* is usually assumed to be a later variant (given that the one with the hook at the bottom matches the Semitic donor script), this form of *gamma* is also usually assumed to be later.

Δ: *Delta* is in its standard form as known from most of the Greek alphabets.

E: The three horizontal bars tend to be sloped downwards in the direction of writing.

F: The *digamma* of many inscriptions assumed to be early is in the standard F-shape with usually downward-sloping horizontal bars. A slightly different shape in which the lower of the two bars emanates from the upper corner (a shape that can be either curved or angular) is attested at Gortyn but probably not before the sixth century. The latter has been cited as a particularly archaic feature because of its similarity to forms of *waw* in cursive Semitic inscriptions such as the Samaritan sherds; however, just as with the single-bowed *beta* (see above), it is not found in what are assumed to be the earliest inscriptions.

H: The *eta* enclosed at the top and bottom is ubiquitous, and where its value can be judged it always represents a long vowel, never the aspirate. The horizontal lines can sometimes be sloped, and a form quite similar to the common form of Phoenician *heth* appears in the Dreros legal code that is assumed to be the earliest text.

Θ: The central cross can be either straight or diagonal.

I: The characteristic S-shaped *iota* is present from the earliest inscriptions, and the only noticeable variation is to be found is in the depth of its curves, which are usually quite deep as pictured in the table but can occasionally be more shallow. Like crooked *iota* found elsewhere among the Greek regional alphabets, this form again has been seen as closer to forms found in the Semitic ancestor script (especially cursive ones); the difference between this *iota* on the one hand, and the *beta* and 'cursive' *digamma* discussed above on the other, is that the S-shaped *iota* is ubiquitous from the earliest inscriptions.

It can be mentioned here that one of the Eteocretan inscriptions (the one assumed to be earliest based on letter forms, etc), Dreros 1 (see Duhoux 1982, 27-53, for discussion) features a sign that looks very similar to a standard Phoenician *yod*. However, it is an isolated example and is not even fully in line with the main text of the rest of the inscription, making it very difficult to integrate into any argument about the development of the Cretan alphabet.

K: *Kappa* appears in a standard form as known from many other Greek alphabets.

Λ: *Lambda* with the hook at the bottom, matching the Phoenician orientation of the sign, is seen as the earlier form and so one of the principal diagnostic features in deciding the relative chronology of the Cretan alphabetic inscriptions. However, the *lambda* with the hook at the top does appear in one of the inscriptions from Dreros (Dreros 4, suggested to be slightly later on account of the forms of *gamma*, *lambda* and *upsilon* in Gagarin and Perlman 2016, 213). As noted above, the form of *gamma* used in a given inscription is apparently determined by the form of *lambda* used – a problem by no means unique to the Cretan regional alphabet.

M (*mu*): The tail of the *mu* can be similar in length to the other lines or can be considerably longer, but it always of 'five-barred' type (as is typical of an alphabet that uses *san* not *sigma* for the sibilant). The form with the longer stem is usually assumed to be earlier given its relative similarity, again, to forms of the related Phoenician letter.

N: As with *mu*, the tail of the *nu* can be longer or shorter and similar remarks can be made concerning its similarity to Phoenician.

O: The size of *omicron* relative to other letters can vary, sometimes similar in size but quite often smaller; when it is smaller, it is often raised to the central-upper part of the writing space.

Π: *Pi* has a straight vertical and curved open hook in the earlier inscriptions. Sometimes the hook can be more angular than curved, but the length of the hooked section generally prevents confusion with *gamma*. The lunate *pi* is a later development, assumed to be later sixth-fifth century.

M (*san*): Although often symmetrical, *san* can sometimes have an elongated stem (hence the particular importance of the five-barred *mu* to avoid confusion).

Q: *Qoppa* is absent from the Dreros inscriptions but is present in sixth-century inscriptions from Gortyn and other sites in a form where the central stem extends to

the top of the circle. A very similar sign form found in Eteocretan inscriptions, and usually identified as *phi*, is more convincingly interpreted as *qoppa* (Thompson 2018).
P: *Rho* is in its standard form as known from most of the Greek alphabets.
T: *Tau* is in its standard form, sometimes with an elongated vertical.
Y: In the Dreros inscriptions, *upsilon* has a tail in all but one text (Dreros 4, suspected to be later than the other inscriptions based on the forms of *gamma* and *lambda*, on which see above, as well as *upsilon*). Being closer to forms of the Phoenician sign *waw*, which always has a tail, again the appearance of a tailed *upsilon* in an inscription has been seen as a diagnostic feature placing the inscription earlier than ones with tailless *upsilon*. At some point the tailless *upsilon* became the preferred form, perhaps around the second half of the sixth century.

The early legal inscriptions in Greek use only the set of letters laid out above. Some other letter forms found in Eteocretan texts may be relevant to the development of alphabetic writing on Crete, but as isolated occurrences are very difficult to take account of in our present survey: the *yod*-like letter and *phi/qoppa*-like letter have been mentioned above, to which can be added the sign in the form of a vertical line with opposing hooks at the top and bottom (ʃ), suggested tentatively by Jeffery to be related to an identical form found in Sikinos with the *chi* value (Jeffery 1949). Whatever the explanation for these letters, they have little bearing on the following comparison of other types of inscription with writing as found in the early legal texts.

A final point must also be made that letter shapes are not the only features of early Cretan writing that should be included in the present survey. Also significant are the layout and punctuation of text, as is clear already in Jeffery's work (*e.g.* Jeffery and Johnston 1990, 308–311, where word dividers and methods used to mark paragraphs are discussed alongside letter forms). Firstly, the direction of writing seems to have been a relatively fixed feature of the Cretan legal inscriptions from the earliest texts onwards, with boustrophedon (beginning from a sinistroverse line, *i.e.* right-to-left, and moving on to alternate in direction) as standard. It is clear that this method of writing and reading inscriptions was an important standardised feature from its relationship with the marking of new paragraphs in these texts: a new paragraph would begin sinistroverse, whatever the direction of the previous line, to aid the reader by marking clearly the beginning of a new topic. The crucial point here is that the development of this system of marking new paragraphs only makes sense in a context where writers and readers already had well developed expectations of a particular direction of writing being used, indicating in turn that the paragraphing system went hand-in-hand with standardised usage of boustrophedon writing. The paragraphing system is already present in Dreros 1 in (probably) the mid-seventh century; however, this was not the only means of attempting to distinguish passages of text (cf. the angular figure-of-eight shape used already once in the earliest inscription from Dreros and in scattered attestations at different sites as a paragraph marker), and it fell out of use by the fifth century.

Another formatting feature worthy of note is the word divider in the form of a long straight line, which appears in many of the earlier legal inscriptions (including the earliest inscription from Dreros) and, just like a number of letter shapes (discussed individually above), has been identified as closer to Phoenician usage (where word dividers are more common, particularly in comparison with their near total absence from early Greek alphabetic inscriptions). The presence of a straight divider in conjunction with a curved/'crooked' *iota* has often been noted as significant, and the straight divider has even been suggested to have prompted the development of the upright/straight *iota* as found in some other regional alphabets (*e.g.* Janko 2015, 8).

Standardised direction of writing, paragraph marking and word division can all be thought of as aids to the reader (potentially to the writer too) to help follow the text, and to identify particular clauses that may have needed to be referred to in legal queries or disputes. Whether this was done by a very small or a larger group of people is not easy to recover, but however wide the writership or readership, the development of writing/reading aids must relate closely to attempts to lay out these legal texts in a systematic and accessible way. Such aids could be considered important even within a situation of very restricted literacy; to take just one example, something similar can be found in the professional writing of 'scribes' working in the Mycenaean bureaucratic centres, probably writing their clay tablets for a very limited audience but nevertheless with a very standardised set of formatting practices. What remains to be seen is whether early Cretan writing outside of the legal codes looks similar to or different from what has been laid out above.

Other early inscriptions

In a quite recently published survey of writing in ancient Crete, mainly focused on the seventh century BC, Alan Johnston draws a distinction between the sorts of inscription discussed in the previous section (*i.e.* inscriptions on stone, often legal in nature) and ones that he terms 'casual inscriptions' (Johnston 2013). It is the latter category that concerns us here, although the term 'casual' could perhaps be misleading: the texts in this section are written on materials/objects other than stone blocks, but the degree of care with which they were executed varies from case to case. The most significant unifying feature of this group of texts is that they are not issued by/for a Cretan polity, as the legal codes were, and are thus lacking in an obvious political or centralised administrative motivation for their creation. We are dealing here with inscriptions that came into being for other reasons, some of which are more easily categorised than others (*e.g.* ownership inscriptions vs. the elusive short texts of the Kommos sherds). The groups and individual texts discussed below are ones chosen for their certain or probable early date, *i.e.* ones that have a reasonable chance of dating before or to the mid-seventh century BC where possible (bearing in mind the problems with dating Cretan inscriptions as mentioned above).

A) Sherds with graffiti, Kommos

A number of pottery sherds from Kommos are notable for their early date (some belonging to the late eighth-seventh centuries) but also crucially for the means by which their dating was determined, namely quite a secure stratigraphic sequence and a good understanding of their immediate archaeological context. The sherds can be quite neatly divided between cups made of local wares (most with sequences of two or more letters though none is longer than nine letters) and imported amphorae (many of which have single signs or marks rather than longer texts). Dividing them up by inscription type and/or supposed subject matter is more difficult because of their brevity, but in their primary publication the editors categorise them into 'non-commercial: mainly proprietary' and 'probably commercial' based on observation and interpretation of their graphic features and content (see Csapo *et al.* 2000, 101–105 on their categorisation and 108–125 for the catalogue; all numbering in the present subsection refers to this catalogue).

What concerns us here is the script in which the sherd inscriptions are written – or we should perhaps say scripts in the plural, because the presence of features from multiple regional alphabets has been suggested. The inscriptions on imported wares can in most cases be dismissed as irrelevant to the present investigation (especially ones inscribed before firing and so at their place of origin), although there is one important exception (see the next paragraph). The local wares, on the other hand, should give considerable potential for observing what Cretan writing may have looked like in this period – or so one might think. In fact, as a collection the Kommos sherd inscriptions are decidedly, and perhaps surprisingly, unCretan-looking.

Let's begin with direction of writing. All of the texts that can be diagnosed for direction of writing read from left to right, which is the opposite of what we would expect in a Cretan alphabetic single-line inscription, except for one (no. 22, South Cretan ware, not late seventh century). We can also consider here the two-line inscription no. 30 (Fig. 8.4, top left), written on a sherd from a large vessel that was probably a Cycladic import (possibly an ostracon but not a complete one), which is in so-called 'false boustrophedon': the editors conclude that one part is the beginning of a sinistroverse line (right-to-left), and if it is turned upside down then part of a dextroverse line (left-to-right) can be read. They also argue that
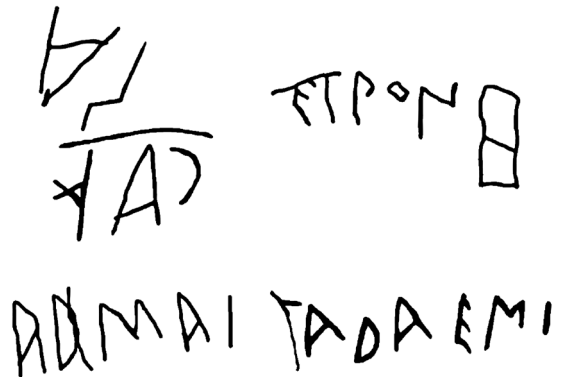

Figure 8.4. Four of the Kommos sherd inscriptions. Top left: no. 30. Top right: no. 8. Bottom left: no. 19. Bottom right: no. 27. Drawn by the author after the drawings and photographs accompanying Csapo, Johnston and Geagan (2000).

the writing may be local on the basis of letter forms (provided that we see the C-shape as a lunate *pi*, although this is not without chronological problems: see further the comments on *pi* in the previous section). Even if this is the correct way of viewing this difficult inscription, it does not conform with the standard Cretan practice of boustrophedon writing as we know it, for example, from the legal inscriptions.

Of all the Kommos sherds (not counting the import with possible lunate *pi* discussed in the last paragraph), there is only one that could potentially be seen as containing a diagnostic Cretan letter: no. 8 (probably South Cretan ware, not late seventh century), which reads from left-to-right ETPONH, perhaps to be interpreted as *m]etron ē[mi* (Fig. 8.4, top right). If the reading is correct, then the value of *eta* here as long /e:/ is confirmed; this would also make it the only known 'speaking object' in Crete, perhaps significant to the debate on Cretan literacy (see Whitley 2017, 82–90). Note however that this value for *eta* is not confined to the Cretan alphabet and turns up elsewhere, for instance in Ionia. No other potentially diagnostic forms are attested, and notably all *iotas* are straight (*e.g.* in nos 11, 17, 19, 27), rather than crooked/S-shaped as found elsewhere in the Cretan alphabet. The possible partial abecedarium no. 9 (South Cretan ware, not late seventh century) is suspected by the editors not to be local purely on the basis that the lower stroke of the possible *gamma* is too straight for what might perhaps be expected in Crete in this period, although the form of *alpha* and *beta* are not out of place (a double-bowed beta as found very occasionally in early Cretan stone inscriptions: see the remarks on *beta* in the previous section).

There are some further inscriptions that have been argued by the editors to contain non-Cretan features (*i.e.* features diagnostic of other regional alphabets) and so to have been written by 'non-locals'. No. 17, incised on an imported ware after firing, reading from left-to-right, contains straight *iota* (as opposed to crooked/S-shaped Cretan *iota*) and dialectally also points away from Crete (assuming that the interpretation as genitive of a-stem name *Nikagoras*, spelt NIKAGORO and possibly followed by an abbreviation E for *ēmi*, is correct). But inscriptions on local wares also have been argued to contain non-local graphic features, most notably the straight *iota*, curved *alpha* and *delta*[12] and four-barred *mu* of no. 19 (South Cretan ware, not late

12 While the curved/bowed *delta* can convincingly be placed in other areas around 700 BC (in particular figuring in the Mantiklos Apollo inscription from Boeotia), the curved *alpha* with a sloping cross-bar must be considered less diagnostic given that the difference in shape is smaller and that Cretan *alphas* can feature a slight curve on the leading edge even in the stone inscriptions and usually have a sloping cross-bar. For this letter, the difference could be more or less palaeographic: it is easier to scratch a curved edge onto a piece of pottery than to carve one into stone, after all. The cross-bar sloping in the 'wrong' direction in no. 27 (*i.e.* backwards rather than forwards) is actually also attested in Cretan inscriptions (*e.g.* some forms in Dreros 3 and all the *alphas* in the Phaistos pithos inscription considered in the next subsection), so is not *purely* characteristic of Boeotia. As an aside, note that the *alphas* in the Mantiklos Apollo inscription are considerably less curved than the examples in nos 19 and 27 from Kommos but do feature a sloping cross-bar, making them appear very close in shape to *alphas* found in Cretan

seventh century; Fig. 8.4, bottom left) and no. 27 (South Cretan ware, seventh century; Fig. 8.4, bottom right), both of which again read from left to right; the editors suggest authors from Central Greece for these texts, with Boeotia cited as a likely candidate for both but especially for no. 27.

The Kommos inscriptions are something of an epigraphic puzzle. The presence of some non-local Greek speakers at this trading emporium is an altogether likely hypothesis, and is supported by the number of sherds of non-local wares, a number of which bear marks or inscriptions. Indeed, in this respect Kommos looks not so different from other sites outside Crete where collections of early inscriptions have been found, for instance Eretria, Methoni and Mount Hymettos. But the suggestion that non-local Greek speakers were writing inscriptions on locally made pots requires a further leap of faith, and we may question whether this assumption is sufficiently supported by the available evidence. Is it possible, for example, that a resident of Archaic Crete could have produced letter forms like straight *iota* and four-barred *mu*? Following the traditional model whereby *sigma* alphabets contain these features but *san* alphabets are unlikely to, we would have to say no; on the other hand, it must be admitted that there is no evidence whatsoever that anyone at Kommos was using the letter *san* at this time.[13] This is not to say that letter forms better attested in other areas of the Greek-speaking world (and ones that became features of other regional alphabets) played any role in the development of the Cretan alphabet as we know it from other, usually later, inscriptions. However, it is certainly possible that the existence of other letter forms and letter values – whether in isolation or as members of recognisable regional alphabets from elsewhere – could have been known to Cretans resident in Kommos and involved in commercial activities. And if there was no particular attachment to a local tradition of writing, there is no reason why a Cretan would not choose to write using letter forms/values (or indeed other features like left-to-right direction) that they had encountered, perhaps while in contact with Greek speakers from elsewhere. The Kommos case gives us good reason to reconsider the way we think about local and non-local writing in the earlier days of the Greek alphabet and its developing regional features.

B) Inscribed pithos, Phaistos

An eighth-century pithos with an incised ownership graffito, found at Phaistos, has often been cited as one of the earliest Cretan alphabetic inscriptions (Fig. 8.5). The dating of the text, however, is very difficult to secure given that the object was found in a considerably later second-century BC context (although this is not in itself surprising given that pithoi often seem to have survived in use for hundreds of years), and that the initial assumption that it was incised *before firing* on a pithos that by type should

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stone inscriptions.

13 In theory it might be possible to suggest that no. 19 could be reinterpreted as a non-Greek sequence *adsai*. However, comparison with the sequence in no. 27 (which otherwise has very similar letter forms) militates against this because it clearly includes the word *ēmi* with a four-barred *mu*.
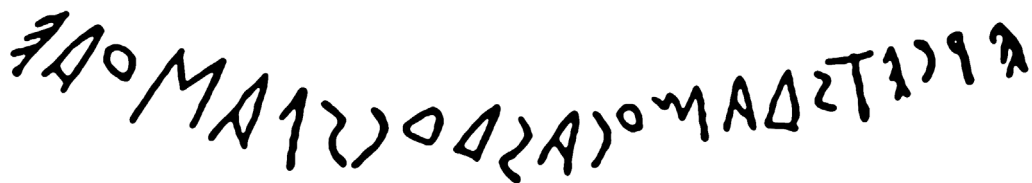
Figure 8.5. Pithos inscription from Phaistos. Drawn by the author after the illustration in Levi (1969).

be *c.* 700 or earlier (see Levi 1969; Johnston's comments in Jeffery and Johnston 1990, 469) has been questioned more recently (*e.g.* Manganaro 1995, 142). Its letter forms conform quite closely with ones found in the early legal inscriptions, in particular *alpha* with sloping crossbar,[14] *epsilon* with sloping bars and a tail, S-shaped *iota*, use of *san*. The lunate *pi*, on the other hand, is not found in the earlier legal inscriptions and is otherwise thought to be a later development of the sixth-fifth centuries (attested in highly standardised stone inscriptions from Gortyn, Lyttos and Afrati: see Jeffery and Johnston 1990, 309) – although the form could perhaps have existed earlier, as suggested by this very vessel. Phonological features of the Cretan dialect are also reflected in the inscription's orthography (lacking initial /h/, *pi* for etymological /pʰ/). Also written from right to left, this inscription shows every awareness of the traditions of writing as recorded in the inscriptions on stone, although its lack of word division is notable.

C) Dolphin stone, Itanos

Although often assumed to be eighth–sixth century in date, the 'dolphin' inscription deeply incised onto a large piece of natural rock found at Itanos (Cape Sidero) is again very difficult to date accurately (Fig. 8.6). All but one of its signs are ones that are found in the Cretan alphabet, but none of them diagnostically so (the closest in the five-barred *mu*, but this is common to other regional alphabets, especially ones that use *san* for the sibilant). The use of *phi* (here in a tailless form) in fact contravenes Cretan-alphabetic orthography, by which etymological /pʰ/ is represented by *pi* because the dialect lacks this phoneme; *phi* is otherwise unattested in Cretan Greek alphabetic inscriptions (see further the previous section).

As with other similarly playful and decorative rupestral texts found at this location (see Guarducci, *IC* iII.7.2–27), this inscription type looks rather similar to those from Thera. If the writing also diverges from what we might expect from a Cretan inscription, this may have nothing to do with the alphabet's development (*e.g.* an early stage where *phi* was in use and other regional features had not yet developed).

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14 Note that the cross-bar slopes in the wrong direction (backwards rather than forwards) in comparison with the usual shape encountered for example in the stone inscriptions. Cf. the comments in note 12 above.
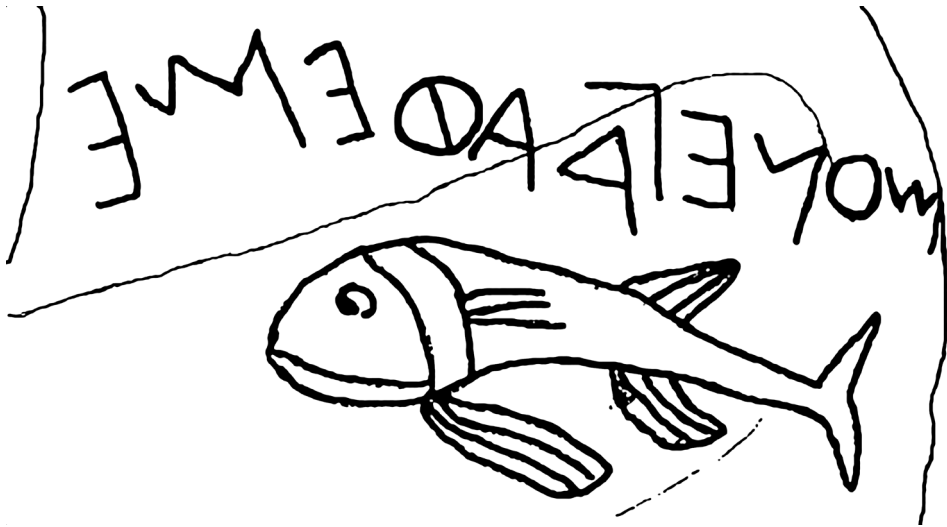
Figure 8.6. Rock-cut 'dolphin' inscription, Itanos. Drawn by the author after Guarducci in IC III.7.2.

Indeed, the geographical position of Itanos puts it in closer maritime contact with other areas of the Mediterranean (including other Greek islands). Rather, the better explanation is to see it as a kind of writing that was far removed from the traditions of the Cretan *poleis* and their standardised forms of the Cretan alphabet, and one that was open to different and possibly more cosmopolitan influences.

