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Holger Gzella (Ed.)

LANGUAGES FROM THE WORLD OF THE BIBLE

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Languages from the World of the Bible

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edited by
Holger Gzella

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Preface

Scholarship increasingly emphasizes the considerable linguistic and cultural diversity of the environment in which the biblical texts originated over time. Both the neighboring civilizations in the immediate vicinity of ancient Israel, and the Near Eastern world empires, have contributed to shaping the biblical world, although in different respects and during successive periods. Whereas literary and administrative traditions in particular have undergone many influences from the more remote cultures of Mesopotamia and Egypt (which are well known even to the point of exhaustion), the Hebrew language took on its shape and evolved first and foremost in a matrix of closely related tongues in Syria-Palestine. This region also maintained early contacts with the Arabian Peninsula, was incorporated into the Persian Empire, and eventually became part of the Greco-Roman Near East.

It is, however, the alphabetic script that unites the languages of Syria-Palestine, Arabia, Persia, and Greece. Their investigation belongs to various academic fields but often does not surface, at least not at a regular rate, in university curricula. Among the plethora of current methods and research interests in biblical exegesis and Ancient Near Eastern Studies, philology no longer occupies the principal place. Nonetheless, a thorough knowledge of the primary sources in their original forms remains the most important point of departure for all further concerns.

The present volume aims at furnishing concise yet fresh and up-to-date overviews of the most pertinent varieties of the languages in question without merely repeating what has been said elsewhere. It also addresses their interaction within a clear historical framework while at the same time maintaining a reasonably sharp focus. Hence it takes a more technical approach than Kaltner and McKenzie's *Beyond Babel*[1] but has a less ambitious scope than Woodard's *Cambridge Encyclopedia of the*

1 John Kaltner and Steven McKenzie (eds.), *Beyond Babel: A Handbook for Biblical Hebrew and Related Languages* (Leiden: Brill, 2002).

World's Ancient Languages[2] or Kaye's *Phonologies of Asia and Africa* and the same editor's *Morphologies of Asia and Africa* published ten years later.[3] They all provide useful further reading.

Since this book is an updated and thoroughly revised translation from the German,[4] it shares a number of shortcomings with in the original version. It would have been impossible to eliminate them without causing a significant delay in publication. The cuneiform languages have been deliberately excluded, because they already feature in a volume of a similar kind.[5] For an excellent modern survey of Akkadian in English, which some readers will no doubt miss here, one may refer to Huehnergard and Woods, "Akkadian and Eblaite".[6] A brief description specifically geared toward the Neo-Assyrian and Neo-Babylonian varieties of Akkadian, which are of particular importance for the world of the Hebrew Bible, remains high on the editor's wish list, though. Likewise, there is, unfortunately, no treatment of Ancient North Arabian either; a contribution was requested for the German edition but not received. The editor's Introduction, for what it is worth, contains a few general remarks on this topic and further bibliographic references. Egyptian and some later varieties of Hebrew and Aramaic (as in the Dead Sea Scrolls) would make very sensible additions, too, "had we but world enough, and time."

The chapters on the Transjordanian languages and on Greek were translated by Peter T. Daniels; the others by the authors themselves. Peter Daniels and Gene McGarry also served as copyeditors. As the contributors belong to three different generations and work in five different countries, their pieces reflect several distinct, though often interrelated, academic traditions and styles. This diversity of notational conventions, specialized terminology, and organization of the data has been intentionally preserved, not least because it is so characteristic of the field as such and its shortage of unifying factors: Semitic philology in its present pluralistic form has been shaped throughout the ages

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2 Roger D. Woodard (ed.), *The Cambridge Encyclopedia of the World's Ancient Languages* (Cambridge: Cambridge University Press, 2004); reprinted unaltered in a series of regionally organized paperbacks (2008).

3 Alan S. Kaye (ed.), *Phonologies of Asia and Africa,* 2 vols. (Winona Lake, Ind.: Eisenbrauns, 1997); *Morphologies of Asia and Africa,* 2 vols. (Winona Lake, Ind.: Eisenbrauns, 2007).

4 *Sprachen aus der Welt des Alten Testaments* (1st ed., Darmstadt: Wissenschaftliche Buchgesellschaft, 2009; 2nd ed., 2012).

5 Michael P. Streck (ed.), *Sprachen des Alten Orients* (1st ed., Darmstadt: Wissenschaftliche Buchgesellschaft, 2005; 3rd ed., 2007).

6 John Huehnergard and Christopher Woods, "Akkadian and Eblaite," in Woodard (ed.), *Cambridge Encyclopedia of the World's Ancient Languages* [n. 2], 218–287.

by the combined efforts of mainly biblical scholars, Arabists, students of the ancient Near East, and dialectologists; it is thus governed by a blend of native grammatical traditions, the nineteenth-century teaching of Greek and Latin, and insights of modern descriptive and historical linguistics.

I dedicate my own work on this book to the memory of my father.

Holger Gzella
Leiden, September 2011

On Transcription

There is no universally acknowledged system for transcribing Northwest Semitic languages; hence different conventions exist, which can sometimes be a source of confusion. Depending on the author's choice, the graphemes of the original, basically consonantal, scripts are transliterated either in roman capitals or italic lowercase (the former also occurs quite frequently in French-language works); individual characters may be enclosed in angle brackets ⟨ ⟩ as well. Since the study of Semitic epigraphy no longer constitutes but a branch of biblical exegesis, the older practice of indiscriminately using Square Hebrew script for all kinds of ancient documents from Syria-Palestine, including non-Israelite ones, is increasingly viewed as inconvenient and is not followed here.

Yet the actual *phonetic* pronunciation, be it reconstructed (as in Klaus Beyer's chapter) or specified by a vocalization system (as with Hebrew and Biblical Aramaic according to the Tiberian pointing), appears in italic lowercase as well, but with vowels. This is distinct from the reconstructed *phonemic* abstraction – that is, the pure sounds that form a meaningful contrast – which is rendered with roman lowercase between slashes. Occasionally, the true pronunciation of these abstract sounds in specific circumstances can be indicated between square brackets if the evidence permits: judging from later vocalizations and transcriptions, for instance, the etymological phoneme /i/ habitually seems to have been pronounced [e] in Canaanite and Aramaic. The majority of scholars, however, would generally not attempt to offer more than simply a phonemic reconstruction on historical-comparative grounds for languages transmitted in a consonantal script, because evidence for the phonetic realization is at best very sporadic and indirect, and even then often ambiguous or conflicting.

Vowel letters (*matres lectionis*) constitute merely a graphic device of a consonantal writing system and thus form part only of transliteration, not of phonemic or phonetic transcription. The same applies to historical (etymological) spellings, which may differ from the sound of a word they represent. Hybrid forms like *rō(ʾ)š* for *rʾš* /rōš/ 'head' are fairly common, especially in one-to-one conversions of vocalized Biblical Hebrew and Aramaic into roman script but should be avoided for clarity's and

consistency's sake when the focus rests on linguistic information independent of orthography.

By and large, the various subdisciplines of Semitic philology continue to use the traditional symbols for transliteration and transcription, chiefly due to the authority of Carl Brockelmann's epoch-making *Grundriß der vergleichenden Grammatik der semitischen Sprachen*.[1] These are partly influenced by the reflexes of the respective sounds in Classical Arabic (e.g. /ḍ/ and /ẓ/). In the reconstruction of Proto-Semitic and in the study of modern Semitic dialects, by contrast, the notation of the International Phonetic Alphabet (IPA) enjoys increasing popularity: *ħ, x,* and *ɣ* thus correspond to their traditional counterparts *ḥ, ḫ,* and *ġ; θ, ð,* and *ʃ* to traditional *ṯ, ḏ,* and *š;* and so forth. Fricative allophones of plosive stops in later Hebrew and Aramaic are transcribed with an underscore or a macron, even if their pronunciation is identical with a (lost) Proto-Semitic phoneme, simply in order to make the etymological connection clear. Hence the etymological phonemes /θ/, /ð/, and /ḫ/ are graphically distinguished from the allophones *t̲* (of /t/), *d̲* (of /d/), and *k̲* (of /k/) so that the root of a word can be recognized immediately. For the same reason, the respective allophones of /b/ and /p/ conveniently appear as *b̲* and *p̄* instead of *v* and *f* (as often in the transcription of Modern Hebrew). In the case of the "emphatic" consonants, the customary representation with a dot under the letter (/ṭ/, /ṣ/) requires less commitment because it leaves the actual pronunciation (glottalized, velarized, etc.) open. Since the pronunciation of these sounds still remains somewhat controversial for the older periods and changed more than once in the course of time, this notation has certain practical advantages, especially for comparative purposes.

Vowel length is conventionally indicated by a macron (e.g. /ā/), although a colon (as in /aː/) would be preferred in the study of other languages and language families. While double characters used for long vowels (like /aa/) is atypical in Semitics, they do render consonantal length according to tradition (e.g. /mm/, even though one might, at least in theory, prefer a more precise notation like /mː/, which would then allow a distinction between long consonants and consonant clusters). Open vowels appear in the IPA symbols /ɛ/ and /ɔ/ here, whereas time-honored European scholarship often uses a cedilla (/ę/) or, less frequently, an ogonek (/ǫ/) for the same phenomenon (the latter is confined to nasal vowels in other notational styles, so even the very same symbol can have separate meanings in diverging philological traditions). Note

1 2 vols. (Berlin: Reuther & Reichard, 1908–13).

that several Semitists consistently mark vowel length, supplied on the basis of historical-comparative considerations, also when transcribing vocalized Hebrew and Aramaic texts transmitted in the native pointing systems, which do not include such information. A circumflex is frequently used for transcribing long vowels spelled with a *mater lectionis* in vocalized Hebrew and Aramaic script. However, this is purely a matter of spelling and has no phonological significance. (In the study of Akkadian and Ugaritic, the circumflex has a different meaning and indicates long vowels which result from the monophthongization of diphthongs, but it does not point to a distinct vowel quantity there either.)

In historical reconstruction, < means 'comes from', > means 'changed into'. Hypothetical proto-forms are marked with an asterisk (*).

Abbreviations

abl.	ablative
abs.	absolute
acc.	accusative
conj.	conjunction
cst.	construct
dem.	demonstrative
det.	determined/ate
DN	divine name
du.	dual
emph.	emphatic
fem.	feminine
gen.	genitive
GN	geographic name
id.	*idem,* the same
imperf.	imperfect
imv.	imperative
indet.	indeterminate
inf.	infinitive
ins.	instrumental
lit.	literally
loc.	locative
masc.	masculine
n.	noun
narr.	narrative
neg.	negative
neut.	neuter
nom.	nominative
OP	Old Persian
opt.	optative
part.	participle
pass.	passive
perf.	perfect
PCL	prefix-conjugation (long)
PCS	prefix-conjugation (short)
PIE	Proto-Indo-European

PIr.	Proto-Iranian
pl.	plural
PN	personal name
prec.	precative
prep.	preposition
PSem.	Proto-Semitic
rel.	relative pronoun
SC	suffix-conjugation
sg.	singular
Skt.	Sanskrit
subj.	subjunctive
voc.	vocative

Gen Exod Lev Num Deut Josh Judg 1–2 Sam 1–2 Kgs Isa Jer Ezek Hos Joel Amos Obad Jonah Mic Nah Hab Zeph Hag Zech Mal Ps Job Prov Ruth Song Qoh Lam Esth Dan Ezra Neh 1–2 Chr

Introduction

Holger Gzella

During its genesis over about a thousand years, the Hebrew Bible has always been part of a multilingual world. Already in the second millennium BCE, centuries before the earliest direct attestations of Hebrew, several languages were regularly in use in Syria-Palestine: besides local forms of Akkadian, which belongs to the Semitic family and was chiefly employed for international correspondence and administration, scribes also wrote, depending on the purpose, Hurrian, Hittite, and, less frequently, Egyptian. The dominant script was Mesopotamian syllabic cuneiform. While these idioms were not mutually intelligible, structurally very different, and members of distinct language families, they left at least some traces, such as individual loanwords, in the lexicon of the various Semitic tongues which dominated the region thereafter. Their influence on pronunciation and syntax is more difficult to pinpoint but should not be excluded at the outset. In addition, it seems quite feasible to assume that some vernaculars current in other social strata than scribal circles were also common yet perhaps never made their way into the chanceries whose products constitute the written evidence. Even though they have long been forgotten and defy reconstruction, they may have had an impact as substrates in the formative period of idioms whose textual record began only several centuries later.

Except for Ugaritic, which was promoted to an official language of some local prestige; written in a special form of the alphabetic script by a self-conscious scribal elite already in the fourteenth century BCE; and served as an official means of expression for local letter-writing, record-keeping, technical documentation, incantations, and epic poetry, the ancestors of the Syro-Palestinian dialects remained in the shadow of Akkadian scribal culture: some of them appear, if at all, as Canaanite substrates or adstrates in what basically seems to be an Akkadian code, the best example being a corpus of several hundred letters sent by Syro-Palestinian vassal rulers to their lord, the Egyptian pharaoh, and discovered at Tell el-Amarna.[1]

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1 See William L. Moran, "The Hebrew Language in its Northwest Semitic Background," in: G. Ernest Wright (ed.), *The Bible and the Ancient Near East: Essays in Honor of William*

Further lexical items of local provenance crop up in other, contemporaneous, Akkadian and Egyptian texts, but their relation with the known members of the Semitic family is often hard to determine.[2] The controversial existence of spoken forms of, e.g., Hurrian only adds to the uncertainty.

Consequently, the age and origin of the local Semitic languages remain obscure. It is, however, clear that speakers of Semitic had settled in the area long before this time – perhaps they arrived in waves from ca. 3000 BCE on.[3] The "Northwest Semitic" family,[4] under which the related historical idioms of Syria-Palestine (now usually subdivided into the three branches Ugaritic, Canaanite, and Aramaic) are subsumed, then gradually took on its shape and gave rise to several distinct varieties. Its first identifiable traces can be observed, albeit again indirectly, in names and stray words surviving in cuneiform and Egyptian texts dating from the late third and the early second millennia BCE. The onomasticon of the "Amorites," nomadic groups infiltrating the Levant, constitutes the principal set of data for the most archaic stage of Northwest Semitic.[5] By and large, however, this indirect evidence defies any straightforward connection with the later, historical, languages of the area. Its position within Northwest Semitic thus remains unknown, although it may be possible to observe at least one distinctive trait of later Phoenician verbal syntax in a Ugaritic letter dispatched from Tyre.[6] The "biblical world" of the first millennium BCE, at any rate, evolved against a background of considerable linguistic and cultural diversity.

Foxwell Albright (Garden City, N.Y.: Doubleday, 1961), 53–72; Agustinus Gianto, "Amarna Akkadian as a Contact Language," in: Karel Van Lerberghe and Gabriella Voet (eds.), *Languages and Cultures in Contact* (Louvain: Peeters, 2000), 123–132.

2 Daniel Sivan, *Grammatical Analysis and Glossary of the Northwest Semitic Vocables in Akkadian Texts of the 15th–13th c. BC from Canaan and Syria* (Neukirchen-Vluyn: Neukirchener, 1984); James E. Hoch, *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period* (Princeton, N.J.: Princeton University Press, 1994); and Anson F. Rainey, "Egyptian Evidence for Semitic Linguistics," *Israel Oriental Studies* 18 (1998): 431–453.

3 See Masao Sekine, "The Subdivisions of the North-West Semitic Languages," *Journal of Semitic Studies* 18 (1973): 205–221.

4 For a summary, see Rebecca Hasselbach and John Huehnergard, "Northwest Semitic Languages," in: Kees Versteegh (ed.), *Encyclopedia of Arabic Language and Linguistics* (Leiden: Brill, 2008), 3: 409–422; Holger Gzella, "Northwest Semitic in General," in: Michael P. Streck and Stefan Weninger (eds.), *Semitic Languages: An International Handbook* (Berlin/New York: De Gruyter, in press).

5 Michael P. Streck, *Das amurritische Onomastikon der altbabylonischen Zeit*, vol. 1 (Münster: Ugarit-Verlag, 2000).

6 Cf. Holger Gzella, "Linguistic Variation in the Ugaritic Letters and some Implications Thereof," in: Wilfred H. van Soldt (ed.), *Society and Administration in Ancient Ugarit* (Leiden: Nederlands Instituut voor het Nabije Oosten, 2010), 58–70, esp. 67–68.

After ca. 1200 BCE (the exact chronology remains a matter of debate), the sociopolitical circumstances, and hence the language situation as well, changed dramatically. Many Bronze Age city-states under Egyptian and Hittite rule gave way to more extensive territorial chiefdoms with often unclear boundaries.[7] Others, like the ancient Phoenician metropoleis, fell into the hands of new dynasties. The modalities of this process and its underlying causes, such as population movements and the possible exhaustion of economic resources, are not yet well understood. As cuneiform writing and the social institutions that upheld it had disappeared during the power vacuum of the Early Iron Age, a new scribal culture could emerge and was quickly adopted by these nascent civilizations, although the degree of centralization and organizational complexity of these chiefdoms on their way to turning into monarchic states remains highly debated. When administration became more demanding some time after about 1000 BCE, the need for record-keeping appeared once again, and the quest for local prestige resulted in new forms of public display. Local dialects with partly ancient roots then eventually crystallized into chancery languages. This is the time when Phoenician, Hebrew, Aramaic in its various forms, and the small-corpus idioms of Transjordan first appear in written documents.

The rise of the Iron Age languages in Syria-Palestine coincides with the spread of the Phoenician variant of the alphabet. Presumably, the old Phoenician city of Byblos had succeeded Ugarit after the latter's downfall as the leading center of alphabetic writing. While early forms of this type of script were already known in the second millennium, syllabic cuneiform largely eclipsed its distribution and use in society; low-profile purposes, such as property marks for everyday objects, constitute the lion's share of the meager evidence for early alphabetic writing outside Ugarit. Exercise texts with the letters of the alphabet in a conventional order were discovered at sites that feature no significant urban infrastructure; they say something about the distribution of this script, as do personal names in alphabetic letters inscribed on arrowheads during the transition period 1200–1000 BCE. Presumably, then, it was considerably less dependent on deeply entrenched institutions and a high degree of formal training than was syllabic cuneiform. As a consequence, it could exist outside major city centers and thus better resist the transformation of the socio-economic conditions between the Late Bronze and the Early

7 See, e.g., Ann E. Killebrew, *Biblical Peoples and Ethnicity: An Archaeological Study of Egyptians, Canaanites, Philistines, and Early Israel 1300–1100 B.C.E.* (Leiden: Brill, 2005).

Iron Ages. It was the medium most readily available when new forms of administration required the skill of writing.

Letter-forms, their relative stance, the direction of writing, and spelling practice then underwent a gradual process of standardization in the chanceries of the various Canaanite- and Aramaic-speaking civilizations. Eventually, local types of the script, like the Ancient Hebrew and the Aramaic variants, and particular orthographic conventions, such as the use of vowel letters in certain cases, evolved. This process coincided with the emergence of a new linguistic register, narrative prose, employed for a novel literary genre in which self-conscious rulers commemorated their deeds. The same literary form, together with similar linguistic means, occurs in various textual witnesses discovered in Syria and Canaan, in Phoenicia and Transjordan. It also underlies the historical accounts in the Hebrew Bible (even if their final redaction dates to a much later period) but was still unknown in the area during the second millennium.[8] Some scholars suppose that older epic traditions, which may have permeated the area in the form of a supra-regional, artificial, poetic language, transmitted orally by itinerant bards, have been partially absorbed into the rising literary prose style.[9]

Certain stylistic innovations seem to have spread because of local cultural prestige: the "imperfect consecutive" and the relative marker underlying Biblical Hebrew *ʾašer*, for instance, which belong to the characteristic hallmarks of Hebrew narrative, are also attested in the long Moabite royal inscription, and the former even in some Aramaic inscriptions verging on the Canaanite speech area, despite the fact that Judah and Moab were only relatively minor political powers. This suggests that close cultural contacts between ancient Israel and Transjordanian civilizations existed already at the beginning of the first millennium. Nonstandard Hebrew forms that could well be Aramaic, or stem from a dialect that was linguistically close to Aramaic, occur already in pre-Exilic biblical texts. Even if the exact historical context remains unclear, the patriarchal stories in Genesis also establish a clear link of the lineage

8 Cf. John A. Emerton, "The Kingdoms of Judah and Israel and Ancient Hebrew History Writing," in: Steven E. Fassberg and Avi Hurvitz (eds.), *Biblical Hebrew in Its Northwest Semitic Setting: Typological and Historical Perspectives* (Jerusalem: Magnes and Winona Lake, Ind.: Eisenbrauns, 2006), 33–49.

9 See, e.g., Chaim Rabin, "The Emergence of Classical Hebrew," in: Abraham Malamat (ed.), *The Age of the Monarchies: Culture and Society* (Jerusalem: Jewish History Publications, 1979), 71–78. More recent works emphasize Mesopotamian influences, cf. Mark S. Smith, "Recent Study of Israelite Religion in Light of the Ugaritic Texts," in: K. Lawson Younger, Jr. (ed.), *Ugarit at Seventy-Five* (Winona Lake, Ind.: Eisenbrauns, 2007), 1–25, esp. 2–11.

of Israel with the Arameans (Gen 28:5; 31:20, 24). The dialects of the Phoenician cities along the coast, on the other hand, appear to have been less prone to borrowings from other Canaanite or Aramaic languages, and the pride for which these cities are remembered by the prophets (Ezek 26–28) may have resulted in another form of linguistic prestige. Yet Phoenician influences have been suggested for some aspects of ancient Israelite literature and culture;[10] the Tyrian king Hiram is said to have maintained friendly relations with the Davidic dynasty and even contributed to the building of Solomon's Temple (1 Kgs 5:15–32). Linguistic prestige, however, depends on political loyalties and cultural preferences; hence it is bound to change in the course of time and can affect the language policy of a ruling dynasty within a comparatively short while. The kingdom of Samʾal in Northwestern Syria provides an interesting case in point:[11] after the ninth century BCE, Phoenician as an official medium for royal inscriptions was succeeded by a local variety, Samʾalian, which is generally quite close to Aramaic with a number of nonstandard (often archaic) features but which soon thereafter gave way to what seems to be a form of Aramaic that was at the time current in Central Syria.

Indeed, notwithstanding the fragmented geography of the area, the development of the various Semitic languages of Syria-Palestine during the Iron Age reflects many instances of contact, natural and controlled alike, due to trade, political alliances, and personal networks. This is shown not only by individual loanwords, which can travel easily, but also by parallel developments of important structural features of the nominal and verbal systems, which presuppose a higher degree of interaction between speakers. While the original situation in the ancestors of these idioms presumably resembled the same, more archaic, type of Northwest Semitic reflected by Ugaritic, their evolution exhibits certain common tendencies across the entire speech area, even if the particular results differ. Three features are especially noteworthy: the breakdown of a morphological case system in which specific endings marked the grammatical roles of subject and object and indicated possessive relations; the restructuring of the verbal system after the loss or the

10 Cf. the articles in Markus Witte and Johannes F. Diehl (eds.), *Israeliten und Phönizier: Ihre Beziehungen im Spiegel der Archäologie und der Literatur des Alten Testaments und seiner Umwelt* (Fribourg: Academic Press and Göttingen: Vandenhoeck & Ruprecht, 2008).

11 See Holger Gzella, "Languages and Script," in: Herbert Niehr (ed.), *The Arameans in Ancient Syria* (Leiden: Brill, in press).

functional mergers of several formerly independent conjugations; and the emergence of morphological means for marking definiteness.

It may be worthwhile to elaborate briefly on these examples to outline the interaction between a shared basic structure and its individual manifestations. Once the morphological distinction between the different cases had broken down, the members of the Northwest Semitic group developed special particles for marking a (mostly definite) direct object, thereby disambiguating it from the grammatical subject. Although the corresponding particles in the individual languages exhibit some variation, the principle as such remains the same.[12] This is how contact-induced convergence often works: a common pattern comes to the surface in discrete grammatical garbs. Likewise, the reduction of distinct types of the "imperfect" conjugation triggered particular reactions in the verbal systems of at least Hebrew, Phoenician, and Aramaic. Whereas the endings of the "short" variant of this conjugation were largely generalized in Hebrew, new functional differences appeared due to the rise of two novel conjugations (the "consecutive" forms) there. Consequently, the functional ranges of the verbal forms show a good deal of diversity within Northwest Semitic, even though the underlying structural blueprints have evolved from a common ancestor type.[13] The forms of the definite article, finally, are based on discrete lexical or morphological items and occur either at the beginning or at the end of a word. In the course of time, however, their uses largely converged.[14]

These developments were essentially completed or at least in an advanced stage when the Northwest Semitic languages of Iron Age Syria-Palestine appeared on the stage of history shortly after ca. 1000 BCE. In light of phonological, morphological, syntactic, and lexical differences, they can be divided into a Canaanite (comprising Phoenician, Hebrew, and some Transjordanian idioms) and an Aramaic branch (which was

12 Cf. Rudolf Meyer, "Bemerkungen zur syntaktischen Funktion der sogenannten Nota Accusativi," in: Hartmut Gese and Hans Peter Rüger (eds.), *Wort und Geschichte: Festschrift für Karl Elliger zum 70. Geburtstag* (Neukirchen-Vluyn: Neukirchener, 1973), 137–142.