D) Aryballos with graffito, Knossos

Although on the limits of our chronological remit in this survey, an aryballos with a secure date of *c.* 650–625 and a carefully incised graffito is of interest (Fig. 8.7). The reading is fraught with several difficulties (see Johnston 1996), but the lettering of the inscription is clear enough and compares closely with letter forms as found in the stone legal texts. The graffito reads from right to left and makes use of the same long word divider familiar from early legal codes. The most significant matches in the letter forms are the Phoenician-oriented *lambda* (with the hook at the bottom) and the S-shaped *iota,* and also in-keeping are the *pi, rho, tau, san, kappa* and *omicron.* The

Figure 8.7. Graffito on an aryballos from Knossos. Drawn by the author after the illustration in Johnston (1996).

alphas do not feature sloping cross-bars, but *alpha* with a straight cross-bar is well attested in legal inscriptions other than the earliest ones from Dreros. There is a hint of cursive ductus in the apparently deliberate ligature of *lambda* and *iota;* the *iota* is also particularly curled at the top (more so than is usual in stone-cut inscriptions).

What we have here looks like a text produced by an author altogether familiar with what a Cretan inscription is 'supposed' to look like, complete with formatting features as well as sign forms. But the inscription itself is of a completely different type to the stone inscriptions in which such writing is so well documented in this period. Rather, it is a personal text (perhaps one of ownership, depending on interpretation of the sequence), incised on a decorative ceramic object, which seems more in-keeping with uses of alphabetic writing around the Mediterranean in the Archaic period than most other inscriptions from Crete. Even so, the lettering and formatting of the text suggest familiarity with traditions of Cretan writing that are predominantly known to us from inscriptions on stone.

E) Inscriptions on bronze pieces of armour, Afrati

A particularly homogenous group of inscriptions on pieces of bronze armour (including helmets, cuirasses and mitrae), like the previously discussed item, shows a strong awareness of the standardised features of Cretan writing as witnessed in the early legal inscriptions. The dating of these pieces is, however, extremely subjective, and it is not at all certain that they should be dated in the seventh century, the sixth being an equally likely candidate (see further Hoffman's comments in Hoffman and Raubitschek 1972, 41–46); we should also note that the inscriptions were added after the production of the armour, and perhaps some time later considering that the best interpretation of the pieces is as prizes or loot from war. The inscriptions are in Greek, although the names of their authors/dedicants are mixed, some Greek and others not (perhaps foreign or Eteocretan according to Raubitschek: Hoffman and Raubitschek 1972, 15).

Not only do these inscriptions adhere closely to the standard repertoire of the Cretan alphabet (*e.g. alpha* with sloping crossbar, enclosed *eta* for long /e/, S-shaped *iota, five-*barred *mu, san* for the sibilant, lunate *pi*), some also contain an innovation otherwise known only from stone inscriptions from Lyttos and the Spensithios decree (the latter on a piece of bronze shaped like a mitra, see Jeffery and Morpurgo Davis 1970): a long /o/ phoneme marked by a sign consisting of two concentric circles (see Thompson 1996, 94–97, on the phonological interpretation of this sign). Of the fourteen inscriptions, it is also notable that four are in boustrophedon (two of which are the helmet and mitra pair shown in Fig. 8.8) and two or three use the long divider. The aspect and ductus of the inscriptions differs somewhat from what we see in stone inscriptions because of palaeographic differences (being incised into the bronze with a sharp tool) and because they are arranged to fit around the armour's artistic design. However, it is difficult to imagine that texts containing these graphic features could
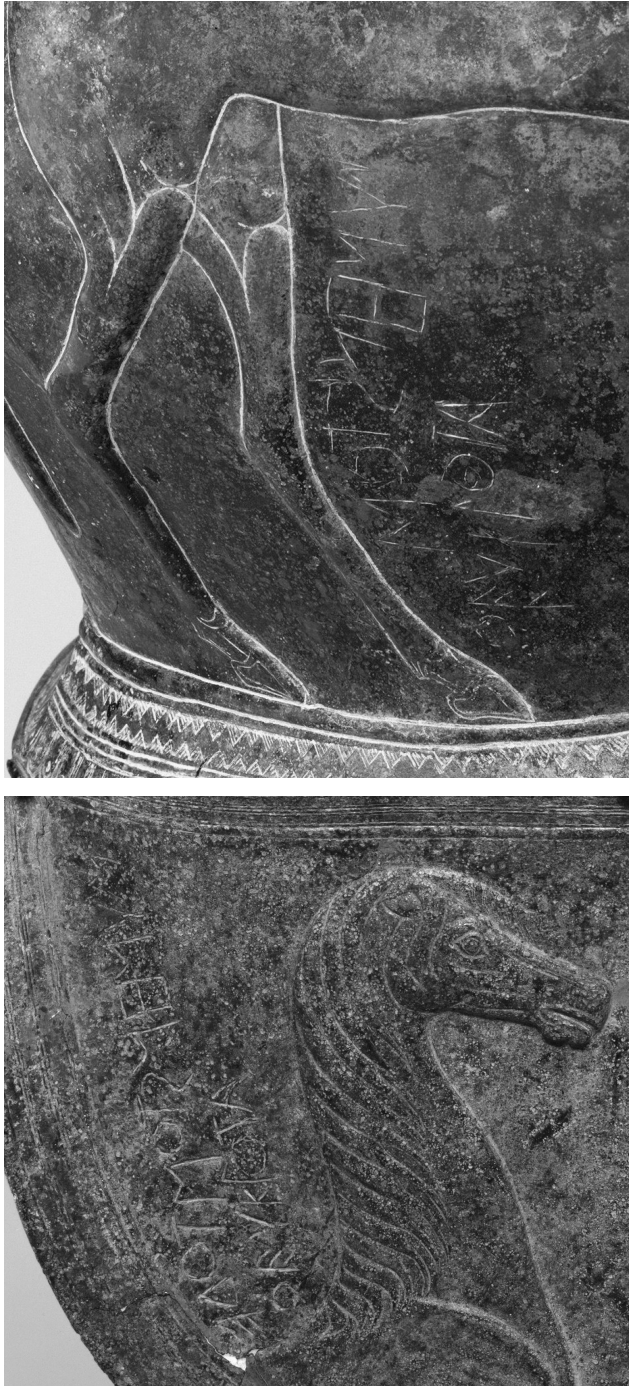
Figure 8.8. Boustrophedon inscriptions on a bronze helmet (H3) and mitra (M1). New York Metropolitan Museum (www.metmuseum.org), Gift of Norbert Schimmel Trust, 1989. Public Domain Image.

have been created without knowledge of a tradition of writing very close to the one evident in the production of official and legal inscriptions on stone and, in the case of the Spensithios Decree, also on bronze.

This survey has inevitably been selective, picking out five inscriptions or groups of inscriptions that are a) as close as possible to being mid-seventh century BC or earlier, given the many uncertainties over dating, and b) long enough to observe sets of features co-occurring rather than isolated ones. Two early short texts omitted from the discussion give very little to go on: a graffito on another aryballos from Knossos (eighth–earlier seventh century) reading ΓΑΡ, possibly preceded by a word divider (Coldstream *et al.* 1981, no. 117), and a quite deeply incised inscription on the back of a terracotta figurine from Praisos (seventh-century) reading ΔΟϘ? (last letter possibly a *san* but incomplete) that is often regarded to be an Eteocretan text (Guarducci, *IC* iII.8.1[15]). A long graffito in 'litterae inaequales' on stone, found at Prinias, is also of potential interest (Guarducci, *IC* I.28.1): perhaps seventh century (but again very difficult to date), its text is surprisingly repetitive and has been suggested to be a practice text, indicative of ways in which literacy may have been acquired by individuals (see Perlman 2002, 196). The lettering looks homogeneous enough to be written in a single hand, and the sign forms conform well with those of the early legal inscriptions, although it consists of several lines of text reading from right to left, rather than being written in the accustomed boustrophedon. Finally, as with many areas of the ancient Mediterranean, it remains to point out that there may well have been other 'non-official' modes of writing on less durable materials that have not survived to us.

Concluding thoughts

It remains to pose the question of whether the survey of early Cretan alphabetic inscriptions in the previous section has potential to add anything useful to our understanding of the development first of the Cretan alphabet, and secondly of the Greek regional alphabets in general. We could categorise the inscriptions discussed into two sets: the ones that do not conform to the standardised Cretan alphabet known from the early legal codes (the inscriptions from A. Kommos and C. Itanos), and the ones that do to varying degrees (the inscriptions from B. Phaistos, D. Knossos and E. Afrati). The first remark to be made is that the Kommos sherds are the only ones that can be dated to the earlier seventh century with any degree of certainty. All the others are dated on quite unreliable criteria, with the exception of the aryballos from Knossos, though note that this object dates to the second rather than the first half of the seventh century. It is very difficult to be certain, from a chronological

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15 Guarducci wrongly attributes this inscription to Sitia, but it is more likely that it originates from the 'Shrine at Vavelloi' to the south of Praisos; I am indebted to James Whitley for this observation.

perspective, that we are comparing like with like – indeed, I strongly suspect that we are not. Although they are important witnesses to different kinds of Cretan writing (*i.e.* kinds that are not official/legal/political like the stone inscriptions), they are very heterogenous in nature, both in terms of their type and in their geographical and quite probably their chronological distribution.

Although we might categorise all the inscriptions considered in the previous section as 'non-official' in some sense, it is striking that in the case of the Afrati bronzes especially there appears to be some familiarity with the tradition of writing established in the stone legal inscriptions. The inscriptions on these pieces of armour may very well be sixth century rather than seventh, which would fit in well with the distribution of some of their features elsewhere (*e.g.* the modified *omicron* representing long /o/ known from seventh-century Lyttos and the Spensithios Decree probably *c.* 500). The use of boustrophedon direction and long word dividers (the latter also in the aryballos inscription from Knossos) is also striking, especially if we accept the suggestion above that these features were most plausibly ones originally motivated by the creation of longer official/legal inscriptions on stone, where it would be important for practical purposes to make it easier to follow the text and identify individual clauses. In support of this suggestion, note also that in other areas of Greece, where nothing like the early legal codes of Crete are attested, word division is something of a rarity and direction of writing seems to have varied.

The Kommos sherds seem to relate to an entirely different situation. None of the texts, even the odd ones suggested to contain an occasional Cretan form, shows any awareness of the standardised Cretan alphabet (or its associated features) as a whole. Whoever was involved in making the inscriptions on locally produced ceramic wares, they either did not know or did not care about what local Cretan writing ought to look like, and sometimes they used letter forms known from other areas of the Greek-speaking world. But this does not have to mean that they themselves were foreigners (or that they were all foreigners). It could mean that the standardised version of the Cretan alphabet did not yet exist, or that it did exist but was only in use at political centres; meanwhile, letter forms or whole regional alphabets used by other Greek speakers the authors may have encountered, despite looking (to us) out of place at Kommos, may have seemed entirely expedient for writing a name or other short text on a piece of pottery.

The early alphabetic material from Crete is quite difficult to work with and it would stretch the evidence too far to say that it conclusively demonstrates the connection between the developing regional alphabet of Crete on the one hand and the use of writing in publicly displayed legal inscriptions on the other. Nevertheless, there is enough to hint that we may be thinking the right way about these problems by placing the process of standardisation at the centre of our discussion.[16] However it took place, a standardised form of the Cretan alphabet had taken hold certainly by the sixth century; there were minor variations from place to place within Crete, but

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16 On the question of the standardisation of writing in Crete in the earlier Minoan period, focused on Linear A, see Steele 2017a.

the core repertoire was quite consistent and is reflected in legal codes as well as a small number of 'non-official' inscriptions of the sixth–fifth centuries (on the latter, see Perlman 2002, 221–225). The early legal inscriptions provide a suitable forum in which such a standardisation process may have originated, motivated by both practical and visual concerns: the envisaged need to consult and refer back to the texts, combined with their cumulative visual impact as more clauses were added to the walls of public spaces. Exposure to these local practices of writing and their increasingly standardised sets of features must have exerted a sort of pressure on other types of writing, such that literate individuals had an impression of what local writing ought to look like. In other words, for Crete it may be possible to demonstrate a direct link between epigraphic habits and practices on the one hand, and the development of locally distinctive writing on the other.

A very similar phenomenon can be witnessed in the development of regional variants of Cypriot Syllabic writing around the seventh century BC onwards, as adduced above in the first section. There, the association of Cypriot Syllabic writing with local elites, and with state-issued political and religious inscriptions in public spaces, had a marked effect on the development of local variants of the Cypriot Syllabic script. The fixed features of the Paphian and Common syllabaries were not a matter of inheritance; rather they were choices that became standardised over time in response to usage and exposure. In other words, the development of Cypriot writing is closely interlinked with epigraphic practices and their social and political context. The development of the regional Greek alphabets took place on a larger scale, but I would suggest that the processes that motivated it were similar, and that this in turn should a) help us to explain anomalous or non-local looking forms in the earliest Greek alphabetic inscriptions, and b) cause us to look beyond overly simplistic 'family tree' based models of evolutionary script development. Despite the difficulties of the evidence, the earliest attestations of alphabetic writing in Crete provide a useful, if not an ideal, setting to explore the hypothesis.

Chapter 9

Between scripts and languages: Inscribed intricacies from geometric and archaic Greek contexts[1]

Giorgos Bourogiannis

Writing again: the Greek alphabet

The transmission, adoption and adaptation of the Semitic alphabetic script by the Greeks, sometime in the late ninth–early eighth century BC, was perhaps the most significant outcome of contacts between the Aegean and the eastern Mediterranean (Bourogiannis 2018). The recovery of the ability to write and therefore to document, centuries after this skill had fallen into oblivion in the Aegean with the final collapse of the Mycenaean palaces around 1200 BC, provided the most eloquent attestation for the cultural vitality of the Geometric period. In comparison to the laborious Linear B syllabic script that was in use between *c.* 1450 and 1200 BC, alphabetic writing was simpler and therefore easier to master. While Linear B was reserved for palace administration and managed exclusively by trained scribes, the simplicity and visual comprehensiveness of the alphabet encouraged a much higher proportion of the population to become acquainted with writing. This gradual 'democratisation' of writing, which is archaeologically visible from the eighth century BC onwards, is reflected in the casual form and private character of most early alphabetic inscriptions from the Aegean. These features suggest a rapid spread of literacy during the aforementioned period, although mass literacy, in the modern sense of the term, was never achieved in ancient Greece (Harris 1989, 45–64; Robb 1994; Thomas 2009; Oikonomaki 2017). Early textual evidence suggests that in the eighth and seventh centuries BC some people in many mostly coastal parts of the Greek world were literate – though it is

not possible to designate neither the percentage nor the extent of their literacy – and that the rapid diffusion of writing in the Early Iron Age Aegean was not confined to any particular social class or specialists.

Evidently, there are still many questions surrounding early alphabetic writing in the Aegean that need further clarification, especially since there is no consensus among experts about where, why and how the adoption of the alphabet took place. The reason behind our difficulty to provide definite answers largely lies in the restricted and often disparate body of early alphabetic inscriptions from the Aegean, which also limits our access to the setting of the original introduction of alphabetic writing. This shortcoming is mitigated by the production of fresh textual evidence from Greek sites, as in the case of Methone in Macedonia (Janko 2015; Straus Clay *et al.* (eds) 2017). Admittedly, preserved textual material from eighth and early seventh century BC contexts only scarcely exists for many parts of Greece, a deficiency viewed as a distorting element when it comes to the linguistic verification of the 'presumed' Greek world (Johnston 2017, 376).

However, dearth of early textual evidence is not necessarily an indication for a limited use of writing but it may also be the result of writing being practised on perishable material such as wood or leather. Wooden tablets in particular, perhaps the most common writing medium in antiquity, rarely survive in the Aegean and even if they do, their dating is often disputable (Papasavvas 2003). Neither does it contradict the fact that the common language shared by Greek speakers contributed to the formation of a common identity. This was part of a complex process reflected in a number of phenomena, most of them traceable from the eighth century BC onwards (Sherratt 2003, 229–234, 237–238). This was exactly the time when a new writing system, the alphabet, became imperative, not only for facilitating economic interaction but also for providing a visual embodiment of the common language in use. The reintroduction of writing in the Aegean was therefore the result of long cultural and economic interaction between Greeks and Near Easterners both in the Aegean and in the eastern Mediterranean, as well as the outcome of social and political developments within Greece, traceable chiefly from the eighth century BC onwards, that shaped the right circumstances for the adoption of the alphabet (Kourou 2017, 21).

Steps towards writing

Let me start with two axioms: The Greek alphabet had a north Semitic/Phoenician derivation, securely traced in the names, forms and sequence of its letters, as well as in the retrograde direction of most early Greek alphabetic inscriptions. It was therefore created in relationship with a pre-existing known script of non-Greek origin and the process of its adoption was accompanied by one of adaptation, as frequently happens with scripts that pass from one group of people to another (Steele 2017a). The eastern origin of the alphabet was common knowledge among ancient Greeks, who usually contended themselves with calling the letters of their alphabet 'Phoenician', either

because they were invented by the Phoenicians – a collective label for Easterners – or because they were brought to Greece from Phoenicia, the area that largely coincides with the Syro-Palestinian littoral. The details of this transmission were of lesser importance and were often blurred in diverse mythical narratives. Such was the case of the legendary King Cadmus, who brought with him to Greece the letters of the alphabet from Phoenicia (Herodotos, *Histories* 5.57–58). Although other ancient literary traditions regarding the origin of the Greek alphabet do exist, most of them agree on its eastern origin (Powell 1991, 5–6).

The second dictum is that Early Iron Age Greece was predominantly but not exclusively a Greek-speaking area. At least certain parts of Greece were regularly exposed also to other languages and in certain cases non-Greek languages were widely spoken. This is clearly reflected on the Homeric epics, primarily in the *Odyssey,* with frequent allusions to ἀλλοθρόους ἀνθρώπους or ἄνδρας (men of strange speech) that is to people speaking other languages or producing confusing noises when they speak in an incomprehensible language.[2] Interestingly, the concept of allothroism in the *Odyssey* is also used in connection with Greek-speakers, who were of course 'men of strange speech' to the rest of the world.[3] Despite Homer's dubious allusions to writing and literacy, we may assume that some of those 'other' languages were not simply heard in the Early Iron Age Aegean but also written. In other words, contact with the speakers of another language could also entail acquaintance with their cultural assets (Bryce 2008), as well as contact with the corresponding writing system. This was the case especially with literate Phoenicians, who systematically plied the Aegean during the Geometric and Archaic periods, as is archaeologically and textually manifested (Sommer, M. 2010; Kourou 2012b). Even though the Phoenician script was by its nature suitable for inter-linguistic conveyance, it was also the main, if not the only writing system to which the illiterate pre-alphabetic Aegean had easy access. Regular interaction between Greeks and Phoenicians facilitated the transmission of the alphabet. Although this occurred in an informal setting, it did necessitate a basic level of knowledge of each other's language, to secure that communication between the two parts was intelligible. This casual movement between languages, which ultimately resulted also in a movement between scripts, was an integral part of the alphabetic transmission, although it left little trace on the textual material of Early Iron Age Greece.

A look at selected evidence

The need to address new questions in order to comprehend why and how the Greek alphabet appeared when it did is no longer a new notion (Sherratt 2003). The past

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2 *Odyssey.* 1.183, 3.302, 14.43. The notion of speaking a non-Greek language is also present in the *Iliad* (2.867) but there the term βαρβαρόφωνος (Καρῶν βαρβαροφώνων- – Carians uncouth of speech) is used instead.

3 *Odyssey* 15.453: The Phoenician nurse of Eumaios uses the term ἀλλοθρόους ἀνθρώπους (men of strange speech) to refer to the Greek-speakers on Ithaca.

few years have witnessed a remarkable progress in our comprehension of the early alphabets and recent studies confirm the progress in understanding the relations between Aegean writing systems of the Late Bronze and Early Iron Ages (Steele 2017b). Following this tendency, the aim of this paper is to join the discussion of alphabetic writing by considering individual inscriptions that may yield information on relations between different scripts, languages and, ultimately, identities in geometric and archaic Greece. Questions about bilingualism and digraphia as part of the propagation of alphabetic writing will also be considered. Discussion is selective rather than exhaustive. It focuses primarily on non-Greek alphabetic evidence from Aegean contexts. Although the majority of such written attestations are ambiguous in their interpretation, they remain a valid source of information for the general linguistic setting of Early Iron Age Greece. The latter in the present context is a geographic term that encompasses most of the continental body of the Hellenic peninsula and the Aegean islands.

The principal sources of early textual evidence in Greece are either coastal locations or sites that are close and easily accessible from the coast. Even though a land route for the Greek adaptation of the alphabet remains a valid hypothesis (Brixhe 2007a), the geographic distribution of early writing from the Aegean confirms the paramount role of maritime connections in the transmission of the alphabetic script.

Crete

Given Phoenician contribution to the recovery of literacy in Greece, it seems appropriate that the earliest alphabetic attestation from the Aegean is actually in Phoenician language. The inscription, consisting of twelve signs, appears on a hemispherical bronze bowl from tomb J at Tekke, Knossos (Coldstream and Catling (eds) 1996, 30, no. 1, Heraklion inv. 4346). Its context is securely defined by Attic Late Protogeometric pottery and dates around 900 BC, to the transition from Late Protogeometric to the Early Geometric period. Although a Levantine origin has also been suggested (*ibid.*, 563–564), the bowl is probably of Cypriot manufacture (Karageorghis *et al.* 2014, 165, no. 129) and belongs to a type that was common on Cyprus from the Late Bronze Age down to the Cypro-Archaic period (Matthäus 1985, 71–108). The palaeographic designation of the inscription ranges in time between the eleventh (Cross 1980) and ninth centuries BC. The verification of the eleventh-century chronology is hampered by the extreme rarity at such an early date of Phoenician inscriptions on Cyprus, where the bowl was probably manufactured. The only exception is an obscure text on a steatite amphora of unknown provenance dated perhaps to the eleventh century and purchased by Luigi Palma di Cesnola at Nicosia (Steele 2013, 175–176, Ph1, and see the cover of this volume). The inscription is transcribed as ḥḥh or ʾḥḥ and may correspond to an otherwise unattested Semitic name but its reading is far from certain. The vase probably arrived to the island through trade rather than settlement given that the first cluster of Phoenician inscriptions from Cyprus dates from *c.* 900 BC ownwards (Steele 2013, 178).

The eroded signs of the Phoenician inscription from Tekke resulted in different readings, although in essence most of them reproduce a similar syntax (Sznycer 1979; Cross 1980, 15–17; Puech 1983; Amadasi Guzzo 1987, 13–16; Lipiński 2004, 181–184). Two words are securely read: *ks* meaning vase or cup, and *bn,* meaning son. Both are presumably followed by two personal names, possibly *šmʿ* or *Šṣʿ* and *Lʾmn* respectively. Although none of them has secure parallels among Phoenician personal names, the structure 'cup of x son of y' is common in Phoenician and would identify the inscription from Tekke as a declaration of ownership. The main alternative to this reading was proposed by Lipiński (1983, 129–133). He associated a relative *(š)* and a verbal form *(ṣʿ)*[4] with the first personal name, which he read as [Ta]bni. By so doing he rejected the interpretation of the letters *bn* as the word son and instead viewed them as the final two signs of the first personal name in the inscription. Moreover, he interpreted the sign *l* as a preposition (for, to) and not as part of the second personal name, which he read as *mn* (Amon). These modifications resulted in a dedicatory structure and therefore in a different meaning: cup/bowl which Tabni fashioned for Amon. Although the use of the Phoenician inscription from Tekke as a declaration of ownership seems more plausible, it does not fully resolve the interpretation problems of the inscribed object. The possible chronological anteriority of the inscription in relation to the rest of the burial offerings may suggest that the bowl reached Crete already inscribed through trade. This, however, remains an unprovable hypothesis. Moreover, the use of the inscription as evidence for an actual Phoenician presence at Knossos should be treated cautiously given the predominantly Cretan character of the burial context (Hoffman 1997, 120–124).

What the inscription on the Tekke bowl confirms is Phoenician script being present on Crete at least from *c.* 900 BC. Crete is one of the strongest candidates for the birth of the Greek alphabet due to the primitive form of its script that is the closest of all to the Semitic, the retrograde direction of the early Cretan inscriptions and her close connections with the eastern Mediterranean at the time when the alphabetic transmission occurred (Guarducci 1987, 18–19; Jeffery and Johnston 1990, 8–9; Kritzas 2010, 14–17; Oikonomaki 2012; Janko 2015, 7–13). Despite Crete being one the most likely places for the presence of Levantine migrants in the Aegean during the Geometric and Archaic periods, those migrants left barely any written mark of their presence on the island. Early alphabetic textual evidence from the island is limited (Johnston 2013, 429), also characterised by an astonishing dearth of Semitic inscriptions. The inscription from Tekke is actually the only securely identified Phoenician text known from Crete.

Kommos on the southern coast the island, a site where Greeks and Phoenicians lived in close proximity (Kourou 2000, 1068–1069), is no exception. It produced over 300 Phoenician pottery fragments, a number unmatched by any other site in the Aegean (Bikai 2000; Johnston 2005, nos 173–174). Most of them date to the ninth and

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4 This verbal form is not attested in Phoenician but it is known from Hebrew (*ṣʿh*) and Arabic (*ṣāġa*).

eighth centuries BC although the earliest pieces go back to the late tenth century. Kommos also produced a large number of alphabetic and non-alphabetic graffiti cut on amphorae and cups both before and after firing. Most of them are scrappy texts of the late eighth and seventh centuries BC (Csapo *et al.* 2000; Johnston 2005, 386–387, 2013 *passim*). The amphorae graffiti are often non-alphabetic symbols used as owner's marks whereas most of the graffiti on cups are alphabetic and reflect commercial, proprietary,[5] capacity,[6] and possibly cultic or dedicatory uses[7] (Csapo *et al.* 2000, 101–107). Although mostly minimal, Greek alphabetic inscriptions from Kommos are among the earliest found in Crete. The oldest known so far is a carelessly executed alpha on the handle of an eighth-century BC cup, perhaps the earliest Greek text from the site (Johnston 2005, 386, no. 289). This solitary letter is close in time to the earliest Cretan alphabetic inscription of some length in Greek language: a retrograde metrical text on a storage pithos from Phaistos, dated to the late eighth or beginning of the seventh century BC that reads 'Erpetidamos, son of Paidophila' (Bile 1988, 29; Jeffrey 1990, 468, 8a).

Despite the fragmentary state of the Kommos graffiti, alphabetic prowess must have been of some importance at the site, as indicated by a partly preserved post-firing abecedarium on a Cretan cup and probably of Cretan lettering (Csapo *et al.* 2000, 112–113, no. 9). Regarding the question of who was writing at Kommos, it seems that some scribers of the post-firing alphabetic graffiti were of non-Cretan origin (Csapo *et al.* 2000, 104–105; Johnston 2013, 430). This is reflected both on the letter forms and on structural details such as the form of the genitive case that point towards scribers from Attica, possibly Euboea or the Cyclades, and parts of central Greece such as Boeotia and Locris or Phocis. Although the appearance of the early graffiti at Kommos seems to favour the connection between early literacy and commerce with the eastern Mediterranean, not a single sign from the site is securely identified as Phoenician. The only possible exception is a post firing graffito on the handle of a Levantine storage jar found in a dump associated with Temple A (Csapo *et al.* 2000, 108–109, no. 1, I 16 with discussion). The fragment is dated by context to *c.* 900–850 BC, slightly earlier that the peak of the Phoenician presence at the site. The only alphabetic symbol, to which it offers similarities, is Phoenician letter *ḥêt*. There are, however, issues with this identification: The sign has unusual proportions with awkwardly wide crossbars and it is rotated 90 degrees from the normal position of *ḥêt*, a problem that can be overcome by reading with the handle horizontal. Similar sideways forms of *ḥêt* normally occur in the Proto-Canaanite period – significantly earlier than the mark from Kommos – but they have the form of a box, that is without the extended vertical –

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5 E.g Csapo *et al.* 2000, 114, no. 17: Νικαγόρο ἐ(μί).

6 E.g. Csapo *et al.* 2000, 112, no. 8: μ]έτρον ἠ[μί, in Cretan script. This is possibly a comment on the cup's capacity although other possibilities are open.

7 E.g. Csapo *et al.* 2000, 118–119, no. 30: –αι *vacat* | πα–; Johnson 2013, 430, fig. 3. The possible dative ending –αι, perhaps the name of a female deity, makes it possible that of the inscription is a dedication by Pau- or Fau- to a goddess.

in this case horizontal – crossbars. Moreover, the Kommos sign has two bars when *ḥêt* generally has three. The two-bar *ḥêt* is not normal to formal Phoenician at any period, although it is attested in some Semitic scripts of the late eleventh and tenth centuries BC (McCarter 1975, 129, pl. 1). Cyprus also provides some good parallels for the Kommos mark. Two very similar graffiti identified as Cypro-Minoan sign 68 (Steele 2013, 27, table 3A) appear on Canaanite storage jars from Kition Areas I-Floor IV and II-Floor II–III (Masson 1985, 284, I/671/2 and II/5069, pl. F). Their context dates between Late Cypriot IIC and IIIB (Karageorghis and Demas 1985, 263–267). If comparison with the marks from Kition is correct, then the Kommos graffito could be a Late Bronze Age survivor of Cypriot rather than Phoenician derivation (Csapo *et al.* 2000, 109).

To this limited list of Semitic inscriptions from Early Iron Age Crete, one more example may be added. Tholos tomb 1 at Gavalomouri Kissamou produced a large jar decorated with concentric circles, vertical strokes and horizontal bands in a style that is reminiscent of Rhodian Late Geometric pottery and dates to the last quarter of the eighth century BC (Stampolidis *et al.* (eds) 1998, no. 86). The vase, which remains unpublished, stands out thanks to a small pre-firing graffito cut on the exterior of the rim, identified as Phoenician letter *šin*. Since the sign was inscribed before the vessel was placed in the kiln, this unique mark possibly had a proprietary or commercial function related to the vase's owner or manufacturer. The absence of a comprehensive publication hampers any further commenting. However, the possibility that the Gavalomouri jar originated in the Dodecanese, an area of close interaction between Greeks and Phoenicians (Kourou 2003; Bourogiannis 2013) is noteworthy. If it was from Crete that the alphabet reached Rhodes (Guarducci 1987, 56), then this solitary mark from Gavalomouri offers perhaps a glimpse of the process.

Eteocretan bilingualism?

Discussion so far has outlined a sort of Cretan paradox: the astonishing scarcity of Phoenician textual evidence on an island that was frequented by the Phoenicians and played a significant role in the birth of the Greek alphabet. Early Iron Age Crete, a place where many different languages were spoken, had additional linguistic substrata of pre-Hellenic origin (Brown 1985). The *Odyssey*'s (19.172–177) allusions to Cretan multilingualism are certainly not coincidental. The most famous among non-Greek speakers of Crete were the Eteocretans, presumably direct descendants of the island's Minoan past. Their language, still undeciphered, is known through texts from east Cretan sites that date from *c.* 650 to the third century BC (Duhoux 1982). These inscriptions are written in a script that is almost identical to the Cretan alphabet and its signs presumably had similar phonetic values. The linguistic designation of the Eteocretan remains an unresolved problem whereas confident views suggesting its Semitic background (Gordon 1962, 1968, 1981) have been criticised for methodological discrepancies (Duhoux 1982, 223–224). Certain Eteocretan signs, however, seem to have a direct Semitic ancestry (Duhoux 1982, 180–181), leading to the hypothesis that

the Eteocretans played an important role in the invention of the Greek alphabet on Crete (Duhoux 1981).

The sanctuary of Apollo Delphinios at Dreros produced two possible manifestations of the Eterocretan and Greek bilingualism on Crete. The two inscriptions, today lost, dated to the second half of the seventh century BC and were cut on roughly rectangular stone slabs (Van Effenterre 1946a, 602–603, no. 5, 1946b; Duhoux 1982, 37–54; Cannavò 2016, 123). The Eteocretan texts were written in retrograde with occasional use of vertical lines to separate the words, as regularly occurs in Phoenician texts. The Greek parts of the inscriptions, written in boustrophedon and in Doric dialect, contain regulations regarding the use of the sanctuary. A similar interpretation for the Eteocretan texts was recently proposed based on laborious associations with Semitic grammar and vocabulary (Magnelli and Petrantoni 2013, 2016). Whether we are justified to view the Eteocretan texts from Crete as Greek transliterations of a northwest Semitic language is still debated. However, the display of bilingual inscriptions at a sanctuary of east Crete in the archaic period implies that part of the population was fluent in both Greek and Eterocretan even though this bilingualism was manifested in one script.

Euboea

Examination of the early alphabetic inscriptions in Greece inevitably passes from Euboea, the island that has long dominated our perceptions of the Early Iron Age Aegean. Euboea's special role in the alphabetic narrative is related to its close contacts with the eastern Mediterranean. Lefkandi has produced the earliest Near Eastern find from the Aegean, a small Syro-Palestinian jug, from Early Protogeometric grave 46 at Skoubris cemetery (Popham *et al.* (eds) 1980, 126, no. 3). This is an isolated find that seems to indicate occasional rather than regular contacts between Euboea and the Near East. It is at the same site that the opening of regular contacts between the Aegean and the eastern Mediterranean produced its first archaeological manifestation dated to the late tenth and early ninth centuries BC (Kourou 2012a). Regular interaction between Euboea and the Near East also resulted in Euboean acquaintance with the script used by the Phoenicians. Although this is not the place to ponder the birthplace of the Greek alphabet, the fact that a large part of the oldest Greek alphabetic inscriptions occur at areas with an archaeologically manifested Euboean presence, both in and outside the Aegean, cannot be fortuitous (Mazarakis Ainian 2000, 121–123; Tzifopoulos *et al.* 2017). Euboea was the chief instigator for the alphabetic diffusion also to the Italian peninsula, particularly through Pithekoussai and Cumae. Furthermore, the Euboic script provided the impetus for the birth of the Etruscan alphabet (Guarducci 1987, 64; Jeffery and Johnston 1990, 235–239; Janko 2015, 13–16), although it seems to have somehow bypassed the Ionian islands, a necessary port of call for any ship sailing across the Ionian sea to Italy. Ithaca that has produced some of the most consistent early epigraphic evidence in the area has a script very similar to

the Achaian alphabet, though not entirely deprived of Euboean elements for example the use of Euboic lambda, which does not recur in later Ithakesian inscriptions (Jeffery and Johnston 1990, 230–231; Morgan 2017, 574). Ithaca has also produced the earliest evidence for the Achaian epichoric alphabet in the form of a long metrical text in hexameter verse, painted from left to right on the neck of a fragmentary oenochoe from Aetos, dating around 700 BC (Powell 1991, 149–150; Morgan 2017).

   With so much indication for alphabetic prowess it is hardly surprising that Euboea produced some of the earliest alphabetic attestations in the Aegean. Similar to Crete, such evidence reflects both Greek and non-Greek languages. I will leave aside for the moment the oldest alphabetic text from Euboea, an Aramaic inscription on a bronze piece of equine armour from the temple of Apollo Daphnephoros at Eretria, dated by Levantine chronologies to the last quarter of the ninth century BC (Kenzelmann Pfyffer *et al.* 2005, 80; Boffa 2013, 32–34),[8] simply because it reached Eretria in the late eighth century as a Greek dedication, hence dissociated from its original linguistic context. This issue will be further explored in this paper.

A double portion for Κάπιλλος?

However, not every instance of Semitic writing from Euboea occurred via Greek mediation. Far more interesting in this respect is a Semitic retrograde graffito from Eretria, cut on the exterior of a locally-made Middle Geometric I cup sherd (Kenzelmann Pfyffer *et al.* 2005, 76, no. 66; Theurillat 2007, 334–335). The fragment was found in a context no later than Middle Geometric II, *c.* 800–750 BC, north of the apsidal building 17 in the sanctuary of Apollo Daphnephoros. The morphology of the letters also confirms a date between the ninth and early eighth century BC. The inscription consists of four signs. The last three are securely identified: a *pē*, followed by a *lāmed* and a *šin*. The first sign at the far right where the fragment is broken off is more dubious. A *kaf* is the most likely reading, although its long tail and two strokes are unusually tilted. Given the fragmentary state of the sherd it is possible that the inscription continued further to the left, although letter *kaf* on the right could hardly have been preceded by another letter. The graffito therefore reads KPLŠ and it is probably associated with the Semitic root *kpl* meaning double, in which case the inscription would refer to the vessel's capacity. The closest comparandum is an Aramaic graffito on a Greek amphora from a Late Geometric I funerary context at Pithekoussai that reads KPLN, combining the root *kpl* with the Aramaic suffix –*n* (Garbini 1978). What this interpretation leaves unexplained is the final letter *šin* in the inscription from Eretria. Although Greek final –ς is usually transliterated into Phoenician as –*š* (Schmitz 2009; Janko 2015, 12) the possibility that KPLŠ is the Semitic transliteration of a Greek personal name, *e.g.* Κάπιλλος, or of a Greek word, *e.g.* κάπηλος-merchant (Kenzelman Pfyffer *et al.*

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8 See section for Aramaic inscriptions below.

2005, 77; Theurillat 2007, 335), is hard to prove. This supposition was largely based on comparisons with eighth and seventh century inscriptions from Cilicia that applied the Semitic script to transcribe Anatolian and Luwian names (Lemaire 1991). A similar phenomenon at approximately the same time possibly occurred also on Cyprus, as in the case of a dipinto from Amathus interpreted as an Eteocypriot name (L'MRYK) transcribed in Phoenician letters (Sznycer 1999; see also Guzzo Amadasi and Karageorghis 1977, 131–134, D3, D5). If this was the case, could this presumed Κάπιλλος or κάπηλος who inscribed the cup at Eretria sometime in the late ninth/ beginning of eighth century BC, indicate not just the formation process of the Greek alphabet but also a bilingual, or at least digraphic individual? In the absence of enough evidence I am not going to push the argument any further.

Despite its dubious verification, the presumed association of KPLŠ with a Greek word has been viewed as an adaptation of Phoenician script to the Greek language during the early stages of alphabetic transmission, or as a phase of experimentation when the semantic value of alphabetic signs was not yet fully established (Boffa 2013, 39–40). An alternative explanation saw in KPLŠ the transcription of an Anatolian, perhaps Cilician name, implying that a Cilician visited Euboea and wrote his name on a locally made cup by using the Semitic script (Theurillat 2007, 334). This would in turn support the hypothesis that the transmission of the alphabet occurred as much by sea as it did by land through Asia Minor (Brixhe 2007a).

Although the Semitic inscription from Eretria is actually unintelligible, the presence of Semitic writing on a locally-made Middle Geometric I vessel adds to the casual corpus of Semitic script from Early Iron Age Greece. Unlike the Aramaic inscription on the imported horse blinker that ended up in Eretria detached from its original linguistic context, the short Semitic graffito was inscribed *in situ* on an unassuming Euboean pottery fragment. It is therefore indicative of the presence and circulation of foreign people, of their script and consequently of their language – albeit the latter is not always identifiable – in Greece well before the Late Geometric period. Moreover, it indicates that the rapid development of Greek literacy in the eighth century BC was associated also to the presence and mobility of people from the Near East in the Aegean (Kourou 2017, 24).

Euboean engagement in the diffusion and perhaps even in the creation of the Greek alphabet (Janko 2015, 12) is implied also by the origin of some of the earliest Greek alphabetic inscriptions known so far. Lefkandi, the predecessor of Eretria, produced a small group of graffiti (Popham *et al.* (eds) 1980, 89–93) dated between local Sub-Protogeometric I–II (Early Geometric I–II) and the Late Geometric period. The earliest alphabetic graffito from Lefkandi[9] is marked on a seemingly non-local vase from a pit at Xeropolis. Its context is presumably Sub-Protogeometric III/Middle Geometric

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9 Not all signs from Lefkandi are alphabetic. The non-alphabetic signs are mostly owner's marks to ensure identification, a practice also attested in the Iliad (7, 175–189), and they probably reflect the work of illiterate writers.

II (775–750 BC) but the dating is uncertain (Popham *et al.* (eds) 1980, 90, no. 102, 93, pl. 69d; Powell 1991, 15, note 34, 124). The graffito comprises of only two letters. The first letter is an *alpha.* The second sign is a long *sigma* tilted out of vertical or a five-stroked *mu* sloping upwards. Depending on the direction of writing, the graffito reads [...]σα, if retrograde, or Ἀμ[...], if written from left to right. The first reading is more likely given that the graffito was almost certainly written in retrograde. The upright position of the *alpha* confirms that the script is not Phoenician (Janko 2015, 12, note 90), as is probably the case with a graffito from a Late Geometric funerary context at Pithekoussai the reading of which fluctuates between Greek]πα[and the Phoenician definite article ʾ*l*, depending on which way up the pottery sherd is kept (Powell 1991, 125).

The sanctuary of Apollo Daphnephoros has its own share in alphabetic attestations predating the Late Geometric period. Particularly important is the oldest Greek inscription from Eretria and the earliest securely dated Greek inscription on a pot in the Aegean as a whole (Kourou 2017, 22–23). It comes from a Middle Geometric II (first half of the eighth century BC) context and it is written on the interior of an amphora fragment (Kenzelmann Pfyffer *et al.* 2005, 75, no. 64; Theurillat 2007, 335). The position of the graffito confirms that the writing occurred after the breakage of the vase. The lettering is rough and inept. It comprises of three signs in retrograde and its meaning remains uncertain. The most common reading is]ΘOI[, an abbreviated version of θεῶι with the omission of vowel *epsilon* (Wachter 1991, 58), which would suggest the votive use of the inscription. However, the position of the graffito hampers the verification of this hypothesis. An equally problematic alternative is to read the first sign to the right as a window-like *samek* instead of a *theta*, which would suggest an abecedarian use of the graffito. Although such an interpretation would explain the unskilled writing, it overlooks the circular outline of the sign that points directly to *theta*, unlike the normally square outline of the window-shaped *samek.*

Nevertheless, Eretria is the only site in Greece where *samek* in the form of a little square with a cross (Dubois 2014), is securely attested. Inherited directly from the equivalent Semitic sibilant, from which Greek letter *ksi* (Ξ) derived, squared *samek* appears on a pre-firing graffito on the rim of a monochrome cup from the sanctuary of Apollo (Kenzelmann Pfyffer 2005, 60, no. 3; Theurillat 2007, 337). The graffito has three letters written in retrograde: *ksi/samek*, *omicron* and a faint *pi*. Their sequence confirms the abecedarian use of the inscription. Window-shaped *samek* occupying the position of letter *ksi* in the abecedary was never really used in the Euboic script to transcribe the sound *ks*. The latter was represented by the X letter-form, either on its own (X) or in combination with an added sigma (XS). Although the abecedary from Eretria was found in a disturbed layer, it cannot be dated later than the second half of the eighth century BC, since the appearance of the squared *samek* in the position of *ksi* attests to its archaic character (see also Boffa 2013, 36). Noticeably, the earliest attestation of letter X as *ks*, found on the foot of a Euboean crater from Pithekoussai, dates to *c.* 720 BC. The vessel was found in grave 168, the same funerary context that

produced the famous cup of Nestor and bears the pre-firing retrograde inscription ΕΧΘΕΟ (Bartoněk and Buchner 1995, 177–178, no. 44; Janko 2015, 21). The attestation of window-shaped samek/*ksi* at Eretria offers a sound connection with the seventh-century BC abecedaries from Etruria, where squared *samek* also occupies the position of *ksi* (Pandolfini and Prosdocimi 1990, 195–203; Wachter 2005). The earliest and best known example is a wax-covered writing tablet from Marsiliana d'Albegna dated to the second half of the seventh century BC (Powell 1991, 155–156; Boffa 2013, 34–35; Rix *et al.* 2014, AV 9.1). Given that the Etruscans adopted the Euboic script, it seems that the Euboeans had carried with them to Italy also this 'dead' Semitic sign that was nonetheless present in their abecedaries although its semantic value was not yet precisely designated (Wachter 2005, 84–85; Theurillat 2007, 337; Boffa 2013, 36). A similar function for *samek* is attested also in the intriguing Greek abecedaries from Fayoum in Egypt, with a suggested date around 800 BC (Brixhe 2007b). However, the chronology and features of the Fayoum abecedaries are still debated.

The early graffiti from Eretria are significant also because they provide characteristic examples of the kind of inscriptions that have been found in Geometric Greece: abecedaries, ownership declarations and votive inscriptions (Kenzelmann Pfyffer *et al.* 2005, 54–55; Theurillat 2007, 337–338). To these one should include non-alphabetic pre-firing potters' marks mainly on cups (Johnston 2017, 377, fig. 32.3), a practice attested in the Aegean throughout the Early Iron Age (Papadopoulos 1994, 2017, 39–83; Morgan 2017, 573). Given that the early texts from Eretria are minimal, the absence of metrical inscriptions, one of the chief expressions of early Greek alphabetic writing, is adequately explained. This gap gets compensated by finds from other areas of Euboean presence, such as Pithekoussai and, more recently, Methone. The latter produced 191 graffiti, inscriptions and trademarks, 157 of which date between 730 and 690 BC (Tzifopoulos *et al.* 2017 with previous bibliography). Only 25 of them are alphabetic, though the texts are minimal. However, seven vessels, from the lower layers of the *Ypogeio* shaft at Methone, dated around 730–720 BC, bear long enough alphabetic inscriptions (Tzifopoulos *et al.* 2017, 371–373). All seven are ownership statements in the formula of the speaking object. The use of the first person in ownership declarations, which transforms vessels into 'speaking objects', is a common practice in Greece during the late eighth and seventh centuries BC and has been viewed as a manifestation of Greek appropriation of writing (Carraro 2007).