13 See Holger Gzella, *Tempus, Aspekt und Modalität im Reichsaramäischen* (Wiesbaden: Harrassowitz, 2004), 310–326.

14 Compare the discussion in John Huehnergard, "Features of Central Semitic," in: Agustinus Gianto (ed.), *Biblical and Oriental Essays in Memory of William L. Moran* (Rome: Biblical Institute Press, 2005), 155–203, esp. 184–186; Holger Gzella, "Die Entstehung des Artikels im Semitischen: Eine 'phönizische' Perspektive," *Journal of Semitic Studies* 51 (2006): 1–18; and Agustinus Gianto, "Lost and Found in the Grammar of First-Millennium Aramaic," in: Holger Gzella and Margaretha L. Folmer (eds.), *Aramaic in Its Historical and Linguistic Setting* (Wiesbaden: Harrassowitz, 2008), 11–25, esp. 18–19.

also diversified from the outset, as the earliest witnesses indicate) according to the widespread genealogical model of historical-comparative linguistics. Important distinctions thus exist, despite far-reaching structural similarities. This implies that the respective idioms must have been in formation for some time during the "Dark Ages" of 1200–1000 BCE. Not all known facts can be integrated into such a "family tree," though, because it is frequently debated whether a certain feature must count as characteristic of Canaanite or of Aramaic, or whether it has been inherited from a common ancestor: the evidence is often ambiguous. The inscriptions from Samʾal in Northwestern Syria (see above) and the plaster text from Deir ʿAlla in Transjordan provide numerous examples for the co-occurrence of Canaanite and Aramaic traits, although presumably for different reasons. Some developments in Northwest Semitic may even have occurred independently in the two branches.[15]

For approaches other than a straightforward historical-genealogical model, by contrast, the distinction between inherited linguistic traits and innovative, at times even contact-induced, phenomena is less crucial. One can also attempt to focus on the gradual transitions within a continuum of adjacent, mutually intelligible dialects across the speech area by plotting distinctive linguistic hallmarks of coexisting idioms on a map. As certain features cross dialect boundaries, the subclassification of Northwest Semitic has to incorporate some flexibility. This method, "dialect geography," was developed for studying modern regional varieties, but it has also been successfully applied to Iron Age Northwest Semitic.[16] The distinction between languages and dialects is usually based on sociopolitical criteria and is thus, to a certain extent, arbitrary from a linguistic point of view. Using a variant of the well-known dictum "A language is a dialect with an army and a navy," ascribed to various linguists, one could say with regard to Syria-Palestine: "A language is a dialect with a palace and a temple."

Nonetheless, a sociolinguistic dimension must also come into play: the corpus of surviving extrabiblical sources from Iron Age Syria-Palestine consists mainly of royal inscriptions listing the deeds of kings

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15 Joshua Blau, "Hebrew and North West Semitic: Reflections on the Classification of the Semitic Languages," *Hebrew Annual Review* 1 (1978): 21–44.

16 Zellig S. Harris, *Development of the Canaanite Dialects* (New Haven, Conn.: American Oriental Society, 1939); Chaim Rabin, "The Origin of the Subdivision of Semitic," in: D[avid] Winton Thomas and W[illiam] D[uff] McHardy (eds.), *Hebrew and Semitic Studies Presented to Godfrey Rolles Driver* (Oxford: Clarendon, 1963), 104–115; W. Randall Garr, *Dialect Geography of Syria-Palestine 1000–586 B.C.E.* (Philadelphia: University of Pennsylvania Press, 1985; repr. Winona Lake, Ind.: Eisenbrauns, 2004).

in war and peace, composed for public display; dedicatory and funerary inscriptions for members of the elite; administrative and other documentary texts such as receipts, inventories, and a few school exercises; and letters mostly written by officials such as clerks. These linguistic witnesses are thus the result of scribal training and all correspond to very strict genre conventions, including the correct form of address, salutation formulas, and so forth. They reflect largely standardized language varieties geared toward official use and no doubt differ from the vernaculars.

The linguistic reality of daily-life interactions in other strata of society, on the other hand, cannot be fully reconstructed, although it may occasionally surface in certain deviations from the standard, including variation in biblical texts.[17] Regional differences not only between Phoenician and Aramaean cities, but also in territorial states like Judah, Israel, and Moab, point to variation even within the same sphere of political influence. One might ask whether the official, standardized variants of the local languages which served as chancery idioms were not part and parcel of the system of codes in which the cultural self-awareness of the ruling elites was rooted, to a similar extent as national deities, capitals, and dynasties. Such core traditions of religion, customs, and language that differed from region to region within the boundaries of a common matrix culture – as can still be observed in subtle but significant differences of iconography, material culture, and the use of certain formulaic expressions – are likely to have played an important role in the processes of ethnogenesis of the Early Iron Age.[18] That would at least explain the relatively high degree of language maintenance in a multilingual environment where important forms of structural convergence nonetheless maximized the efficiency of speech production.

Already before the age of the great international empires, the world reflected in the Hebrew Bible was not confined to the immediate cultural setting in Syria-Palestine: the ancient kingdoms of South Arabia also formed part of it. Passing references to long-distance trade and the exchange of gifts occur with a certain regularity in the Bible (Ezek 27:22; Isa 60:6; Ps 72:10), but the best-known literary reflex of such relations, however casual, is the story about the visit of the queen of Sheba to Solomon, who impressed her with his splendor and wisdom (1 Kgs 10:1–13). Additionally, proof exists for migrations of North Arabian tribes from the

17 Some examples for such creative use of linguistic variation in the Hebrew Bible can be found in Agustinus Gianto, "Variations in Biblical Hebrew," *Biblica* 77 (1996): 493–508.

18 Cf. Seth L. Sanders, *The Invention of Hebrew* (Urbana: University of Illinois Press, 2009), 76–155.

ninth century BCE on.[19] It is rather difficult to define these early Arabs in ethnic or sociocultural terms, but several personal names contain features characteristic of later Arabic. Israelite historiography mentions them as bearers of tribute (e.g. 1 Kgs 10:15; 2 Chr 17:11), and their wisdom was proverbial (cf. Jer 49:7). The lack of natural barriers rendered the infiltration of such groups from the Arabian desert into Syria-Palestine and enduring contact quite easy. Their languages, which are mostly subsumed under the generic term "Ancient North Arabian" (in fact the designation of a rather diverse cluster of dialects) and are distinct from the South Arabian branch,[20] can be traced from the eighth century BCE on. Some of the evidence may come from earlier times, though, since many of the very short and formulaic Ancient North Arabian inscriptions are hard to date. By the sixth century BCE, North Arabian tribes had settled in southern and eastern Palestine. Possible instances of early linguistic contact between Arabian and Northwest Semitic languages besides a few loanwords relating to cattle-herding still need to be investigated more thoroughly. At any rate, the symbiosis of speakers of Arabian and Aramaic languages in the Syrian desert seems to have lasted for centuries; Arabic names and words still surface in the textual record of Aramaic-speaking communities in the Roman Near East that combined nomadic and urban forms of life, such as Palmyra and Hatra.

Despite its much later attestation, Classical Arabic, which is often viewed as belonging to a sister-branch of Ancient North Arabian, reflects a structure similar to early Northwest Semitic in terms of, e.g., an inventory of phonemes closer to the original, morphological case marking, and the three different "imperfect" conjugations; hence it has played an important role in the traditional reconstruction of Ugaritic and pre-Tiberian Hebrew. In nineteenth-century biblical commentaries, references to Classical Arabic language and literature abound, since the epigraphic witnesses of Syria-Palestine were then still largely unknown and Arabic,

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19 The classic study by James A. Montgomery, *Arabia and the Bible* (Philadelphia: University of Pennsylvania Press, 1934) is still a valuable resource for biblical references; for more modern accounts, see Israel Eph'al, *The Ancient Arabs: Nomads on the Borders of the Fertile Crescent, 9th–5th Centuries* B.C. (Jerusalem: Magnes, 1982) (on historical evidence); Manfred Krebernik, "Von Gindibu bis Muḥammad: Stand, Probleme und Aufgaben altorientalisch-arabistischer Philologie," in: Otto Jastrow, Shabo Talay, and Herta Hafenrichter (eds.), *Studien zur Semitistik und Arabistik: Festschrift für Hartmut Bobzin zum 60. Geburtstag* (Wiesbaden: Harrassowitz, 2008), 247–279 (on linguistic matters, with further bibliography).

20 Michael C. A. Macdonald, "Ancient North Arabian," in: Roger D. Woodard (ed.), *The Cambridge Encyclopedia of the World's Ancient Languages* (Cambridge: Cambridge University Press, 2004), 488–533, provides a very complete and up-to-date suvery.

together with Classical Syriac, thus constituted the most obvious point of comparison for Hebrew. This practice has long been abandoned, not least due to increasing interest in Egypt and Mesopotamia. Many of these references and their rationale (such as equating Iron Age nomads with the Bedouins of a much later period) must be considered anachronistic and are thus misleading in light of present scholarship. Some, however, can even now provide important clues to the life and internal organization of Canaanite and Aramaean tribal systems when they are integrated into a more modern framework.

Mesopotamian influence returned to the area from the ninth century BCE on, following the expansion of first the Neo-Assyrian, then the Neo-Babylonian empires. Conversely, the use of Aramaic and the alphabetic script spread in the Assyrian administration and was soon widely used throughout the Fertile Crescent between Egypt in the west and Lake Urmia in the east.[21] According to biblical historiography, it was common among high officials in Jerusalem in 701 BCE (2 Kgs 18:26), and this may reflect the actual situation. Akkadian became increasingly confined to the domain of the prestigious royal inscriptions, while Aramaic replaced it for many purposes in daily life. Hence the impact of Akkadian, at least on the biblical texts, affects legal language, chronicle-writing, and literary motives rather than the grammar of Hebrew itself. Lexical loans that entered the language during this period were usually transmitted via Aramaic.[22] The driving forces underlying the latter's success remain controversial: deportations from conquered territories, the influence of Aramaic-speaking traders and craftsmen, the versatility of the language and its script, and the more neutral character of this medium as opposed to the idiom of the conquerors have all been mentioned as possible causes. It should be pointed out, however, that the considerable linguistic diversity of the Aramaic material during the seventh and sixth centuries BCE, especially in terms of spelling, indicates a rather low degree of imperial language policy. Since most of the evidence would have been written on perishable materials, such as papyrus, leather, and wax-covered wooden boards, this period is not well documented at all.

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21 Alan R. Millard, "Early Aramaic," in: J. Nicholas Postgate (ed.), *Languages of Iraq: Ancient and Modern* (London: British School of Archeology in Iraq, 2007), 85–94; Holger Gzella, "The Heritage of Imperial Aramaic in Eastern Aramaic," *Aramaic Studies* 6 (2008): 85–109.

22 See the discussion of many possible examples in Paul V. Mankowski, *Akkadian Loanwords in Biblical Hebrew* (Winona Lake, Ind.: Eisenbrauns, 2000).

Alphabetic writing appears to have influenced not only the use of Mesopotamian syllabic cuneiform,[23] but also the principles of the newly created Old Persian cuneiform script. Only under Achaemenid supremacy, in the sixth to fourth centuries BCE, did one of the existing varieties of Aramaic (presumably a Babylonian dialect) provide the common language of a highly centralized scribal culture. It thus advanced to the official idiom throughout the vast territory under Persian rule. As a consequence, the distribution of many other languages formerly used in the imperial provinces, including Hebrew, Phoenician, and presumably the Transjordanian dialects in Syria-Palestine, became more and more confined to specific functions or registers like literary texts in the case of Hebrew and public epigraphy in the Phoenician cities, or withdrew to remote pockets.[24] Some compositions in the tradition of the Achaemenid chancery language have become part of the biblical canon, which took shape in part during the Persian period, and Aramaic influences on Hebrew quickly increased.[25] Some Iranian loanwords in literary Hebrew (strikingly employed in, e.g., Dan 1 in order to create a foreign setting) may have entered the lexicon via Aramaic. The imperial language, too, was subject to contact, as lexical loans and grammatical constructions borrowed from Akkadian and Old Persian indicate.[26] Also, many important syntactic developments, such as the integration of the participle into the verbal system, had their onset in Achaemenid times.

Beneath the surface of the high degree of linguistic unity and standardization suggested by the Achaemenid Aramaic evidence, local Aramaic vernaculars continued to exist although they were, in all likelihood, influenced by the international chancery idiom. They remained in use among a considerable part of the population even after the collapse of

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23 Michael P. Streck, "Keilschrift und Alphabet," in: Dörte Borchers, Frank Kammerzell, and Stefan Weninger (eds.), *Hieroglyphen, Alphabete, Schriftreformen: Studien zu Multiliteralismus, Schriftwechsel und Orthographieneuregelungen* (Göttingen: Seminar für Ägyptologie und Koptologie, 2001), 77–97.

24 A convenient survey of the evidence can be found in André Lemaire, "Hebrew and Aramaic in the First Millennium B.C.E. in the Light of Epigraphic Evidence (Socio-Historical Aspects)," in: Steven E. Fassberg and Avi Hurvitz (eds.), *Biblical Hebrew in Its Northwest Semitic Setting: Typological and Historical Perspectives* (Jerusalem: Magnes and Winona Lake, Ind.: Eisenbrauns, 2006), 177–196.

25 Much relevant evidence has been assembled by Klaus Beyer, *Die aramäischen Texte vom Toten Meer 2* (Göttingen: Vandenhoeck & Ruprecht, 2004), 34–36.

26 Stephen A. Kaufman, *The Akkadian Influences on Aramaic* (Chicago: University of Chicago Press, 1974); H[arold] H. Rowley, *The Aramaic of the Old Testament* (Oxford: Oxford University Press, 1929), 136–141 (partly outdated); for the replication of the Persian resultative construction in Aramaic, cf. Gzella, *Tempus* [n. 13], 184–194, and "Heritage" [n. 21], 92–93.

the Persian empire at the hands of Alexander the Great (ca. 330 BCE), during the kingdoms of his successors, and throughout the Roman expansion into the Near East. Alexander's conquest corroborated and extended earlier contacts between the Levant and ancient Greece that had begun centuries before and were never severed. A short phase of relative political stability and new opportunities for trade, facilitated by imperial roads and commercial networks, led to the emergence of several wealthy civilizations in Arabia, Syria, and Mesopotamia, which proudly combined their Near Eastern heritage with Hellenistic culture. Such an interaction manifests itself in both the textual and the archeological record. Presumably, it was their increasing self-consciousness that made the elites of these civilizations elevate the local Aramaic dialects again to official languages when the Seleucid Empire became weaker.

They each developed their own variant of the Achaemenid type of the alphabetic script, in a certain sense similar to the evolution of the Syro-Palestinian languages at the beginning of the first millennium. The evidence consists mainly of honorific, dedicatory, and funerary inscriptions. Spelling and style were basically modeled according to Achaemenid conventions, but an evolution of all these languages can be observed to varying degrees:[27] Nabataean, Palmyrene, Hatran, and Edessan Aramaic (this last being the ancestor of Classical Syriac, later the *lingua franca* of the Christian Near East) entered the light of history. These idioms were exposed to ongoing contact with Arabic in the Nabataean kingdom, with Greek in Syria, and with Iranian languages near the border of the Parthian empire. Aramaic thus remained a dominant means of communication in large parts of the Near East until the spread of Islam. Also, the immediate roots of the ancestors of the Modern Aramaic languages may lie in this period.

The most extensive early document of Semitic–Greek interaction is no doubt the Septuagint, the oldest surviving translation of the Hebrew Bible into Greek.[28] In this form, it served as the principal frame of reference for the New Testament writings and has thus become the Christian Old Testament. Some books like Tobit or the Wisdom of Solomon entered canonical traditions only in their Greek version. The authors of the New Testament thus consciously bridge the gap between the Hebrew

27 Holger Gzella, "Das Aramäische in den römischen Ostprovinzen. Sprachsituationen in Arabien, Syrien und Mesopotamien zur Kaiserzeit," *Bibliotheca Orientalis* 63 (2006): 15–39; John F. Healey, *Aramaic Inscriptions & Documents of the Roman Period. Textbook of Syrian Semitic Inscriptions, Volume IV* (New York: Oxford University Press, 2009), 1–25.

28 For this role of the Septuagint, see Tessa Rajak, *Translation and Survival: The Greek Bible of the Ancient Jewish Diaspora* (New York: Oxford University Press, 2009).

Bible and the Greco-Roman world; it has taken shape in the multilingual context of Roman Palestine (cf. Acts 2:8–11, even if this list reproduces a traditional model and does not have to be taken at face value), where Aramaic, Hebrew, Greek, Latin (no doubt to a more limited extent), and presumably several other languages were used for different purposes.[29] The Dead Sea Scrolls, which comprise texts in Hebrew, various forms of Aramaic, and Greek, reflect this diversity. Elements in Aramaic, being the pragmatically dominant language, occur frequently in the Gospels.[30] Palestine itself belonged to the broader cultural setting of the Hellenistic and Roman Near East; Nabataean contracts were discovered by the Dead Sea, and the Apostle Paul spent some time in Arabia (Gal 1:17), presumably in the Nabataean kingdom. The Syro-Palestinian environment thus also has great importance for adequately understanding the cultural underpinnings of the New Testament and the spread of Early Christianity.

Given the creative use of linguistic variation in many of its parts, an understanding of the complex language situation in which the Bible originated turns out to be essential for a deeper literary, historical, and theological appreciation of the texts. It is part of the intention of the present volume to encourage further study along such lines.[31] This is not only a rewarding, but also a very enjoyable experience.

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29 Hannah M. Cotton, "Language Gaps in Roman Palestine and the Roman Near East," in: Christian Frevel (ed.), *Medien im antiken Palästina* (Tübingen: Mohr Siebeck, 2005), 151–169.

30 See Joseph A. Fitzmyer, "The Study of the Aramaic Background of the New Testament," in: idem, *A Wandering Aramean: Collected Aramaic Essays* (Chico, Calif.: Scholars Press, 1979), 1–27. The value of Aramaic for envisioning an alleged original form of the Gospels and the *ipsissima verba* of Jesus is at times grossly exaggerated, especially outside scholarship proper.

31 The most important methodological issues of comparative linguistics applied to Biblical Hebrew have been outlined by John Huehnergard, "Introduction," in: John Kaltner and Steven McKenzie (eds.), *Beyond Babel: A Handbook for Biblical Hebrew and Related Languages* (Leiden: Brill, 2002), 1–18.

The Alphabet

Alan Millard

1. Writing in Canaan

1.1. Egyptian and Babylonian

When Israelites occupied Canaan at the end of the Late Bronze Age (ca. 1250–1150 BCE), they took over a land where writing had been known for almost two thousand years. In the south, potsherds bearing Egyptian hieroglyphs for the name of pharaoh Narmer have been found at Arad and Tell el-ʿAreini, while seal impressions with names of other early pharaohs and officials were discovered at ʿEn Besor. Those signs of authority were recognized in Early Bronze Age Canaan (ca. 3500–2200 BCE), whether or not local people could read them. Although Babylonian cuneiform was current in Syria during the latter part of the third millennium BCE, the earliest cuneiform texts found in Canaan belong to the Old Babylonian period or Middle Bronze Age (ca. 2000–1550). They are seven incomplete tablets and two liver models, which imply a local readership, and part of an inscribed stone jar, all from Hazor; perhaps a letter from Shechem; an administrative text from Hebron; and a fragment from Gezer (the dating of the last three between the Middle and Late Bronze Ages, ca. 2000–1200, is debatable). The few inscribed cylinder seals did not originate in Canaan, and their legends were not necessarily read there. At the same time, numerous Egyptian scarabs circulated, many bearing the names of officials often with funerary formulas, but they functioned principally as amulets, so their legends were not necessarily more meaningful than magic signs. Egyptian and Babylonian writing are better attested from the Late Bronze Age (ca. 1550–1200), when Egypt made Canaan a province. Pharaohs had inscriptions engraved throughout the region on rock faces and stelas, while Egyptian officials who resided in various places erected monuments for themselves or their pharaonic masters (e.g. at Beth-Shan, Gaza, and Jaffa).[1] Their control involved collecting taxes, and

1 See Alan Millard, "Ramesses was here . . . and others, too," in: Mark Collier and Steven Snape (eds.), *Ramesside Studies in Honour of K. A. Kitchen* (Bolton: Rutherford

a few ostraca bearing hieratic texts relating to that activity hint at a much greater amount of recording done on papyrus. However, the Babylonian system remained the vehicle used by many local rulers for communicating with Egypt. Rulers in at least eighteen places on either side of the Jordan River sent letters to Egypt, which survive among the El-Amarna letters, and cuneiform tablets have been found at some of those and at three others. The fifteen tablets and fragments at Tell Taʿannek and two at Shechem prove the use of Babylonian cuneiform for local administration and correspondence; legal deeds are not included: presumably any that were written were written in other scripts. Canaanite scribes had to learn Babylonian script and language, and a few fragmentary tablets from Aphek and Ashkelon show the process of writing lists of words, in one case with Canaanite equivalents.[2]

1.2. Alphabetic writing

1.2.1. The Canaanite linear alphabet

Early in the second millennium BCE an unknown genius, acquainted with Egyptian writing, had the revolutionary idea of drawing a separate sign for each major sound alone in his Canaanite language, adding no others to indicate syllables or categories of words. The signs were evidently selected on the acrophonic principle, the initial sound of the name of the sign being its value (e.g. *m* from *mêm* 'water'). As no word began with a vowel, no sign was created to mark a vowel, and the language could be written with sufficient clarity without vowel notation, as in ancient Egyptian, and as remains true for Arabic and Hebrew. The progress of the signs of the linear alphabet can be traced through the Middle and Late Bronze Ages in Canaan from the scanty specimens

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Press, 2011), 305–312; and Stefan J. Wimmer, "A new stela of Ramesses II in Jordan in the context of Egyptian royal stelae in the Levant," in: *Proceedings of the Third International Congress of the Archaeology of the Ancient Near East, Paris, 2002* (forthcoming).

2 Alan Millard, "The knowledge of writing in Late Bronze Age Palestine," in Karel Van Lerberghe and Gabriela Voet (eds.), *Languages and Cultures in Contact: At the Crossroads of Civilizations in the Syro-Mesopotamian Realm: Proceedings of the 42nd Rencontre Assyriologique Internationale* (Louvain: Peeters 1999): 317–326. For the cuneiform texts, see Wayne Horowitz, Takayoshi Oshima, and Seth Sanders, *Cuneiform in Canaan: Cuneiform Sources from the Land of Israel in Ancient Times* (Jerusalem: Israel Exploration Society, 2006); Eilat Mazar, Wayne Horowitz, Yuval Goren, and Takayoshi Oshima, "A cuneiform tablet from the Ophel in Jerusalem," *Israel Exploration Journal* 60 (2010): 4–21.

scratched or painted on stone, metal, and pottery. In the early stages, the script probably consisted of twenty-six letters, each representing a different phoneme, although the identification of some is uncertain. They are *ʾ b g ḫ d h w z ḥ ṭ y k š l m ḏ n (ẓ) s ʿ p ṣ q r ṯ ġ t.*[3] Egyptian influence meant that papyrus was the normal writing material; consequently most texts are lost to modern scholarship. That loss is alleviated by the situation to the north of Canaan where scribes were trained in Babylonian and so were accustomed to writing on clay.

1.2.2. Cuneiform alphabets

Seeing advantages for themselves in the alphabetic system, those scribes created a cuneiform alphabet. At Ugarit scribes wrote their dialect with the cuneiform alphabet of twenty-seven signs, arranged basically in the order known in Phoenician and Hebrew in the Iron Age (ca. 1200–600 BCE), with three additional signs to help them record the non-Semitic Hurrian language adequately: *ả b g ḫ d h w z ḥ ṭ y k š l m ḏ n ẓ s ʿ p ṣ q r ṯ ġ t* and *ỉ ủ s̀.* The three *ʾaleph* signs supplied in some cases the vowel signs lacking from the linear alphabet, being used to indicate vowels alone, without the value of the *ʾaleph.*[4]

Another arrangement of the cuneiform letters is attested on one tablet from Ugarit and one from Beth-Shemesh. It follows the order known in southern Arabia in the first millennium BCE and later: *ḥ l h m q w š r b t s k n ḫ ṣ ś f ʾ ʿ ḍ g d ġ ṭ z ḏ y ṯ ẓ*. As yet these two tablets, listing the signs, are the only examples of this type of cuneiform alphabet.

While the twenty-seven-letter script was normal at Ugarit, the scribes were aware of a shorter one, with only twenty-one signs, which is attested in slightly different forms at other Levantine sites as far south as Tell Taʿannek: *ʾ b g d h w z ḥ ṭ y k l m n ṣ ʿ p q r š t.* Although variations suggest it is likely that the scribes were adapting the principle of the cuneiform alphabet to different dialects, they may also have been reflecting varieties of the linear alphabet. In each case the number of phonemes represented was clearly reduced from the twenty-seven known at Ugarit and in the earlier form of the alphabet. Alphabetic cuneiform tablets from Ugarit cover almost the whole range of ancient writing and allow

3 See Gordon J. Hamilton, *The Origins of the West Semitic Alphabet in Egyptian Scripts* (*Catholic Biblical Quarterly* Monograph 40) (Washington, D.C.: Catholic Biblical Association of America, 2006).

4 Compare the writing *mrỉả,* 'fattened', in *KTU* 1.4 VI:41–42 with *mrả* in 1.4 V:45.

the deduction that scribes farther south could have applied the linear alphabet similarly.[5]

2. Writing at the beginning of the Iron Age

2.1. Diverse alphabets

The upheavals at the end of the Late Bronze Age brought new peoples to settle in the region, so new kingdoms began to be established, many based on tribal groups, covering larger areas than the city-based principalities of the Late Bronze Age – the Aramaean kingdoms, Israel and Judah, Ammon, Edom and Moab, the Philistines. Only along the coast did Late Bronze Age kingdoms survive among the Canaanites' descendants, the Phoenicians in Tyre and Sidon, Byblos, Arvad, and other towns. These changes almost extinguished Babylonian influence and severely diminished Egypt's role in the Levant. The new West Semitic kingdoms that arose found the twenty-two-letter Canaanite linear alphabet readily available and suitable for recording their languages.[6] Through the twelfth and eleventh centuries the letters continued to develop in shape and stance, displaying several variations, without any clear local forms appearing. From those centuries there are a few graffiti on pottery, an inscribed bronze spatula, and two clay cones found at Byblos; and several dozen inscribed arrowheads.

The graffiti include part of a bowl from Qubur al-Wulaydah, near Gaza, dated about 1200 BCE, scratched after firing with an owner's name and another name, perhaps marking a votive gift.[7] There are a few other

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5 See Alan Millard, "Alphabetic writing, cuneiform and linear, reconsidered," *Maarav* 14 (2007): 83–93.

6 Most Hebrew texts are quoted from Johannes Renz and Wolfgang Röllig, *Handbuch der althebräischen Epigraphik* (Darmstadt: Wissenschaftliche Buchgesellschaft), vol. 1: Johannes Renz, *Die althebräische Inschriften* (1995); vol. 2/2, Wolfgang Röllig, *Siegel, Gewichte und weitere Dokumente der althebräischen Epigraphik* (2003), by reference numbers which can be identified from the index on pp. 20–27 of vol. 1. Texts from neighboring kingdoms are cited by their numbers in Herbert Donner and Wolfgang Röllig, *Kanaanäische und aramäische Inschriften* (Wiesbaden: Harrassowitz, 1966–2002; *KAI*). Bibliographical details are given for texts not included there.

7 Frank M. Cross, "Newly found inscriptions in Old Canaanite and Early Phoenician scripts," *Bulletin of the American Schools of Oriental Research* 238 (1980): 1–20, repr. in: idem, *Leaves from an Epigrapher's Notebook: Collected Papers in Hebrew and West Semitic Palaeography and Epigraphy* (Harvard Semitic Studies 51) (Winona Lake, Ind.: Eisenbrauns, 2003), 213–230; Benjamin Sass, *The Genesis of the Alphabet and Its Development in the Second Millennium B.C.* (Wiesbaden: Harrassowitz, 1988), 70–71.

very brief or incomplete words or names on pottery. The skill of writing had to be learned, and one sherd, found at the small early Iron Age settlement at Izbet Sarteh, on the edge of the hills east of Tel Aviv, may be an example of a pupil beginning his task in the twelfth century. It has five lines of lightly incised letters. The last line alone is comprehensible; it gives the 22 letters of the alphabet in order, except that *p* precedes ʿ, an order found in some later Hebrew inscriptions (e.g. at Kuntillet ʿAğrūd) and biblical acrostics (e.g. Lam 2, 3).[8] The existence of this scribble is evidence for writing in Canaan outside major towns.

The Byblos spatula (*KAI* 3) is, regrettably, hard to interpret; it is damaged, the alphabetic text is engraved over an older inscription, and the meaning of one key word is unknown. It is witness to a free use of writing for one or more sentences at the end of the eleventh century. To the same date is assigned an ostracon found during 2008 in excavations at Khirbet Qeiyafah, a hilltop site on the edge of the valley of Elah, between Azekah and Socoh. It has five uneven lines of alphabetic letters, some variously oriented and hardly legible. A few groups apparently make West Semitic words leading to interpretations as part of a letter, as a "social statement" about fair treatment of the oppressed, or simply as a list of names. The state of preservation and uncertainty over readings and language – it cannot be defined as Hebrew – leave its meaning in doubt, but it is another valuable witness to writing in Canaan at the start of the Iron Age.[9]

Unexpected and restricted to the eleventh and tenth centuries is the collection of fifty or more inscribed bronze arrow or javelin heads.[10] Incised along the spine is, usually, the word *ḥṣ*, 'arrow', followed by a

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8 Moshe Kochavi, "An ostracon from the period of the Judges," *Tel Aviv* 4 (1977): 1–13; Sass, *Genesis* [n. 7], 65–69.

9 Haggai Misgav and Ada Yardeni, "The ostracon," in: Yosef Garfinkel and Saar Ganor, *Khirbet Qeiyafa,* vol. 1: *Excavation Report 2007–2008* (Jerusalem: Israel Exploration Society, 2009), 255–260; Gershon Galil, "The Hebrew inscription from Khirbet Qeiyafa/Netaʾim: Script, language, literature and history," *Ugarit Forschungen* 41 (2009): 193–242; Emile Puech, "L'ostracon de Khirbet Qeyafa et les débuts de la royauté en Israël," *Revue biblique* 117 (2010): 162–184; Alan Millard, "The ostracon from the days of David found at Khirbet Qeiyafa," *Tyndale Bulletin* 62/1 (2011).

10 A list of those known up to 1997 is given by Robert Deutsch and Michael Heltzer, *Windows to the Past* (Tel Aviv–Jaffa: Archaeological Center Publications, 1996); cf. Frank M. Cross, "The arrow of Suwar, retainer of ʿAbday," *Eretz Israel* 25 (1996): 9*–17*, repr. in: *Leaves* [n. 7], 195–202. See also Robert Deutsch and André Lemaire, *The Adoniram Collection of West Semitic Inscriptions* (Geneva: Archaeological Center Publications, 2003), nos 1–2; André Lemaire, "Nouveau roi dans une inscription proto-Phénicienne?" *Atti del V Congresso Internazionale di Studi Fenici e Punici* (Palermo: Università degli Studi, Facolta di Lettere e Filosofia, 2005), 43–46.

personal name and a patronymic or, occasionally, a title, usually on the other side of the blade. Why names were placed on arrowheads is debated. A long-held opinion views them as tools of belomancy, seeking guidance for the future according to the pattern made by arrows shot from one place (compare 1 Sam 20 and Ezek 21:26). A more mundane opinion treats the names as marks of commanders' ownership, envisaging the arrows issued to archers, while another thinks they were prizes in contests. Also attractive is the belief that they were votive gifts, left in shrines before battle or after a victory. In the same period, Babylonian kings and officials had their names engraved in cuneiform on arrowheads and other weapons.[11] Whatever the reason for putting names on arrowheads – to mark ownership by the archer or the captain of a squadron of archers, or for belomancy, or to declare a votive gift – it is their very presence that is more relevant for the present study. The letters were made by strokes of a narrow chisel, like a screwdriver, hammered into the spines of the blades. This was an awkward process, so the shapes and stance of the letters are sometimes eccentric. One arrowhead was excavated from a tomb at Ruweiseh, in the Lebanon (*KAI* 20), and five, all with the same name, were allegedly found near Bethlehem, indicating the custom was widespread. It would be unreasonable to suppose that those who engraved the arrows limited their use of writing to such a purpose.

2.2. The Alphabet standardized

The oldest continuous, legible texts in the alphabet come from Byblos in the tenth century BCE, but there is nothing to indicate that writing sentences was an innovation then. About 1000 BCE, Ahirom's son had an epitaph chiseled on his sarcophagus and on the edge of its lid (*KAI* 1). A graffito on the wall of the tomb shaft warns tomb robbers that they will meet disaster if they dig deeper (*KAI* 2). Slightly later in the tenth and the early ninth centuries, other kings of Byblos had notices engraved on stone. Jeḥīmilk rebuilt a ruined temple and left an inscribed foundation stone, praying for the blessing of Baʿal Shamêm and the "Lady of Byblos" (*KAI* 4). A king named ʾAbībaʿal dedicated to the "lady of Byblos" a statue base he had brought from Egypt which had been inscribed in Egyptian for pharaoh Shishak I (ca. 945–924) (*KAI* 5) and another king,

11 For discussion of the purpose, see Emile Puech, "Les pointes de flèches inscrites de la fin du II^{e} millénaire en Phénicie et Canaan," *Actas del IV Congreso Internacional de estudios Fenicios y Púnicos* (Cadiz: Universidad de Cadíz, 2000), 251–269.

ʾElībaʿal, apparently a son of ʾAbibaʿal, dedicated a statue of Osorkon I (ca. 924–889) (*KAI* 6). As it is improbable that kings of Byblos would import statues of dead pharaohs to offer to their gods, the dates given by the pharaonic names are basic for dating the Byblian inscriptions.[12] From this tenth-century material the development of the national alphabets of the Iron Age can be traced.

The script of these Byblian texts is taken as the prototype from which all the alphabets of the Iron Age derived: Phoenician, Hebrew, Aramaic, Transjordanian, and Greek. Its status is shown by the adherence of the derivatives to the same number of letters (except Greek), despite different phonemic stocks, and the same basic shapes. As the Phoenicians were not an imperial power, or colonists in the Levant, their mercantile activities are to be understood as the means by which their alphabet spread.

3. Iron Age alphabets

3.1. The Phoenician alphabet

Few inscriptions are known from Phoenicia for several centuries after the early Byblos monuments, but the development of the script can be traced through texts from Cyprus, Anatolia, and Phoenician colonies farther west. In southern Anatolia local kings and nobles erected stone monuments with Phoenician texts during the late ninth and eighth centuries, notably at Zinçirli, with the letters carved in relief in Hittite style. The letters took more cursive forms, visible in seventh-century BCE graffiti on jars from Phoenicia, in Persian-period papyri from Egypt, and into Roman times. In North Africa the Punic and Neo-Punic alphabets show a continuing movement of the pen in longer downstrokes and other simplifications. Only from the fifth century onward were vowels occasionally marked, *w* and *y* for ū and ī, Punic also employing ʾ and ʿ.

3.2. The Aramaic alphabet and its descendants in the Levant

The movements of Aramaean tribes, trade, and Assyrian deportations carried the Aramaic language and script throughout the Fertile Crescent.

12 Benjamin Sass has argued for a later date, between 850 and 750 BCE, in *The Alphabet at the Turn of the Millennium* (Tel Aviv: Institute of Archaeology, Tel Aviv University, 2005). For counterarguments see Christopher A. Rollston, "The dating of the early royal Byblian inscriptions: A response to Benjamin Sass," *Maarav* 15 (2008): 57–93.

Clay tablets bearing notes in Aramaic, or whole texts, presumably written on clay when papyrus or leather were unavailable, illustrate the cursive hands of daily life in the seventh century leading to the documentary script standardized for Imperial Aramaic across the Persian empire from Afghanistan to Egypt. Following Alexander's conquest of the Persians, official records were composed in Greek, but Aramaic continued in common use and eventually replaced Greek in many regions. In the smaller states which succeeded the Greek kingdoms, local varieties arose, notably the Semitic Hatran, Palmyrene, Syriac, and Nabataean, while writers of Parthian and other Iranian languages adapted the Aramaic alphabet to their tongues.

Inscriptions in the Aramaic language survive from the ninth century BCE onward. Some of the twenty-two letters served to represent two phonemes which the language continued to distinguish, as the shift in Imperial Aramaic reveals: in Old Aramaic *z* stood for z and *ḏ*, in Imperial and later Aramaic *d* was used for *ḏ*; Old Aramaic had *š* for š, ś, and *ṯ* while *s* stood for s and ś, *t* for *ṯ* in Imperial and later Aramaic; Old Aramaic had *q* for q and *ḍ*, Imperial and later Aramaic had *ʿ* for *ḍ*. The oldest examples of Aramaic already display the double significance of *h, w,* and *y* for consonants and as vowel letters, although not with complete consistency (see Section 3.6).

Distinctive features of the script appear at the end of the century with longer descenders, a tail on *d,* and a Z-shaped *z.* The Tell Deir ʿAlla plaster text (see Section 3.4) displays early cursive forms with the circles of *ṭ* and *q* opening at the top and the three bars of *h* reduced to an s-like stroke. The cursive trend continued into the Persian period when numerous examples on papyrus and leather display it. Characteristic are the opening of the heads of *b, d, ṭ, ʿ, q, r,* and reduction of strokes in *k, m, ṣ.* Jewish scribes adopted the Aramaic script during Persian rule and the Dead Sea Scrolls enable its features to be followed in detail from the mid third century BCE until 70 CE, by which time the letters had taken the shapes current today.

Of all the descendants of the Aramaic script, the most significant is the Nabataean, for it was in cursive Nabataean letters that Arabic began to be written in pre-Islamic centuries and so became the script of the Arabic world and Islam. Nabataean inscriptions of the first century BCE show the distinct script which continues into the fourth century CE. The discovery in caves west of the Dead Sea of Nabataean documents from the first century CE written on papyrus has proved that the cursive Nabataean alphabet was the ancestor of the Arabic script. Certain letters that were originally distinct were reduced to virtually the same forms, e.g. *r* and *z, g* and *ḥ, p* and *q,* leading to likely confusion between those letters.

Arab scribes at an early date resolved that by placing one or two dots above or below the second of each pair. As Arabic needed twenty-eight letters to represent it adequately, the scribes also differentiated letters for sounds the twenty-two-letter system did not represent by adding one, two, or three dots to the second of ʿ and ġ, d and ḏ, t and ṯ, ṣ and ḍ, ḥ and ḫ, s and š (the Aramaic sign for s, Hebrew *samekh,* having been dropped). Thus the latest descendant of the alphabet approached the earliest form, with the addition of ḍ and ẓ.

3.3. The Hebrew alphabet

Assuming the Gezer Calendar (Gez(10).1) and the Tel Zayit abecedary[13] are Hebrew texts, which cannot be proved or disproved at present, they, with a few graffiti on pots, are the oldest extant examples of ancient Hebrew script. Set beside the tenth-century Byblos inscriptions, the longer descenders of ʾ, *w, k, m, p, q,* and *r* and their upright stance are noticeable, for those would become more apparent in the ninth and eighth centuries, giving rise to the elegantly curving strokes of *k, m, n,* and *p* seen, for example, in the Kuntillet ʿAğrūd, Nimrūd Ivory, and Siloam Tunnel inscriptions (KAgr(9), Nim(8):1, Jer(8):3). The longer descenders also occur in inscriptions written in Syria and Anatolia, in Aramaic and Phoenician, away from the coast. Unlike Aramaic and, eventually, Phoenician, Hebrew retained the equal-armed X-shape of *t.* Beginning early in the eighth century, a small downward tick was sometimes added to the tails of *z, y* and *ṣ,* and to the lowest horizontal of *s.* For the letter *w,* the scribes shifted from the Y-shape to making the right-hand branch as an oblique stroke running across the vertical, while the left-hand branch became curved. By the end of the seventh century, cursive forms show many changes: the arrowhead of ʾ made with two separate strokes no longer meeting, or with a tail running from the right end of the lower arm back to the vertical; the downstroke and the foot of *b* becoming a

13 Ron E. Tappy, P. Kyle McCarter, Marilyn J. Lundberg, and Bruce Zuckerman, "An abecedary of the mid-tenth century B.C.E. from the Judaean Shephelah," *Bulletin of the American Schools of Oriental Research* 344 (2006): 5–46, see 25–41; and McCarter, "Paleographic notes on the Tel Zayit abecedary," in: Ron E. Tappy and P. Kyle McCarter (eds.), *Literate Culture and Tenth Century Canaan: The Tel Zayit Abecedary in Context* (Winona Lake, Ind.: Eisenbrauns, 2008), 45–59. Christopher A. Rollston, "The Phoenician script of the Tel Zayit abecedary and putative evidence for Israelite literacy," ibid., 61–96, argues that the elongation is not distinctive, that the script is Phoenician. Yet there does seem to be some difference between texts from the coast and those from inland.

single slightly curved line; *y* losing its tail and its upper bar lengthening; in *k* the left finger slopes down from the shaft, with the central finger rising from it and the right finger reducing to a shoulder; the pen moving quickly when forming the zig-zag head of *m* resulted in an open S-shape with a small cross line; the head of *q* opened into a sideways S (e.g. Lak(6) 1.3). Under Persian rule, the Aramaic alphabet gradually replaced the Hebrew, Jewish tradition asserting that the Torah was transferred to the Aramaic in the time of Ezra the scribe (mid fifth century).[14] The Hebrew script, preferred by patriots, carries legends on coins of the Hasmonaeans and the First and Second Revolt and it was used for a few copies of biblical texts among the Dead Sea Scrolls. The Samaritans have continued to use it until the present day.

Excavations in Philistia uncovered a dedication on a stone block, several graffiti on pots (at Ekron), and two ostraca (at Tell Jemmeh), all from the seventh century. Their script is similar to Hebrew, yet evidently affected by Phoenician; more examples are needed before these can be reckoned a "Philistine" form of the alphabet.

3.4. Transjordanian alphabets

The history of the alphabet in Transjordan exhibits local varieties, identifiable with the kingdoms of Ammon, Moab, and Edom. In Moab the oldest inscriptions – the Moabite Stone and the Kerak fragment (*KAI* 182, 181) – of the ninth century are engraved in Hebrew letters, as are a fragment of unknown provenance from the next century and a slightly later incense altar,[15] but legends on seals of the seventh and sixth centuries have a local shape of *m* with a large head, a U-shaped *ʿayin*, while three-pronged *š* reflect Aramaic influence from the north. No Edomite writing older than the seventh century has been found. The script of seals and ostraca is similar to the Moabite, with an idiosyncratic *k,* like an inverted pointed spade. The Ammonites followed the Aramaic pattern from about 800 BCE, developing local forms on stone, metal, and pottery such as a flag-like *h* and *k* with a head like an axe-head. At Tell Deir ʿAlla in the Jordan Valley about 800 BCE a scribe copied onto a plastered wall

14 Babylonian Talmud, *Sanhedrin* 21b.

15 Shmuel Aḥituv, "A new Moabite inscription," *Israel Museum Studies in Archaeology* 2 (2003): 3–10; *Echoes from the Past: Hebrew and Cognate Inscriptions from the Biblical Period* (Jerusalem: Carta, 2008), 419–423; Paul-E. Dion and M. Daviau, "An inscribed incense altar of Iron Age II at Ḥirbet el-Mudeyine (Jordan)," *Zeitschrift des Deutschen Palästina Vereins* 116 (2000): 1–13; Aḥituv, *Echoes,* 423–426.

a composition about the seer Balaam in a version of a flowing Aramaic hand, imitating a column of a scroll, the oldest surviving example of a literary text in the West Semitic alphabet.

In comparing the "national" alphabets, it should be noted that the common origin of the letters may have resulted in some taking identical shapes without there necessarily being a connection, e.g. Ammonite inscriptions of the seventh century and Sidonian of the fifth century share an axe-head or wedge-shaped *k*.[16] Any comparison has to be made with the whole range of letters in each script.

3.5. The Greek alphabet

The reason the Greeks adopted the alphabet from the Phoenicians was almost certainly the needs of trade. As the oldest Greek writing comes from the latter part of the eighth century BCE, the transfer should be set slightly earlier. It clearly happened at one moment in one place, for the Greek alphabet marks a major step forward in marking vowels. The Phoenician letters ʾ, *h, w, ḥ, y,* and ʿ, denoting consonants which were not needed for writing Greek, were re-assigned to mark the vowels *a, e, u, ē, i,* and *o,* with *w* also serving for the consonant *w* at an early period (as *digamma*). It was essential for the comprehension of Greek that vowels be marked; otherwise the negative *ou* could not be written. Thus Greeks could "spell" words completely, producing the first true alphabet. Additional letters were added for sounds necessary for Greek, *phi, chi, psi,* and *omega,* with variations for different dialects.[17]

3.6. Vowel letters (*matres lectionis*)

A disadvantage of the linear alphabet is its wholly consonantal system. The need to include signs for vowels, perhaps at first in foreign words and names, began to be met in the ninth century by Aramaean scribes

16 See Frank M. Cross, "Notes on the Ammonite inscription from Tell Siran," *Bulletin of the American Schools of Oriental Research* 212 (1973): 12–15, repr. in: *Leaves* [n. 7], 100–102; J. Brian Peckham, *The Development of the Late Phoenician Scripts* (Cambridge: Harvard University Press, 1968), 67, 94–95.

17 For a detailed discussion of the Greek alphabet, see Manfred Krebernik, "Buchstabenamen, Lautwerte und Alphabetgeschichte," in: Robert Rollinger, Andreas Luther, and Josef Wiesehöfer (eds.), *Getrennte Wege? Kommunikation, Raum und Wahrnehmung in der Alten Welt* (Frankfurt: Verlag Antike, 2007), 108–175.

who used *h* to mark ā at the ends of words, *w,* and *y,* for ū or û and ī or î, respectively, as most evident in the Tell Fekheriyeh Statue inscription.[18] Hebrew scribes gradually followed. Later in the eighth century, at about the same time, one used *w* for medial ū in the word *ʾārūr,* "cursed', while another did not (Jer(7):2,2; EGed(8):2,1); in the Siloam Tunnel Inscription the word for 'man' is written *ʾš* (Jer(8):3,2), whereas in a Lachish letter a century or so later it is written *ʾyš* (Lak(6):1.3,9-10).[19] Ancient scribes were not constrained by the consistency required in modern texts! (For the Greek creation of vowel signs, see Section 3.4.)

3.7. Word division

With the Canaanite linear alphabet, word dividers were used occasionally, e.g. on the Lachish ewer, the Qubur al-Wulaydah bowl, and the Khirbet Qeiyafa ostracon (see Section 2.1). Short vertical strokes separate words in the early inscriptions from Byblos, but thereafter Phoenician was written continuously. Two or three dots one above another divide words in the script of the Aramaic Tell Fekheriyeh inscription, but thereafter Aramaic was often written continuously until the Persian period when a small space was left after each word. East of the Dead Sea, the Moabites adopted the Hebrew letters and, by accident, the Moabite Stone (*KAI* 182), set up by king Mesha about 840 BCE, provides the earliest lengthy example of the script, displaying clearly the practice of regular word division by a point. Hebrew scribes maintained that, normally with a point after each word, except when they were bound together grammatically. In hastily written ostraca the ink of the point is often absorbed into an adjacent letter, or it may be omitted.[20]

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18 See Ali Abou Assaf, Pierre Bordreuil, and Alan Millard, *La Statue de Tell Fekherye et son inscription bilingue assyro-araméenne* (Paris: Association pour la diffusion de la pensée française, 1982), 39–42, and among subsequent studies note Francis I. Andersen and David Noel Freedman, "The orthography of the Aramaic portion of the Tell Fekherye bilingual," in: W. Claassen (ed.), *Text and Context: Old Testament and Semitic Studies for F. C. Fensham* (Sheffield: Sheffield Academic Press, 1988), 9–49.

19 See Alan Millard, "Variable spelling in Hebrew and other ancient texts," *Journal of Theological Studies* 42 (1991): 106–115.

20 Alan Millard, " 'Scriptio continua' in Early Hebrew: Ancient practice or modern surmise?" *Journal of Semitic Studies* 15 (1970): 2–15; Joseph Naveh, "Word division in West Semitic writing," *Israel Exploration Journal* 23 (1973): 206–208.

3.8. Numerals, measures, and abbreviations

Phoenician and Aramaean scribes used a simple system of number notation based on vertical strokes for 1–9 and horizontal strokes for tens. Hebrew scribes made single strokes for 1–4, then adopted a form of Egyptian hieratic cipher numbers, with a reversed *gamma*-like sign for 5 (Γ), signs for 6–9, and a *lambda*-like sign for 10 (Λ). Higher hieratic numbers occur on some ostraca, those from Tell el-Qudērat reaching several thousands (Qud(7):6). 'Hundred' and 'thousand' were spelled in full (*mʾh, ʾlp*). A variety of signs denote weights and measures, their equivalents mostly uncertain. An ϵ-like sign may denote the measure *seʾah,* although the *ḥōmer* is also suggested; a line hooked at each end the *ʾēphā;* half an H the *kōr;* and the letter *b* followed by a slanting line the *bath.* A single point, or occasionally a small circle, signals the Egyptian *ḥq3t* measure.[21] A figure 8 open at the top was the sign for the *šeqel,* apparently the Egyptian hieroglyph *šs,* perhaps used for its initial sound, or a sign for something tied. Why the Hebrew scribes favored the Egyptian systems is obscure. Three possibilities are advanced. First, they were a legacy from the Late Bronze Age when Egyptian scribes were active in Canaan, although no cases are extant of hieratic numerals beside Canaanite script. Second, the reigns of David and Solomon, the latter linked with Egypt by marriage, brought increased administration drawing on Egyptian experience. Third, there was stronger Egyptian influence in the eighth century, the time when the systems are first well attested in Hebrew epigraphy. It may be observed that the ciphers are present in the Samaria ostraca early in the eighth century BCE (Sam(8)) and so would have been current earlier. Given the frequent contacts, diplomatic and mercantile, between the two kingdoms, Egyptian fashions may have had an intermittent impact on Canaanite and Hebrew scribes, so that they could have reflected Egyptian forms of more than one period.