One of them, however, stands out. The so-called Hakesandros cup has a retrograde post-firing graffito cut on its outer face (Tzifopoulos *et al.* 2017, 373–374). The script and the vessel itself are most probably Eretrian, as is probably also the dialect in which the inscription is written (Janko 2015, 3). The structure of the Hakesandros inscription is special as it combines an ownership statement in prose with a metrical part in iambic dimeter or trimeter, the oldest one attested. Although the inscription is too incomplete to securely guess the missing parts, it seems that whoever drinks from the cup of Hakesandros will be deprived of his eyes, [ὀμμ]άτων or his money, [χρημ]άτων depending on the reconstruction of the missing part. Such witty literary

games occurred at symposia. The threat on the Hakesandros cup is a forerunner of another playful combination of a proprietary formula with a curse on the inscription of Tataie, a roughly dactylic graffito cut in a continuous spiral on an aryballos from Cumae dated to *c.* 675–650 BC (Jeffery and Johnston 1990, 240, no. 3; Powell 1991, 166–167). Tataie, a native or Italic girl integrated in the Greek colony at Cumae (D'Acunto 2017, 316), threatens whoever steals her pot to lose his eyesight.

Rhodes

Rhodes dominates the southeast entrance to the Aegean, providing anchorages to vessels sailing from the east Mediterranean. This strategic location did not pass unnoticed by the Phoenicians who visited and perhaps also settled on Rhodes in the Early Iron Age (Coldstream 1969). Their presence, particularly during the eighth and seventh centuries BC, is traceable in the archaeological record and reflected on the ancient literary sources (Kourou 2003; Lipiński 2004, 145–148; Bourogiannis 2013). Rhodes retains a special position in the discussion of alphabetic transmission, reflected also on the mythical narrative. On his way to Thebes king Cadmus stopped at Rhodes and dedicated a bronze cauldron inscribed with Phoenician letters to the sanctuary of Athena at Lindos (Diodoros 5.58). This prestigious votive offering is also listed in the Chronicle of Lindos (Higbie 2003, 22, III) attesting to the significance 'Phoenician letters' had for the Rhodians.

The earliest alphabetic attestation from Rhodes dates to the late eighth century BC. It is a retrograde graffito on a monochrome cup purchased on Rhodes in 1942, although the precise find spot is unknown (Copenhagen 10151: Guarducci 1987, 75–76; Powell 1991, 137–138). The inscription reads Ϙοραϙο ημι ϙυλιχς (I am the kylix of Korax) hence it is a declaration of ownership in the form of the speaking object.

Archaic Rhodes also produced non-Greek textual evidence. Three sherds from a monochrome cup found in tomb 37 (344) of the Koukkia cemetery at Ialysos and dated to the third quarter of the seventh century BC preserve short graffiti in Greek and Phoenician (Jacopi 1929, 67, no. 18; Amadasi Guzzo 1987, 16–17, no. 2; Coulié and Filimonos-Tsopotou 2014, 238, no. 72).[10] The Greek graffito reads ...]νος ημι (I am [the cup of ...]nos) and is securely identified as an ownership statement. The second sherd, consisting of two joined fragments, is perhaps the most interesting one as it preserves part of a Phoenician inscription. Four signs are visible, the first three of which are securely identified: *kd q.* The fourth sign might be another *kaf* or *tau* although its fragmentary state does not allow a secure identification. The first two letters of the graffito produce the word *kd* (vessel, κάδος), presumably a reference to the vase of the inscription. The term is also attested in Cypriot syllabic script in the form *ka-to-se*,

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10 Rhodes, inv. 11459. Note that one of graffiti is published upside down by Jacopi whereas the reading of the Greek graffito is erroneous in Coulié and Filimonos-Tsopotou 2014. For the Greek graffito see also Jeffery and Johnston 1990, 356, no. 2. The solitary sign on one of the sherds has no secure identification although a Semitic nature cannot be ruled out.

on a sherd from a burial context at Salamis that dates to *c.* 600 BC (Masson 1961, 317, no. 318). The Cypriot inscription suggests that the word *kd*-κάδος reached the Aegean from the Phoenician-speaking population of Cyprus rather than from mainland Phoenicia (Amadasi Guzzo 1990, 17–20; Cannavò 2016, 119–120). Although the surviving parts of the Greek and Phoenician graffiti from Ialysos are by no means translations of each other, they may outline similar functions as declarations of ownership. If the three sherds really come from the same vessel, as their fabric indicates, then Rhodes produced the earliest bilingual and digraphic attestation in the Aegean. Bilingualism on the island is securely attested much later, in the third and early second centuries BC, through three inscriptions in Greek and Phoenician (Fraser 1970). The personal names on them have precise parallels among Phoenician names attested in Cyprus, particularly from Idalion, Tamassos and Kition (Amadasi Guzzo 2013, 149–153), the latter also being the ethnic in one of the late inscriptions on Rhodes (Fraser 1970, no 1).

The possibly Cypriot dimension of the Phoenician presence on archaic Rhodes is hinted also by a limestone votive sphinx from Vroulia, today at Copenhagen, inv. 11328 (Fig. 9.1) (Kourou 2003, 256–257, 2015, 252; Bourogiannis 2015, 163–164).

The statuette dates to the final seventh century BC and its Cypriot origin was proved scientifically (Kourou *et al.* 2002, 55, VR2). The sphinx stands out thanks to an eroded Phoenician inscription cut on its right wing and reading *t (or š) ṣ m z (or g) . g (or n) ḥ (or ṭ) q k š* (Riis *et al.* 1987, 51–52, no. 34). Despite the poor condition of the signs, the lettering is considered Phoenician and the inscription was most probably of a dedicatory nature. The presence of Phoenician votive inscriptions in the archaic Aegean is confirmed at the Chalcidice peninsula. A short Phoenician graffito cut in two lines on the back side of a sixth century BC terracotta figurine of an eastern deity wearing a polos, was found at the archaic sanctuary of Stageira.[11] The graffito reads *z mṭn' [.]š[..]'ṭ [..],* this (is) the offering (of) [.]š[..]'ṭ [..] (Vaistub 2014). The Phoenician root *ṭn'* that expresses the act of dedicating or offering, was never used in secular contexts and has an exclusively votive meaning. In the example from Stageira *ṭn'* appears in the substantive form (*mṭn'*), meaning the offering or dedicated object and is preceded by the demonstrative pronoun *z*. The graffito reflects the donation of a Phoenician voyager paying tribute to the sanctuary of the coastal Macedonian city. Coming back to the inscribed sphinx from Vroulia, the presence at a Rhodian sanctuary of a Cypriot statuette with a Phoenician inscription indicates a Phoenician-speaking dedicator who possibly reached the southernmost tip of Rhodes from Cyprus. Phoenician script was therefore present at this remote part of Rhodes and Phoenician language was heard each time Phoenician sailors stopped at Vroulia also to seek divine protection for their dangerous maritime journey.

Economic interaction and cult made a favourable combination for multilingual and multigraphic expressions. A minimal inscription possibly written in the Cypriot

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11 Sismanidis 2003, 90, fig. 99 (today at the Archaeological Museum of Polygyros). For the archaic sanctuary of Stageira, Sismanidis 2003, 77–80.

Figure 9.1. Detail of the inscribed sphinx from Vroulia. Copenhagen 11323; photograph by John Lund.

Figure 9.2. Inscribed limestone statuette of a lion, presumably from Rhodes. Copenhagen 7676; photograph by John Lee. Copyright: National Museum of Denmark, CC-BY-SA.

syllabary is attested on a limestone statuette in the popular type of the seated lion and dates to the late seventh/early sixth century BC (Fig. 9.2) (Riis *et al.* 1989, 46, no. 29, Copenhagen, inv. 7676).

The statuette presumably comes from a Rhodian votive context and was acquired in 1921 from the Kinch collection. Lindos is its most likely place of origin given the large number of typologically similar statuettes there (Blinkenberg 1931, pls. 77–78). It has two eroded signs on the right side of the neck, representing the syllable *ti* or *ri* and a dividing line (Fig. 9.3).

The inscription is minimal and therefore its linguistic designation is uncertain. If indeed in the Cypriot syllabary, it possibly reflects a Cypriot visiting one of the major sanctuaries at Rhodes and inscribing his offering using the script he was acquainted with. The opposite end of this Cypro-Rhodian thread may be found in the digraphic text on a late seventh–early sixth century BC funerary stele from Golgoi (Steele 2018,
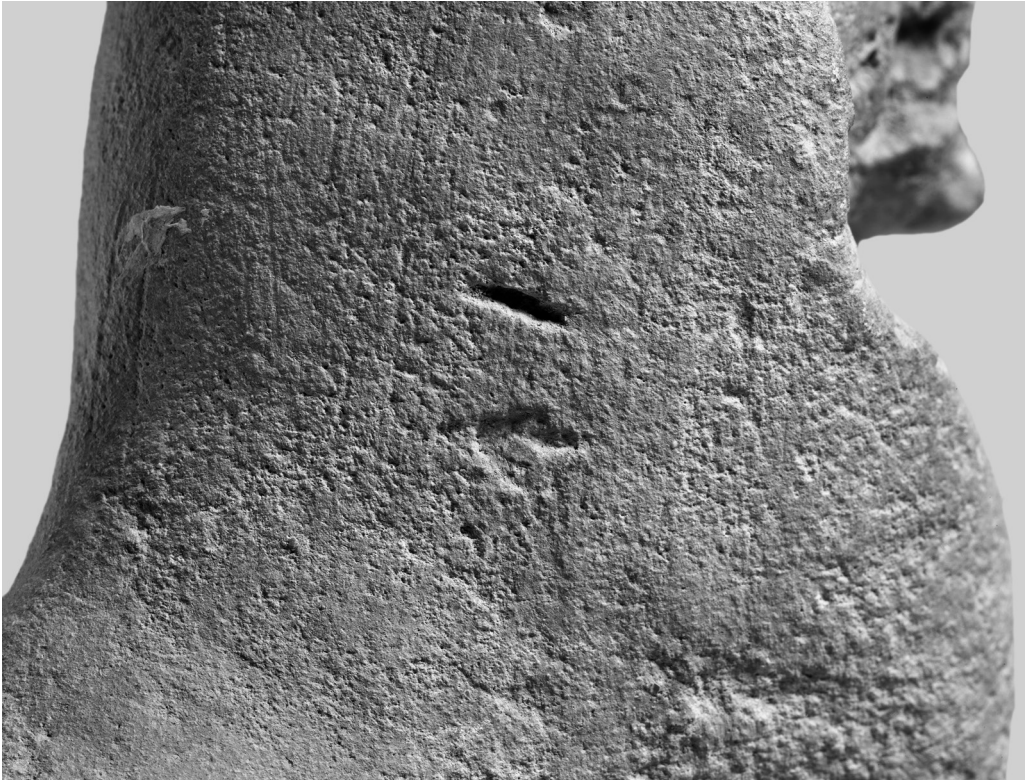
Figure 9.3. Details of inscribed limestone statuette of a lion, presumably from Rhodes. Copenhagen 7676; photograph by John Lee. Copyright: National Museum of Denmark, CC-BY-SA.

221–222). At the left-hand end of the stele the alphabetic text reads Καρυξ εμι (I am Karyx), whereas on the right-hand end is the exact reproduction of the alphabetic text though this time in syllabic script reading *ka-ru-xe-e-mi*. What is noteworthy, apart from the digraphic character of the inscription is that the alphabetic signs are also in-keeping with a sixth-century date and look similar to letter forms found in Rhodes of a similar period (Masson 1961, 281, no. 260). The inscribed limestone statuette from Rhodes adds to the small corpus of foreign objects bearing a foreign inscription and dedicated to Greek sanctuaries in the archaic period (Kourou 2004). Cypriot limestone statuettes in particular are usually inscribed in Greek and their inscriptions follow a consistent pattern that documents the name of the donor and, occasionally, the reason for the dedication.

This shift between scripts and languages formed an intriguing aspect of contacts between Rhodes and the eastern Mediterranean in the archaic period. An expression of the same interplay is provided by a recently presented Syro-Palestinian alabastron of the seventh century BC from Kamiros, today at the Louvre A342 (Coulié and Filimonos

*Figure 9.4. Detail of inscribed Syro-Palestinian alabastron from Rhodes. Louvre A342 (NIII 1570). Copyright: Réunion des Musées Nationaux-Grand Palais. *

Tsopotou (eds) 2014, 235, no. 69). The vase has a dextroverse post-firing inscription in Greek alphabet that reads *Mitlu* (Fig. 9.4).

The word possibly represents the Greek transliteration of a non-Greek, perhaps Phoenician or Syro-Palestinian personal name. It was identified as part of an ownership statement by comparison to a similar late seventh-century inscribed vase from Kamiros that reads Αμυρρητος ημι (Jacopi 1931, 282, 286, fig. 315). The use of the Greek alphabet for documenting a non-Greek name attests to the composite use of writing in archaic Rhodes and echoes an ethnically and linguistically diverse background. It has also been viewed as a conscious attempt of a Phoenician resident of Rhodes to tune with Greek trends of literacy as part of his interaction with the Greek-speaking population of the island (Kourou 2015, 254).

A slightly different version of this phenomenon is given by two fragmentary Egyptian statuettes in basalt dating to the end of the seventh century BC (Kourou 2004; Rhodes, inv. 7020, 14341). Both are inscribed and were dedications to the Athena sanctuary at Kamiros and to the Zeus sanctuary on Mount Attavyros. The inscriptions read ...]δης με ανε[θηκεν (...]des dedicated me) and [Σ]μυρδης με [α]νεθηκεν Ηο Συνδο ([S]myrdes, son of Syndo dedicated me) respectively. The better preserved dedication on the fragment from Attavyros preserves both the name, [Σ]μυρδης, and the patronym, Ηο Συνδο, of the dedicator, whereas it is written between guide lines that are the remnants of an earlier, perhaps Egyptian inscription. Both dedications were presumably made by the same person (Jeffery and Johnston 1990, 348–349). Neither the name of the donor, (S)myrdes, nor that of his father are Greek but they may reflect a Hellenised form of a foreign, possibly Lycian name (Kourou 2004, 16, 2015, 248–249). The hellenisation of

foreign personal names, especially of Phoenician origin, is better documented in Greece during the late classical period (Amadasi Guzzo and Bonnet 1991; Masson 1994). Smyrdes' special taste for Egyptian statuettes suggests his role as a mercenary in the court of Psammetichus I or of his successor, Psammetichus II. In order to propel their political power both Pharaohs made extensive use of east Greek mercenaries, including Rhodians (Bettalli 2013, 203–220). The latter is epigraphically attested also by the names of two Ialysians, Telephos and Anaxanor, engraved on the legs of a colossal statue at Abu Simbel in Egypt, who served in Psammetichus II's expedition against the Ethiopians in 591 BC (Guarducci 1987, 76–77; Boardman 1999, 115–117; Kourou 2004, 20–21).

Cos

Very little is known of the archaic alphabet of Cos, opposite the Halicarnassus peninsula. Although our knowledge of the island in the early archaic period remains elusive, some Phoenician elements can be traced in the Coan archaeological record of the eighth and early seventh centuries BC (Bourogiannis 2013, 148–152). Cos has so far produced no early attestation of alphabetic writing whereas textual evidence of Coan interaction with the eastern Mediterranean is practically non-existent. Greek and Phoenician bilingualism on Cos is securely attested only in the late fourth century BC, through a dedicatory inscription by Diotimos, son of king Abdalonymus of Sidon to Aphrodite/Astarte (Kantzia and Sznycer 1980; Lipiński 2004, 149–155; Amadasi Guzzo 2013, 153–158; Cannavò 2016, 120–121).

Making sense of nonsense

Until recently, this was the earliest occurrence of Semitic script from the island. This picture was revised a few years ago, with the publication of a handle sherd from a cup, found alongside a small cluster of vases of the first half of the sixth century BC. The handle bears two short pre-firing painted inscriptions, one on its upper and one on its inner face (Bourogiannis and Ioannou 2012). The lettering is not Greek but bears close resemblance to the Semitic alphabet. The dipinto on the outer face comprises of two letters, a *waw* and a *yod*, whereas the longest dipinto on the inner face of the handle reads three *waws* separated by verticals. The first *waw* is preceded by two signs, the first one of which is perhaps a *gimel* although the second sign is non-identifiable (*g? w/ w/ w*). This repetitive use of the same letters is hitherto unique among the scarce evidence of Semitic script in the Aegean. Although the Semitic character of the signs seems convincing the inscription raises numerous questions regarding its function and meaning (Cannavò 2016, 120). The combination of signs is nonsensical and even though each letterform is legible their combination makes no semantic sense. The possibility that the two dipinti represent a conscious attempt to simulate Semitic signs, perhaps in a disguising manner by someone who had difficulty writing properly cannot be ruled out. Even when viewed as mimetic icons of (Semitic)

writing, the precise linguistic content and context of the Coan dipinti remains unresolved.

The dipinto from Cos may be viewed alongside nonsense inscriptions of the sixth century Aegean. Examples are known from Boeotia, Corinth, Lakonia and the Greek islands (Wachter 2001, 282, §318 and 283–284, §403) although the greatest number appears on Attic cups (Immerwahr 2006; Heesen 2016; Chiarini 2018). The features of the Attic examples are quite varied. Certain nonsense inscriptions repeat the same letter, or combination of usually two or three letters, on different sides of the vase (Heesen 2016, 96–100; Chiarini 2018, 63–85). This practice is reminiscent of the repetitive use of the sign waw on the Coan handle. Others display similar letters on two different sides of the vessel, although their sequence may differ on either side (Heesen 2016, 103–107). Particularly interesting are nonsense inscriptions inspired by meaningful counterparts on the same vessel such as signature and drinking inscriptions (Immerwahr 2006, 139–140; Heesen 2016, 94–96). This coexistence of sense and nonsense demonstrates that the same person[12] was capable of producing both meaningful and meaningless letter combinations and therefore nonsense does not necessarily equal illiteracy (Chiarini 2018, 218–224). The fragmentary state of the inscribed Coan handle hampers any secure definition of both the linguistic background and the level of literacy of the person who wrote the inscription. However, it confirms the importance of writing in archaic Cos. Like Immerwahr (2006, 140) aptly put it 'writing nonsense was respectable because writing letters had prestige in itself' and the existence of miswritten abecedaria confirms that this was probably the case (for example Wachter 2001, 25, BOI 30, sixth century BC). Alphabetic signs on vases, even in linguistically void combinations, may also had aesthetic rather than purely semantic weight, although their value was closely linked to their social and political contexts (Pappas 2012, 2017). The decorative use of nonsense or badly miswritten inscriptions may have been an important aspect in the use of writing already at the dawn of Greek alphabetic texts, as in the case of the famous Dipylon oenochoe (Binek 2017). However, the awkward position of the Coan dipinto makes its decorative use unlikely.

Kalymnos

Rocky and barren Kalymnos has produced a considerable number of early inscriptions marked on sherds from the rich temple deposits of the precinct of Apollo Pythios (Jeffery and Johnston 1990, 154, 353–354). Particularly interesting is a large pottery fragment with post-firing graffiti on both sides, today on display at the archaeological museum of the island (Jeffery and Johnston 1990; Powell 1991, 154–155). The sherd looks Late Geometric in style with a possible date around the end of the eighth century BC. The graffiti inscribed on both sides of the fragment are careless and their interpretation remains dubious. They may represent Greek letters written for practice, perhaps pieces

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12 In the case of the Attic cups, the vase painter.

of an abortive abecedarian series, although some of the signs are probably doodles. The possibility that the signs are Carian has also been suggested (Powell 1991, 155) but the absence of any securely Carian sequence of letters and the possible presence of two instances of pi, a letter alien to the Carian inventory, rule out such a possibility.[13] The presumed Carian interpretation of the graffiti from Kalymnos was also due to the island's proximity to Asia Minor, with its rich albeit largely later record of Carian inscriptions (Adiego 2007d, 128–163). Connections with Caria were certainly strong for some Ionian cities situated not far from Kalymnos, chiefly for Miletus, where Carian names and language are attested, although such textual evidence dates primarily from the early fifth century BC onwards (Herda and Sauter 2009; Mac Sweeney 2013, 65, 2017, 396). Carian inscriptions from mainland Greece remain scanty. One of the most interesting examples is the bilingual funerary inscription of a Carian buried in Athens, dating to *c.* 525 BC and mentioning the name of the deceased, his patronymic – only in the Greek text – as well as the name of the artist who made the stele. (Adiego 2007d, 164, G1, Athens D16). The area of Thermaic Gulf is another important source of Carian inscriptions dated to the late sixth and fifth centuries (Tzanavari and Christidis 1995; Adiego *et al.* 2012). Carian presence in northern Greece may relate to Persian military action or to trade. The latter is suggested by the numerical symbols on two Carian inscriptions of the late sixth–early fifth century from Thessaloniki (Adiego *et al.* 2012, 196–201), an area that Carians may have reached through east Greece and Ionia. Carians and east Greeks had a long acquaintance not only due to their geographic proximity but also from their engagement in the support of powerful states of the eastern Mediterranean, as in the case of Pharaoh Psammetichus II in his Nubian expedition of 591 BC (Unwin 2017, 34–36). Among the most eloquent textual attestations of their activity as mercenaries are the Greek and Carian graffiti from Abu Simbel in Egypt written by mercenary contingents and dated to *c.* 592/591 BC (Vittmann 2003, 163–164, 200–201; Iancu 2016). The Greek graffiti mention places such as Ialysos in Rhodes, Teos and Colophon on the coast of Ionia, whereas Phoenician mercenaries were also involved in such recruiting mechanisms (Schmitz 2010).

Aramaic inscriptions

Aramaic is the second Semitic language, after Phoenician, that is securely attested in the Early Iron Age Aegean. The volume of Aramaic textual evidence from Greece is rather minimal and comes exclusively from votive contexts. Particularly interesting are two inscriptions that allude to the same historical incident. They are inscribed on two bronze pieces of equine armour of north Syrian manufacture and mention King Hazael of Damascus, who reigned between 843 and 796 BC (Kourou 2004, 17; Lane Fox 2008, 115–118; Janko 2015, 12). The first one comes from the Heraion of Samos and is inscribed on a trapezoid bronze plaque that would be placed a horse's forehead

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13 I am grateful to Professor Ignasi Xavier Adiego for sharing his expertise with me.