Abbreviations were formed from initial letters of words, principally for measurements. Hebrew ostraca have š for 'sheqel' and also ʿ perhaps for *ʿbr,* 'harvest', ḥ for *ḥth* 'wheat', ṭ perhaps for *ṭb,* 'good', q for

21 The most recent detailed analysis of the numerals and other symbols is Stefan Wimmer, *Palästinisches Hieratisch: Die Zahl- und Sonderzeichen in der althebräischen Schrift* (Ägypten und Altes Testament 75) (Wiesbaden: Harrassowitz, 2008). For earlier surveys, see André Lemaire, *Inscriptions hébräiques,* vol. 1: *Les ostraca* (Littératures anciennes du Proche-Orient 9) (Paris: Cerf, 1977), 277–281; G. I. Davies, *Ancient Hebrew Inscriptions, Corpus and Concordance,* 2 vols. (Cambridge: Cambridge University Press, 1991–2004), 1: xix–xxii, 1: 512–535 (concordance), 2: 224–229; Renz, *Handbuch* [n. 6], vol. 2/1, *Zusammenfassende Erörterungen, Paläographie und Glossar* (1995), section D.

qdš, 'holy'. Aramaic papyri from Egypt have š for 'sheqel' and for *śʿryn* 'barley', and kš for *ksp šql* 'sheqel of silver', ʿ for the ʿ*ardab* measure, g for *grib* 'handful', ḥ for the *ḥallur* measure, and r for *rb*ʿ 'quarter'. Other abbreviations became common in Hellenistic and Roman times.[22]

The alphabet is one of the greatest inventions of the human mind, the legacy of the Canaanites to the world.

Further reading

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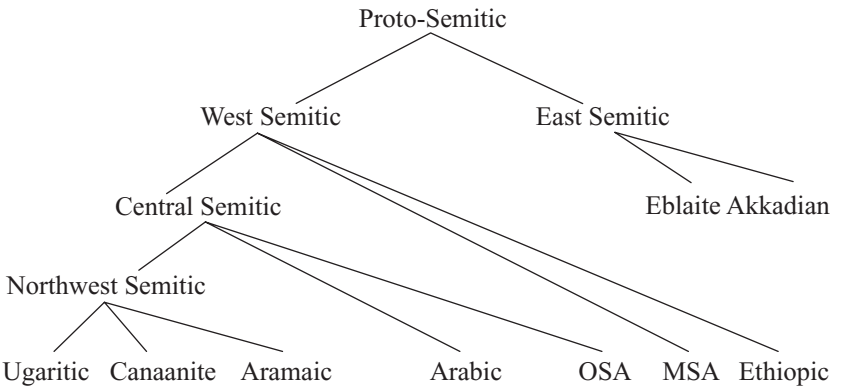
22 See Alan Millard, "Ancient abbreviations and the *nomina sacra,*" in: Christopher Eyre, Anthony Leahy, and Lisa Montagno Leahy (eds.), *The Unbroken Reed: Studies in the Culture and Heritage of Ancient Egypt in Honour of A. F. Shore* (London: Egypt Exploration Society, 1995), 221–226.

Ugaritic

Agustinus Gianto

1. Introduction and history

Ugaritic is the name given by modern scholars to the language of the old city-state of Ugarit, present-day Ras Shamra, situated on the coast of Syria (35°35′ N, 35°45′ E). Tablets dating from the end of the Bronze Age (around 1300–1190 BCE) inscribed in this language were discovered immediately after the discovery of the site in 1929 and continually since then; see Yon (2006) for an overview of the excavations. The decipherment of the script and the language was relatively fast; see Day (2002). Important studies in the last two decades have also contributed to the understanding of its grammar. The most complete grammar of Ugaritic to date is Tropper (2000); for a detailed review see Pardee (2003/2004). Gordon's (1965; *UT*) classic textbook includes a grammar, texts, and a still useful glossary. A number of shorter self-contained manuals have since appeared: Segert (1984), Sivan (1997), Tropper (2002), Schniedewind and Hunt (2007), and Bordreuil and Pardee (2009); the last has a larger selection of texts of various genres complete with copies, photographs, translation, vocalization, and copious notes.



(Canaanite = Phoenician, Hebrew, and various dialects in Syria-Palestine; OSA = Old South Arabian; MSA = Modern South Arabian.)

Ugaritic belongs to the Northwest Semitic branch of Central Semitic, a separate group within the West Semitic languages; the tree diagram is adapted from Huehnergard (2005: 162).

Since it is documented with texts dating from the second half of the second millennium, Ugaritic is also the oldest directly attested Northwest Semitic language. It still possesses linguistic traits that have changed or simply disappeared in the first-millennium Northwest Semitic languages such as Phoenician, Hebrew, and Aramaic. Almost all Proto-Semitic consonants are still preserved in Ugaritic; the Canaanite Shift /ā/ > /ō/ has not taken place; the nominal and verbal inflection reflect a more original situation that has been simplified in the later languages; the genitive-accusative independent personal pronouns of the third persons still exist; the causative stem is in Š, in contrast to Phoenician Yifʿil, Hebrew Hifʿil, and Aramaic (H)afʿel; Ugaritic has no definite article; the preposition *min* 'from' is lacking.

The Ugaritic tablets discovered so far cover a wide variety of genres: epic (myths and legends in poetry); religious (rituals, lists of sacrifice, omina, curses); epistolary (correspondence); administrative (treaties, deeds); medical (hippiatric texts to cure sick horses); and pedagogical (school exercises, alphabetic texts). The standard editions of these texts are Herdner (1963; *CTA*) and Dietrich, Loretz, and Sanmartín (1995; *KTU*); they also give the tablet's museum number. Earlier studies often cited texts according to Gordon's *UT.* The convenient numbering system of *KTU* has been adopted in many recent publications.

Close affinities with religious traditions in the Hebrew Bible, such as the divine hero's combat against hostile forces, his victory, and the construction of his palace, have stimulated studies on the mythological texts more than the other genres, especially in the first few decades after their discovery. The great interest in using Ugaritic to elucidate Hebrew and vice versa is characteristic of the discipline known as "Northwest Semitic Philology"; see studies on the parallels between Ugaritic and Hebrew literature in Fisher (1972–81; *RSP* 1–3) and the online bibliography of Smith (2004). In the last few decades, however, Ugaritic language and culture have more and more been studied on their own terms; for an exhaustive overview of Ugaritic studies, see Watson and Wyatt (1999).

Many other texts found at Ugarit are written in Akkadian, the common language of the Ancient Near East of that period. These are deeds, letters, and a few literary texts reflecting the Mesopotamian literary tradition; see van Soldt (1999). Lexical texts with Sumerian, Akkadian, Hurrian, and Ugaritic equivalences are of special importance. Even though they do not always give the precise meanings of the Ugaritic words,

such texts can give valuable information about Ugaritic phonology and morphology; see Huehnergard (1987, 2008).

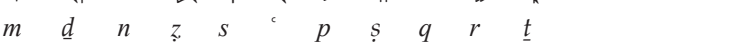
The basic vocabulary of Ugaritic, especially the kinship terms and everyday words, belongs to the common Semitic lexicon. It has become customary to compare Ugaritic words with their better attested cognates in the later Northwest Semitic languages such as Phoenician, Hebrew, and Aramaic, as well as East Semitic Akkadian. There are also a good number of culture words whose meanings are closer to the non-Semitic cuneiform languages such as Hurrian and Hittite. Comparison with Arabic can sometimes be problematic because of internal semantic developments. Due to their distant relationship in time and place, Ethiopic and South Arabian languages are less exploited in Ugaritic studies.

Some lexical traits can be accounted for from the point of view of Syro-Palestinian dialectology. A number of verbs of movement show that Ugaritic is closer to Phoenician and Hebrew than to Aramaic. Thus, like Ugaritic, the first two have *hlk* 'to go', *yrd* 'to go down', *ʿly* 'to go up', *yṣʾ* 'to go out', and *ṯwb* 'to go back', but Aramaic uses other words for these movements, namely, as attested in Syriac, *ʾzl, nḥt, slq, npq, hpk.* In Ugaritic, 'to give' is *ytn,* as in Phoenician. This word is in fact found in the northern languages of Syria-Palestine versus the Hebrew variant *ntn.* Similarly, 'to be' in Ugaritic and Phoenician is *kwn,* whereas Hebrew uses *hyy.* The more frequent Ugaritic word for 'to do' is *ʿdb* and not, as in Phoenician, *pʿl,* or Hebrew *ʿśy.*

The Ugaritic personal names stand in the Northwest Semitic tradition of name-giving, especially names expressing a personal god's kinship relations with the name-bearer; see Gröndahl (1967: 1–85), Hess (1999), and Bordreuil and Pardee (2009: 74–78), which includes notes on divine names and toponymy.

2. Script

Ugaritic is the oldest alphabetically written Semitic language yet known. The native alphabetic texts exhibit the following order of letters as in the three-line tablet *KTU* 5.6, which reads (with transliteration)



𐎙 𐎚 𐎛 𐎜 𐎝
ġ t ỉ ủ s̀

The last three letters are an innovation in Ugaritic. The letter *s̀* is exclusively found in foreign words; for the use of *ỉ* and *ủ* (and *ả*), see below. A small vertical wedge functions as a word-separator and is usually transliterated as a dot. The conjunction *w,* like the prepositions *b* and *l,* is normally written together with the following word. On the development of the Ugaritic alphabet, see Dietrich and Loretz (1988). The dictionary of del Olmo Lete and Sanmartín (2003) follows the Latin alphabetical order *ả ỉ ủ ˁ b d ḏ g ġ h ḥ ḫ k l m n p q r s s̀ ṣ š t ṭ ṯ w y z ẓ*. Older lexicons such as the still useful glossary in Gordon's *UT* basically follow the Hebrew order: *ả ỉ ủ b g d ḏ h w z ḥ ḫ ṭ ẓ y k l m n s s̀ ˁ ġ p ṣ q r š t ṯ*.

3. Phonology

3.1. Vowels

The Ugaritic vowel inventory consists of three short vowels /a/ /i/ /u/ and five long vowels /ā/ /ī/ /ū/ /ô/ /ê/. The last two long vowels are originally diphthongs */aw/ and */ay/ that were contracted in all environments: */mawt-/ > *mt* /môt-/ 'death' and */bayt-/ > *bt* /bêt-/ 'house'. (The circumflex distinguishes this contraction from original long vowels, which are indicated by a macron.)

The Canaanite Shift of Proto-Semitic (PSem.) */ā/ to /ō/ has not taken place in Ugaritic, thus *ảnk* /ˀanāku/ = PSem. */ˀanāku/ 'I', against Hebrew *ˀānôḵî.*

The writing system of Ugaritic indicates vowels only when they are inherently connected with an aleph. Generally the three aleph signs *ả, ỉ, ủ* correspond to an aleph followed by a short vowel or a long vowel, i.e., *ả* represents /ˀa/, as in *ảlp* /ˀalp-/ 'ox' or /ˀā/, as in *šmảl* /šimˀāl-/ 'left'. The sign *ủ* can indicate /ˀu/, as in *ủm* /ˀumm-/ 'mother' and /ˀū/, as in *rpủm* /rapiˀūma/ (pl.) 'the *Rpủm* spirits' as well as /ˀô/ (contracted */aw/), as in *ủ* /ˀô/ 'or'. The sign *ỉ* is more complicated because it not only stands for /ˀi/, /ˀī/, /ˀê/ (*/ay/) as in *ỉl* /ˀil-/ 'god', 'the god El', *rpỉm* /rapiˀīma/ genitive of *rpủm,* and *ỉn* /ˀêna/ 'there is', but also for /Cvˀ/, that is, any consonant plus any short vowel plus syllable-final aleph as in *tỉḫd* /taˀḫudu/ 'she holds fast', *mỉt* /miˀt-/ 'one hundred', *mỉd* /maˀda/ 'very', 'much'.

3.2. Consonants

The Ugaritic consonantal inventory generally reproduces the PSem. consonants except in a few cases. Thus PSem. */ɬ′/ (cf. Arabic ض *ḍ*) merges with /ṣ/, likewise PSem. */ɬ/ (cf. Hebrew שׂ *ś*) with /š/; these are written as *ṣ* and *š* respectively. The correspondences of PSem. */ð/ and */d/ are normally written as *d*, which suggests a merging of these two consonants. In *KTU* 1.12 and 1.24, however, */ð/ is written as *ḏ*.

In the following words, the letter *ġ* anomalously represents a consonant that corresponds to PSem. emphatic interdental */θ′/: *ġmˀ* 'to be thirsty', *nġr* 'to watch', *yqẓ* 'to be awake', *ġr* 'mountain', *mġy* 'to arrive'. Normally *ġ* stands for /ǧ/, the expected reflex of PSem. /ǧ/.

Table 1 presents the Ugaritic consonants according to their articulatory classification. The alternative symbols given between brackets are linguistically more precise representations of PSem. consonants; see Huehnergard (2004: 142–144). In all probability, the emphatic consonants in Ugaritic can be described as glottalized. Here they are indicated with a dot underneath or, when the alternative symbols are used, with an apostrophe (′).

As in other Northwest Semitic languages, initial /w-/ becomes /y-/: PSem. */warḫ-/ > /yarḫ-/ 'moon', 'month', PSem. */wašina/ > /yašina/ 'he sleeps'. (An exception is the conjunction /wa-/ 'and'.) Another common feature of Northwest Semitic is the assimilation of /n/ to a following

Table 1. Ugaritic consonants

	Bilabial	Interdental	Dental	Palato-alveolar	Velar	Pharyngeal	Glottal
Stops							
voiceless	p		t		k		ˀ (= ʔ)
voiced	b		d		g		
emphatic			ṭ (= t′)		q (= k′)		
Fricatives							
voiceless		ṯ (= θ)	s	š	ḫ (= x)	ḥ (= ħ)	h
voiced		ḏ (= ð)	z		ġ (= ɣ)	ʿ (= ʕ)	
emphatic		ẓ (= θ′)	ṣ (= s′)				
Trill			r				
Lateral			l				
Nasals	m		n				
Glides	w			y			

consonant: *åt* /ʾatta/ ‘you’ < PSem. */ʾanta/, *bt* /bitt-/ ‘daughter’ < PSem. */bint-/.

4. Morphology and Morphosyntax

4.1. Personal pronouns

The personal pronouns distinguish person, gender, and number. They are found as independent forms and as forms suffixed to a noun, verb, or preposition.

4.1.1. Independent personal pronouns

The nominative forms of the independent pronouns indicate the subject in nominal sentences. In verbal sentences, the independent personal prounouns are pleonastic and serve mainly for emphasis. The oblique forms, i.e., the genitive and accusative, are only found in the third person. Table 2 shows the clearly attested forms.

Some examples of the oblique forms are *kbd hyt* /kabbidā hiyati/ ‘praise her’ (imv.) *KTU* 1.3 III:10; *kbd hwt* /kabbidā huwati/ ‘praise him’ (imv.) *KTU* 1.3 VI:20; *dỉy hmt* /daʾiyî humūti/ ‘(may Baal break) their wings’ *KTU* 1.19 III:43f.

Table 2. Ugaritic independent pronouns

	Singular	Dual	Plural
		Nominative	
1	*ån* /ʾana/	—	—
	ånk /ʾanāku/	—	—
2masc.	*åt* /ʾatta/	*åtm* /ʾattumā/	*åtm* /ʾattum(ū)/
2fem.	*åt* /ʾatti/		—
3masc.	*hw* /huwa/	—	—
3fem.	*hy* /hiya/	—	—
3	—	*hm* /humā/	—
		Genitive/Accusative	
3masc.	*hwt* /huwati/	*hmt* /humāti/	*hmt* /humūti/
3fem.	*hyt* /hiyati/	—	—

4.1.2. Pronominal suffixes

The suffixed pronouns (Table 3) are used with prepositions, or with nouns, where they indicate the possessor. When used with transitive verbs, the suffixed pronoun indicates a pronominal object. The final vowels in the pronominal suffixes can also be reconstructed as long vowels. The suffixes are added to the bound form of nouns, prepositions, and verbs. 1sg. *-n* /-ni/ is used with finite verbs: *ṣḥm* /ṣāḥa-ni/ 'he invoked me' *KTU* 1.5 I:22. When suffixed to nouns in the nominative singular and feminine plural, the /-u/ of the nominative is dropped and the first-person suffix on nouns is long /-ī/ but it is not indicated in the writing; thus 'my king' *mlk* /malk-ī/, 'my daughter' *bt* /bitt-ī/, 'my daughters' *bnt* /banāt-ī/. Otherwise the form is *y* /-ya/; this is also the form used with prepositions, e.g., *by* /bi-ya/ 'in me', *ly* /li-ya 'to/for me', *ʿmy* /ʿimma-ya/ 'with me'. The 3masc.sg. and 3fem. sg. suffixes on verbs also appear as *-n, -nn, -nh;* their origin is discussed in Section 4.6.2, in relation to the "energic" forms of the prefix-conjugation.

4.2. Determinative-relative pronoun

The determinative-relative pronoun has two variants. The indeclinable variant *d* /dū/ is used with both nominal and verbal relative clauses. The declinable forms (Table 4) are used with verbal relative clauses and only occasionally with nominal relative clauses. They agree with the case and number (only sg. and pl.) of the antecedent.

Table 3. Ugaritic pronominal suffixes

	Singular	Dual	Plural
1	*-ø* /-ī/; *-y* /-ya/*-n* /-ni/	*-ny* /-nayā/(?)	*-n* /-na/ or /-nu/
2M	*-k* /-ka/	*-km* /-kumā/	*-km* /-kum(ū)/
2F	*-k* /-ki/	—	*-kn* /-kin(n)a/
3M	*-h* /-hu/	*-hm* /-humā/	*-hm* /-hum(ū)/
3F	*-h* /-ha/	—	*-hn* /-hin(n)a/

Table 4. Ugaritic relative pronoun

			Nominative	Genitive	Accusative
masc.	sg.	*d*	/dū/	/dī/	/dā/
	pl.	*dt*	/dūtu/	/dūti/	
fem.	sg.	*dt*	/dātu/	/dāti/	/dāta/
	pl.	*dt*	/dātu/	/dāti/	

4.3. The other pronouns

The interrogative pronouns are indeclinable: *my* /mīya/ 'who?', *mh* /mahu/ 'what?', *mn* /mannu/ 'which?'. The indefinite pronouns are also indeclinable: *mnk* 'whosoever', *mnm* /mannumma/ 'whatsoever'. The indeclinable demonstrative *hnd* /hānādū/ 'this' or 'these' functions as near-deixis: *lym hnd* /li-yômi (masc.sg.) hānādū/ 'from this day (i.e., today)' *KTU* 3.2:1, *ålpm śśwm hnd* /ʾalpāmi sūswūma (masc.pl.) hānādū/ 'these two thousand horses' *KTU* 2.33:32, *mlåkty hnd* /malʾakataya (fem.sg.acc.) hānādū/ 'this message of mine' *KTU* 2.33:35. The feminine form *hndt* /hānādatu/ refers to a female person or a situation. There are also far-deixis forms: masc. *hnk* /hānāka/ and fem. *hnkt* /hānākatu/.

4.4. Nouns

4.4.1. Noun patterns

As in other Semitic languages, nouns in Ugaritic are formed by modifying the root, as in √RGM > RiGM- 'word'; √GNB > GaNNāB- 'thief'. This formation can also be expanded with prefixation, e.g., √LʾK > maLʾaK- 'messenger'; or with suffixation, e.g., √LʾY >ʾaLʾiYān- 'mighty'. The most important patterns are as follows (KTB is the paradigmatic root; v = short vowel, v̄ = long vowel):

Kv̄: *ġ* /gû/ 'voice'; *p* /pû/ 'mouth'.

KvTB-: *åbn* /ʾabn-/ 'stone', *rgl* /rigl-/ 'leg'; *ůdn* /ʾudn-/ 'ear'. The plural of this pattern is formed with the insertion of the short vowel /a/, thus KvTaBūma, e.g.: *åbnm* /ʾabanūma/ 'stones'; the base for the dual is the singular: *rglm* /riglāmi/ 'both legs', *ůdnm* /ʾudnāmi/ 'both ears'.

KvTvB- is the most frequent pattern. The pattern KvTaB- is the basis of the plural of KvTB- as described above.

KvTv̄B-: KaTīB- indicates qualities or states: *ṣdq* /ṣadīq-/ 'just', *åsr* /ʾasīr-/ 'fettered', *ymn* /yamīn-/ 'right (hand)', as opposed to *šmål* /šimʾāl-/ 'left (hand)'.

KāTiB- is the pattern of the active participle of the G-stem.

KuTêB- (< *kutayb-) is a diminutive pattern: *ġlm* /ġulêm-/ 'lad', cf. /ġalm-/ 'youth'.

KaTTāB- is used for names of professions: *ḫrš* /ḫarrāš-/ 'craftsman', *ṭbḫ* /ṭabbāḫ-/ 'cook' (from √ṬBḪ 'to slaughter'), *gnb* /gannāb-/ 'thief' (from √GNB 'to steal').

Prefix *m*-: maKTaB- often indicates a place: *mṯb* /môṯab-/ < (*/mawṯab-/ 'residence'). Participles of derived stems except N have this prefix.

Prefix *t-*: *trbṣ* /tarbaṣ-/ ‘stall’ (from √RBṢ ‘to lie down’).
The suffix *-y* indicates people’s origin /-īy-/: *mṣry* /miṣrīyu/ ‘an Egyptian’. The suffix can also stand for /-āy-/: *ủḫry* /ʾuḫrāyu/ ‘posterity’.
The suffix *-n* /-ān-/ has an individualizing nuance: *ỉlnym* /ʾilānīyūma/ ‘particular divine beings’ (/ʾil + -ān- + -īy- + plural ending -ūma/); *ảlỉyn* /ʾalʾiyānu/ ‘the mighty one’, epithet of Baal: *ảlỉyn bʿl* /ʾalʾiyānu Baʿlu/.
The ending *-t* can also be suffixed to masculine nouns to indicate the feminine counterpart: *mlk* /malk-/ ‘king’ > *mlkt* /malkat-/ ‘queen’, *ỉl* /ʾil-/ ‘god’ > *ỉlt* /ʾil(a)t-/ ‘goddess’. This ending also creates abstract nouns like *ʿwrt* /ʿiwwir(a)t-/ ‘blindness’ and nouns of units like *mnḥt* ‘particular gift’, cf. *mnḥ* ‘gift (in general)’.
Compound nouns: *blmt* /bal-môt-/ ‘immortality’ < *bl* ‘not’ + *mt* ‘death’; blend formation *bnš* /bunuš-/ ‘man’ < *bn* + *ʾnš* ‘son of man’, *ỉlỉb* /ʾilʾib-/ < *ỉl* + *ảb* ‘divine ancestor’.

4.4.2. Nominal inflection

Nouns and adjectives are inflected (“declined”; Table 5) according to gender (masculine or feminine), number (singular, dual, or plural), state (absolute, i.e., not bound to a following noun X in the genitive or to a pronominal suffix; or construct, i.e., bound to such a noun), and case (nominative, genitive, accusative; in dual and plural nouns, the genitive and the accusative are the same and generally labeled “oblique”).

Most singular nouns in Ugaritic are triptotic; that is, they have three cases. Dual and plural nouns are diptotic; their genitive and accusative endings are formally the same and therefore these cases are often called oblique cases. The noun in the genitive (*nomen rectum*) immediately

Table 5. Ugaritic nominal inflection

		Singular	Dual		Plural	
		abs./cstr.	abs.	cstr.	abs.	cstr.
Masc.	nom.	ṭāb-u (X)	ṭāb-āmi	ṭāb-ā X	ṭāb-ūma	ṭāb-ū X
	gen.	ṭāb-i (X)	ṭāb-êmi	ṭāb-ê X	ṭāb-īma	ṭāb-ī X
	acc.	ṭāb-a (X)				
Fem.	nom.	ṭāb-atu (X)	ṭāb-atāmi	ṭāb-atā X	ṭāb-ātu	
	gen.	ṭāb-ati (X)	ṭāb-atêmi	ṭāb-atê X	ṭāb-āti	
	acc.	ṭāb-ata (X)				

follows the noun in the construct (*nomen regens*); an enclitic particle *-m* or *-y* is sometimes added to the *nomen regens* without any clear function.

Unlike the first-millennium Northwest Semitic languages (Hebrew, Phoenician, Aramaic), Ugaritic possesses no definite article. Definiteness, or the lack of it, can be deduced from the context. A *nomen regens* in a construct chain is by definition definite: *hmlt ảrṣ* /hamullatu ʾarṣi/ 'the crowd (or: uproar) of the earth' *KTU* 1.3 III:28; so are nouns with *kl* /kull-/ 'all of X (in the genitive)' and nouns with a possessive suffix. It has been suggested that the deictic element /han-/ (itself from /ha/ and /n/) in the demonstrative particle /hānādū/ 'this' provides the basis from which the definite article in the Canaanite branch of Northwest Semitic, as in Hebrew and Phoenician, has evolved.

As in Hebrew, the enclitic particle *-h* /-ah/ indicates direction and replaces the last vowel of the noun: *w-ʿlmh* /wa-ʿālam-ah/ < /wa-ʿālamu + ah/ 'and forever', *šmmh* /šamīm-ah/ < /šamīma/ (gen.-acc. pl.) + /ah/ 'heavenward'.

The nominative is the case of the S(ubject) and P(redicate) of equational sentences (/sāpiru ʾIli-milku/ 'The scribe is Ilimilku') and qualifying sentences (/Baʿlu ʿazzu/ 'Baal is strong'); in a locative sentence (/ḥukmuka ʿimma ʿālami/ 'your wisdom is with eternity'), the S takes the nominative while the P is a preposition + noun in the genitive.

It is not clear whether the noun used with the particle of existence *ỉṯ* /ʾīṯê/ 'there is' or *ỉn* /ʾêna/ 'there is not' appears in the nominative or the accusative. Comparative evidence from the slightly later Canaanized Akkadian of the Amarna letters suggests that the accusative was used.

4.5. Numerals

Numerals are written as numbers (in the Babylonian system) or as words. The word for 'one' generally follows the counted noun, agreeing in gender and case: masc. *ảḥd* /ʾaḥḥad-/, fem. *ảḥt* /ʾaḥḥatt-/. The ordinal 'first' is *prʿ*/parʿ-/. The word for 'two' is a dual noun: masc. *ṯnm* /ṯināmi/, fem. *ṯtm* /ṯittāmi/, cstr. *ṯn* /ṯinā/ and *ṯt* /ṯittā/; it usually precedes the counted noun, which is in the dual, agreeing in gender and case. The ordinal is *ṯn* /ṯānī/ 'the second'. The words for the cardinal numbers 'three' to 'ten' are nouns and usually precede the counted noun in the plural. Their gender agreement is peculiar. The "M" forms (morphologically masculine) in Table 6 are used with the feminine nouns and, unlike in other Semitic languages, also with masculine nouns. The "F" forms of the numerals (morphologically feminine) are found regularly with masculine nouns. 12 to 19 are formed like 11: /ṯinā ʿašar(at)-/, /ṯalāṯ- ʿašar(at)-/, etc. 20 *ʿšrm*

Table 6. Ugaritic numerals

	Cardinals		Ordinals
	"M" forms	"F" forms	
3	*ṯlṯ* /ṯalāṯ-/	*ṯlṯt* /ṯalāṯat-/	*ṯlṯ* /ṯāliṯ-/ 'third'
4	*ʾarbʿ* /ʾarbaʿ-/	*ʾarbʿt* /ʾarbaʿat-/	*rbʿ* /rābiʿ-/ 'fourth'
5	*ḫmš* /ḫamiš-/	*ḫmšt* /ḫamišat-/	*ḫmš* /ḫāmiš-/ 'fifth'
6	*ṯṯ* /ṯiṯṯ-/	*ṯṯt* /ṯiṯṯat-/	*ṯṯ* /ṯiṯṯ-/ 'sixth'
7	*šbʿ* /šabʿ-/	*šbʿt* / šabʿat-/	*šbʿ* /šābiʿ-/ 'seventh'
8	*ṯmn* /ṯamān-û,-î,-â/ (<*/ṯamāniy-u,-i,-a/)	*ṯmnt* /ṯamānīt-/	(the higher ordinals are not clearly attested)
9	*tšʿ* /tišʿ-/	*tšʿt* / tišʿat-/	
10	*ʿšr* /ʿašar-/	*ʿšrt* /ʿašarat-/	
11	*ʿšty ʿšr* /ʿaštayu ʿašar-/	*ʿšty ʿšrt* /ʿaštayu ʿašarat-/	

/ʿašarāmi/ is the dual of 10. 30 to 90 are plural forms of 3 to 9: /ṯalāṯūma/, /ʾarbaʿūma/, etc. 100 is a feminine noun *mỉt* /miʾt-/; 200 is its dual *mỉtm* /miʾtāmi/; 300 is /ṯalāṯu miʾtūma/. 1000 is *ỉlp* /ʾalp-/; 2000 is its dual *ỉlpm* /ʾalpāmi/; 3000 is /ṯalāṯu ʾalapūma/. 10,000 is *rb* /ribb-/ and *rbt* /ribbat-/; also *rbbt* /ribabat-/ 'a large number'.

Multiplicatives are expressed by the numeral + *ỉd: šbʿỉd* /šabiʿʾida/ 'sevenfold', here an adverbial accusative.

Fractions are not clearly attested. In all probability they are maKTiB nouns such as *mlṯḥ, mṯlṯ, mrbʿ* 'one half, one third, one fourth', and perhaps also *mʿšr* 'a tenth part'. The word *ḫṣt* /ḫaṣât-/ means a half of a certain measure. There is also the weight unit *nṣp* 'half a shekel'.

A special form of the ordinal is attested in *KTU* 1.14 I:16–20 as a muKaTTaBat-noun: *mṯlṯt* /muṯallaṯat-/ 'the third' through *mšbʿt* /mušabbaʿat-/ 'the seventh'. All these qualify the noun *mtrḫt* 'woman taken in marriage' in line 13 of the same text and thus can hardly be interpreted as fractions 'a third', etc.

Number parallelism occurs in poetic texts to create a special parallel structure: a numeral X in the first line of a bicolon has its counterpart in the second line in the form X + 1: *hm ṯn dbḥm šnå bʿl* || *ṯlṯ rkb ʿrpt* 'truly, two kinds of sacrifice Baal hates, || three does the Rider of the Clouds'.

4.6. Verbs

As in other Semitic languages, the Ugaritic verbal system can be described in terms of inflection (i.e., person, number, gender, and suffix/

prefix-conjugation expressing tense, aspect, and modality) and derivation (i.e., verbal stems). Both intersect with voice, i.e., active, passive, and various shades of medium, the most important being the reflexive.

Various verbal stems constitute the derivational system. The primary stem is the G-stem (Ger. *Grundstamm*). From this stem are derived the reflexive-passive N-stem, characterized by the prefixation of *n-*; the factitive D-stem, with the doubling of the middle radical; and the causative Š-stem, with the prefixation of *š-*. The G-, D-, and Š-stems each have a passive Gp, Dp, and Šp and a reflexive form Gt, Dt, and Št.

Only transitive verbs have passives. The object of an active transitive verb is the subject of its passive. Intransitive verbs in the D-stem normally have a single object, but in the Š-stem they can have double objects. Intransitive verbs do not have any passive; they can be either verbs of movement (*hlk* 'to go') or stative verbs (*šlm* 'to be at peace'). A stative verb can be made transitive by putting it into the D-stem (D *šlm* 'to keep someone well'). Verbs of movement can be transitivized by putting it into the Š-stem; in this case they will have a single object (Š *hlk* 'to walk someone', 'to cause something to flow').

Verbal inflection also includes the opposition between finite and nonfinite verbs. The nonfinite forms are the participle and the infinitive. They have nominal traits and thus are inflected according to gender (masculine, feminine), number (singular, dual, plural), and case (nominative, genitive, accusative). The finite verbs, i.e. those that are inflected according to person in combination with gender and number (first/second/third person, masculine/feminine, singular/dual/plural) are usually described under the headings "suffix-conjugation" /kataba/ (also known as "perfect" or "perfective") and the various forms of "prefix-conjugation." The imperative, too, belongs among the finite forms.

The prefix conjugation has a "long" form /yaktubu/ and two "short" forms /yaktub/ and /yaktuba/. The long form is also called the "imperfect" or "imperfective" and sometimes also "indicative." The short form /yaktuba/ is called the "subjunctive" and sometimes also "volitive." The other short form /yaktub/ (sometimes labeled "apocopated") is here called "narrative/jussive" according to its use as a narrative tense (for past situation, hence also "preterite") or to express the jussive in interactive speech. The paradigm of the active G-stem is presented in Table 7.

4.6.1. Suffix-conjugation

The base for the suffix-conjugation in the G-stem is /KaTvB-/, where /v/ can be /a/, /i/, or /u/. Transitive action verbs ("fientive" verbs) usually

Table 7. Ugaritic verbal inflection

		Prefix-conjugation			
	Suffix-Conjugation	Imperfect	Subjunctive	Narrative/ Jussive	Imperative
		Singular			
1	katab-tu	ʾa-ktub-u	ʾa-ktub-a	ʾa-ktub	
2masc.	katab-ta	ta-ktub-u	ta-ktub-a	ta-ktub	ktub(a)
2fem.	katab-ti	ta-ktub-īna	ta-ktub-ī	ta-ktub-ī	ktubī
3masc.	katab-a	ya-ktub-u	ya-ktub-a	ya-ktub	
3fem.	katab-at	ta-ktub-u	ta-ktub-a	ta-ktub	
		Dual			
1	katab-nayā (?)	na-ktub-ā (?)	na-ktub-ā (?)	na-ktub-ā (?)	
2masc.	katab-tumā	ta-ktub-āni	ta-ktub-ā	ta-ktub-ā	ktubā
3masc.	katab-ā	y/ta-ktub-āni	y/ta-ktub-ā	y/ta-ktub-ā	
3fem.	katab-tā	ta-ktub-āni	ta-ktub-ā	ta-ktub-ā	
		Plural			
1	katab-nu	na-ktub-u	na-ktub-a	na-ktub	
2masc.	katab-tum(ū)	ta-ktub-ūna	ta-ktub-ū	ta-ktub-ū	ktubū
2fem.	katab-tin(n)a	ta-ktub-na	ta-ktub-na (?)	ta-ktub-na (?)	ktubā(?)
3masc.	katab-ū	t/ya-ktub-ūna	t/ya-ktub-ū	ta-ktub-ū	
3fem.	katab-ā	ta-ktub-(ā)na	ta-ktub-ā	ta-ktub-ā	

have the stem vowel /a/, as in /našaʾa/ ‘he lifted’, but intransitive verbs and stative verbs have /i/, as in /ġamiʾti/ ‘you (fem.sg.) are thirsty’, /šaniʾa/ ‘he hates’. Verbs with the stem vowel /u/ would also be intransitive, but they are poorly attested in Ugaritic. With transitive and intransitive verbs, the suffix-conjugation in general indicates a past action that has already taken place without stating that this action forms a sequence with some other action in the past. With stative verbs the form as such does not mark time reference.

4.6.2. Prefix-conjugation

The base of the G-stem is /-KTvB-/, where /v/ can be /a/, /i/, or /u/. The prefix is /ya-/ if the base is /-KTuB-/ or /-KTiB-/, e.g., *åmlk* /ʾamluk-/ ‘I rule’, *ård* /ʾarid-/ ‘I descend’. With /-KTaB-/, the prefix is dissimilated

into /yi-/, e.g. *ỉlåk* /ʾilʾak-/ 'I send'. This dissimilation is known as the "Barth-Ginsberg Law."

The formal difference between the three forms of the prefix-conjugation lies in their endings, especially the 3sg.: imperfect /-u/, subjunctive /-a/, but no ending in the narrative/jussive. The writing, however, indicates the difference only in 2fem.sg. and 2–3 du./pl.

The imperfect /yaktubu/ expresses an ongoing situation without specifying its time reference; see Vereet (1988), Sivan (1998). This form is closely associated with modality, much the same way as its counterpart in Hebrew; see Gianto (1998). The imperfect can also indicate the future, which is a kind of modality.

The narrative /yaktub/ expresses a situation that took place in the past. Unlike the suffix-conjugation /kataba/, the situation narrated is part of a series of events building the backbone of a story (see below). Greenstein (2006; taken over in Bordreuil and Pardee 2009) claims that in Ugaritic the existence of /yaktub/ is doubtful and, if at all present in the language, that it was no longer functionally distinct from /yaktubu/. The arguments, however, are not conclusive (cf. Gzella 2010: 369–371). This question aside, the narrative form is neutral with regards to aspect and modality, even though the lexical meaning of the verb and the context can specify them further.

The jussive /yaktub/ has the same form as the narrative. It is the form that represents wishes, which can also be expressed with the subjunctive /yaktuba/, especially in dependent clauses.

The narrative /yaktub/ and the imperfect /yaktubu/ often occur side by side to create a foreground vs. background effect in a narration. This can be illustrated with a passage from *KTU* 1.23:37f: (i) *ydh yšů* (= imperf. /yišša^{ʾ}u/) 'while he (El) raised his hand', (ii) *yr* (narr. /yarî/) *šmmh* 'he shot heavenward', (iii) *yr* (narr. /yarî/) *bšmm* ^{ʿ}*ṣr* 'he shot a bird in the sky'. El's raising his hand in (i), expressed in the imperfect, provides a background to the main event – the foreground – namely the shooting of the arrow expressed in the narrative forms in (ii) and (iii). Similarly, *KTU* 1.2 I:30f.: (i) *åḫr tmġyn* (= imperf.du. /tamġiyāni/) *mlåk ym t*^{ʿ}*dt ṯpṭ nhr* 'then came the two envoys of Yam, the emissaries of Judge River', (ii) *l p*^{ʿ}*n ỉl l tpl* (narr. du. /tappulā/) *l tštḫwy* (narr.du. /tištaḫwiyā/ *pḫr m*^{ʿ}*d* 'at the feet of El they did not fall, they did not show obeisance before the Assembly'. The imperfect in (i) serves as a background to the main events in the narrative forms in (ii). For this backgrounding mechanism, see Gianto (1989, 2010; Greenstein 2006: 93–95 discusses a similar mechanism, yet backgrounding is assigned to the suffix-conjugation /kataba/ there).

In addition to these three forms of the prefix conjugation, there are also two "energic" forms, namely the "short form"/yaktub-<u>an</u>/ and the

"long form" /yaktuba-nna/. The "short form" with suffix is *yktbn* /yaktuban-nu~a/ < */an-hu~a/; the "long form" with 3sg. suffix is *yktbnh* /yaktubanna-hu~a/. The suffixal form with the "short form" was re-analyzed by native speakers as subjunctive /yaktuba/ with a "new" 3sg. suffix /-nnu~a/ writen *n.* This "new" suffix is also used with the "long form," /yaktubanna-nnu~a/, written *yktbnn.* The proper suffixal form of the "long form" *yktbnh* /yaktubanna-hu~a/ was also at some point reanalyzed as /yaktuba/ with another "new" 3sg. suffix, /-nnahu~a/, written *-nh.* This explains the existence of variant 3sg. suffixes *-n, -nn, -nh.*

4.6.3. Imperative

In all probability the imperative exhibits the stem vowels /u/, /i/, /a/ of the corresponding prefix conjugation. The masculine singular has two variants, the simple form /KTvB/, where v is the stem vowel, and the lengthened form with the ending /-a/. The feminine singular is /KTvBī/, the masculine plural /KTvBū/. The feminine plural should be /KTvBā/. This reconstructed vocalization is based on III*y*/*w* and III^{ʾ} verbs and comparison with other Semitic languages, especially Hebrew. The exact vocalization is not known.

4.6.4. Participle

The participle behaves like a noun; it is inflected for gender, number, case, and state. The forms of the active participle of the G-stem are: masc.sg. *ktb* /kātib-u, -i, -a/; masc.pl. *ktbm* /kātib-ūma, -īma/; fem.sg. *ktbt* /kātibat-u, -i, -a/; fem.pl. *ktbt* /kātibāt-u, -i/. The construct forms and the dual follow the common nominal inflection. The vocalization of the G-stem passive participle is probably /katīb-/.

Since the participle also has verbal uses, the object noun that follows can be in the accusative or the genitive: *åḫd ydh* /^{ʾ}āḫidu yada-hu/ 'the one holding his hand (when in drunkenness)' vs. /^{ʾ}āḫidu yadi-hu/ 'the holder of his hand' *KTU* 1.17 I:30.

4.6.5. Infinitive

The infinitive can appear in the absolute or the construct state. In the first case the form is /katāb-/ and its usage is as follows:

– To highlight a preceding or following finite verb: *ġmů. ġmỉt* /ġamā^{ʾ}u ġami^{ʾ}ti/ 'you (fem.sg.) are indeed thirsty' *KTU* 1.4 IV:34; *låkm . ỉlåk* /la^{ʾ}āku-mi ^{ʾ}il^{ʾ}aku/ 'I will surely send' *KTU* 2.30:19f.

– To denote an action performed by a subject without expressing the tense, mood, or aspect. The subject pronoun or noun comes after the infinitive absolute: *wrgm ånk* /wa-ragāmu ʾanāku/ 'and I said' *KTU* 2.42:25; *ṣḥq btlt ʿnt* /ṣaḥāqu batūlatu ʿAnatu/ 'Virgin Anat laughs' *KTU* 1.4 V:25. (The infinitive can probably also express a command, hence like an imperative, but this usage is poorly documented.)

The form that has a pronominal suffix or is in a construct relation to a following noun (cf. the infinitive construct in Hebrew) is used as:

– A temporal expression, normally with the preposition *b-: bnšʾ.ʿnh* /bi-našāʾi ʿênêha/ 'on looking up (lit.: in raising her eyes) (she saw Baʿlu's approach)' *KTU* 1.4 II:12; *bbk . krt* /bi-bakâ Kirta/ 'as Kirta wept' *KTU* 1.14 II:7; *bšʾl . krt* /bi-šaʾāli Kirta/ 'while he asked Kirta' *KTU* 1.14 I:38.

– An expression of purpose, normally with the preposition *l-: llḥm . lšty . ṣḥtkm* /li-laḥāmi li-šatāyi ṣaḥtukum(ū)/ 'to eat (and) drink I have invited you' *KTU* 1.15 IV:27.

– Equivalent to a gerund or a verbal noun: *hlk . kṯr . kyʿn* /halāka Kôṯari kī-yaʿin/ 'the coming of Kirta when he saw' (object fronting for emphasis) *KTU* 1.17 V:10f.

4.6.6. Derived verbal stems

For the system of derivation and its intersection with the passive and reflexive, see Section 4.6. The vocalizations in Table 8 are based on comparative evidence from other Northwest Semitic languages and the syllabic transcription of Ugaritic; for the latter, see Huehnergard (1987: 319–322, addenda 2008: 403). The Barth-Ginsberg Law, i.e., the vowel dissimilation */ya-ktab-/ > /yi-ktab-/, appears only in the G prefix-conjugation. In the D, Dp, Š, and Šp, the prefix vowel is believed to be /u/, in the Gt and N it is /i/. It is not clear which vowel goes with the Dt and Št. In the Gt, a prothetic aleph occurs only when the form is at the beginning of the sentence, as in these two Gt imperative forms, the first with prothetic aleph, the second without: *ištmʿ . wtqg* /ʾištamiʿ wa-ttaqig/ 'take heed and be alert'.

The D-stem is replaced by the L(engthened)-stem in verbs with hollow roots (II*w*/*y* verbs) and probably also in geminate verbs. The vocalization is similar to that of the D-stem: suffix-conjugation /rāmima/, prefix-conjugation /yurāmim-/, imv. /rāmim/, part. /murāmim-/ 'to elevate'. The R(eduplicated) stem also behaves like the D-stem: /karkira/, /yukarkir-/, /karkir/, /mukarkir-/ 'to twiddle (one's thumbs)'. So do

Table 8. Ugaritic derived verbal stems

	Suffix-conjugation	Prefix-conjugation	Imperative	Participle	Infinitive
G	kataba	yaktub-	ktub(a)	kātib-	katāb-
	katiba	yiktab-	ktab(a)	kātib-	katāb-
	katuba	yiktab-	ktab(a)	kātib-	katāb-
Gp	kutiba	yuktab-	—	katīb-	—
Gt	ʾiktataba	yiktatib-	ʾiktatib(a)	muktatib-	—
N	naktaba	yikkatib-	ʾikkatib(a)	naktab-	naktāb-
D	kattiba	yukattib-	kattib(a)	mukattib-	kuttāb-
Dp	—	yukattab-	—	mukattab-	—
Dt	takattaba (tD)	yvktattab-	—	—	—
Š	šaktiba	yušaktib-	šaktib(a)	mušaktib-	šaktib-
Šp	šuktiba	yušaktab-	—	mušaktab-	—
Št	—	yvštaktib-	—	muštaktib-	—

verbs with four radicals: /parsiḥa/, /yuparsiḥ-/, /parsiḥ/, /muparsiḥ-/ ‘to collapse’.

4.6.7. Verbs with weak roots

As in other Semitic languages, verbs with roots containing /n/, /w/, or /y/ have some peculiarities due to the unstable nature of these sounds in certain forms. Differently from Hebrew, roots with gutturals or /r/ are regular in Ugaritic. Verbs with aleph are also in principle regular; for special cases, especially Iʾ, see Tropper (2000: 611–613).

In verbs and √LQḤ

The /n/ in I*n* verbs assimilates to the immediately following consonant in the prefix-conjugation of G-stems and in the suffix- and prefix-conjugations of the Gt-stem. In the G-stem imperative the /n/ is lost. Thus the suffix-conjugation 3masc.sg. G √NŠʾ ‘to lift’ is /našaʾa/, like a regular verb, but its prefix-conjugation and imperative are /yišša ʾ-/ and /šaʾ/. The participle /nāšiʾ-/ and the infinitive /našāʾ-/ are regular. The Gt-stem is attested in the 3masc.sg. prefix-conjugation /yittašiʾ-/.

The writing of *n* in a prefix-conjugation indicates a D- or N-stem: D *wynšq* /wa-yunaššiqu/ ‘and he kisses’, N *ynṯkn* /yinnaṯikāni/ ‘they two bite each other’.

The verb √LQḤ behaves like I*n* verbs: prefix-conjugation /yiqqaḥ-/, imperative /qaḥ/.

Iw/y verbs and √HLK

Because of the shift of initial /w-/ to /y-/, I*w* verbs fall together with I*y* verbs. Thus the G-stem suffix-conjugation of √YRD (< *WRD) is /yarada/ 'he went down', G participle /yārid-/ 'going down'; compare the G-stem of √YTN (original I*y*): /yatana/ he gave', /yātin-/ 'giving'. In the G-stem prefix-conjugation and its imperative, the initial /y-/, whether original or from /w-/, is elided: */yawrid-/ > /yarid-/ 'he goes down', /rid/ 'go down'; */yiwšan-/ > /yišan-/ 'he falls asleep', */yaytin-/ > /yatin-/ 'he gives', /tin/ 'give'. In this group of verbs, the infinitive construct is normally a verbal noun, e.g. *ṣåt* /ṣiʾat-/ 'the coming out' from √YṢʾ.

In the Gt-stem, the /w-/ > /y-/ assimilates to the infix /-t-/: suffix-conjugation */ʾiwtaṣaʾa/ > /ʾittaṣaʾa/, prefix-conjugation */yiwtaṣiʾ-/ > /yittaṣiʾ-/, imperative */ʾiwtaṣiʾ/ > /ʾittaṣiʾ/.

In the Š-stem, the original /w-/ probably still survives in a contracted form: imperf. *åšṣů* /ʾašôṣiʾu/ < */ʾašawṣiʾu/ 'I bring them out', participle *mšṣů* /mušôṣiʾu/ < */mušawṣiʾu/ 'the one who brings out'.

The verb √HLK 'to go' behaves like a I*w/y* verb in the prefix-conjugation G */yahlik-/ > /yalik-/, Gt */yihtalik-/ > /yittalik-/, but /h/ remains in Š /yušahlik-/. The verbal noun /likat-/ is often used instead of the normal infinitive /halāk-/.

Hollow verbs (IIw/y)

The hollow verbs are in fact roots with two consonants and a long vowel /ū/ or /ī/ in between. Traditionally they are also labeled II*w/y* verbs. The stem vowel is long in forms where the last consonantal root letter is followed by a vowel; otherwise it is short. So the 3masc. sg.imperf. is /yaqūmu/, 2masc.pl.narr./juss. /taqūmū/, but 3masc.sg. /yaqum/; similarly suffix-conjugation 3masc.sg. /qāma/, but 2masc.sg. /qamta/.

The Š-stem also follows the above rule: 3masc.sg. suffix-conjugation of √KWN 'to cause to exist' (G 'to be') is /šakīna/, but 2masc.sg. /šakinta/.