(Kyrieleis and Röllig 1988, Samos B149). The second one is inscribed on a blinker offered to the temple of Apollo at Eretria today stored in Athens (Charbonnet 1986, Athens 15070).[14] The Eretrian example was dedicated to the sanctuary together with a second blinker of similar type, today at the archaeological museum of Eretria (B273) that was, however, not inscribed (Charbonnet 1986, 116–123). Both blinkers were made to protect the right eye of the horse, a fact that excludes any practical use and confirms their votive purpose. The two Aramaic inscriptions from Samos and Eretria allude to the same incident: that which Hadad gave to our lord Hazael from Umq, in the year that our lord crossed the river (Bron and Lemaire 1989, 38; Eph'al and Naveh 1989). The attestation of a specific historical event dates the inscriptions around 830–815 BC, when king Hazel of Damascus organised a campaign into Umq, the north Syrian river plain, as he came up north to Unqi (Lipiński 2000, 376–390). The river he crossed was probably the Orontes, whereas Hadad is the storm-god of Syria. The two inscribed pieces were originally part of the booty taken by Hazael in the battle in Unqi and offered as a deed of gratitude to a temple of Hadad (Lane Fox 2008, 116–117). However, their Greek context, dating to the late eighth century BC, is significantly later, indicating that the two objects were nearly a century old when they reached Greece. The two inscribed bronzes must have ended up into Greek hands, possibly after being looted anew in the 730s, when King Tiglath Pileser III and his Assyrian troops completed their conquest of Unqi and took Damascus.[15] What seems clear is that the two Aramaic inscriptions were dedicated by Greeks who had acquired them in the Near East and not by Aramaeans or Assyrians, whereas their content was most likely opaque to most Greeks who would see them at the sanctuaries (Lane Fox 2008, 117–118). Unlike the inscribed bowl from Knossos, that may reflect a Phoenician resident, the two Aramaic inscriptions from Eretria and Samos had a votive function and they seem to have ended up in the Aegean as exotic valuable offerings acquired somehow by trade, disconnected from their original cultural and linguistic context, (Eph'al and Naveh 1989, 200).

Olympia has also produced an Aramaic inscription marked below the rim, on the outside of a Phoenician bronze bowl with engraved decoration and of Phoenician manufacture (Markoe 1985, 204–205; Amadasi Guzzo 1987, 20–21).[16] The inscribed bowl dates to the second half of the eighth century (Markoe 1985, 150, 153–154) and has the usual structure of ownership statements, including the owner's name followed by the patronymic (of Ngd/r, son of Myp'). Its precise archaeological context is unknown since it was found at the start of the Olympia excavations in the late nineteenth century near the village Makrysia. Its use was almost certainly votive, although it is hard to know if it was offered by an Aramean or by a Greek dedicator. Finally,

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14 The inscribed blinker was found by K. Kourouniotis in the early twentieth century BC at the temple of Apollo but no information about its precise find spot survives (Charbonnet 1986, 123, note. 41).

15 It is likely that some Greeks, perhaps from Al Mina, were involved in that looting.

16 Athens, 7941.

one more Aramaic inscription, still unpublished, is known from mainland Greece. The inscription marks a small bronze thymiaterion of east Mediterranean typology, found in a Geometric context at the Sacred Way of the sanctuary of Apollo at Delphi (inv. 10658). Its content is similar to that of the inscribed bronzes from Eretria and Samos (Kourou 2004, 17–18).

Tragana

Unique among the textual evidence of Early Iron Age Greece is the Neo-Hittite inscription from Tragana in east Locris. The site is situated at *c.* 1 km from the west coast of the north Euboean Gulf, facing the northwest littoral of Euboea. The inscription was produced in a rich female burial dated by its context around the middle of the eighth century BC, to the transition from Middle Geometric II to Late Geometric I (Onassoglou 1981, 14–21, 34–51). The burial featured numerous bronze objects, including clothing equipment, jewellery and vessels. The inscription is scratched in two rows below the exterior rim of an imported bronze phiale mesomphalos, probably of North Syrian origin. It comprises of four syllabic signs, two on each row, written in retrograde and gives the name of the original owner of the vessel, Mu-wa-zi. The latter is also attested in north Syria. The phiale is slightly earlier than its funerary context, with a suggested date in the ninth century BC (Onassolgou 1981, 21, no. 59, 50–51). Similar to the Aramaic inscriptions from Eretria and Samos, the bronze bowl from Tragana reached Greece already inscribed therefore the neo-Hittite inscription was detached from its original linguistic context. The proximity of Tragana to Euboea makes it possible that this inscribed bowl, with a text that would have been unintelligible to the inhabitants of Opuntian Locris, may have reached central Greece through trade via Euboea.

The Cypriot syllabary

The range of different scripts produced in early Greek contexts also includes the Cypriot syllabary. Greece is the source of some of the earliest inscriptions written in the Cypriot syllabic script found at locations outside Cyprus (Karnava 2013, 159–165; Steele 2018, 208–210). With the exception of the very fragmentary graffito on the lion statuette from Rhodes discussed previously, that is too short to allow a secure linguistic designation, inscriptions in the Cypriot syllabary known from geometric and archaic Greek contexts are used to denote the Greek language in its Cypriot dialect.

The oldest inscription in the Cypriot syllabary from Greece is found on an Attic amphora from Chalcidice of the early SOS group and probably dates to the final quarter of the eighth century BC (Vokotopoulou and Christidis 1995; Egetmeyer 2010b, 841; Karnava 2013, 160–162; Steele 2018, 66–68, 210). The amphora was found in second use as a funerary urn at the seaside cemetery of Mende, the Euboean colony at the Kassandra peninsula opposite Methone. It contained the remains of an infant burial together with a local one-handled cup. The graffito

is fragmentary and was scratched in retrograde on the shoulder of the vessel after firing. It reads *]la-si te-mi | se* or *]la-si-te-mi?* se depending on the presence or not of a word divider between the second and third sign of the inscription.[17] Although its fragmentary state hampers a secure identification, the inscription probably incudes an abbreviated personal name beginning with Θεμι- *(te-mi).* The content of the graffito from Mende resembles an inscription from Policoro in southern Italy dated to the first half of the seventh century BC that reads *?-la-si-te-mi-[* but its sequence is also difficult to reconstruct (Pugliese Carratelli 1971; Egetmeyer 2010b, 840). The graffito from Mende seems to reflect a Greek-speaking Cypriot trader visiting the area of the Thermaic gulf and marking the amphora by using the only script to which he was accustomed, the Cypriot syllabary. Whether the amphora was inscribed *in situ* or in Cyprus is hard to assess with any certainty, although the first case seems more likely. Viewed alongside previously discussed written attestations of Phoenician and Carian, the occurrence of an inscription in the Cypriot syllabary make Chalcidice and the area of the Thermaic gulf one of the most prolific and diverse sources of textual evidence in the Late Geometric and Archaic Aegean.

Particularly interesting is the inscription on the lion-shaped foot of a bronze tripod stand from Delphi, inv. 1717 (Egetmeyer 2010b, 841; Karnava 2013, 163–165; Steele 2018, 68, 210). The bronze fragment was found at the entrance to the *temenos* and its date fluctuates between the end of the eighth and the early seventh century BC. The inscription consists of four signs written in sinistroverse. They were followed by a fifth sign which cannot be securely restored since it was written right on the fracture of the fragment. The inscription reads *e-re-ma-i-[jo?]* giving the name Ερμαί[ου], possibly in the genitive case to mark the name of the tripod's owner/dedicator. Although the context of the inscription supports its votive character, an interesting alternative sees in *e-re-ma-i-[(j)o?]* the signature of the tripod's manufacturer. In this case, the name written on the tripod is not related to the tripod's votive context at Delphi but to its original manufacture in Cyprus (Karnava 2013, 167). The interpretation of *e-re-ma-i-[(j)o?]* as an artisan's signature rather than as part of a votive inscription is implied also by the position of the text, situated between decorative line bands and thus incorporated into the decorative syntax of the tripod stand (Steele 2018, 210). This must have been a deliberate decision on behalf of the Cypriot inscriber and can be related to other similar instanced of 'decorative' Cypriot syllabic inscriptions. Regardless of the different possibilities, the presence of the inscribed bronze tripod at Delphi is fully integrated in the religious practices of the late eighth and seventh centuries BC and it may suggest a Cypriot dedicator. Cypriots were engaged in religious practices in the Aegean during the aforementioned period and their

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17 Alternatively *]la-si te-mi | se.* After examining the fragment Karnava (2013, 162) believes that the presumed word divider between the second and third sign of the inscription is actually coincidental because the surface of the vessel has flaked off at that point.

presence at Delphi in particular is reflected on the archaeological evidence (Partida 2006, 802–803).

Lemnos

Lemnos was traditionally associated with the Pelasgians, a term used rather vaguely by ancient authors to denote people who had inhabited parts of the Aegean before the Greeks and who spoke a non-Greek language (Colvin 2014, 21–22). Homer's allusion to the ἀγριοφώνους (of savage speech) inhabitants of Lemnos (*Odyssey* 8.293–294), a term implying that they were also *barbarophonoi* is noteworthy. The use of a non-Greek language akin to the Etruscan at Lemnos is confirmed epigraphically. Interestingly, the Greeks associated Etruria with the Pelasgians, implying that in the ancient world there was some awareness of linguistic and ethnic connections between the two areas (Colvin 2014, 23). In 1884 Kaminia on Lemnos produced a sixth-century BC funerary inscription in a script and language that bear a close resemblance to Etruscan. The typology of the stele, with the figure of a warrior in profile, resembles similar funerary stelae from north Etruscan sites, though the text on them is inscribed at the sides (Bonfante and Bonfante 2002, 141–143, nos 14–17, figs 18–21). The Tyrrhenian inscription, today at the National Museum of Athens, is cut in boustrophedon (De Simone and Chiai 2001; Bonfante and Bonfante 2002, 60–62; Wallace 2008, 218–221). It presents some striking similarities with Etruscan inscriptions in language and vocabulary, standard, expressions, grammatical endings as well as in the separation of words by two dots. The script, however, is also divergent from standard Etruscan, suggesting its language is probably related but not necessarily identical to Etruscan, possibly written by people who had been cut off from their homeland for a long time. That Etruscans had settled on Lemnos is recorded in ancient literary sources (Janko 2015, 8, note 54) but when and in what circumstances this occurred is far from clear. Noticeably, the script on the inscription from Kaminia has been compared also to the Phrygian based on the form of certain signs (Jeffery and Johnston 1990, 299; Janko 2015, 18–19) but the documentation of this relation appears more laborious.

Bilingualism and digraphia in Geometric and Archaic Greece: some thoughts

Previous analysis explored the range of scripts and languages attested in Greece during the geometric and archaic period. Discussion was based on the selective treatment of early textual evidence primarily from eighth-, seventh- and sixth-century BC contexts from Crete, Euboea, Lemnos, the Dodecanese and the Greek mainland although in certain cases later textual material was considered. With regard to the scripts being used, evidence falls into two groups and comprises both alphabetic and non-alphabetic inscriptions. Texts written in alphabetic scripts correspond to a greater number of languages including Greek, Eteocretan, Phoenician, Aramaic, Carian and the awkward Lemnian version of 'Etruscan'. The occurrence of non-alphabetic scripts is limited

to the Cypriot syllabary in Greek language and to a unique occurrence of the neo-Hittite syllabic script. Although restricted and inconsistent, early textual evidence confirms the occurrence in geometric and archaic Greece of multiple languages and of multiple scripts. It fails, however, to provide straightforward answers about the extent of their use and the possible associations between them. Leaving Greek apart as the dominant language in the Greek area, early inscriptions indicate that not all languages represented in a written format were also spoken. This is the case particularly with the eighth-century BC Aramaic and Neo-Hittite inscriptions from Samos, Eretria, possibly Olympia and east Locris. These inscriptions were found in Greece but not written in Greece and therefore reached the Aegean detached from the linguistic setting that produced them. This oxymoron does not preclude that for example Aramaic was never heard in the Aegean but there is no secure attestation for this in the Early Iron Age written record.

Studies on ancient bilingualism and multilingualism, two terms often used interchangeably with a quantitative rather than qualitative difference (Mullen 2013, 54), are not a new notion (Consani 1990). Interest in these issues reinvigorated in the past two decades (Adams *et al.* (eds) 2002; Biville *et al.* (eds) 2008; Briquel Chatonnet 2012; Mullen and James (eds) 2012; Mullen 2013). Most recent studies focus on the late classical, Hellenistic and Roman periods (fourth century BC–fourth century AD), for which evidence throughout the Mediterranean is more abundant, making the identification of bi- or multilingual phenomena easier and more secure. On the contrary, evidence of bilingualism is less common and harder to assess in the period with which we are primarily concerned here. Perhaps the best examples among the rare, securely bilingual texts of the eighth and early seventh centuries BC come from Anatolia. Çineköy and Karatepe in Cilicia produced two bilingual and digraphic inscriptions in Luwian and Phoenician, dated to the late eighth century BC (Payne 2007, 125–131; Steele 2018, 161). Their texts, written in the autochthonous hieroglyphic script for the Luwian language, and in alphabetic script for the Phoenician, are of cultic character. Although the clauses in the two languages are not precise translations of each other and may diverge in details, the inscriptions offer a sound attestation of bilingualism and support the use of Phoenician as a sort of lingua franca in the eighth century BC. Equally interesting are the Assyrian lion-shaped weights with bilingual and digraphic inscriptions in Akkadian cuneiform and Aramaic alphabetic script (Fales 1995). Considerably later but important for the acknowledgement of similar phenomena in the western Mediterranean are three bilingual gold tablets from Pyrgi in Etruria, dated to the late sixth century BC, with inscriptions written in Etruscan and Phoenician (Bonfante and Bonfante 2002, 65–68).

When focusing on Greece, bilingual textual evidence also consists a late classical, Hellenistic and Roman phenomenon evidenced primarily at sites of commercial and religious importance such as Delos, Piraeus, Rhodes and Delphi (Vattioni 1987–1988; Adams 2002; Bauzon 2008; Hasenohr 2008; Cannavò 2016). Direct allusions to bilingualism by ancient Greek authors are not that common either. One of the most

eloquent examples is by Thucydides (4.109) who describes the inhabitants of the Athos peninsula as 'bilingual barbarians of mixed ethnicity' (ξυμμείκτοις ἔθνεσι βαρβάρων διγλώσσων) adding that they were 'mostly Pelasgian descended from the Etruscans who formerly inhabited Lemnos and Athens'. An additional outcome of cultural interaction in the Aegean during the late archaic and classical periods features linguistic influences between Greek and non-Greek languages of Asia Minor, especially Lydian, Phrygian, Carian, and Lycian (Adiego 2007a–c; Tzitzilis 2007; Mac Sweeney 2017, 396–401; Unwin 2017, 42–51). This phenomenon, traceable already in the Late Bronze Age (Yakubovich 2008b, 127–129), is attested through linguistic affinities, loanwords and morphological or phonetic associations. Our often problematic access to such linguistic complexities is clearly reflected on a recently published inscribed golden sheet from the sanctuary of Aphrodite on Zeytintepe in Miletus (Brize 2017). The sheet that is of Greek workmanship dates to the third quarter of the seventh century BC and its inscription provides one of the oldest specimens of writing from southwest Asia Minor. Although the writing displays features that may be associated with Lydian, Carian and Greek, it has not been possible to ascribe it convincingly to any of the languages spoken in the region.

Despite difficulties of this sort, it seems reasonable to suggest that interaction between speakers of different languages also generated bilingualism, as evidenced through Greco-Lycian, Greco-Lydian and Greco-Carian inscriptions of the late sixth and fifth centuries BC, mostly of funerary character (Adiego 2007a, 761–762; Payne 2007, 131–137; Payne and Wintjes 2016, 82, LW20; Rutherford 2002). Though not from the Aegean, noteworthy are also the fourth-century BC bilingual and digraphic dedicatory inscriptions in Greek and Eteocypriot from Amathus that demonstrate the simultaneous official use of Eteocypriot and Greek and of their respective scripts (Steele 2013, 105–107, 113–115).

Languages are of course cultural artefacts hence any exploration of bilingual phenomena in antiquity needs to consider a number of theoretical questions (Mullen and James (eds) 2013, 1–35), particularly since our access to ancient multilingualism deals with written evidence only. Although there are multiple ways of interrogating such data, context is of paramount importance in identifying possible bilingual phenomena in antiquity. Early textual evidence from Greece clearly manifests the importance of contextualisation since funerary and votive contexts are the primary source for early alphabetic writing. Although this fact relates also to the dearth of domestic data in the Early Iron Age Aegean, it must also reflect what kinds of contexts were considered appropriate for practicing or displaying the skill or writing. In this respect, no contextual difference between Greek and non-Greek textual evidence is noticed, suggesting that the same settings were used for writing regardless of the language or script being applied. Nearly identical are also the practical purposes of writing in Greek and non-Greek early inscriptions. This is true also for inscriptions in the Cypriot syllabary used to denote the Greek dialect of Cyprus. Leaving aside single letters (a *ḥêt* from Kommos and a *šin* from Gavalomouri), the majority of non-Greek

early inscriptions from the Aegean are either declarations of ownership or short votive texts, although the use of these two categories is often intermixed. This comparison also helps to detect uses of writing that stand out as exclusively Greek. The relatively high occurrence of hexameter verses in particular only characterises Greek inscriptions. It suggests a special link between poetic narrative and early Greek alphabetic writing, both of which must have served as important components in the gradual formation of a common identity among Greek speakers of the eighth and early seventh century BC.

Another area for consideration relates to the extent and nature of ancient bilingualism, as well as to whether or not bilingualism entailed biliteracy. Although early textual record from Greece is too restricted to permit a consistent treatment of this matter – let alone to provide sound written confirmations for bilingualism and biliteracy in the geometric and archaic period – the occurrence of unintelligible or nonsensical alphabetic graffiti that presumably mirror non-Greek languages, as in the case of the archaic handle from Cos and the presumably 'Carian' graffito from Kalymnos, is noteworthy. Such evidence may suggest that occasional attempts to reproduce or imitate the script of another language did not necessarily entail proficient knowledge of the language itself. Truth is of course that we are dealing with a period of imperfect literacy in Greece, as is demonstrated by the presence of incomplete or abortive abecedaries and of nonsensical writing (Jeffery and Johnston 1990 *passim*; Powell 1991, 152–155). Evidence for the dissociation of biliteracy from bilingualism becomes clearer in later periods. The scribers of lapidary inscriptions for example could have been commissioned to produce texts in languages they did not necessarily comprehend. This was for example the case with a second-century BC Greco-Phoenician bilingual inscription from the sanctuary of Apollo at Delos, produced by a scriber who did not speak Phoenician (Baslez and Briquel-Chatonnet 1990).

Writing was not the most popular medium for communication in the predominantly non-scribal Geometric and archaic Aegean.[18] However it must reveal something about the referents' sense of identity, for which language is a primary index. In certain cases, for example in the Aramaic inscriptions from Eretria, Samos, the Phoenician inscriptions from Tekke, Vroulia and Stageira and the Eteocretan inscriptions from east Crete, equations between script and language are quite straightforward. Although some of these texts, especially the Aramaic ones, probably ended up in Greece through Greek intermediaries, they still portray the linguistic identity that produced them. Other written instances are more doubtful: If the early eighth-century graffito from Eretria that reads *KPLŠ* is indeed a transliteration in Semitic script of a Greek name (Κάπιλλος), and if the word Mitlu on a seventh-century vase from Rhodes is the Greek transliteration of a non-Greek name, then these two graffiti are possible ploys to underline duality of identity. In these two examples it is not the dubious names that evidence such duality – personal names are not the most secure markers of identity after all (Mullen and James (eds) 2012, 8; Payne 2007, 137) – but the curious

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18 For a discussion of non-scribal communication media see Jasink *et al.* (eds) 2017.

and perhaps purposeful choice of scripts that bear no straightforward connection to their corresponding language.

So what is the evolving picture from Greece based on early inscriptions?

Starting from acknowledging that conclusions are drawn from disparate evidence, early Greece has yielded inscriptions that correspond to more than one language. Leaving aside the Eteocretan inscriptions that mirror the special linguistic and cultural environment of east Crete, evidence for bilingualism in geometric and early archaic Greece is occasional and casual. Semitic is the only non-Greek alphabetic script that recurs with some consistency in both funerary and votive contexts. Some of its occurrences are unintelligible, either because the condition of the inscription is very poor, for example on the sphinx from Vroulia, or because the sequence of the signs is nonsensical. In all other cases when reading is more secure, there is a marked difference between Aramaic inscriptions that appear dissociate from their original linguistic context – at least those that are better published – and Phoenician inscriptions. The latter appear as more casual expressions of literacy and most of them seem to have been written in the Aegean, suggesting the actual presence of Phoenician speakers. There is no way of knowing if those Phoenicians originated in Cyprus, Phoenicia proper or both. However, it seems safe to assume that some of them belonged to the Phoenician-speaking stock of Cyprus, since Cypriot interaction with the Aegean in the eighth and seventh centuries BC is confirmed also by the few occurrences of the Cypriot syllabary to denote the Greek but not yet the Eteocypriot language.

A comparative consideration of the archaeological data from the Aegean suggests that it is mainly from the early seventh century BC that Phoenician presence becomes more visible in the textual and material record. This is also the most likely period for the presence of small Phoenician communities in the Aegean, for example on Rhodes, some members of which were probably to some extent bilingual. This is hinted by the fragmentary cup from Ialysos tomb 37 that preserves parts of post-firing graffiti in Greek and Phoenician. Sanctuaries were popular destinations for foreign speakers who reached the Aegean in the eighth, seventh and sixth centuries, being places where profitable activities could be practised and where divine protection could be sought. Often situated along major trading routes, they provided the ideal ground for the coexistence of different dialects, scripts, and languages, as well as for the casual display of literacy, usually written on cheap and portable objects.

In these contexts, the origin of the inscribed media rarely coincides with the origin of the script being used, as evidenced by the Semitic inscriptions on cups from Euboea and Rhodes or on Greek terracotta and Cypriot limestone statuettes, Greek inscriptions on statuettes from Egypt or Cyprus, Cypriot-syllabic inscription on Attic pottery, Eretrian script on Lesbian mugs from Methone and so on (see also Janko 2015, 3–4; Tzifopoulos *et al.* 2017, 373). In such complex patterns of cultural interaction, some people may also have been digraphic. This is suggested by the possible transliteration of personal names or terms belonging to one language in the script of another language, as was perhaps the case with the Eretrian *KPLŠ* and

the Rhodian Mitlu graffiti, but also through the ability to write in different epichoric alphabets, as in the case of a sherd from Cumae written in one hand in Corinthian and Euboean script (Johnson 2013, 436).