The D-stem of this group is replaced by the L-stem (compare Hebrew Polel). Hence √RWM (G 'to be high', L 'to elevate') in the 3masc. sg. suffix-conjugation is /rāmima/, 2masc.sg. /ramimta/. The 3masc. sg.imperf. is /yurāmimu/, narr./juss. /yurāmim/, masc.sg.imv. /rāmim/, fem.sg.imv. /rāmimī/.

Geminate verbs (II=III)

Verbs whose second and third radicals are identical are known as "geminate." The poor attestation of the forms prevents a satisfactory reconstruction. It can be suggested, on comparative grounds, that the G-stem suffix-conjugation is characterized by the elision of the vowel between the

second and third radicals when the third radical is followed by a vowel, long or short: 3masc.sg. √SBB 'to go around' */sababa/ > /sabba/, 3masc. pl. */sababū/ > /sabbū/. The elision does not occur when the third radical is followed by a consonant, e.g. 1sg. /sababtu/, 2masc.sg. /sababta/.

In the G-stem prefix-conjugation there is a metathesis between the stem vowel and the second radical when the third radical is followed by a vowel: 3masc.sg.imperf. */yasbubu/ > /yasubbu/, also subjunctive */yasbuba/ > /yasubba/. In other cases the forms follow the rule stated earlier, e.g., 3masc.sg.narr./juss. /yasbub/. The imperative is probably/subb(a)/, /subbī/. The participle /sābib-/ and the infinitive /sabāb-/ are quite regular.

The D-stem suffix-conjugation is /sabbiba/, prefix-conjugation /yusabbib-/, imperative /sabbib/, participle /musabbib-/. The D-stem, as expected, can be replaced by the L-stem: /sābiba/, /yusābib-/, /sābib/, /musābib-/. Note that writings like *sbb, ysbb, sbb, msbb* can be interpreted as D-, Dp-, L-, or Lp-stem.

*Third-weak verbs (III*w/y*)*

In the III*w/y* verbs, the diphthongs (vowel + w/y) and triphthongs (vowel + w/y + vowel) are not always contracted. Examples without contraction are found in both types of III*w/y* verbs: √ʾTW *åtwt* /ʾatawat/ 'she came', √ʿLY *ʿly* /ʿalaya/ 'he went up' or /ʿalayū/ 'they went up'. In some cases the triphthongs are contracted: suffix-conjugation *ʿl* /ʿalâ/ (< /ʿalaya/) or /ʿalû/ (< /ʿalayū/), prefix-conjugation √BKY in imperf. *ybk* /yabkî/ alternating with *ybky* /yabkiyu/ 'he weeps'. The contracted form is graphically similar to the short forms like the narr./juss. *ybk* /yabkî/ (< /*yabkiy/). In the subjunctive and participle the triphthongs are generally not contracted: *ybny* /yabniya/ 'that he may build', *bnyt* /bāniyatu/ 'genitrix'.

The following contractions are regularly found: diphthongs /ay/ > /ê/, /iy/ > /î/; /uw/ > /û/; e.g. suffix-conjugation */banaytu/ > /banêtu/ 'I built', juss. */yabniy/ > /yabnî/, masc.sg. imv. *åt* /ʾatû/ < */ʾatuw/ 'come'; triphthongs /aya, awa/ > /â/; /ayi, awi/ > /î/; /ayu, uwu, āyu/ > /û/. In contrast, the following triphthongs tend to remain uncontracted: /uwa, iyu, iya, iyā, iyī, iyū, īyu, ūyu, āyi/. For further discussion, see Sivan (1984); Huehnergard (1987: 288–292).

4.7. Particles

4.7.1. Prepositions

The object of a preposition is in the genitive case. The preposition *l-* /li-/ has different translation values: allative 'to', benefactive 'for', stative

'in', 'at', ablative 'from'; similarly the preposition *b-* /bi-/: stative 'in', at', ablative 'from', instrumental 'with'. There is also the longer form *bm* /bimā/. The comparative preposition *k-* /ka/ 'like' also has a longer form *km* /kamā/.

Some prepositions are originally nouns in the accusative: *tḥt* /taḥta/ 'under'; *bʿd* /baʿda/ temporal 'after'; *aṯr* /ʾaṯra/ spatial 'behind'; *ʿm* /ʿimma/ 'with', allative 'to' (with verbs of movement); *tk* /tôka/ 'amidst'. Others are nouns with the ending */-ay/ > /-ê/, such as *ʿl* /ʿalê/ allative or stative 'upon', 'over', 'against', ablative 'from'; *ʿd* /ʿadê/ terminative 'till'; *bn* /bênê/ 'between'. There are also composite forms: *bd* /bādi/ < */bi-yadi/ 'in the hand of', 'by the agency of'; *lpn* /li-panī/ 'before', 'in front of'.

Unlike other Northwest Semitic languages, Ugaritic does not possess the preposition /min/. The idea of 'from' is expressed by *l-* or *b-*. Directions are in fact part of the meaning of the verbs of movement rather than being expressed by the preposition; cf. Pardee (1975, 1976).

4.7.2. Adverbs

The basic adverbs are *hn* /hanna/ 'here', *ṯm* /ṯamma/ 'there'; *åp* /ʾappa/ 'also'. The preposition *ʿl* 'over' can also serve as the adverb 'above'. Some nouns in the accusative can function as adverbs: *åṯr* /ʾaṯra/ 'afterward', *åḫr* /ʾaḫra/ 'thereafter', *mid* /maʾda/ 'very'. Some adverbs are formed by combining a preposition and a noun: *lpnm* /li-panīma/ 'formerly', *lʿlm* /li-ʿālami/ 'eternally', 'forever'.

4.7.3. Conjunctions

The conjunction *w* /wa-/ 'and' can also express sequence of time, i.e. 'and then'. Logical sequence is expressed by *p* /pa-/ 'and therefore'. The conjunction *hm* /himma/ 'if' is used to introduce the protasis of a conditional sentence.

The deictic particle *k* /kī/ or its longer form *km* /kīmā/ can introduce various adverbial clauses and therefore can be rendered as 'because', 'when', 'although' accordingly. After verbs of saying and hearing, *k* introduces the object sentence, such as English 'that'.

Other particles indicate various relations with the preceding discourse: *åpn* /ʾappūna/, *åpnk* /ʾappūnaka/ 'thereupon', 'as a result'; *id* /ʾida/, *idk* /ʾidaka/ 'therefore'; *dm* /damma/ 'then'. The presentative *hn* /hinna/ introduces a new topic in the discourse; *ht* /hatta/, 'now', 'at this point' has a similar function.

4.7.4. Negative particles

The negative particle /lā/ is used in verbal sentences. In nominal sentences, the negative particle is *bl* /bal/; both are also particles of negation for individual words. The particle *ål* /ʾal/ is found in negative wishes. The negative particle of existence *ỉn* /ʾêna/ 'there is/are no' is originally a noun meaning 'nothing'; the opposite is *ỉṯ* /ʾiṯê/ 'there is/are'.

4.7.5. Emotive particles

Some particles are used to express feelings, e.g. the emphatic *l* /la/, *ål* /ʾal/, and *k* /kī/ 'indeed', 'truly' (the first two are not to be confused with the particles of negation *l* /lā/ and *ål* /ʾal/ even if the writing does not distinguish them). There is also a vocative particle *l* /la/ 'O!'. The spelling *l* can also represent the particle of wish /lū/ (often written together with the following verb). The vocative *y* /yā/ 'O!' is also known. The politeness marker *mʿ* /maʿ/ 'please!' occurs only with a preceding imperative.

4.7.6. Enclitic particles

The enclitic particle *-h* /-ah/ indicates a direction, both spatial as in in *šmmh* /šamīm-ah/ 'heavenward' and temporal as in *w-ʿlmh* /wa-ʿālam-ah/ 'and forever'. The enclitic *-m* /-mi/ can be appended to any part of speech, but its meaning is not yet altogether clear, cf. Del Olmo Lete (2008). Occurring less often is the enclitic *-n.* The enclitics *-k, -t, -y* are used in combination with other particles, e.g., *åpnk* 'thereupon' (*åp* 'also' + *n* + *k*); *ht* 'now' (*hn* 'here' + *t*); the pair *hnny* 'here' (*hn* 'here' + *n* + *y*) . . . *ṯmny* 'there' (*ṯm* 'there' + *n* + *y*) occurs frequently in letters; the first refers to the sender's situation (also its variant *hlny*), the second the recipient's; see Cunchillos (1999: 365).

5. Notes on Ugaritic poetry

The largest corpus of Ugaritic texts with continuous content consists of poetry. Watson (1999) is a brief but comprehensive presentation of Ugaritic poetry; see also Gordon's classic *UT* § 13.107–168. The following notes apply the notion, discussed in Section 4.6.2, that the imperfect /yaktubu/ describes the background to some main event expressed by the narrative /yaktub/; see also Gianto (2010).

The basic unit of Ugaritic poetry is a two-line poetic structure, the "bicolon." This will be illustrated with a passage from the legend of Kirta *KTU* 1.14 I:26–35, divided into nine parts for convenience. An example of a bicolon is (1)–(2). (1) or (2) alone is therefore a colon. A bicolon can be expanded with a third colon, resulting in a tricolon, as in (3)–(5). Meter and rhythm do not play an important role in Ugaritic poetry; its poetic structure lies instead in the lexical and syntactic parallelism within the bicolon or tricolon. These units can combine among themselves to build larger structures analogous to strophes or stanzas.

In the following bicolon, two of the three elements in (1) have their semantic parallels in (2), thus a b c || b′ c′. The syntactic parallelism is also shown in the analysis.

(1)	*yʿrb . bḥdrh . ybky*	a	b	c	Verb	Adjunct	Verb
(2)	*bṯn . ʿgmm . wydmʿ*		b′	c′	GAP	Adjunct	Verb

'He (Kirta) went into (narr. /yaʿrub/) his chamber crying (imperf. /yabkiyu/, lit. 'he cries'), || into the inner room and weeping (imperf. /yidmaʿu/, lit. 'he weeps')'.

Lexically the parallelism above is incomplete, since there is no parallel to /yaʿrub/ 'he went into'. But the absent parallel expression is syntactically significant and can be described as an ellipsis or gap that creates a special effect. Thus, while the main event narrated in (1), Kirta's entering his chamber, continues to be true in (2), attention now shifts to the inner part of the room *ṯn . ʿgmm* and is no longer on Kirta's movement as in (1).

Gaps and gapping are a normal feature of language use. The statement *Alex went to Paris and his brother to London* would become unnecessarily heavy if the word *went* were repeated. Gapping functions precisely to avoid this. On the other hand, instead of the gap one may insert a more meaningful element, such as *chose to go*, which creates explicit contrast with the previous affirmation. Thus gapping is likely to occur to keep the whole statement more flowing. This also holds in poetry, but its effects still await further appreciation. It is suggested here that gaps and gapping significantly contribute to regulate the flow of the narration that builds coherence within the bicolon or tricolon.

The alternation of verbal forms also marks the flow of the narration: Kirta's entering his chamber is a main event, expressed by the narrative form /yaktub/, while his crying is given as background, using the imperfect /yaktubu/. See also other examples of backgrounding discussed in Section 4.6.2 (end).

Immediately after the above passage is this tricolon:

(3)	*tnkn. ůdmʿth*	a	b	Verb	Subject	
(4)	*km. ṯqlm. årṣh*	c	d	GAP	Adjunct	Adjunct
(5)	*km ḫmšt mṭth*	c′	d′	GAP	Adjunct	Adjunct

'His tears were pouring (imperf. N /tinnatikūna/) || like shekels to the ground, || like five weights onto the couch'.

As in (1)–(2), the use of the imperfect suggests that Kirta's weeping is still going on. The gaps in this tricolon allow such a setting to linger throughout the rest of the tricolon. Note that, judging from its plural subject, the spelling *tnkn* must be interpreted as imperfect /tinnatikūna/. A narrative form would have been written *tnk*, i.e. 3fem.pl. /tinnakū/, and would serve to indicate a main rather than a background event. This would in turn disturb the flow of narration from the previous bicolon and its continuation to the next bicolon.

The passage continues with the bicolon (6)–(7). It will be observed that here the syntactic parallelism can show more elements than the lexical parallelism:

(6)	*bm . bkyh . wyšn*	a	b	Adjunct	Verb	
(7)	*bdmʿh . nhmmt*	a′	b′	Adjunct	GAP	Adjunct

'In his sobbing, he fell asleep (narrative /yišan/), || in his weeping, (he feel asleep in a) slumber'.

The spelling *wyšn* is best understood as the conjunction /wa-/ and narrative /yišan/ 'he fell asleep', so that his falling asleep is accordingly part of the main event in this episode. (Note that *wyšn* should not be compared to the much later Hebrew converted imperfect, because this special construction is an innovation within Hebrew prose.) The gapping in (7) has the same effect as in (1)–(2): while the description of Kirta's falling asleep continues, the attention of the reader now shifts to the unconscious state he was in, i.e., *nhmmt* 'slumber'.

Alternatively, the spelling *wyšn* can be interpreted as the conjunction /wa-/ and suffix-conjugation /yašina/ 'he was asleep'. This reading describes Kirta's being asleep rather than his falling asleep. In this case (6) has the same backgrounding effect as (3)–(7) as opposed to highlighting his falling asleep as something new. In all likelihood the ancient readers themselves would interpret the spelling *wyšn* now as a narrative form, now as a suffix-conjugation. This kind of graphic ambiguity is part and parcel of Ugaritic texts. Either reading makes good sense, revealing the richness of Ugaritic poetry.

Another bicolon, (8)–(9), closes the episode about Kirta's weeping that begins at (1):

(8)	*šnt . tlůån . wyškb*	a	b	c	Subject	Verb	Verb
(9)	*nhmmt . wyqmṣ*	a′		c′	Subject	GAP	Verb

'While sleep was overpowering him (3fem.sg.imperf. D energic + 3masc.sg.suffix /tulaʾʾu-nnannu/) and he lay down (narr. /yiškab/), || slumber (was overpowering him) and he curled up (narr. /yaqmuṣ/)'.

The gap in (9) allows the idea that the sleep that was overpowering him still lingers and in precisely that situation he curled up, affirming once again his lying down in (8).

The use of parallel words in a bicolon or tricolon is very common in Ugaritic poetry, though complete parallelism as in (6)–(7) is not very frequent. Ugaritic possesses a rich inventory of stock parallel "word pairs" used in poetry; see Watson (1999:181–183) and the lists of Ugaritic and Hebrew word-pairs compiled and commented on by Dahood in *RSP* 1: 71–382, 2: 1–39, 3: 1–206. Generally the first word or expression in the pair is a more common word than the second, which in this case is more specific in sense. Thus *ydmʿ* in (2) is more specific than the general mention of weeping *ybky* in (1); see also their use in (6)–(7). The metaphoric description that Kirta's tears were flowing like 'five weights' (5) is more vivid than the imagery of shekels falling down in (4). Likewise the word *nhmmt* 'slumber' in (9) has a more specific sense than the more common word for 'sleep' *šnt* in (8). Again, 'curling up' (9) is stronger than 'lying down' (8). The examples show that the second part of a parallel contains something more than the first and gives more meaning to the whole bicolon or tricolon.

The more specific word or expression in the second part is sometimes longer than its parallel, e.g., *bṯn . ʿgmm* in (2) vs. *bḥdrh* in (1) and, similarly, *nhmmt* in (9) vs. *šnt* in (8). The longer expressions often occur with gapping and serve as "ballast variants" to compensate for the gaps.

A combination of several bicola or tricola as found in (1)–(9) forms a larger unit having a common theme, i.e., Kirta going into his room while weeping and in that situation falling asleep, lying curled up. Such a thematic unit is similar to a strophe or stanza having a separate thematic unit, as is clear from the previous context (Kirta's losing his seven wives in *KTU* 1.14 I:1–25) and the subsequent passage (the apparition of the god El in Kirta's dream addressing his protégé in *KTU* 1.14 I:35 etc.).

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Phoenician

Holger Gzella

1. Introduction

"Phoenician" is a generic term applied to a number of mutually intelligible Canaanite dialects which were mainly used in the ancient city-states of Byblos, Tyre, and Sidon and their surroundings on the eastern shore of the Mediterranean Sea. The original speech area coincides more or less with the present state of Lebanon. Speakers of Semitic languages settled in that area as early as the third millennium BCE; during the Late Bronze Age (ca. 1500–1200 BCE), it was subject to Egyptian and Hittite rule. The Akkadian language and its syllabic cuneiform writing dominated administration, law, and diplomatic correspondence during this period. After the major political and socioeconomic upheavals on the threshold of the Early Iron Age, however, Byblos became the foremost center of alphabetic writing. The power vacuum between ca. 1200 and 900 BCE enabled public life to grow once again in some of the old cities and in several newly emerging chiefdoms. Those were the days when in Phoenicia, Israel, the Aramaean kingdoms, and Transjordan local dialects were promoted to chancery languages, perhaps indicating a novel cultural self-awareness of the ruling elites, and the Phoenician variant of the alphabet came to serve as the standard medium of writing. Due to Phoenician colonization and trade connections, this versatile script spread across the entire Mediterranean and was eventually adapted and modified by the Greeks.

The dialect of Tyre and Sidon soon became a kind of "Standard Phoenician" which replaced or influenced others. Its impact on later Byblian can still be observed, as some original forms of this dialect then seem to have given way to their Tyro-Sidonian counterparts. Texts from Cyprus and, from the fifth century BCE on, from the western Mediterranean too, exhibit certain peculiarities. As a language of local prestige, Phoenician remained in use on the mainland during the Achaemenid and Hellenistic ages beside Aramaic and Greek, presumably until the first century BCE. For the same reason, Phoenician influences have been suggested for some biblical books (e.g. Qohelet).

Between the eighth and seventh centuries BCE it was also employed in monumental inscriptions for public display in several kingdoms in Asia Minor. Punic, a North African offshoot of Phoenician, continued to be spoken after the destruction of Carthage (146 BCE), once a colony of Tyre but then the metropolis of the Punic empire, until at least the fifth century CE.

Ongoing discoveries of inscriptions and coins permitted a reliable decipherment of Phoenician and Punic. This process was initiated by the French polymath Jean-Jacques Barthélemy in 1758 and completed in the first half of the nineteenth century by the German theologian and Hebraist Wilhelm Gesenius, who, in 1837, also published the first comprehensive manual of the language with an edition of all the texts available to him. Since then, Phoenician and Punic studies has become a discipline in its own right. An estimated 10,000 Phoenician-Punic royal, funerary, and dedicatory inscriptions are known today, to which a few papyri and ostraca as well as certain passages in the Latin comedy *Poenulus* by Plautus may be added.

However, these texts, especially the late ones from Carthage and its surroundings, which constitute the lion's share of the evidence, are extremely formulaic. Only a fraction of the witnesses antedate the Punic period; many of them can be easily accessed in *KAI* 1–60, 280–294 (this added group without translation and commentary in the fifth edition of the first volume). Gibson (1982) provides an edition of the most important Phoenician inscriptions with translation and commentary in English, but the philological notes in Cooke 1903 can still be used with profit, too. The focus of the present survey rests on the texts from the mainland. Friedrich and Röllig (^{3}1999) provide more detailed information; the lexicon of Phoenician and Punic, together with comprehensive bibliographical references, is also included in Hoftijzer and Jongeling 1995. Eight tenth-century inscriptions from Byblos (*KAI* 1–8) mark the beginning of the textual record. Despite a number of archaisms and idiosyncrasies, they are conventionally included in the Phoenician corpus under the label "Old Byblian." Some traditional personal names on arrowheads, assembled and discussed by Hess (2007), survive from an even earlier period but say very little about the language itself. Predecessors of the Phoenician dialects which did not yet serve as written idioms may have left some traces in texts composed during the Late Bronze Age in Akkadian and perhaps also in Ugaritic. Scientific, mythological, and historical works in Phoenician were celebrated in Antiquity; unfortunately, they have all been lost.

2. Phonology

Phoenician orthography remained purely consonantal for many centuries. Only in Punic did vowel letters (*matres lectionis*) become widespread for denoting long vowels as in the earliest Aramaic texts, and even in Late Phoenician they occur at most only in a few names. As a consequence, the phonology of the older forms of the language has to be reconstructed on the basis of names and loanwords principally in cuneiform, Greek, and Latin transcriptions on the one hand and comparative philology on the other. This information leads to a rough approximation at best, since other scripts cannot render all the characteristic sounds, and names in particular frequently reflect a more archaic linguistic stage. In addition, such transcriptions do not follow a consistent standard; hence it is often difficult to distinguish between phonemes and allophones.

2.1. Consonants

Each of the 22 letter-signs of the Phoenician alphabet corresponds to one consonantal phoneme. The underlying sounds can be grouped according to place and manner of articulation (voiced or unvoiced): the laryngeals /ʾ/ (glottal stop) and /h/; the fricative pharyngeals /ʿ/ (glottalic pressure sound) and /ḥ/ (between *ch* in German *Bach* or Scottish *loch* and simple *h*); the velars /g/ and /k/; the sibilants /z/ and /s/; the dentals /d/ and /t/; the bilabials /b/ and /p/; the unvoiced palatovelar /š/ (as in *sh*). The unvoiced velar, sibilant, and dental have "emphatic" counterparts /q/, /ṣ/, and /ṭ/. Their exact pronunciation in Phoenician is debated, but the lowering of the following vowel found in some transcriptions may indicate that they were velarized. The liquids /l/ and /r/, too, are phonemes (they can alternate and, at least in later stages, both can disappear at the end of a syllable); likewise the nasals /m/ and /n/ and the semivowels /y/ (palatal) and /w/ (bilabial). Additional phonemes preserved in some Semitic languages like Ugaritic or Arabic can no longer be traced, not even in the most ancient sources of Phoenician, and, as throughout later Canaanite, have merged with other consonants: */θ/ > /š/; */ð/ > /z/; */θ̣/ (Arabic /ẓ/) and */ś/ (Arabic /ḍ/) > /ṣ/; */ḫ/ > /ḥ/ and */ġ/ > /ʿ/ also occurred in Aramaic. The old lateral */ś/ seems to have shifted to /š/ but was pronounced differently, depending on region and period. All consonants could be lengthened (e.g., /mm/ or /tt/, as in Italian *mamma* or *fatto*), but, because they were articulated only once, appear as simple (non-geminated) consonants in writing (with a few late exceptions).

As in the rest of Canaanite and in Aramaic, /n/ assimilates to an immediately following consonant (e.g., ŠT /šatt/ 'year' from */šant-/, KT /kattī/ 'I was' instead of */kantī/). This could also happen across word boundaries, but in that case it is not always reflected in writing (BYḤMLK 'son of Yaḥūmilk' in *KAI* 7:3, but BN MLK 'son of the king' in *KAI* 14:2). Occasional spellings of etymological /n/ before dentals and sibilants may point to a dissimilation of long consonants by way of nasalization in some areas. Such instances occur more frequently in Late Punic (cf. YTNTY 'I gave', *KAI* 145:6; but with a laryngeal already in TNḤL 'you inherit', *KAI* 3:4). In some morphemes, intervocalic /h/ is regularly lost, as with the definite article after a proclitic preposition. Especially word-medial /ʾ/ could disappear, too (cf. very rarely LŠMN 'for Ešmun' besides usual LʾŠMN). However, the older witnesses exhibit a fairly standardized orthography which presumably lagged behind contemporary pronunciation. Some phonetic developments that can be observed regularly both in Punic and in other Semitic languages (aspiration of /k/, /p/, /t/; an increasingly weak articulation of laryngeals) may already have been under way in older Phoenician.

2.2. Vowels

The short vowel phonemes which can be reconstructed for Phoenician match the situation in other ancient Semitic languages: /a/, /i/, and /u/. In all likelihood, /i/ was realized as [e] and /u/ as [o] in pronunciation. Inherited long /ī/ (which when word-final and stressed seems often to have shifted to an open /ɛ̄/, as in German *spät*) and /ū/ were mostly preserved; etymological */ā/ has become /ō/ following the "Canaanite Sound Shift" (cf. the cuneiform spelling of the name *Ḫi-ru-um-ma* /Ḥīrōm/, Greek Ειρωμος, 'my brother is exalted' from */ʾAḥīrām/). As in Ugaritic and Northern Hebrew, diphthongs had already been monophthongized in the earliest witnesses, hence */aw/ > /ō/ (MT /mōt/, pronounced [mūt], 'death', from */mawt-/) and */ay/ > /ē/ (BT /bēt/ 'house' from */bayt-/). Triphthongs are preserved in some (fossilized?) forms in the oldest Byblian texts from the tenth century but monophthongized soon afterward as well (contrast BNY /banaya/ 'he built' in *KAI* 4:1 with BN /banō/ in later texts). Older transcriptions indicate that the following sound changes had taken place already in Phoenician:

1. From at least the eighth century BCE on, originally short /a/ in the tonic syllable was pronounced [o] ("Phoenician Shift"), perhaps because it was lengthened under stress (which occurs quite

naturally) and thus became part of the general shift */ā/ > /ō/ (cf. the cuneiform spelling of the name *Ba-ʾa-al-ma-lu-ku* /Baʿl-malōk/ 'Baal has become king' from */-malák/; similarly Gk. ναδωρ /nadōr/ 'he vowed' from */nadár/ or Lat. *adom* /ʾadōm/ 'human being' from */ʾadám/). It was, however, preserved in a doubly closed syllable (as in the plant name λασουναλϕ /lašōn-ʾalp/ 'ox-tongue'). There is no evidence for pretonic lengthening as in Tiberian Hebrew.

2. Long /ō/ (from original */ā/ or */aw/) mostly became [ū] in pronunciation (so in, e.g., Lat. *alonuth* for /ʾilōnōt/ [< */ʾilānāt/] 'goddesses'; Gk. κουλω for /qōlō/ [presumably < */qawl-/?] 'his voice' or Μωτ/Μουθ for /Mōt/ [< */mawt-/] 'death'). Since cuneiform writing does not distinguish between *o* and *u*, there are no examples from pre-Hellenistic times.

3. The allophonic variants [e] for /i/ and [o] for /u/ tend to appear in the tonic syllable, resembling Tiberian Hebrew. Examples date from a later period (cuneiform writing does not normally render the difference between *i* and *e*), but, in light of comparative evidence, this phenomenon may apply to earlier Phoenician as well (cf. Βαλσιλληχ and *Balsilech* for /Baʿl-šillíḥ/ 'Baal has sent' [from *šlḥ*, alternatively from *šlk* 'to save']; Οζερβαλος for /ʿŌzír-Baʿl/ 'Baal is helper' [participle of ʿ*zr*]; *chen* for /kinn/ 'thus'; also in an open pretonic syllable in, e.g., Αβδηλιμος for /ʿAbd-ʾilīm/ 'servant of the gods'). Since Greek transcriptions seem to use η/ε at random (if η does not in fact render [i]!), a difference in quantity cannot be established. In doubly closed syllables, by contrast, /i/ and /u/ are mostly preserved. *Baliahon* (and variants) for /Baʿl-yaḥúnn/ 'may Baal have mercy' could be an exception, if the backing of /u/ is not due to the laryngeal and the long word-final consonant has not been simplified.

Further sound shifts can be observed in Punic, especially vowel reduction (mostly in open antepenultimate syllables: *bynuthi* 'my daughters' from /banōtī/); palatalization of /a/ to [ε] (as in the letter name δέλτα from DLT /dalt/ 'tablet' and, if not a reflex of later vowel reduction, the variation between Φανη Βαλυς and Φενη Βαλ for /panē Baʿl/ 'face of Baal' in *KAI* 175:2/176:2); and anaptyxis of word-final consonant clusters (especially with [syllabic?] /r/, as in συρις for /šurš/ 'root'). These, too, may continue processes which had already begun in earlier periods. Vowel harmony and the loss of syllables occur occasionally.

3. Morphology and morphosyntax

3.1. Personal pronouns

Independent personal pronouns (Table 1) distinguish three persons, two genders (masculine/feminine), and two number (singular/plural; no dual forms are attested). They mark a pronominal subject in nominal clauses (ʾNK YḤWMLK 'I am Yaḥawmilk', *KAI* 10:1) or after an infinitive absolute in narrative and reinforce the subject in verbal clauses (ʾNK TMKT 'I, however, held', *KAI* 24:13) or a suffix (WBYMTY ʾNK 'but in my own days', *KAI* 26 A II 5):

In light of comparative evidence, the (supposedly unstressed) final vowels of the pronouns were not fully long in pronunciation, since, e.g., */ā/ in such forms is assumed to have resisted the shift to /ō/ on analogy with Hebrew (whose corresponding 2masc.sg. form is rendered αθθα in transcriptions). However, the matter requires further investigation. One of the oldest Byblian inscriptions contains a byform HʾT /hūʾatu/(?) for the 3masc.sg. (*KAI* 4:2; here supposedly used to reinforce the subject). It has evolved from an old genitive-accusative variant which is preserved as HWT in Ugaritic in this function ('of him', 'him'), yet the case distinction has been leveled in Phoenician, thus reducing HʾT to a variant of Hʾ in this text. The 3pl. pronouns, too, were once genitive-accusative forms but have been generalized in Phoenician at the expense of their nominative counterparts. The Punic reflex *anec(h)* for the 1sg. is, in all likelihood, secondary.

Enclitic suffixes express a genitive relationship with a pronominal possessor when attached to nouns and prepositions; with verbs, they encode a pronominal direct object. Phoenician preserves vestiges of an older linguistic stage in which a particular ending marked the genitive case. Here, too, certain word-final vowels may not have been fully long in pronunciation:

1masc./fem.: With nouns in the old nominative (as subject) or, mostly, accusative (as direct object) singular and feminine plurals /-ī/ 'my',

Table 1. Phoenician independent personal pronouns

Person	Singular	Plural
1 masc./fem.	ʾNK /ʾanōkī/ 'I'	ʾNḤN /ʾanaḥnū/ 'we'
2 masculine	ʾT /ʾattā/ 'you'	(unattested)
2 feminine	ʾT /ʾattī/ 'you'	(unattested)
3 masculine	Hʾ /hū(ʾ)/ 'he'	HMT /humatu/(?) 'they' (m.)
3 feminine	Hʾ /hī(ʾ)/ 'she'	HMT /himatu/(?) 'they' (f.)

which remained at first unwritten (e.g., ʾB /ʾabī/ 'my father'; ŠMʿ QL 'hear my voice'). The suffix with the old genitive in */-i/ and masculine plurals in */-ay/ was */-ya/, which became */y/ after the loss of the short word-final vowels. Presumably it contracted with the preceding vowel, at least in the singular, but was preserved as Y in spelling (hence LRBTY from */li-rubbatiya/ 'for my Lady'), which was soon thereafter extended to former nominatives (e.g., ʾMY /ʾummī/ 'my mother'). The object suffix with verbs is /-nī/ 'me'. For the plural 'our', original */-nū/ may be reconstructed, but later Punic ρυβαθων (*KAI* 175:2) points to /-(ō)n/, whose origin remains unclear.

2masc./fem.: K marks both the masculine (/-kā/) and the feminine (/-kī/; Late Punic -KY). The 2masc.pl. (/-kum/) is only attested in Punic.

3masc./fem.sg.: The original form of the masculine H /-hū/ (feminine presumably */-hā/) is only preserved in the oldest Byblian text after a genitive singular (ḤṬR MŠPṬH /ḥuṭr mišpaṭihū/ 'the scepter of his jurisdiction', *KAI* 1:2). Except for genitive forms, suffixes in later Byblian are written with W as a historical spelling for */-a-hū/ > */-aw/ (> /-ō/) after consonants (i.e., sg. and fem. pl., e.g., ŠNTW /šanōtō/ 'his years') and for */-ay-hū/ > */-ē-hū/ > /-ēw/ after vowels (masc. pl./du.). Following palatalization of /h/, the form in Standard Phoenician with singular nouns in the genitive is */-i-hū/ > /-i-yū/, with plural nouns */-ay-hū/ > */-ē-hū/ > /-ē-yū/, both spelled Y (e.g., LʿBDY /li-ʿabdiyū/ 'for his servant'; fem. presumably */-i-yā/, with plural nouns */-ē-yā/). Later Punic has the byforms M /-īm/ (sg. nouns) and /-ēm/ (pl. nouns). In the old accusative singular, which has probably been extended to the nominative, and the feminine plural, by contrast, the suffixes are */-a-hū/ > /-ō/ (masc.) and */-a-hā/ > /-ā/ (fem.), both of which remained unwritten (e.g., ŠM /šimā/ 'her name').

3masc.pl. (fem. unattested): HM /-hum/ in Byblian, otherwise M /-ōm/ < */-a-hum/ after a consonant and NM /-nōm/(!) after a vowel.

3.2. Demonstrative pronouns

Just like the suffixes, the demonstrative pronouns, too, reflect dialectal variation. They generally follow the word to which they refer. Standard Phoenician has the near deictic ('this') Z in the singular, whose reconstructed vocalization may have distinguished between /zū/ (masc.) and /zō/ (< */zā/, fem.). Byblian has, besides Z, also ZN /zinā/(?) for the masculine and Zʾ /zō(ʾ)/(?) for the feminine; in Phoenician texts from Cyprus, the masculine and feminine form ʾZ habitually occurs with a prothetic glottal stop (presumably to be vocalized /ʾazū/ and /ʾazō/ on analogy with the purported

situation in Standard Phoenician?). The plural is consistently ʾL /ʾillɛ̄/(?). Punic has many variant forms. For the far deictic ('that'), Phoenician, like Hebrew, uses the independent third-person singular and plural pronouns.

3.3. Definite article

By way of grammaticalization, the deictic element /han/ (attested as a presentative marker HN 'look!' in, e.g., *KAI* 2:2 and 280:1) has produced the definite article /ha-/ with gemination of the first consonant of the word to which it refers, resulting from assimilation of the /n/ to the consonant (i.e., */han-C/>/haCC/). This phenomenon clearly emerges from the anomalous Punic spelling ʿMMQM for /ham-maqōm/ (< */han maqōm/) in an inscription from Sardinia (*KAI* 173:5; 2nd or 3rd c. CE), where, due to Latin influence, the long consonant is written twice. After a proclitic preposition, the /h/ of the article mostly underwent syncope, but it is occasionally preserved in some late texts. The oldest Byblian inscriptions do not yet contain an article. It first occurs in *KAI* 4:2f. (ḤWY KL MPLT HBTM ʾL 'he restored the ruins of all these buildings') and preferably accompanies nominal phrases which are already definite (i.e., identifiable within their context) and either act as direct object or govern a relative clause (e.g., WHDLHT ʾŠ L 'and the doors which it [scil. the gate] has', *KAI* 18:3f.). Its function as a definiteness marker thus seems to have emerged only in the course of time. With attributive adjectives, the article is repeated (HʾLNM HQDŠM 'the holy gods', *KAI* 14:9), distinguishing them from predicative ones, but not with demonstratives following a formally definite noun.

3.4. Interrogative pronouns

The interrogative pronouns distinguish, as in other Semitic languages, not between masculine and feminine, but between persons (MY /mī/ [< */mīya/] 'who?') and things (M /mō/ [<*/mā/], pronounced [mū], 'what?'). In this function, however, they are only attested in a Punic passage in Plautus (*Poenulus* 1010). More frequently, they serve as relative and indefinite pronouns ('whoever', 'everyone who', cf. *KAI* 24:10ff.).

3.5. Determinative-relative particle

Phoenician also has a proper determinative-relative particle ʾŠ /ʾaš(a)/ (presumably palatalized in pronunciation: [ʾɛš(ɛ)]) with the rare but apparently original byform Š /ša-/ [šɛ-]. The Old Byblian inscriptions only

use Z /zū/, which was replaced by Standard Phoenician ʾŠ in later Byblian. It can connect words forming a genitive relationship (rare in Phoenician, e.g., ḤTM Š- 'seal of X'; differences in function from the construct state are hard to identify) or clauses (BMQM ʾŠ BNT 'at the place which I built', *KAI* 14:4). At times, it occurs together with an interrogative pronoun (*KAI* 24:4).

3.6. Indefinite pronouns

The usual form of the indefinite pronoun for things is MNM (cf. Akkadian *mīnummē*). One text has the peculiar form QNMY (*KAI* 14:4, 20), which seems to be a combination of the noun QNʾM 'person' and the interrogative pronoun MY 'who?', but its exact interpretation remains controversial. ʾDM /ʾadōm/ and ʾŠ /ʾīš/, which both literally mean 'man, human being', act as gender-neutral indefinites, as does KL /kull/ 'totality (of)' = 'each'.

3.7. Nouns

Besides primary nouns, Phoenician uses many nominal patterns known from other Semitic languages. Due to the limitations of the consonantal script, however, only a few words attested in transcriptions can be clearly associated with a particular type. Nouns corresponding to the etymological patterns *qatl, qitl,* and *qutl* seem to appear, at least in the earlier period, in their original shape and did not undergo "segolization" as in Tiberian Hebrew (e.g., /šamš/ 'sun' or /ṣidq/ 'justice' in personal names preserved in cuneiform transcriptions as opposed to Hebrew *šémɛš* or *ṣéḏɛq* according to the Tiberian pointing). Presumably, their plural bases were expanded by an additional /a/ between the second and the third radical, as comparative evidence suggests (hence /milk/ 'king', /milak-īm/ 'kings'). Yet this /a/ later dropped out again as a result of vowel reduction, which can be directly observed in Punic (but may be older), so examples clearly illustrating this phenomenon are lacking. Among augmented patterns, those with the prefix /ma-/, the affixes /-ōn/ (< */-ān/) and /-ī/ (for *nisbe* adjectives, especially gentilics) are quite frequent; the prefix /ta-/, abstracts in /-īt/ or /-ūt/, and the adverbial ending /-ōm/ (< */-am/), by contrast, occur but seldom.

Nouns inflect for number (singular/dual/plural), gender (masculine/feminine), and state (the unmarked absolute, or unbound, and the construct, or bound, form for genitive relationships). Adjectives follow the same inflection and only differ from substantives in that they exhibit regular number and gender concord with the noun to which they refer (Table 2).

Table 2. Phoenician nominal inflection

		Masculine	Feminine
absolute	singular	(no ending)	-T /-t/ or /-ōt/ (< */-at/)
	dual	-M /-ēm/ (< */-aym/)	-TM /-tēm/ (attested in Punic)
	plural	-M /-īm/	-T /-ōt/ (< */-āt/), pronounced [ūt]
construct	singular	same as sg. abs.	same as sg. abs.
	dual	- /-ē/ (< */-ay/)	(unattested)
	plural	- /-ē/	same as pl. abs.

An older Semitic case system, which has been preserved in Ugaritic, distinguished between nominative, genitive, and accusative with the short unstressed word-final vowels /-u/, /-i/, and /-a/ in the singular, and in the plural between nominative and genitive-accusative with /-ū-/ and /-ī-/ respectively between the nominal base and the consonantal element of the ending. Following the disappearance of final short unstressed vowels, however, morphological case marking in the singular collapsed around 1000 BCE in Canaanite and Aramaic; as a consequence, the difference between nominative and genitive-accusative in the plural was leveled as well. The ending of the masculine absolute plural /-īm/ thus corresponds to the old genitive-accusative, which, presumably being more frequent, replaced the original nominative in */-ūm(a)/. Stress then fell on the last syllable for nouns. Since the spelling of three verbal forms in Old Byblian (ʿLY /ʿalaya/ 'he ascended', BNY /banaya/ 'he built', ḤWY /ḥiwwiya/ 'he restored') seems to presuppose the presence of short final vowels (/y/ in these forms had to be followed by a vowel; otherwise it would already have been monophthongized and omitted in writing), this archaic variant of Phoenician could, in theory, also have preserved case endings in the singular. Yet this is virtually impossible to verify for a transition period like the tenth century BCE when unstable forms and conservative orthography coexisted.

The singular marks an individual thing or a collective; the dual presumably ceased to be fully productive and is confined to paired body parts, the numeral two, and similar categories (*iadem* /yadēm/ '[of] both hands', *KAI* 178:1); the plural indicates plurality or, as with ʾLM /ʾilīm/ 'god' referring to one particular deity, an amplification of the singular. Feminine nouns can be distinguished from unmarked masculines by the ending (either */-t/ or, less frequently, */-at/ > /-ōt/, depending on the word; for the pronunciation, compare, e.g., *Ab-di-mil-ku-ut-ti* / ʿAbd-milkōt/ 'Servant of Milkat') or on the basis of concord with a verb or an adjective, as a number of unmarked nouns behave like marked feminines in concord. Some masculine nouns take a feminine plural ending

(e.g., ʾB ‘father’, ʾBT ‘fathers’) and the other way round (such as ʾBN ‘stone’, ʿBNM ‘stones’). This does not normally affect concord.

In the construct state, which marks a genitive relationship in the general sense, the substantive indicating the thing possessed (*nomen regens*) forms a stress unit together with the following one (*nomen rectum*), which denotes the possessor, and loses its principal stress. Possessive suffixes, too, are always attached to nouns in the construct state. The construct state of the dual /-ē/ was, as in Hebrew and Aramaic, expanded to the plural, thus replacing the old plural construct endings */-ū/ (nom.) and */-ī/ (gen.-acc.). Nouns in the construct state can form chains and usually do not carry suffixes or the definite article but take on the definiteness grade of the *nomen rectum* to which they refer. If the latter is formally definite because it is a proper name, has a suffix, or carries the definite article, the entire expression counts as definite (hence absolute ʾLM /ʾilīm/ ‘gods’ but construct ʾL GBL /ʾilē Gubl(a)/ ‘the gods of Byblos’). Alleged exceptions, like HMZBḤ NḤŠT ZN ‘this altar of bronze’ (*KAI* 10:4), can also be explained as appositions. As in other Semitic languages, a periphrastic genitive construction by means of the preposition L or, especially, the relative particle increasingly competes with the construct state.

The peculiarities of some forms have parallels in other Semitic languages: examples include a (presumably long) vowel in the construct of ʾB /ʾab/ ‘father’ and ʾḤ /ʾaḥ/ ‘brother’ (cf. the Latin transcription of Punic *labunom* /l-abūnōm/ [< */li-ʾabū-/] ‘for their father’ or the names *Himilco* /(ʾa)ḥī-Milkōt/ ‘Brother of Milkat’ and Αβιβαλος ‘Father of Baal’); the expansion of the base of some (generally monosyllabic) nouns in the plural (DL /dal/ ‘door’, DLHT /dalahōt/ ‘doors’; QRT /qart/ ‘city’, QRHT /qarahōt/ ‘cities’); or apophony (BN /bin/ ‘son’, BNM /banīm/ ‘sons’).

The following cardinal numerals are attested: 1 ʾḤD (adjective), 2 ŠNM (noun in the dual), 3 ŠLŠ, 4 ʾRBʿ, 5 ḤMŠ, 6 ŠŠ, 7 ŠBʿ, 8 ŠMN(H), 9 TŠʿ, 10 ʿSR with feminines in /-t/ (but ‘one’ ʾḤT /ʾaḥat(t)/ < */ʾaḥadt/) and masculine plural forms of the respective units for the tens; 100 MʾT, 1000 ʾLP. Note that the unit always syndetically follows the ten with 11 to 19 (11 ʿSR WʾḤD), and frequently with 21 to 99. Of the ordinals, only ŠNY ‘second’ and ʾRBʿY ‘fourth’ are attested, since the cardinals can also be used as ordinals. The numeral 3 to 10 take the opposite gender to the thing counted.

3.8. Verbs

Tense (past or present-future), aspect (an event presented as completed or in progress), and modality (possibility, reality, or desirability of a situation)

Table 3. Phoenician "perfect" inflection

Person	Singular	Plural
1 masc./fem.	KTB-T /katab-tī/	KTB-N /katab-nū/
2 masculine	KTB-T /katab-tā/(?)	(unattested)
2 feminine	KTB-T /katab-tī/(?)	(unattested)
3 masculine	KTB /katōb/ < */katab/	KTB /katab-ū/
3 feminine	KTB /katab-ā/ < */katab-at/	(unattested)

are expressed by finite verb conjugations. With the "perfect," or "suffix conjugation," endings ("afformatives") attached to the "perfect" base (e.g., */katab-/ 'write') inflect for person, number, and gender (Table 3).

An older form of the 3fem.sg. ending was preserved in verbs with object suffixes (e.g., PʿLTN /paʿal-at-nī/ 'she made me', *KAI* 10:2). The short base vowel in the second syllable is lexical; fientive verbs (which describe an event) have /a/, as in other West Semitic idioms; /i/ and perhaps also /u/ for stative verbs, as in Hebrew, are as yet unattested in transcriptions.

The "perfect" normally occurs with different types of past events, both completed (e.g., DBR MLK ʾŠMNʿZR '[in the fourteenth year] king Eshmunazor said', *KAI* 14:2) and with an enduring relevance for the present ("resultative," as in PʿL ʾTBʿL 'Ittōbaʿl has made me', *KAI* 1:1). In subordinate clauses, the temporal meaning of the "perfect" is relatively anterior to that of the main clause verb (cf. ʾŠ BL ʿN KL HMLKM '[I conquered lands] which all the other kings had not conquered', *KAI* 26 A I 18f.). The "perfect" of the root *kwn* 'to be' (see below) can be employed to mark states as past (e.g., KN BT ʾBY 'there was the house of my father', *KAI* 24:5f.). This conjugation also features in performative expressions (BRKTK 'I hereby bless you', *KAI* 50:2f.), rarely in wishes (only attested in Punic, esp. in the greeting formula *avo* /ḥawō/ 'may he live!' from *ḥwy*).

With the "imperfect" ("prefix conjugation"), by contrast, person, number, and gender are marked by a combination of preformatives and, in some forms, endings attached to the "imperfect" base (e.g., /-ktub-/). Its base vowel is also lexical; with the base vowel /a/, the vowel of the preformatives may have dissimilated to /i/, following the so-called "Barth-Ginsberg Law" (i.e., */yiktab/ [< */yaktab/] beside */yaktub/ and */yaktib/) (Table 4).

The 2fem.sg. and 2/3masc.pl. forms preserve the old morphological difference between the "long imperfect" ending in /-n/ (< */-na/; reconstructed on comparative grounds for the 2fem.sg.) and its "short" counterpart without such an expansion. Both types were once independent conjugations formerly distinguished by short word-final vowels in the other persons (i.e., the 3masc.sg. "long imperfect" was */yaktub-u/, but

Table 4. Phoenician "imperfect" inflection

Person	Singular	Plural
1 masc./fem.	ʾKTB /ʾa-ktub/	NKTB /na-ktub/
2 masculine	TKTB /ta-ktub/	TKTB(N) /ta-ktub-ū(n)/
2 feminine	TKTB(N) /ta-ktub-ī(n)/	TKTBN /ta-ktub-nā/
3 masculine	YKTB /ya-ktub/	YKTB(N) /ya-ktub-ū(n)/
3 feminine	TKTB /ta-ktub/	(unattested)

the "short imperfect" was */yaktub/). With the loss of these vowels (see above on the breakdown of inflectional case marking), however, the formal difference disappeared in all persons not expanded by /-n/ in the "long imperfect," at least with sound roots.

Nonetheless, each type of "imperfect" has its own functional range and should thus be treated separately, even if it is not always possible to assign a form to one of the two inherited conjugations. The "long imperfect" is, on the whole, less clearly marked in terms of tense-aspect-modality than the "perfect"; contrary to the "perfect," which often acts like a past-tense form, the "long imperfect" renders notions of modality and imperfective aspect. Its uses for present-future, ongoing situations independent of their location in time, and modality interact in a way difficult to define precisely. Hence the exact nuance is often hard to determine, e.g., YSGRNM 'they will (future) / shall (deontic modality) deliver them' (*KAI* 14:9); ʾŠT TK LḤDY 'a woman used to (durative) / could (dynamic modality) walk on her own' (*KAI* 26 A II 5f.; word division controversial), similarly in the same text also WBMQMM . . . ʾŠ YŠTʿ ʾDM LLKT 'and in places . . . where a man was afraid / had to be afraid to walk' (lines 3f.).

The "short imperfect" or "jussive," by contrast, renders wishes and commands; unlike the other conjugations, it takes the negation ʾL /ʾal/, thus expressing a prohibition. Only a few instances can be clearly identified as "short forms," though (e.g., ʾL YKBD /ʾal yakabbidū/ 'may they not honor' [doubling stem of *kbd*], *KAI* 24:14; the 3masc.pl. form of the "long imperfect" would have been spelled YKBDN /yakabbidūn/, with final /-n/).

In fact, the Phoenician verbal system features a number of phenomena that are not yet well understood. Examples include the alleged "short imperfect" in the purpose clause LKN YDʿ HṢDNYM 'so that the Sidonians may know' (*KAI* 60:7; ὅπως εἰδῶσι in the parallel Greek version). A "long imperfect" would be expected but can be excluded on morphological grounds. This use seems atypical for Phoenician yet may resemble the so-called "subjunctive" */yaktub-a/ in some other Semitic idioms, a third type of the "imperfect" which often occurs in purpose

clauses. In forms ending with a long vowel, such as the 3masc.pl., the "subjunctive" cannot be formally distinguished from the "short imperfect." At least in theory, one could imagine that even a late text like *KAI* 60 preserves remnants of another conjugation besides the "long" and the "short imperfect" not directly attested in earlier material. Alternative explanations should not be excluded, however.

The "imperative" is usually identical to the second person of the "short imperfect" without the preformative. Only singular forms are clearly attested; the expected difference between masculine /ktub/ and feminine /ktub-ī/ disappears in the spelling KTB. Likewise, one cannot say whether a (very short?) auxiliary vowel resolved the word-initial consonant cluster in pronunciation, which is especially likely with roots beginning with a glottal stop. Both the "(long) imperfect" and the imperative could perhaps have been expanded by the "energic" ending /-an/, but the few possible attestations remain controversial. No functional distinction emerges.