This varied use of writing in different languages and scripts in Late Geometric and Archaic Greece, indicates a casual and self-assertive rather than administrative form of literacy, and an equally free and easily accessible use of writing that was not limited to Greek-speakers alone. Acquaintance not only with different languages but also with different writing systems was one of the most fascinating, albeit not yet fully understood manifestations of the recently designated 'art of contact' in the geometric and archaic Aegean (Martin 2017). Hopefully, more textual evidence will be published in the near future.

Chapter 10

The matter of voice – the Umbrian perspective

Karin W. Tikkanen

Introduction

Among the many difficulties and curiosities in the study of the various early Italic languages on the Apennine peninsula, Umbrian remains, in large parts, an enigma. A very common reference amongst philologists working with Umbrian is the passage at the very beginning of Tolstoy's *Anna Karenina*, where the Umbrian Iguvine Tables are used as a metaphor for the complexity of life itself, in that certain things that appear to be fully comprehensible, at closer sight might reveal themselves as almost fully uninterpretable (see *e.g.* Weiss 2010, 1–3).

The seven bronze Iguvine Tables describe the cult at the old Umbrian city of Iguvium (modern Gubbio), and are divided into two sets: five older, written in the Umbrian alphabet, and two younger, written in the Latin alphabet.[1] The two sets partly replicate one another but differ in terms of detail, and most probably copy the subject matter of an original, older text, now lost (Bradley 2000, 74–76). The ritual content is both similar to what may have been the case in the neighbouring community of the Latins – tripartite elements in the sacrifices and prayers, the names of the deities themselves, their epithets, bird watching as an element of the augury, and so on[2] – but at the same time includes elements that are fully different from the point of view of Rome.[3]

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1 Among the older tables, Tables III and IV are considered older, dated to the end of the third century BC, whereas Tables I and II are somewhat younger, probably from the early second century. The section on Table V inscribed in the Umbrian alphabet is dated to *c.* 150 BC. Remaining sections, inscribed using the Latin alphabet, are probably from the early first century BC (Ancilotti 2011, 22).

2 See for example Watkins 1995, 210–211 and Fischer 2014, on the parallels between the prayers in the Tables and in Cato's *De Agricultura.*

3 See Turner 1977 for a discussion on Umbrian ritual in a broader anthropological context.

The same holds for the language itself; Umbrian is similar enough to Latin to classify it as a closely related language, part of the Italic language group (*e.g.* Wallace 2007, 3–4), but there are several aspects that differentiate Umbrian from Latin to the extent that it is sometimes very difficult to understand the text, although it is written, partly, 'in a perfectly legible Roman script' (Weiss 2010, 3).

One aspect of this difficulty lies in what appears an almost complete lack of organised orthography. In the writing of front vowels, for example, one and the same form can be written in several different ways; the acc. pl. of the word 'birds' is attested in the following forms: T.Ig. Ib 1 **avif**, VIb 47, 48 *auif*, Ib 10 **avef**, and VIa 4, 18 *aueif*.[4] All of these forms represent attempts to write the vowel in the ending **-ef < *-i-ms*, affected by the Sabellian vowel shift, a pre-historic sound change that affected all Sabellian languages whereby long vowels were heightened and short vowels lowered (Crawford *et al.* 2011, 22–24; Tikkanen 2011, 14–15). In Oscan the resulting three-partite system of front vowels was evidently perceived of as a 'problem', and around c.300 BC a new vowel sign was introduced, <**í**> for the new mid front vowel /e/, placed at the end of the Oscan alphabet, next to <**ú**> for back vowel /o/ (Crawford *et al.* 2011, 22–24). The signary used to write Umbrian was not similarly adapted, giving a very fluctuating annotation of the vowels. As a consequence, there seem to have been no coherent rules for how the words were to be written down, but rather instant solutions, as if though different scribes came to their own individual, impromptu, solutions to the problem of spelling.

There is indeed spelling variation also in the earliest period of writing of the other early languages on the peninsula, since the proper codification of a spoken tongue is a later process in the history of writing. The 'birth' of Roman literature, for example, is traditionally set to the early third century BC, with the first translations of the Homeric epics into Latin, by the freedman Livius Andronicus (*c.* 284–204 BC), marking the start for a national, Latin literature; towards the end of the same century the schooling system at Rome had taken shape, and there was schooling to be had also outside of the private home (Plutarch *Quaest. Rom.* 59; Conte 1999, 39–40). Similar developments can be hypothesised for some of the other languages in pre-Roman Italy, such as Etruscan (Colonna 1976) and Oscan (Rix 1996, 2005), since both of these language corpora display a high level of standardisation, although there is no preserved literature as such. In Umbria, however, it seems that there was no similar centralised standardisation of the language, not only in terms of the so-called 'minor' Umbrian inscriptions (*cf.* Rocca 1996), but the long, coherent texts preserved on the Iguvine Tables, the codification of the community cult, also appear haphazard in their linguistic expression.

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4 This chapter follows the transcription principle that inscriptions written in the Latin alphabet are transcribed using *italics*, and inscriptions written in a non-Latin or non-Greek script are transcribed using **bold.**

This chapter is an analysis of some of the letters in the Umbrian alphabet from the point of view of application. In this analysis, focus lies on the writing of voiced stops, the area in which the Etruscan alphabet proved insufficient as the matrix model for the writing down the Italic languages on the Apennine Peninsula. Adaptations were made in the majority of local alphabets, and the Umbrian alphabet is only one example of this process of adjustment of an adopted matrix, the Etruscan script, accommodated to fit the requirements of a new tongue, Umbrian.

Writing on the Apennine Peninsula

The most common mode for the spread of writing is through a series of transmissions, from one area to the next. There are however no key patterns for this process, and with each new culture or society one encounters alternate patterns. Literacy is connected with the coming of urbanisation and more complex forms of social organisation (Barton 2007, 118), and given that the alphabet is a system void of ethnic or religious connotations, it can be freely adopted and adapted without involving any kind of subordination (Malkin 2002, 156).

The oldest traces of non-Greek writing on the Apennine peninsula date to the early seventh century BC, and originate from the Etruscan cities Tarquinia and Caere. In these inscriptions the script used is essentially a copy of the Euboean Greek alphabet first introduced in the area of the Bay of Naples (Cristofani 1979, 378–379). From the early sixth century BC onwards the Etruscan alphabet was modified, and Greek letters that were redundant from an Etruscan point of view came to be successively excluded from the signary (Pandolfini and Prosdocimi 1990, 11–15). In Etruscan, voice[5] was not a distinguishing factor, and in the simplified Etruscan alphabet the Greek signs for voiced stops were left out. The end result, the simplified Etruscan abecedaria, came to impose certain limitations on the various alphabets that made use of the Etruscan signary as their model, in terms of vowels but also in the matter of voice.

Most of the newly developed alphabets on the peninsula went through successive stages of 'completion', meaning a process of growing awareness of the phonological set-up of the language in question and what distinguishing elements were needed in the signary to achieve unambiguous writing. Early inscriptions documenting the indigenous Sabellic languages in Campania use the Etruscan or Greek alphabets, and for example the Oscan alphabet, which appears somewhat later on, is the result of a combination of elements from both these alphabets, with a complete set of signs for the voiced stops (Tikkanen forthcoming).

The alphabets further up north, on the other hand, solved the issue of the voiced stops in different ways. The Faliscan, Latin and Sabine alphabets stem from a version

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5 Voice, or modal voice, can be characterised as the physiological position where the arytenoid cartilages are in a neutral position for speech, neither pulled apart nor pushed together (Ladefoged and Maddieson 1996, 50).

of the Etruscan script in use in southern Etruria (Bakkum 2009, 379–380).[6] All of these alphabets attest to the writing of voiced stops differently than in the Oscan alphabet: all three scripts have a sign for the voiced dental /d/ similar to the Greek *delta*, Latin and Sabine also write the voiced labial /b/.[7] The Venetic alphabet stems from a northern Etruscan script (Marinetti 2013), with the later addition of adopted Greek letters in order to express voice (see Pandolfini and Prosdocimi 1990, 245–259).[8]

The scribes of Umbrian appear not to have achieved the same level of clarity in the writing of their own language, and the problems posed by the Iguvine Tables depend, to some extent, on the uncertainty that arises from an imperfectly adapted writing system.

Writing in Umbrian

Apart from the Iguvine Tables writing in Umbrian is scarce, with often only one or two inscriptions originating from the same locality. The oldest Umbrian inscriptions date to the late fifth or early fourth century BC, and come from Tuder, in the south of the Umbrian speaking area (see further p. 190).[9] Tuder is suitably located on the Tiber river, on the boundary between the Umbrian and the Etruscan speaking communities, and may also have been the location for the transmission of writing.[10]

Writing is subsequently attested in Umbrian communities located along the Tiber river, in inscriptions from *c.* 300 BC, at Ameria,[11] Asisium,[12] Plestia,[13] Tadinum,[14] and

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6 Bakkum (2009, 380) briefly mentions an 'early Sabellic' alphabet attested in the seventh-century inscriptions from Poggio Sommavilla labelled as 'paläoumbrisch' in Rix 2002; see also Rix 1995. Crawford *et al.* (2011, 162, and 164) consider these inscriptions, Forum Novum 1 and Forum Novum 2 (Um 2 and Um 3, respectively, in Rix 2002), as written in the Sabine alphabet.

7 See, however, the discussion on the interpretation of the Garigliano bowl, the oldest preserved inscription that may or may not feature the sign **<b>**, or perhaps rather a *digamma* (Hartmann 2005, 149–153; Maras 2005; Morandi, 2009).

8 Pandolfini and Prosdocimi (1990, 250) suggest that this is not entirely about voicing but rather a question of expressing aspiration.

9 It could also be the case that Ariminum 1, dated to 450–400 BC, is part of this early corpus of Umbrian inscriptions, although the alphabet in this inscription is of uncertain origin (Crawford *et al.* 2011, 151–152).

10 Bradley (2000, 113–114) writes that Etruscan inscriptions from Tuder 'vastly outnumber' inscriptions written in Umbrian from the same location, although this is a truth with modification. Crawford *et al.* (2011, 131–144) list in total eleven Umbrian inscriptions as originating from Tuder, and Meiser (2014, 787–788) accounts for an equal number, eleven Etruscan inscriptions, originating from the same settlement, with an additional seven marked 'falsus ex genuino'.

11 Ameria 1, in Crawford *et al.* 2011, 148.

12 Asisium 2, in Crawford *et al.* 2011, 103.

13 Plestia 1–4, in Crawford *et al.* 2011, 115–118.

14 Tadinum 2, in Crawford *et al.* 2011, 96.

Perugia.[15] Inscriptions from Iguvium,[16] Sestinum,[17] and Hispellum,[18] are somewhat later on in time, dating to the range 280–150 BC. Contrary to the early inscriptions in for example Latin (Cornell 1991), and from Sabellic-speaking communities around the Bay of Naples (Tikkanen forthcoming), few of the oldest preserved Umbrian inscriptions are proprietary inscriptions found in tombs,[19] but most are of an official character, often inscribed on bronze objects, such as statuettes or tablets, expressing the result of a dedication (thus Tuder 2, Ameria 1, Plestia 1–4 and Hispellum 1).

The Battle of Sentinum in 295 BC became a decisive turning point in the Third Samnite War, after which the Romans were able to overcome the coalition formed by the Samnites, Etruscans, Umbrians and Senone Gauls (Livy 10, 16). Rome subsequently colonised the Umbrian region, sending out some 40,000 Roman settlers, which meant that around the end of the third century about a third of the inhabitants of the region were of Roman or Latin status. The building of the Via Flaminia (220–219 BC) further intensified contacts between Umbria and Rome, linking in particular the communities in the south, such as Ameria, to the Roman capital (Bradley 2000, 193–194).

Apart from having an effect on the social and political landscape, this also affected the habits of writing, and in some places the Latin alphabet was adopted for the writing of Umbrian as early as the late third century, at for example Fulginae,[20] and perhaps also Interamnia Nahars.[21] In other places this is attested from the mid- or late second century, as in Tadinum,[22] Asisium,[23] Trebiae,[24] and Mevania.[25] Just as with inscriptions written in the Umbrian alphabet, inscriptions written in the Latin script also bear an official character. The majority of these inscriptions are building inscriptions (Fulginae 1, Interamnia Nahars 1), or cippi and stelae marking official boundaries (Asisium 1, Asisium 4, Trebiae 1, and Mevania 3–5). The Latin language appears in official inscriptions from the south of Umbria towards the end of the second century BC, although Umbrian remained in use in other places (Bradley 2000, 214).

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15 Umbria 1, in Crawford *et al.* 2011, 85.

16 Iguvium 1 coinage, in Crawford *et al.* 2011, 94.

17 Sestinum 1, in Crawford *et al.* 2011, 93.

18 Hispellum 1, in Crawford *et al.* 2011, 109.

19 Exceptions are Umbria 3, a female name on a bronze frying pan. The inscription is dated to the last half of the first century BC, but is of unknown provenance (Crawford *et al.* 2011, 89–91), and Tuder 9 (see further p. 189).

20 Fulginae 1, in Crawford *et al.* 2011, 112.

21 Interamnia Nahars 1, in Crawford *et al.* 2011, 145.

22 Tadinum 1 and Tadinum 4, in Crawford *et al.* 2011, 95 and 98 respectively.

23 Asisium 1 and Asisium 4, in Crawford *et al.* 2011, 101 and 107 respectively.

24 Trebiae 1, in Crawford *et al.* 2011, 119.

25 Mevania 3–6, in Crawford *et al.* 2011, 124–128.

The Umbrian alphabet

At the time of the adoption of writing in Umbria, or at least at the time when the scribes of Umbrian began adapting a source alphabet for the writing down of their own tongue, the Etruscan alphabet had already been simplified, and all 'dead' letters had been removed from the alphabetic row. The inclusion in the Umbrian alphabet of the sign <**8**> for /f/ dates the time of adoption to the fifth century (Rocca 1996, 15; Stuart-Smith 2004, 100), meaning at a time *postdating* the exclusion of signs for voiced stops from the signary (Pandolfini & Prosdocimi 1990, 49, 51). A few signs were added to this script, although, as has already been pointed out, their use was not all that regular.

One such addition was the sign for the voiced dental, <◁>. As already mentioned, all of the Italic regional scripts have a sign for the voiced dental, and in a majority of alphabets this seems to go back to the sign *delta* in the Greek alphabet. In the Etruscan alphabet, the sign <◁> was the standard way of writing in /r/, from the mid-sixth century onwards (Pandolfini and Prosdocimi 1990, 51), and was adopted with this function into both the Oscan and the Umbrian alphabets. For this reason, in these scripts the Greek *delta* could not be used to mark the voiced dental; in Oscan, this led to the re-characterisation of *delta* as <Я>, possibly through the addition of a diacritical mark to the Greek letter *rho* (Adiego 2015, 17). The Umbrian letter <◁> for /d/ also seems to be a version of the Greek *delta*, where the 'body' of the sign has been lifted upwards, possibly through Etruscan influence (Rocca 1996, 12; Calderini 2011, 24). The sign <◁> is however attested for /d/ only in two very early inscriptions (see further ~~p. 186~~), and by the time of the writing of the Iguvine Tables intervocalic /d/, and also /d/ next to a consonant, had been spirantised to /ř/, and the sign <◁> had been re-characterised to mark this sound (Meiser 1986, 218–224). In corresponding sections of the tables written in the Latin alphabet the sound is reflected as <*rs*> or <*s*>:

> Ia 29 **testru-ku: peři: kapiře: peřum feit/u**
> 'At your right foot make a hole for the bowl' (translation by Poultney 1959, 162)

> VIb 24 *destru-co. persi. uestisia. et. pesondro. sorsom. fetu.*
> 'He shall offer at his right foot a libation and a pig-*persondro*' (translation by Poultney 1959, 262)

The sign <◁> is also found upside down, as <▷>, marking a palatalised /k/ (transcribed as <ç>); in the sections of the Iguvine Tables written in the Latin alphabet this corresponds to an <*s*> (Meiser 1986, 200–204), *e.g.* Va 9 **tribřiçu**, VIa 54 *tribrisine* 'triad' (Poultney 1959, 200, and 248).[26] This word also attests the sign <ᵷ> (<**b**>) for the voiced labial (see further section 3.2.1).

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26 Meaning uncertain but probably something to do with the number three, from **tri-plek-(i)yon* or **tri-plik-(i)yon* (Untermann 2002, 763–764).

There are no preserved Umbrian abecedaria, and it is thus impossible to know where these signs were located in the signary. The sign <**8**> for /f/ was most likely positioned at the end of the signary, as in the Etruscan *abecedarium* from Magliano, from the mid-sixth century BC (Pandolfini and Prosdocimi 1990, 48–51). The other added signs, <**b**> for /b/ and <**Ꝗ**> for /d/, might have been inserted in the beginning of the alphabet, in the positions of the Greek equivalents, similar to the Latin and Oscan abecedaria (cf. Rix 2005), whereas <**d**> might have been included at the end. It is, however, common practice among modern philologists to list the signs <**Ꝗ**> and <**d**> *after* <**8**> in schematic overviews of the Umbrian alphabet, *e.g.* Rocca (1996, 15), Wallace (2007, xiii). For an equally speculative version, with <**8**> /f/ after <**e**>, <**Ꝗ**> /ř/ after <**r**>, and <**d**> after <**S**>, see Poultney (1959, 25).

Apart from these added letters, there is also a certain level of regional variation within the Umbrian writing habitat in terms of the sign used to write voiceless velar /k/. The alphabet used in the northern Umbrian settlements Iguvium and Sestinum features the sign <**Ж**> (**k**) for the voiceless velar, probably influenced by the Etruscan alphabet in use at Perusia and Cortona (Maggiani 1982; Pandolfini and Prosdocimi 1990, 46–47), *e.g.*:

Sestinum 1 **vukes** 'grove', cf. T.Ig. Ib 1 **vuku-** '(to the) grove'
Iguvium 1 **ikuvins** 'Iguvine (nummus)'
T.Ig. **tuta-per ikuvina** (*passim*) 'for the Iguvine state'

Umbrian inscriptions from further down south, from Asisium, Plestia and Tuder, instead use <**Ɔ**> (**c**), from the southern Etruscan script, possibly that used at Volsinii (Wallace 2007, 7), *e.g.*:

Asisium 2 **estac** 'this'
Plestia 1–4 **sacru** 'sacred'

One can therefore imagine a dividing line within the Umbrian writing continuum, running from Perusia to Camerinum, with <**k**> used north of this line, <**c**> to the south. This was not necessarily too sharp a division, as seen in inscriptions from Mevania, geographically south of this imagined line, *e.g.* Mevania 7, with the form **kaltini** 'Caltinius', a family name inscribed on an incinerary urn from *c.* 125–100 BC (Crawford *et al.* 2011, 129), as opposed to the more or less contemporary building inscription Mevania 2, featuring the form **cvestur** 'quaestor', *c.* 100 BC (Crawford *et al.* 2011, 122–123). Given the different genres of the two inscriptions, it could suggest a difference between a personal way of writing and a more official orthography. The Caltinius family might originate from north of the Perusia-Camerinum line, and if so would probably prefer to maintain the 'original' spelling of their family name, particularly in a funerary setting.

There are no preserved certain instances of the writing of the voiced velar /g/ in any of the early Umbrian inscriptions. The only potential example is the

inscription on a bronze statuette from the second half of the second century BC, of unknown provenance but found at S. Vittore di Cingoli: Umbria 2 **cais paiz variens / iuve zalse iure** 'Gaius Varienus, son of Paetus, (dedicated this) to Jupiter *zalse iure*' (Crawford *et al.* 2011, 87–88). The praenomen *may* reflect the spelling of a voiced velar /g/, although this might equally well be the standard Roman writing of the name.

Umbrian spelling of voiced stops

There was thus some amount of modification to the first writing encountered by the Umbrians. The Etruscan alphabet was not adopted straight off, but certain signs were added to the signary in order to achieve an unambiguous writing of Umbrian. Of these additional signs two mark voiced stops, <b> for /b/, and <ꟼ> for /d/, although their use is not as regular as in other alphabets on the peninsula featuring equivalent signs.

The voiced labial

The most obvious spelling variation in the Umbrian alphabet is found with the sign for the voiced labial, <b>, in the Iguvine Tables. There are numerous examples where a voiced labial is written as either <b> or <p> in the Umbrian alphabet, but uniformly as <b> in the Latin alphabet, *e.g.*:

> Ia 2 **pre veres: treplanes: iuve: krapuvi: tre buf: fetu:**
> VIa 22 *pre. uerei. treblaneir. iuue. grabouei. buf. treif. fetu.*
> 'Before the Trebulan gate, sacrifice three oxen to Jupiter Grabovius' (translation by Poultney 1959, 158)

In this short sample, the geographical name **treplanes** – *treblaneir*,[27] and the name of the deity, **krapuvi** – *grabouei*,[28] show a variation in spelling where the text written in the Umbrian alphabet writes /b/ as <p>, whereas the Latin alphabet has <b> (the same holds for /g/, written <k> vs. <g>). At the same time, there is also the instance **buf** – *buf*,[29] with <b, *b*> in both versions of the text. There are also instances where one and the same word is spelt in different ways in the Umbrian alphabet, *e.g.* Ib 24 **apruf** (acc. pl.), but IIa.11 **abrunu** (acc. sg.), vs. VIIa.3 *abrof* (acc. pl.) 'boar'.[30]

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27 Uncertain etymology; this may originate from the PIE stem **treb-* 'to live', found in a number of Sabellian words, such as Osc. **tribarakavúm** 'to build', Osc. **trííbúm** 'house' (Untermann 2000, 762–763, and 765–766).

28 It has been suggested that Umbr. **krapuvi**/*grabouie* might be connected with Lat. *Gradivus*, although the two cannot be etymologically equated (see Poultney 1959, 240).

29 From the voiced labiovelar **gwous/*gwōs*, cf. Lat. *bōs, bovis* (de Vaan 2008, 74). Lat. *bos* is explained as an Italic loanword into Latin (Sihler 1995, 165).

30 From PIt. **apro-* < PIE **h1pr-o-*, 'boar', cf. Lat. *aper* (de Vaan 2008, 46).

The attested spelling variation only occurs in medial position in the word; a voiced labial in initial position in a word, is always written **<b>** in the Umbrian alphabet. Looking at the evidence for the spelling in medial syllable, there are some words that attest to the spelling with **<p>** only, such as **treplanes**, some that show **<b>** alone, such as **trebe** (although there is only one such instance), and some, the final examples mentioned above, that attest to variable spelling.

In explaining the attested variation in medial syllable, Poultney (1959, 26) and Meiser (1986, 283–284) both detect the influence of Etruscan writing habits in the Umbrian spelling. Following Meiser, the fact that Etruscan voiceless stops in medial position were pronounced with some amount of additional voicing, as seen in the Latin rendering of Etruscan words, *e.g.* Etr. **titi**, Lat. *tidi* CIE 819 (Clusium), and Etr. **papasa**, Lat. *pabassa* CIE 832 (Clusium), meant that Umbrian scribes were sometimes induced to write voiced stops in medial position using the sign for the voiceless equivalents. In a similar way, Poultney argues that the spelling of **<p>** for /b/ stems from the lack, in the Umbrian alphabet, of stops for /d/ and /g/, a remnant of the nature of the Etruscan alphabet. Both of these explanations are, however, lacking in the sense that they do not explain the variation actually attested; some words attested with only one spelling, **<b>** or **<p>**, and some with variable spelling, either **<b>** or **<p>**.

A different explanation would be to consider etymological origin and the phonological context of all instances in of a voiced labial in Umbrian word. It then appears that variable spelling of the voiced labial occurs in words in which the voiced labial is the result of some kind of process of sound change, which may have caused an ambiguity in terms of spelling. This was the case with **apruf** vs. **abrunu**, displaying the sonorisation of an original cluster *-pr- (see Meiser 1986, 283), but it may also have been the case with the labialisation of the voiced labiovelar *-gʷ- in medial position, as in Ia 24 **hapinaf** (acc. pl.) but Ia 27 **habina** vs. VIb 22–24 *habina* (acc. pl.) 'lamb' < *agwīno- (Untermann 2000, 314). In addition, the majority of instances in which the sound represented as a voiced labial *<b>* in the Latin alphabet is written **<p>** in the Umbrian alphabet can be explained as due to coarticulation with low vowel /o/ (see *e.g.* Pape *et al.* 2003). Note that this would not be the case of an actual sound change, but rather the consequence of a less exact writing system, in combination with a lesser level of standardisation of the language through official (or semi-official) writing schools.

Remaining Umbrian inscriptions do not at all attest to the same level of variable spelling of the voiced labial as that found in the Iguvine Tables. Apart from one potentially early example, Ameria 1, in which the sign **<b>** is completely reconstructed,[31] there is only one other instance attesting the letter in question, Tuder 9 **vibie** 'Of Vibius', a proprietary text on a black slip plate, *c.* 200–100 BC (Crawford *et al.* 2011, 142–143). The same name is rendered with the voiced labial

31 Side A, line 3 **be]tv(e)dis**, Side B, line 4 **b]etvedis**, reconstructed based on the name *Bettuedia* in CIL XI 4447 (Vetter 1953, 165; Roncalli 1996); see further p. 188.

reflected as its voiceless equivalent, <**p**>, in one mid-third century BC limestone block, Asisium 2, which documents the erection of a stone gate, in which the same name is preserved as **vipies** (Crawford *et al.* 2011, 103–104).[32] Names built to the stem *Vib-* were, however, common in both Etruscan and Latin sources, *e.g.* the Etruscan hero Avile Vipiiennas, known to the Romans as Aulus Vibenna (see Pallottino 1939, 455–457; Heurgon 1966; Thomson de Grummond 2006, 177). For this reason, the spelling Tuder 9 **vibie** and Asisium 2 **vipie** cannot be taken to reflect authentic spelling practices within the Umbrian speech community as differing between north and south, since both spellings, the Etruscan version and the Latinate one, would have been known to scribes as well as potential readers.

The only other of a voiced labial reflected as <**p**> is Tadinum 2, a fragmentary inscription on a limestone block, dated to before *c.* 300 BC (Crawford *et al.* 2011, 96–97). The only preserved word in the second line in the two-line inscription, the form **eitupes** *may* reflect a voiced labial, if the etymologisation **eit-hab-e(n)s* 'they have decreed' (3. pl. perf.) is correct; this would be from a parallell root to two undeciphered forms found in the Iguvine Tables, Va 2, 14 **eitipes**, explained as from < **eit-hēp-* (Untermann 2002, 210–211), or perhaps **-hap-* (Crawford *et al.* 2011, 97); ultimately this would be from a stem **ghab-* (Untermann 2002, 311–314). If so, the pair **eitupes** – **eitipes** might be similar to the pair **prehubia** – **prehabia** 'prepare' (3 sg. pres. subj.); see Crawford *et al.* (2011, 97), though note that Untermann (2002, 311) considers *prehubia* a scribal mistake.

The single example makes it difficult to arrive at any kind of certain solution regarding the spelling; the Tadinum reflection of a stem 'to have' is the only instances in Umbrian displaying a <**p**>, whereas *all* other instances of the same stem < **ghab-ē-* 'have' in the Iguvine Tables are written using <**b**>, *e.g.* Ib 18 **svepis: habe:** 'if anyone is caught', Va 17 **muneklu: habia:** 'he shall receive a donation' (translation by Poultney 1959, 164 and 222).[33]

The voiced dental

As mentioned on p. 186, the Umbrian alphabet did feature a sign <ꟼ>, which was initially used for the voiced dental /d/. There are however only two early inscriptions in which this sign marks this sound, from *c.* 400 and *c.* 300 BC:

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32 The same spelling, potentially referring to the same individual, may be preserved in a MS of a now lost inscription, Asisium 3. The name was previously read as **vibies**, *e.g.* Um 5, in Rix (2002, 62), corrected (without comment) by Crawford *et al.* (2011, 105–106).

33 Forms from the parallel root **ghab-ye-i* or **ghap-ye-* 'hold', show a different surface spelling (Untermann 2002, 316), *e.g.* Ib 11 **krenkatrum: hatu:** 'take a stole', Ib 42 **hutra: furu sehmeniar: hatutu:** 'below the Forum of Semonia they shall catch them' (translations by Poultney 1959, 164 and 168). For a summary analysis of forms reflecting the concept 'to have' and 'to hold' in the various Italic languages, see de Vaan 2008, 277–278.

Tuder 2 **ahal trutitis dunum dede** 'Ahal Truitis gave this as a gift'[34]
Ameria 1, side A, l. 1 [-?-e˙] **duvi(e)˙ dun(u)˙ dr**[-?] / side B, l. 1 [-?-]e˙ **duvie˙ dunu˙ d**[**r**-?]
'... (they) gave as a gift (?) to Jupiter ...'[35]

This spelling has been accounted for in two different ways. On the one hand, Meiser (1986, 219–220) explains the spelling in these inscriptions as examples of 'historisierende' orthography, meaning the conscious use of the sign <Ꝺ> in an older, out-dated function, representing an original spelling practice previous to the spirantisation of /d/ > /ř/ (see also Stuart-Smith 2008, 100). On the other hand, Rocca (1996, 32) and Untermann (2002, 176) both interpret these inscriptions as reflecting an earlier spelling, *antedating* the sound change in question.

Both Tuder 2 and Ameria 1 are among the oldest preserved Umbrian texts. Both are also votive inscriptions, and feature the phrase **dunu(m) dede** 'gave (as) a gift'. The formula **dŏnom *dō-* is attested in several other Italic languages, in Latin, Oscan, Volscian, and Venetic, and appears to have formed part of a shared Italic vocabulary of dedications and votive inscriptions (Euler 1982). Following Meiser and Stuart-Smith, the use of the formula itself, in the particular context of votive inscriptions, may have been the basis for an archaising spelling, since mere formulaic habit would have prevented any other spelling than that used in the other Italic languages; in short, a scribe would not be prone to write the phrase following the ordinary spelling practices of his own time, according to which /d/ was written <t>, thus ****tunu(m) **tete**.

However, this cannot be the only reason, since the sign <Ꝺ> is understood to mark /d/ also in one of the names in the list in Ameria 1, **be]tv(e)dis/b]etvedis** (see note 35). In addition, in the Iguvine Tables there are a few attestations of the imperative of the verb 'to give', all spelt with <t> for /d/: **titu** (Ia 33), **tetu** (IIa 9, 21), vs. *ditu* (VIb 10, 16, 25).[36] The spelling is thus not necessarily limited to a formulaic phrase alone.

In deciphering this, one needs to have a closer look at Ameria 1. The last word in the first line on side A of Ameria 1, is <ꝺꝺ>, *i.e.* <**dr**> (sinistroverse writing; side B probably contains the same form, although this is too fragmentary).[37] This is understood to represent the third person plural perfect form of the verb 'to give', *i.e.* '[these people] gave', and Rocca (1996, 37) suggests an alternative verb ending, **dedr(o)t*, parallel to

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34 On a bronze votive statue of Etruscan manufacture, *c.* 400 BC. Note that the rendering of the name is not perfectly clear (Crawford *et al.* 2011, 132–133).

35 Bronze plate inscribed on both sides, with a list featuring at least five more names, the list is repeated on both sides, although the names come in somewhat different order; *c.* 300 BC. The inscription is broken at both ends and is therefore difficult to interpret (Crawford *et al.* 2011, 148–150).

36 <**di-də3-e-tōd.* According to Untermann (2002, 177), alternative spellings **teřtu** (IIa 40), **tertu** (IV 28) and *dirstu* (VIb 17, 38, 39, VIIa 5) show that /-ř-/ was reinserted, by analogical leveling with forms with expected spirantisation of intervocalic/d/, *e.g.* Ib 34–36 **teřa**, Vb 13 *dirsa* 'he may give' (3. sg. pres. subj.).

37 Rocca (1996, 31), rather inexplicably, transcribes the abbreviation as **dun. dd.**

fecront in ILLRP 303 (*cf.* Vetter 1953, 165). This verbal ending, although paralleled by other dialectal inscriptions, is not attested in any other Umbrian inscription.

Some light can be shed on this form through another fragmentary inscription, Tadinum 2, contemporary with Ameria 1; the first word on this limestone block is <ᗡ𐤌Iᗡ∀†> (sinistroverse writing), which supposedly stands for **tarina[ter -?-]** 'the Tadinates'. This imposes some difficulties, since, as Crawford *et al.* (2011, 97) point out, 'one would expect the /ř/'; at least this is how the same word is spelt in the Iguvine Tables, *cf.* Ib 16. **tuta tařinate** 'the Tadinate state'.[38]

The solution to this problem must be see a different sound value to the sign <ᗡ> in both of these inscriptions, a different sound than the value /r/, the 'regular' function of the sign in all other Umbrian inscriptions. Could this be a middle stage in an orthographic reform, in the process whereby <ᗡ> for /d/ came to mark /ř/? If so, the explanation will run as follows.

By the time of the earliest attested Umbrian inscriptions, the sonorisation of intervocalic /d/ to /ř/ had not yet begun. In Tuder 2, *c.* 400 BC, the spelling is still unambiguous, and <ᗡ> is used for /d/, in both initial and medial position. About a century later, at the time of writing of Ameria 1 and Tadinum 2, the sound change *has* taken place, although there has not yet been any proper correction to the orthography to mirror this change; <ᗡ> is still used to mark /d/, as in initial position in the form <**dr**> in Ameria 1, but the second sound in the abbreviated verbal form **d(e)de-* is instead written <ᗡ> (/r/). The sound change of intervocalic /d/ would have had as a result that the two dental stops were no longer identical in Umbrian, which affected the spelling, whereby <ᗡ> (/r/) would have been perceived of as a more proximate representation of /ř/, than <ᗡ> (/d/). (In names the previous spelling would have been maintained somewhat longer, thus **be]tv(e)dis/b]etvedis**).

Nevertheless, this new spelling also proved ambiguous, and as an ultimate resort the letter that was originally used to write /d/ became re-characterised to mark /ř/. By the time of the writing of the Iguvine Tables, both the sound change and the orthographic reform had been completed, and the writing <ᗡ> (/ř/) was unambiguous, and with no exceptions; as a consequence, <t> had come to write both /d/ and /t/.

This means positioning three stages in the orthographic reform concerning the spirantisation of /d/:

1. /dede-/ <-ƎᐱᗡƎ> = original spelling, with <ᗡ> for /d/ (as in Tuder 2, *c.* 400)
2. /deře-/ <-Ǝᖆᐱᗡ> = sound change completed, and the first step in the spelling reform; <ᗡ> is still used for /d/, and <ᗡ> is used to write /ř/ (as in Ameria 1 and Tadinum 2, c.300)
3. /deře-/ <-Ǝᗡᐱ†> = spelling reform completed; <ᗡ> stands for /ř/, and <†> (<t> for both /d/ and /t/)

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38 Supposedly modern Gualdo Tadino, about 20 km southeast of Gubbio (Poultney 1959, 274).

The attestation of step 2 in Ameria, in the south, and Tadinum, nearby Iguvium, suggests some form of shared spelling praxis among the Umbrian communities, although the precise nature of this, such as the source or spread, remains difficult to determine.

At the same time, considering the spelling in Tadinum 2 as part of an orthographic reform attested in different locations also means that one does not need to assume that the Tadinates used a different alphabet than that in use at nearby Iguvium, one that lacked the sign for <ꟼ> (and <**b**>) (thus Crawford *et al.* 2011, 97).

In all later inscriptions, the sign <ꟼ> can be assumed to reflect the spirantised sound, including in names, *e.g.* Mevania 8 **vi(pis): ia(?): peřunia[n(?)]** 'Vi. Pedonia[n(us)], son of Ia(ntus)'.[39]

The only exception to this writing are bronze coins from Tuder, Tuder 1 Coinage **tutere** 'from Tuder'. These coins are inscribed in the Umbrian alphabet, and are dated to the third century BC (Rocca 1996, 128). The spelling reflects an un-spirantised intervocalic /d/, unaffected by the sound change, apparently similar to the spelling of the word *tuder*[40] – 'boundary' in the later Iguvine Tables, where Meiser (1986, 227–228, 230) detects a backformation of intervocalic /d/ in the tontext of an /r/.[41]

The matter of voice in Umbrian

Among the oldest sources regarding the Umbrian people are two often quoted passages from Dionysius of Halicarnassus (1, 19, 1) and Pliny (*NH* 3, 112–13), who speak of the Umbrians as being among the oldest aboriginal tribes in Italy, a 'great and ancient people'. Although both Roman and Greek historians were apparently fascinated by the old legends pertaining to this people, in the historic period the Umbrians did not constitute any large political body, and the communities within the Umbrian territories appear more akin to the Etruscan model of city-states than to the wider ethnic organisations of the central Apennine 'tribes' (Bradley 2000, 11). At the same time, it is very difficult to argue any obvious differentiation between the different Umbrian communities in terms of literacy and spelling practices, due to the very limited material there is.

At a very shallow level, the Perusia-Camerinum line mentioned on p. 187, in relation to the writing of /k/, seems to hold also when it comes to the general spelling of voice. The single inscription attesting to the use of <**b**> for /b/, Tuder 9 **vibie**, comes from south of the line, and inscriptions featuring the same name written with the sign for the voiceless labial, *i.e.* **vipies**, come from north of this line. However, as argued

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39 On the sandstone cover for a cinerary urn, is dated to *c.* 125–100 BC (Crawford *et al.* 2011, 130).

40 Etymology uncertain, see Untermann 2000, 771–772.

41 Bradley (2000, 292) mentions an inscription on a bronze votive statuette from Montesanto (Tuder), only known from a manuscript, -**]intuttere[**-. This is not included in the catalogue by Crawford *et al.* (2011).

on pp. 189–190, the frequency of the name itself, in both Etruscan and Latin sources, makes this spelling very ambiguous and no argument can be deduced from this.

The attestations of the voiced dental also superficially seem to divide within the Umbrian speech community, since the two inscriptions attesting to the use of <ᒑ> for /d/ (depending on interpretation) come from south of the Perusia-Camerinum line, whereas inscriptions that have <ᒑ> for /ř/ come from the north, the only exception being Mevania 8. These attestations are however from different time periods, the inscriptions with <ᒑ> for /d/ being older than those with <ᒑ> for /ř/. As argued on p. 192, the former spelling can be interpreted to reflect an original, authentic use of the sign <ᒑ>, whereas the latter reflect the altered spelling, while Ameria 1 and Tadinum 2 can be taken to display a potential mid-stage in this process.

Attempting, then, to form a coherent notion of the matter of voice in the writing of the Umbrian language, the primary factor to keep in mind is that it is impossible to force the treatment of these sounds into a coherent group. These sounds were evidently not perceived of as a 'set' of sounds, corresponding in their phonological and/or phonetic set-up, but they were treated as individual phonetic elements in the language, of which some were distinguished in writing, some not.

One very simple explanation for these orthographic reforms, meaning the introduction of new letters into an alphabet, would be that scribes might have considered a written text ambiguous in terms of decipherment. The question is: When does the potential level of written ambiguity cause the scribe to require, or invent, a different sign to distinguish a sound for which there is no separate letter in the alphabet? In the preserved Umbrian material, this kind of stress surfaces as the result of sound change in relation to the spirantisation of /d/, and the attempts to write the 'new' sound without disrupting the functions of the alphabetic signs, before the spelling reform in the shape of a re-characterisation of an existing letter. There is no similar internal evidence for the stage before this, meaning the reason for the initial introduction or creation of a sign for /b/ and /d/ to begin with, although the reason for /d/ can be at least hypothetically explained through morphology. In his brief discussion of the origin of the Faliscan alphabet, Bakkum (2009, 378) suggests that one reason that there was never any sign for /b/ in this signary was that the sound in question was the least frequent in the language. He also suggests that the differentiation between /b/ vs. /p/ was not morphologically relevant, as was the case with /d/ vs. /t/, in the primary and secondary endings of the third person singular. The opposition /d/ vs. /t/ in the endings of the third person singular, *-*ti* > -**t** and *-*t* > -**d** (Sihler 1995, 453–454), was a shared Proto-Indo-European feature in all Italic languages, and all of them, in the early stages of the standardisation of a local alphabet, introduced a sign to mark /d/. In Umbrian, final consonants were weakened and lost around the end of the fifth or beginning of the fourth century (Meiser 1986, 274; Tikkanen 2011, 24–25). This must have meant that the morphologically relevant opposition between *-d* and *-t* in the third person singular was weakened as well, and since there was thus no longer any 'stress' involved with writing <**t**> for both

/d/ and /t/, the sign <ᕴ> could, as the final step in an orthographical reform, be re-characterised to mark /ř/.

There are no attestations of the sign <**b**> in Umbrian inscriptions until the irregular use in the Iguvine Tables, in the mid-third century BC, and only sporadic occurrences from the later period, and nothing can thus be said for certain regarding the time of the introduction of the sign. There is some evidence that the sign <**b**> might have been in used in the writing of Etruscan somewhat longer in the Tiber Valley region than in other parts of Etruria; there is one inscription from Perugia preserving the word *abat* (Pandolfini and Prosdocimi 1990, 47), that might attest to an archaising continuation of the Greek alphabetic row, *alpha, beta ...* If this does indeed preserve a marginal carrying on of the second letter of the alphabet, the irregular use of the sign in later Umbrian inscriptions might symbolise an imperfect learning on behalf of Umbrian scribes, if taught by Etruscan teachers. This is the gist in the explanation offered by Meiser (1984, 283–284), although this requires a gap of several centuries between the last Etruscan attestation of the letter and the onset of the Umbrian period of writing. It therefore seems relevant to consider a different source of the spelling uncertainty than mere Etruscan influence, for example seeing the writing of <**b**> for /b/ in Umbrian as the default writing, unless there was ambiguity in terms of spelling due to, for example, sound change (pp. 188–189).

By the time the Latin alphabet became adopted for the writing of Umbrian, this signary included a complete set of signs for all three voiced stops /b, d, g/, which meant that the object of distinguishing the voiced sounds became more standardised. At this point in time, and with the new instrument for the codification of their own language, Umbrian scribes flawlessly insert signs for *all* voiced stops, in all expected positions.

Summary

Umbrian will very likely remain an enigma to many Umbrologists to come, since, in the words of Weiss (2010, 443): 'It is in the nature of the game that there can be no final interpretation of the *Tabulae Iguvinae*.' All the same, when it comes to the spelling of Umbrian, it is still possible to arrive at a plausible explanation for the spread and use of writing, and the function of orthographic reforms within the writing habitat. The letter <ᕴ> for /d/ was an Umbrian invention, probably inspired by an Etruscan or Greek letter, but its shape is not mirrored by any other alphabet on the peninsula; the function of the sign also changed over time due to Umbrian internal sound changes, with the result that /d/, from the mid-third century onwards, was written with the sign for the voiceless equivalent. The sign <**b**> was also added to the Umbrian alphabet, but was very irregularly used.

Umbrian inscriptions are few and far apart, and there is usually only one or two from each community in which writing is attested. This, in combination with the type of inscriptions that have been preserved, gives the impression that literacy

remained fairly limited to a small class of educated scribes.[42] It is also evident that the period during which the Umbrians wrote down their language using their own, 'native' Umbrian alphabet was not all that long, meaning that there might not have been the time needed to reach a proper standardisation of the orthography of the Umbrian alphabet; some letters were added; at least one sign received an altered function due to sound change; but the matter of voice was not morphologically relevant, and could, for the most part, be ignored in writing, without causing written ambiguity.

In connection with the closer contacts with Rome from the third century onwards, and the advent of the Latin alphabet to Umbria, the Umbrians would have become familiar with the Roman schooling system, favouring the introduction of orthographical principles similar to those used in the writing of Latin.

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42 Though see Cornell's 1991 critique against drawing too far-reaching conclusions on the function and use of writing, based on only very meagre inscriptional corpora.

Chapter 11

Writings in network? The case of Palaeohispanic scripts

Coline Ruiz Darasse[1]

What are referred to as the 'Palaeohispanic' Iron Age writings found in the Iberian Peninsula are not alphabetic but have a mixed structure of alphabet and syllabary. In fact, four of the five Palaeohispanic scripts identified are semi-syllabic: some signs, as in an alphabet, stand for the five vowels and others for the three (or four) nasals, one lateral, two rhotics and two sibilants. But, when it comes to stops, the signs are syllabic, standing for open syllables, *i.e.* for combinations of stops and vowels. There is not yet any totally clear explanation for the origin of the syllabism of the Palaeohispanic writings (de Hoz 2010, 505–507); these are a special case in the history of writing and their origins are still an open question.

The chronological evidence for these inscriptions runs from the late sixth century BC to Roman times. Over that period, the populations of the Iberian Peninsula were in contact with various peoples, both Semitic-speaking (such as the Phoenicians from the eighth century BC) and Indo-European-speaking (such as the Greeks since the sixth century BC and Romans with the Punic Wars and the Roman conquest of the Peninsula).

Therefore, it is most probably through contacts with both consonantal alphabets (*abjads*) and regular alphabets that the local populations borrowed and developed their own semi-syllabic forms of writing. They make up a complex and original set of inscriptions that must be considered as a network if we are to understand and reveal their origins. This article is intended to be a state of the art of the origins of the Palaeohispanic scripts: which alphabets or graphic systems are they related to? What are the oldest attestations? My remarks will focus on the scripts and not

the languages. I would like to briefly describe each writing system and explain how experts think they originated, so as to highlight some discordances in this complex orchestration. This presentation mainly follows Javier de Hoz's work (de Hoz 2010, 2011) but also mentions other scholars. For a recent extended presentation, see Ferrer and Moncunill (2019)[2].

Presentation of the various Palaeohispanic scripts

Five separate writing systems are attested in the Peninsula for the Iron Age. In the south-western part of the Peninsula, the Algarve in modern Portugal, a group of nearly 100 stelae presents what is currently considered to be the oldest evidence of writing in the Peninsula (de Hoz 2010, 371 ff.). But these documents have not yet been precisely dated because none of the stones was found in its primary archaeological context (*ibid.*, 359). Nevertheless, their aspect, their shape and the absence of uniformity in the writing, together with the circumstances in which they were found, all suggest an archaic practice, dating from around the sixth or the fifth centuries BC. A group of 26 or 27 signs is very frequently used (Rodríguez Ramos 2004, 93–94, figs 1 and 2; Ferrer and Moncunill 2019, table 4.1), but there is wide variability among the signs (up to 52 different forms), which are quite often hapaxes (de Hoz 2010, 372; Valério 2016, 117). Most of the inscriptions are written spirally and are to be read from right-to-left. The experts have established that this writing, on stone, uses certain signs redundantly: each syllabic sign is followed by a sign for the vowel although it is already present in the syllabic sign[3]. This characteristic was first pointed out by Ulrich Schmoll in 1961 and further studied by José Antonio Correa in 1985. Some recent discoveries explain the specific use of this redundancy in the south-western script. In Medellín (50 km east of Mérida in Extremadura), graffiti written on ceramics in the necropolis (dated from the seventh–sixth centuries BC) are to be read in the same direction as the south-western script and without the redundant feature. And yet, in this same necropolis, a stele (most probably of the third part of the seventh century BC) is written with the south-western script and redundant writing (Almagro 2004), just like the group from Portugal. This means that the same writing was used in the same place at the same time but in two different ways. While the regular/semi-syllabic script was in common use on everyday material (like ceramics), the redundant feature was preferred for special writing (and on stone) maybe to give it a more 'ceremonial' appearance (de Hoz 2010, 367). Likewise, it can be proposed that the redundancy of the writing on stone on the stelae of the Algarve may have been for stylistic effect only (*ibid.*, 517) – unless it was a local (and perhaps later) development (Valério 2016, 143).

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2 I would like to thank Joan Ferrer and Noemí Moncunill for allowing me to read their forthcoming papers before their publication.

3 For instance, the transcription of the first line of the Bensafrim stele (MLH IV, J.1.1) reads as follows: **lok^{o}ob^{o}oniirab^{o}ot$\underline{^o}$oaŕaiaik^{a}alt^{e}elok^{o}o**, where the exponent letter corresponds to the syllable and is systematically followed by a vowel of the same timbre.

It is not yet clearly established what the language noted by the southwestern script is, which obviously does not help when it comes to deciphering it. John Koch's proposal to read some Celtic language in the texts of the southwestern stelae (Koch 2009), based mostly on anthroponomy, has not been followed. Although some progress has been made, there is no grammatical analysis of these texts that can provide for comparison with Celtic languages and this hypothesis does not seem to be very helpful to our understanding of the rest of the inscriptions (Ferrer 2016, 40 note 3).

A second form of writing attested is called the south-eastern (or meridional) script, which has 26 signs (Rodríguez Ramos 2004, 99, figs 7 and 8; Ferrer and Moncunill 2019, table 4.1), and clearly seems to be related to the south-western form: they share many signs in common and both are written from right-to-left. Even if the written languages are different, we have to assume that, at some point, the south-western writers interacted closely with the meridional ones (de Hoz 2010, 422 and 519). The south-western and south-eastern scripts have not been completely deciphered; many of the signs are still to be understood and the phonetic value of each sign is still open to debate. Indeed, for other Palaeohispanic writings (north-eastern and Celtiberian), coins with inscriptions in both Latin and Palaeohispanic scripts (Delgado 1871; Vives 1924–1926; Gómez Moreno 1943, 263) or some of the rare Iberian texts written in the Greek alphabet (Gómez Moreno 1922) have helped in deciphering them. For the south-eastern script, experts ascribe values to the signs on the basis that similar ones were used to write the Iberian language, even if, according to Javier de Hoz, south-eastern writing may not have been created especially for this language (de Hoz 2010, 521). We do not know for sure the date of birth of this script (*ibid.*, 423): evidence of it is scarce (only 88 inscriptions are known) and the earliest inscriptions can be dated to the fifth century BC (MLH III, H.8.1 [Córdoba] according to de Hoz (2010, 368), on common ceramic but out of context; MLH III, G.7.1 Corral de Saus [but the dating is based upon the remains of the statues in the necropolis and the inscription could have been written afterwards] and MLH III, G.7.2 lead sheet from La Bastida de les Alcusses [*terminus ante quem*: first half of the fourth century BC]).

We have to mention the existence, in the area around Alicante, of fewer than 40 inscriptions in the Ionian alphabet, possibly from Samos (according to de Hoz 2010, 382). This use of a Greek alphabet to write an Iberian language gave birth to the so-called Graeco-Iberian writing, only attested in the fourth century BC in this very region. This unique situation helped Don Manuel Gómez Moreno, the scholar who deciphered the Paleohispanic scripts in the 1920s, because for the first time a text could be read in Iberian (Gómez Moreno 1922). Slight adaptations were made from the Greek alphabet to match the different values of the Iberian language: for example the addition of a stroke on the *rho* and the use of a *sampi* beside the *sigma* for the sibilants (de Hoz 1985–1986, 291). It is read from left-to-right. Why was this writing used only in this area and never on any other part of the Spanish coast (although

there were Greek settlements elsewhere as at Ampurias or Rosas in Catalonia)? This cannot yet be explained.[4]

The most widespread writing in the Iberian Peninsula is the north-eastern script. Epigraphic evidence for it extends from the region of Murcia to southern Gaul and up to 2000 inscriptions have been identified, mostly on ceramics. The attestation zone is so large that the hypothesis of a vehicular language, noted by this writing, has been proposed (de Hoz 2011, 445; *contra*: Ferrer 2013): it would be used as a means of communication between different Iberian populations. The earliest examples appeared in the fifth century BC with property marks on Attic vases found in Mas Castellar de Pontos, Ullastret (Spain) and Ensérune (France). The north-eastern script is to be read from left-to-right (in the opposite direction to the south-eastern script). It has 28 signs (Rodríguez Ramos 2004, figs 15–34; Ferrer and Moncunill 2019, table 4.1) some of which are similar to the south-eastern ones (comparison in de Hoz 2011, 422–423). This may indicate either a connection between the two scripts or even a common origin (Ferrer 2017a).

Later, around the third century BC, what was most probably the north-eastern script was borrowed by the Celtic populations of the centre of the Peninsula, known as the Celtiberians, and this semi-syllabary adapted to their Celtic language, giving rise to the western and eastern Celtiberian scripts (Ferrer 2005, 975).

In broad outline, the spread of writing across the Iberian Peninsula can be simplified like this: (1) south-western, (2) south-eastern, (3) north-eastern script (with the parenthesis of the Graeco-Iberian script) and finally (4) Celtiberian writings. Of course, we have to mention the sporadic occurrences of Greek and Phoenician alphabets (Zamora 2005, esp. 170 ff.; de Hoz 2014) and the growing presence of the Latin alphabet from the third century BC and that became predominant in the first century BC. In a word, this is roughly Javier de Hoz's theory, which now meets with almost general approval although other proposals have been made recently (Ferrer 2017a for a complete overview).

The question of origins is then to be asked for what is currently thought to be the oldest forms of writing, the south-western and south-eastern scripts.

The origins of the southern scripts

Experts have long agreed that the Palaeohispanic scripts took inspiration from models known outside the Peninsula. Many provenances have been proposed[5] but in the early

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4 In February 2018, a new Graeco-Iberian lead sheet was found at La Illeta dels Banyets, a site from which most of the Graeco-Iberian inscriptions originate. Its study will undoubtedly contribute to the knowledge of this so specific writing.

5 Such as 'Minoan' for Gómez Moreno 1943, 256 – mainly because it had not been deciphered at the time; John T. Koch proposed a mixed origin between alphabetical and Phoenician components on the one hand and syllabic and Cypriot elements on the other (Koch 2014, 46–47).

1980s Javier de Hoz clearly put forward the Phoenician hypothesis for the origin of Palaeohispanic writings (de Hoz 1983, 1991, 1996, 2010, 488–527).

This hypothesis is consistent with the historical situation, *i.e.* with the implantation of Phoenician trading posts all along the southern Mediterranean coastline of the peninsula, as at Malaka (present-day Málaga), Sexi (present-day Almuñecar) and Gadir (now Cádiz). The first use of a Palaeohispanic script is to be linked to the need to control goods (de Hoz 2010, 281): indeed the oldest graffito known in Palaeohispanic script was found in Huelva (dating from 650–600 BC) clearly showing an <i> (Fernández Jurado and Correa 1988, fig. 2.1). This sign is common to all Palaeohispanic scripts but is not found in the Phoenician or Greek alphabets. It therefore indicates a local form of writing. It has to be understood in a context of growing interactions between local people and incomers (de Hoz 2010, 364; Valério 2016, 141), most probably as an adaptation of a Phoenician *yod*.

Indeed the hypothesis of the Phoenician origin of Palaeohispanic scripts is also consistent with the comparison between the different signs of the Phoenician alphabet and the many signs in the southwestern and meridional style of writing (de Hoz 2010, 623; Ferrer 2017a, 63, fig. 3, who also compares it with the north-eastern script). Seven of about 28 signs were borrowed without changes; nine were partially reinterpreted (Fig. 11.1) and five others were given a new and arbitrary value (de Hoz 1991, 673, 2010, 624).

Obviously we cannot hope to explain with precision each borrowing or creation of a sign (Valerio 2016, 131). A detailed presentation of the different possibilities for each sign has been proposed by Jesus Rodríguez Ramos (2004), Javier de Hoz (2010, 374–385) and Ferrer (2017, 88–89).

Nevertheless, an inscription on a stone slab from Espanca (MLH IV, J.25.1) has to be mentioned at this point. Found in 1987 out of context, its dating is done thanks to the ceramics found around it, dating back to at least the fifth century BC. On it, two parallel lines of 27 signs seem to represent a writing exercise (Correa 1993). The first line, firmly incised, must have been written by a 'teacher'; and the second more hesitant one by a 'pupil's' hand. The inscription can be divided in two parts (Fig. 11.2).

- The first part matches the arrangement of the Phoenician alphabet: thirteen signs all taken from the Phoenician *abjad* and in the same order, which also means there are many missing signs (de Hoz 1996, 175). The signs in this group were most probably taken because they were pronounced in much the same way in Phoenician and in the receiving system (de Hoz 1996, 188).
- The second part gathers adaptations from the Phoenician alphabet with no phonetic logic, plus some inventions required to complete the system. We cannot be more precise about this system because we cannot ascertain the logic of the composition of this group and, as it is merely a writing exercise without any other inscription associated, we cannot tell which Palaeohispanic language it matches exactly.

Phoenician				Hispanic	
1.	ʾ	Ａ		a	Ａ ٩
2.	b	५		pe	૭
3.	g	∧		ka	∧
4.	d	△		tu	△
5.	h	∄		?	⋿
6.	w	Ｙ		u	Ⴌ
7.	z	Ｉ		o	‡
8.	ḥ	Ħ		te?	Ħ
9.	ṭ	⊕		ti	Ⓓ
10.	y	⟨		i	⑭
11.	k	⩗		ke	⤨
12.	l	Ⳑ		l	↑
13.	m	६		pa	६
14.	n	Ꭹ		n	⋈
15.	s	‡		s	‡
16.	ʿ	○		e	○
17.	p	⟩		bi?	⟩
18.	ṣ	⋀		ś	Ｍ

Figure 11.1. Comparison between the Phoenician abjad and the south-western (and south-eastern) Palaeohispanic writings (based on De Hoz 2010, 637, table 3.1).

	Phoenician			Hispanic	
19.	q	Ϙ		ki	Ϙ
20.	r	⟨r-sign⟩		r	Ρ
21.	š	⟨W-sign⟩		ś	⋀
22.	t	✕		ta	✕
23.				pi	↑
24.				ko	⋈
25.				bo	⋈
26.				bu?	▯
27.				ki?	∫
28.				ti?	Ψ

Figure 11.1 (Continued)

Obviously, this plaque provides a powerful argument for a Phoenician origin of a Palaeohispanic script but Espanca could have undergone also of a Greek influence. Indeed, as in the Greek alphabet, the first sign of the second group of the Espanca plaque, right after the *taw* sign, is a *waw* used for <u> (de Hoz 2010, 493). Then, because of the well-known connections between the Phoenician and Greek alphabets, a Greek origin for the Palaeohispanic southwestern script has been defended by Jürgen Untermann (for instance in Untermann 1990, 136) or José Antonio Correa (Correa 1993). Their demonstrations were based on the fact that some signs in Palaeohispanic scripts could be either Phoenician or Greek, but some could only be of Greek origin (namely the **l**, **n**, **ś** and **ke**) (de Hoz 2010, 496).

Indeed, the idea that the origin or the most important influence in the creation of Palaeohispanic scripts was Phoenician does not contradict the possibility of some influence from the Greek alphabet (de Hoz 2010, 488). But, in my opinion, the hypothesis of a Phoenician origin is almost certain (see also Correa 2005 and Ferrer 2017a, 62) and should prevail over a Greek one:
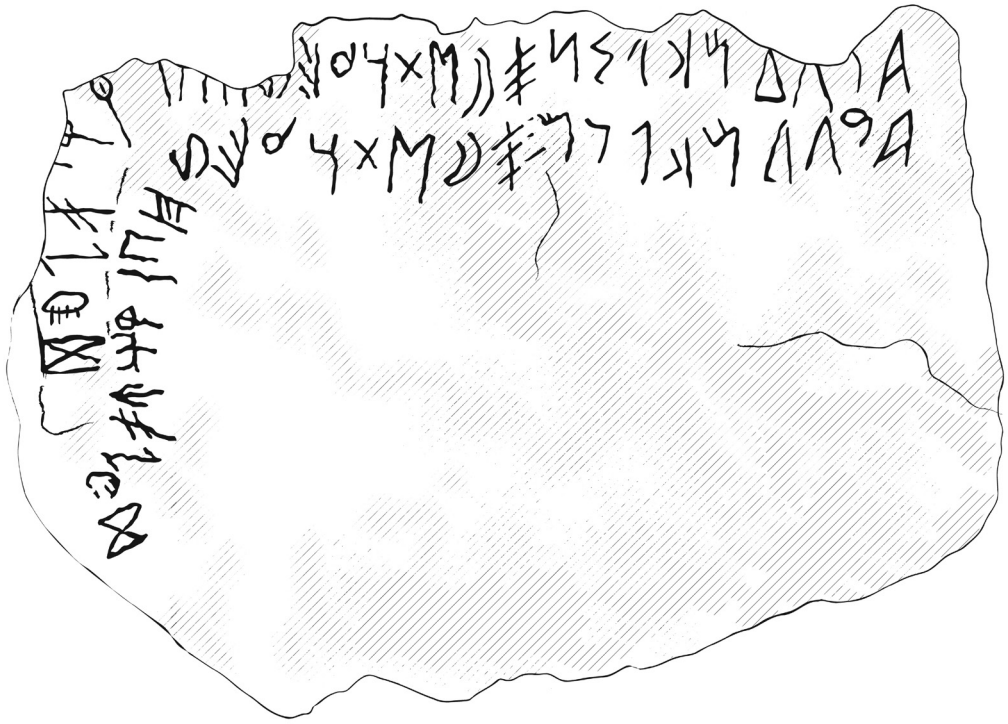
Figure 11.2. Stone slab from Espanca (Sete, Castro Verde, MLH J.25.1). Drawing: P. J. Boyes, based on De Hoz 2010, 637, fig. 3.1.

- because of the earlier evidence of Phoenician settlement in southern Spain (at least the eighth century BC for the Castillo de Doña Blanca near Cádiz: Ruiz Mata 2016);
- because of the choice of signs. In particular some signs adopted to represent vowels are different from the Greek ones (de Hoz 1991, 673). While, as in Greek, the <a> comes from ʾ*aleph*, the <i> from *yod* and the <u> from *waw*, the choice of ʿ*ayin* for writing the sound /e/ is like in Semitic languages and unlike in Greek in which it was used for an *omicron*. If the model were Greek, all the vowels would have been borrowed in the same way.

New data that cast doubt

The Espanca plaque was a curiosity in Palaeohispanic epigraphy for many years and many have expected that it would provide the missing link between all Palaeohispanic writings thanks to the close connections with both the southwestern and southeastern scripts. Although it was not an exact match for either the south-western or the south-eastern scripts, this was the only evidence of writing schools in the Iberian Peninsula and the only abecedary known until recently.

But in the past five years, Joan Ferrer has worked on sequences, first in north-eastern script and now in south-eastern script, that are thought to represent abecedaries (Ferrer 2014). In this same line of investigation (Ferrer 2017b), this scholar proposes to re-examine a graffito from Villasviejas del Tamuja (Cáceres, Extremadura). This ostracon (BDHesp. CC.04.03) has long been known (Hernández Hernández 1985) and is thought to date from the fourth century BC (Correa 1996, 68). It bears three signs on face A and seven on face B (Ferrer 2017b). By comparing the sequence on face B of this graffito with the Espanca plaque, Ferrer reveals a similar arrangement of six (maybe even seven) signs in both cases[6], if we accept the change of direction in writing. The inscription itself looks more like south-eastern writing but other south-western inscriptions have been found at the same site suggesting a western influence in the writing (Ferrer 2017b). All this leads the Catalan author to affirm that the sequence on the Espanca plaque is not random and that there was a Palaeohispanic meridional 'abecedary'. Javier de Hoz had already conjectured this idea in his study of the Espanca plaque (de Hoz 2010, 494) without having formal proof of it.

If we want to go a little further, on the one hand, we observe that the signs on the Espanca plaque and those in Villasviejas del Tamuja stand for a script without any indications about the voiced or unvoiced consonants. On the other hand, we now know that both the north-eastern script and the south-eastern script, from the moment they are attested (fifth century BC) include some 'additional strokes' (more than 'diacritics', Ferrer and Moncunill, 2019) to distinguish the voicing (Ferrer 2012, 2013).[7] These additional strokes mark the unvoiced sounds in north-eastern script but conversely, and without any explanation for the time being, they seem to mark the voiced consonants in the south-eastern writing. This phenomenon, called the 'dual system', was discovered by Joan Maluquer de Motes in the late 1960s and has been studied systematically by Joan Ferrer for a decade (Ferrer 2005, 2012, 2017a). The earliest evidence for the use of the dual system is on an attic vase from Ullastret dated from the fifth century BC.[8] Its first appearance is then contemporaneous with inscriptions in the southern part of the Peninsula.

This led Joan Ferrer to suggest a common ancestor to *all* Palaeohispanic scripts which already used the dual system (Ferrer 2017a). But, even if it is obvious that a complex feature in the script was used in the early times of the north-eastern epigraphy – without any explanation about its origins for the moment, and no

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6 From the twelfth to the sixteenth sign of the Espanca sequence, that is to say exactly at the junction between the *abjad* group and the innovative group.

7 On a few inscriptions from the north-eastern region, this duality distinguishes the vowels as well (Burriel *et al.* 2011, 197–198). Ferrer 2017a, 80 even detects cases of trialism on some north-eastern signs, one of which could be the notation for the aspirate.

8 That is why some scholars like Javier Velaza (2006) have suggested the north-eastern script originated in and spread from the northern part of the Peninsula or even Southern Gaul. These suggestions aim to take into account the epigraphic evidence, the chronology and also the density of the Palaeohispanic inscriptions and anthroponomy.

certainty about its primacy over south eastern writing (de Hoz 2011, 213; Ferrer 2017a) – for now, none of the 'abecedaries' identified in the north eastern zone is comparable to the sequences of Espanca or Villasviejas del Tamuja.

Comparing all the signs, we can assert, at least, that south-western, south-eastern and north-eastern scripts were inter-related with the latter two possibly being of common (and dual) origin. But, it is still impossible to define a common ancestor to *all* Palaeohispanic scripts, or even to determine with certainty, on such fragile bases, some of its characteristics.

Conclusion

To sum up these very brief observations:

We are sure there were close connections with Phoenicians in the southern part of the Peninsula from the eighth century BC and that they died out with the Punic Wars.

We know of close connections with the Greeks in the southern part of the Peninsula and also on the eastern coast, giving rise locally to the Graeco-Iberian script.

We have some inscriptions on stone in southwestern script the dating of which is unclear but that display archaic features. The dual system is not used in these inscriptions (Ferrer 2016, 75) but a redundant use of the script is, probably with stylistic value.

We have very poor epigraphic documentation for the seventh century BC but it is consistent and it shows an early appearance of a script in southernmost Andalusia.

Around the fifth century BC there are manifestations of writing using complex features such as the dual system (even if in different ways), both in the southern part of the Peninsula and in the north-eastern area, suggesting that an original script for some Palaeohispanic writings was 'dual' (Ferrer 2017a). This working hypothesis does not contravene the idea of an origin of Paleohispanic scripts in the south-western part of the peninsula, but needs to be further substantiated.

What can we conclude from all this?

A Phoenician origin for a Palaeohispanic script still seems the best hypothesis.

The influence of the alphabet gave rise to scripts of which we have various examples: the south-western script, the Espanca plaque and the south-eastern script, suggesting that the Palaeohispanic scripts were first developed in the southern part of the Peninsula around the sixth/fifth centuries BC or possibly a little earlier.

Nevertheless, recent developments and discoveries allow us to make progress in the reconstruction of the earliest scripts found in the Peninsula, some of which may have been already 'dual' from the start, if we follow Ferrer's opinion. However, the Espanca case is a good illustration of the complexity of Palaeohispanic epigraphy: we do have missing links but we are unable to identify connections among the links themselves!

We end up with more questions than answers. This indicates the need for more research and for more excavations in the hope of making more discoveries. Palaeohispanics remain a brain-teaser and a stimulus for further research.

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