Among the verbal substantives, Phoenician has a participle, KTB /kōtib/ (active) and /katīb/ (passive; cf. names like *Baric* 'the blessed one') in the basic stem, which, like other nouns, inflects for gender, number, and state, and the "infinitive absolute" /katōb/, also spelled KTB. The latter does not inflect and often marks assertion in "paronomastic" constructions (e.g., ʾM PTḤ TPTḤ 'but if indeed you open', *KAI* 13:6f.). Especially in Phoenician royal inscriptions, however, it occurs in clause-initial position with a following 1sg. independent personal pronoun to mark the subject and refers to past events; it may have acted as a register-specific byform of the "perfect" there. Other forms of the infinitive (infinitive construct) appear with the prepositions B, L, and K (/ktub/, as in LPʿL /li-pʿul/ 'in order to do', e.g., *KAI* 10:11; cf. Punic *liful*) for temporal and purpose clauses, and perhaps also with suffixes (/kutb-/, like Tiberian Hebrew?). The quotative marker LʾMR 'as follows' (*KAI* 14:2) is, as in Hebrew, a fossilized adverbial infinitive of manner ('saying').

3.9. "Weak" verbs

Verbal roots that do not consist of three stable consonants ("weak" or "irregular" roots) exhibit a number of deviations from the sound paradigm hitherto discussed. As examples are rather few and cover a broad geographical as well as chronological range, any attempt to reconstruct the situation in Phoenician faces many difficulties.

1. Root-initial /y/, and presumably also /h/ in *hlk* 'to go', disappear in the "imperfect" and the imperative: TTN /tatin/(?) 'may she give'

(*KAI* 10:9) and Late Punic *lech* for LK /lik/ 'go!'. These roots also use a feminine verbal noun without the initial /y/ for the infinitive construct: LDʿT /li-daʿt/ 'in order to know', LLKT /li-likt/ 'in order to go', etc. With *lqḥ* 'to give', /l/ in the "imperfect" of the basic stem seems to undergo assimilation as well (YQḤ), and the infinitive construct (QḤT) follows a similar pattern.

2. Root-final /y/ has been preserved in the 3masc.sg. "perfect" in some Old Byblian forms (e.g., BNY /banaya/ 'he built') but disappeared in later varieties of Phoenician as a result of monophthongization (BN /banō/). With the "imperfect," this must already have happened by then, since syntactic considerations require YGL /yaglɛ̄/ or /yiglɛ̄/ '[if . . .] he reveals' in *KAI* 1:2 (protasis of a conditional clause) to be a "long imperfect" (< */yagliyu/ or */yiglayu/) instead of a "short imperfect" /yagl/ or /yigl/. Before consonantal afformatives, the resulting diphthong has been monophthongized, presumably in a much earlier period (cf. Punic *canethi* for /qanētī/ [< */qanay-tī/] 'I have acquired', if this is indeed a 1sg. "perfect"). As in Hebrew, the infinitive construct is expanded by T /-ōt/ (LBNT 'in order to build').

3. Verbs with a long second root consonant ("geminate roots"; e.g., TM /tamm/ 'he completed', *KAI* 60:1) form the "imperfect" with and without anaptyxis, as in Arabic (compare Punic *ythmum* /ʾatmum/ 'I wish to complete', from *tmm*, with TḤNʾ /taḥunnō/ 'she will favor him', from *ḥnn*).

4. The "hollow roots" have an etymologically long vowel between the first and the last root consonant (as in the "perfect" /qōm/ 'he arose' in names preserved in cuneiform transcriptions). Many forms, however, have to be reconstructed in light of comparative evidence.

3.10. Verbal stems

Diathesis (middle and passive voice), as well as certain situation types like factitivity and causativity, are expressed by means of derivational verbal stems; that is, modifications of the unmarked basic stem (corresponding to the Hebrew *Qal*). Inflectional categories like the finite and infinite verbal forms previously discussed use the same morphemes as with the basic stem. The exact nuance of a given stem often depends on the meaning of the root:

1. The detransitivizing or mediopassive N-stem is only attested for transitive verbs in Phoenician and formed by adding an /n-/ prefix

("perfect" NGZLT /nagzaltī/ 'I have been seized', *KAI* 14:2; participle NŠTʿM /naštaʿīm/ 'feared, 26 A II 4), which assimilated in the "imperfect" (YQBR /yiqqabirū/ [< */yinqabirū/] 'they shall be buried', 14:8). The infinitive construct may have had a prothetic vowel, but the situation remains unclear because of the scarcity of examples (cf. L-LḤM /li-(ʾ)illaḥim/ [< */ʾinlaḥim/?] 'in order to fight', *KAI* 24:6, which, however, could also be explained as elision of an original /h/ prefix, as in the Hebrew N-stem, between vowels after a proclitic preposition or even because of a simple scribal mistake).

2. The D(oubling)-stem mostly acts as a factitive counterpart to the basic stem and is marked by lengthening the middle root consonant ("perfect" /šillim/ 'he replaced'; "imperfect" /yabarrikū/ 'may they bless'; participle with /ma-/ prefix). It has a corresponding middle voice form (often used for reflexive nuances) with a /-t-/ prefix (Punic HTQDŠ /hitqaddiš/ 'he consecrated himself', *KAI* 138:1). It is not known whether hollow and geminate roots formed the D-stem on analogy with sound roots or replaced it by another pattern ("*Pōʿel*" or lengthening stem) like Classical Hebrew.

3. The C(ausative)-stem (*Yifʿil*) takes the prefix /yi-/ (< */hi-/ due to palatalization, as in the 3sg. possessive suffixes in Standard Phoenician) in the "perfect" and expresses the causation of a particular state. Other forms lost the original */h-/ of the prefix between vowels ("imperfect" YŠḤT /yašḥit/ [< */yahašḥit/] 'he destroyed', *KAI* 24:15f.; participle /manzir/ [< */mahanzir/] 'the one who dedicates' in names).

4. Only the oldest Byblian inscription (*KAI* 1) has two attestations of a middle-voice or reflexive counterpart to the basic stem, formed by means of a /-t-/ infix. Both examples are "imperfects": TḤTSP /tiḥtasip/ 'may it wither away' (from *ḥsp*) and THTPK /tihtapik/ 'may it collapse' (from *hpk*). If this feature is indeed an archaism, the considerable functional overlap with the N-stem is likely to have caused an early loss of this "Gt"-stem. One may compare the situation in Hebrew, where a similar form only survives in a few archaic place names.

5. There are no entirely clear attestations for "internal" (or "apophonic") passives like Hebrew *Puʿal* for the D-stem and *Hofʿal* for the C-stem.

3.11. Prepositions and particles

Various prepositions mark adverbial relations of time, place, and manner. Three proclitics, after which the /h/ of the definite article /ha-/ drops out, occur most frequently: B /bi-/ 'in, by, with', K /ka-/ 'as', and L /li-/ 'to, for, at', with the long, non-proclitic, byforms BN and, presumably, LN, identical in meaning; further the non-proclitic lexemes ʾḤR /ʾaḥar/ 'after', ʾL /ʾil(ē)/ 'to, toward', ʾT /ʾitt/ 'with', BN /bēn/ 'amid', DL /dal/(?) 'with' (attested only in Punic), ʿD /ʿad(ē)/ 'until, as far as', ʿL /ʿal(ē)/ 'on, above, against' (long form ʿLT), and TḤT /taḥt/ 'below, under'. MN /min/ is rarely used and attested only from the fourth century BCE on (first in *KAI* 33:2); its final /n/ can assimilate, turning MN into a proclitic which then also forms a stress unit with the word to which it refers. At least B and L are, as in Ugaritic (which has no preposition /min/) and Early Hebrew poetry, "deictically neutral" and can thus express ablative relations as well (e.g., B-MṢRM 'from Egypt', *KAI* 5:2). All these prepositions can govern both a noun and a pronominal suffix. Some of them, whose stem originally ended in */-ay/ (> /ē/), i.e., ʾL, ʿD, ʿL, presumably took the forms of the suffixes attached to a vocalic base, just like masculine plural nouns (compare Hebrew *bō* 'in him' with ʿ*alāw* 'above him'), but this distinction often remains invisible in spelling in the attested examples (yet compare ʿLY 'against him' for assumed /ʿalēyū/ in *KAI* 24:8 with /ʾittō/ 'with him' in the name Ιθοβαλος/Ιθωβαλος). B and TḤT take the corresponding byforms expanded by /-n/ before suffixes.

Combining various elements produces new and seemingly redundant compound prepositions, e.g., MʾT (MN+ʾT) 'from', LMN (L+MN) 'from', LB (L+B) 'for', LMB (L+MN+B) 'concerning'. The exact meaning, however, always depends on the entire phrase. Nominal phrases, too, can be lexicalized as prepositions, such as BD /bōd/ (< */bād-/ < */bi-yad-/) 'in/by the hand of' = 'by means of'. By the same token, several adverbs result from an adverbial use of nouns, e.g., ʿLM /ʿōlōm/ 'eternity' in prepositional expressions like L-ʿLM or ʿD ʿLM 'forever', as well as PNM 'face, front' in L-PNM 'before'. The difficult form LPNYM '(their?) predecessors' (*KAI* 24:5, 10) may be analyzed as an adjective 'former' derived from the prepositional phrase LPNM 'before' by means of the *nisbe* ending */-iy/.

The particle BL /bal/ serves as the most frequent means for negating affirmative expressions in Phoenician; it is attested with individual nouns (BL ʿTY '[I died] at my non-time' = '[I died] before my time', *KAI* 14:3, 12) and with verbs in main and relative clauses (WBL PʿL 'and he did nothing', *KAI* 24:3 and elsewhere). Occasionally, ʾY /ʾayy/(?) also

occurs (*KAI* 13:4bis and 14:5, all examples in clauses subordinated by K /kī/ and in a similar context). A combination of both, ʾBL (/ʾēbal/ < */ʾay-bal/?), is attested in main and relative clauses. As in other Northwest Semitic languages, the "short imperfect" for volitive expressions, by contrast, takes the negation ʾL /ʾal/. This construction replaces the negated imperative.

Following the loss of morphological case marking, the distinction between the grammatical roles of subject (nominative) and direct object (accusative) became blurred in Northwest Semitic. Hence Phoenician, too, developed a particle ʾYT /ʾiy(y)ōt/ (often termed *nota obiecti*) which can optionally mark the direct object of a transitive verb, especially when the object is definite and thus prone to confusion with the prototypical subject. The unstressed byform ʾT /ʾōt/ or /ʾot/ (cf. oθ in transcriptions) frequently occurs with suffixes and is further reduced to /ʾat/ [ʾɛt] in Punic (at times only written T), but the exact distribution is debated. Since this particle is still lacking in, among others, the Old Byblian inscriptions, some scholars suppose that Old Byblian still had a productive accusative case with nouns. Yet it seems more likely to assume that a certain chronological gap separated the loss of case inflection from the regular use of an object marker.

The most frequent conjunction is the proclitic element W /wa-/ 'and' (Punic transcriptions point to a later pronunciation /u-/ due to vowel reduction /wa-/ > /w-/ > /u-/), which occurs in all kinds of syndetic connections between clauses. Other conjunctions include ʾP /ʾap/ 'also' and ʾM /ʾim/ 'if' with "perfect" or (later more frequently) "imperfect" in the protasis and the apodosis (but ʾM . . . ʾM 'either . . . or'). K /kī/, originally an emphatic particle ('yes!'), can introduce causal subordinate ('because') and object clauses ('that'). Compound conjunctions are KM ʾŠ 'when' (*KAI* 10:7), 'as' (19:9); LKN 'so that' (60:7); LM 'lest' (14:21); BLT 'except that' (13:5).

4. Lexicon and foreign influences

By and large, the lexicon of Phoenician and Punic corresponds to that of the closest relatives in the Semitic family. It partly agrees with Ugaritic against Hebrew, as in using the roots *ytn* 'to give' (mostly?) instead of *ntn* and *kwn* 'to be' ('to be reliable' in Hebrew) instead of *hyy*. Even shared words, however, differ in frequency: the negation BL /bal/ is rare and poetic in Ugaritic as well as in Hebrew, whereas the usual form there, */lā/, does not occur in Phoenician; ʾLP /ʾalp/ 'ox', on the other hand, hardly appears in Hebrew, although it is a normal lexeme in Ugaritic and

Phoenician. The preposition DL /dal/(?) 'with' even seems to constitute a peculiar feature of (Phoenician-?)Punic. The plural forms of some words differ from those of their Hebrew cognates (like ʾŠ /ʾīš/ 'man', pl. ʾŠM /ʾīšīm/ instead of ʾᵃ*nāšīm*).

Dialectal differences, too, can be observed in the lexicon of Phoenician. The oldest Byblian text has the conditional particle ʾL (*KAI* 1:2) instead of ʾM as in the rest of Old Byblian and Phoenician; Old Byblian at large uses the title ʾDT 'Lady' for the city's patron deity as opposed to usual RBT. It is less easy to say whether the purported feminine gender of KSʾ 'throne' and ḤṬR 'scepter' vis-à-vis masculine in Hebrew (but, in the case of KSʾ, in accord with Ugaritic) are likewise Old Byblian peculiarites, for the lack of further unambiguous evidence. Some verbal roots evidently appear in unexpected stems, such as the G-stem for *brk* 'to bless' also for the "perfect" (as in βαραχω 'he blessed him', *KAI* 175:4f. and already in some Northwest Semitic personal names transmitted in cuneiform transcriptions) in contradistinction to the ubiquitous D-stem of this root in Hebrew and Aramaic, which is, however, also attested in Phoenician. A few shared expressions and phrases in various Northwest Semitic idioms may result from an erstwhile common oral poetic language that permeated large parts of ancient Syria-Palestine.

Phoenician and Punic were often used in multilingual situations. These have produced many inscriptions with a Greek or Latin parallel version (not perforce a verbatim translation), and occasionally also a Luwian, Etruscan, or Berber one. A few texts are even written entirely in the Greek or Latin alphabet. From the Achaemenid period on, Aramaic seems to have been the dominant language for many purposes of daily life on the mainland, as in post-Exilic Israel, but this fact is not immediately reflected in the primary sources, since Phoenician continued to act at least as a medium for public display. While Phoenician did not necessarily function as a vernacular in all places where inscriptions in this language have been discovered, it was, at any rate, subject to many external influences. Later texts from Cyprus and Greece feature Greek terminology, Punic inscriptions contain several Latin words relating to law and administration, and North African witnesses betray a few titles and other lexemes borrowed from Berber. Only in part were these adapted to the Semitic paradigm of nominal inflection. Other instances of language contact are more difficult to identify, but it is generally assumed that certain constructions in later texts have been patterned after Greek or Latin models. In a similar fashion, some phonetic developments in parts of the speech area may have been contact-induced.

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Ancient Hebrew

Holger Gzella

1. Introduction and language history

Until the gradual emergence of Semitic epigraphy from the middle of the eighteenth century on, Hebrew was only known from manuscripts containing biblical and rabbinic texts. However, the language, too, reflects the long and complicated history of the Hebrew Bible with its organic growth and its many redactional layers. Even the received text, which has been transmitted since the canon was completed and which underlies the *Codex Leningradensis* from 1008 CE, the most authoritative manuscript, went through the hands of countless scribes, echoing their voices as well. For the purpose of synagogal recitation, scholars ("Masoretes") indicated the traditional pronunciation of the erstwhile almost purely consonantal text by means of a very precise system of vowel signs, accents, and other diacritical marks. They accompany the consonantal skeleton but also exhibit, besides ancient features, several instances of later linguistic development. In Western grammatical tradition, the pointing of the Masoretes from Tiberias in Galilee has become normative and dominates the teaching of Biblical Hebrew since the first Christian textbook, *De rudimentis Hebraicis* (published in 1506) by Johannes Reuchlin (1455–1522). The exact pronunciation, by contrast, toward which this system is geared, has been lost and must be reconstructed on the basis of Medieval sources like the works of Jewish grammarians. None of the present reading traditions with their many ramifications exactly corresponds to the Tiberian one. Hence its origin is very difficult to trace.

Already in the nineteenth century, grammarians endeavored to "sweep away the dust of the ages" by reconstructing, with the help of Classical Arabic (which is typologically more conservative), the pre-Exilic stage of Hebrew lurking behind the vocalization. Meanwhile, however, a fair number of inscriptions in Hebrew as well as in closely related idioms have become known, and other pronunciation traditions (Babylonian, Yemenite, Samaritan, etc.) have been investigated more thoroughly. Although the traditional, cumulative, identification of Ancient Hebrew with the biblical text in its received form continues to linger on, it is

somewhat easier now to situate this language within a broader matrix of Canaanite and Aramaic varieties used throughout ancient Syria-Palestine and to understand the considerable amount of linguistic variation in the biblical corpus in historical, geographical, and stylistic respects: First, archaic poetry (Gen 49; Ex 15; the Balaam oracles in Num 22–24; Deut 32, 33; Jdg 5; 1 Sam 2; 2 Sam 1, 22 = Ps 18; 2 Sam 23; Ps 68; Hab 3) draws heavily on the conventions of a traditional poetic language which has also left its mark in Ugaritic epic. Classical Hebrew, the subsequent developmental stage, is the linguistic register in which the literary prose corpus and some epigraphic witnesses have been composed. In post-Exilic writings (1–2 Chr, Ezr, Neh, Esth, Dan, and others), a growing degree of Aramaic influence can be observed due to the impact of Achaemenid administration. Although Classical prose remained in use as a prestigious literary style, Aramaic gradually replaced Hebrew as the pragmatically dominant language in daily life during the latter half of the first millennium BCE. Moreover, some literary genres (e.g., philosophical discourse) use particular registers that partly seem to continue archaic dialects. In light of epigraphic sources, too, a basic distinction can be established between a Northern dialect ("Israelite"), attested by ostraca from Samaria before the fall of the Northern kingdom in 722 BCE and some reflexes in the biblical text, and a Southern variant ("Judean") which underlies Classical Hebrew. Yet already in early biblical texts, it is often hard to distinguish dialectal "Northernisms" from the influence of Transjordanian idioms or Aramaic. Some passages even seem to consciously switch between different styles (e.g., "foreigner talk"). As a literary language, Southern Hebrew appears to have already spread to the northern part of the speech area early in the first millennium. The discoveries from the Dead Sea further enrich this abundance and also appear to contain, besides "classicizing" texts, predecessors of Rabbinic Hebrew.

Unlike many other grammatical surveys, the present chapter focuses in particular on the pre-Exilic inscriptions through the lens of historical reconstruction. The most complete and detailed edition of the epigraphic corpus has been published by Renz and Röllig (1995–2003), whose sigla (consisting of the place of provenance and the century of composition) are used here; a serviceable English collection especially geared toward students of the Bible has been prepared by Dobbs-Allsopp, Robert, Seow, and Whitaker (2004). Finally, *KAI* contains a selection of Hebrew documents as well. The dictionary by Hoftijzer and Jongeling (1995) also includes the lexicon of the Hebrew inscriptions with full bibliography; the comprehensive 18th edition of Gesenius's dictionary (1987–2010) incorporates the epigraphic material in the respective articles on Biblical Hebrew words. Due to the emphasis on pre-Exilic Judean prose in this

chapter, the most important, reasonably homogeneous, variety of Ancient Hebrew clearly comes to the fore. Linguistic developments that gradually led to the evolution of Tiberian Hebrew, however, are also considered; especially with divergent forms, a transcription of the Tiberian pointing is given in parentheses. For an exhaustive and up-to-date grammar of Biblical Hebrew, readers may refer to Joüon and Muraoka (2006); Blau (2010) discusses at least phonology and morphology in great detail and assembles much comparative material. The works by Bauer and Leander (1922) and Bergsträsser (1919–1929) are, unfortunately, incomplete and partly outdated but have not yet been replaced due to their historical-comparative scope and depth.

2. Writing

When Hebrew was elevated to the status of official idiom of a newly-emerging administration, scribes in Israel and its vicinity also took over the prestigious Phoenician alphabetic writing with its twenty-two letter signs. In the course of time, a "national" variant of this script evolved. The so-called "Square Script," with which since Achaemenid times (ca. 550–330 BCE) Hebrew has been written, and later other Jewish languages like Yiddish as well, originates from an Aramaic variety of the alphabetic script fine-tuned for use in chanceries. It had marginalized and eventually replaced the local alphabet when Persian administration took over. Here is a comparison of the letters in square script, pre-Exilic Ancient Hebrew writing, and the usual signs in Latin transliteration: א  ; ב  B; ג  G; ד  D; ה  H; ו W; ז  Z; ח  Ḥ; ט Ṭ; י  Y; כ (at the end of a word: ך)  K; ל  L; מ (at the end of a word: ם)  M; נ (at the end of a word: ן)  N; ס S; ע  ; פ (at the end of a word: ף)  P; צ (at the end of a word: ץ)  Ṣ; ק  Q; ר  R; ש  Š; ת  T. The Hebrew script seems to have acquired considerable local prestige, such that its use extended to the Philistine costal cities in the West (to the effect that it is debated whether the inscriptions from these cities were composed in a local variant or in Hebrew) and to the Transjordanian area in the East.

Contrary to Phoenician, but like Aramaic, certain consonant letters could also indicate long vowels in Hebrew writing ("*plene* spelling"). These vowel letters, traditionally labeled *matres lectionis*, often evolved from historical spellings or graphic analogies and were at first confined to word-final position: H for /-ā/ (ʾMH /ʾammā/ 'cubit'), /-ē/ (DWH /dawē/ 'ill'), and /-ō/ (KTBH /katabō/ 'he wrote it'); W for /-ū/ (WYLKW /wa-yalikū/ 'and then they went'), but only since post-Exilic times instead of H for /-ō/; Y for /-ī/ (ʾNY /ʾanī/ 'I'). By contrast, Lʾ /lō/ 'not' and Nʾ /nā/

'please' do not employ genuine vowel letters but result from historical orthography which could also have been preserved for disambiguation and prevented confusion with LH /lō/ 'to him' and the suffixed energic in -NH. At a later stage, W sometimes rendered word-medial /-ō-/ and /-ū-/, similarly Y for word-medial /-ē-/ and /-ī-/. In such positions, however, their use remained optional; hence *plene* spellings and writings without vowel letters ("defective spelling") occur side by side even during the same period (as with ʾŠ and ʾYŠ for /ʾīš/ 'man'). The Dead Sea Scrolls, including the biblical manuscripts from the Judean Desert, clearly indicate that the use of *matres lectionis* greatly increased after the Babylonian Exile in some scribal schools. The frequent variation between *plene* and defective spelling in the more conservative Masoretic text is a result of its long history of transmission and by and large does not follow specific rules.

3. Phonology

3.1. Consonants

The inventory of consonants in Hebrew reflects some sound changes in common with other Canaanite languages like Phoenician. It comprises at least 23 phonemes: that is the voiced and unvoiced laryngeals /ʾ/ (glottal stop) and /h/; the pharyngeal fricatives /ʿ/ (glottalic pressure sound) and /ḥ/ (whose pronunciation is in between *ch* in German *ach,* or Scottish *loch,* and plain *h*); the velars /g/ and /k/; the sibilants /z/ and /s/; the dentals /d/ and /t/; the bilabials /b/ and /p/; and the unvoiced palatovelear /š/ (as in *ship*). Additionally, /k/, /s/, and /t/ have "emphatic" counterparts commonly transliterated /q/, /ṣ/, and /ṭ/. Their pronunciation in Ancient Hebrew is not entirely clear; perhaps they were at first glottalized, that is, doubly articulated with a subsequent glottal stop, with /ṣ/ also being affricated ([tsʾ]), but they may have been pharyngealized or velarized (with a following /ʿ/) at a later stage, as in Arabic vernaculars. In modern traditions, like Israeli Hebrew and Western academic pronunciation, they have been simplified to [k], [ts] and [t]; this is often attributed to European influence since the Middle Ages. The liquids /l/ and /r/ (whose articulation may have been rolled as in Spanish *r* or uvular as in French) also have phonemic status, as do the nasals /m/ and /n/ as well as the semivowels (glides) /y/ (palatal) and /w/ (bilabial, first pronounced as in *water,* but in later Tiberian mostly as in *very*). The lateral /ś/ (containing an [l]-sound, hence Hebrew *bóśɛm* 'balsam' corresponds to Gk. βάλσαμον) was also preserved in the earliest stage. However, it had to be written with Š, since the Phoenician alphabet did not include a separate letter

sign for it; only later did the Masoretes graphically distinguish between שׂ and שׁ by means of a diacritical dot. Nonstandard phonetic spellings (e.g., in the Dead Sea Scrolls) indicate that /ś/ later merged with /s/, as it did in contemporaneous Aramaic.

Many Greek transcriptions of names in the Pentateuch according to the Septuagint version show that the original distinctions between */ḫ/ (as in German *ach*) and */ḥ/, both spelled with Ḥ, and between */ġ/ (spirantized *g*, as in Modern Greek) and */ʿ/, graphically rendered with ʿ, were known at least until the third century BCE. The reason is that */ḫ/ and */ġ/ are transcribed with χ and γ, whereas vowels are used for */ḥ/ and */ʿ/: hence YṢḤQ and Ισαακ 'Isaac' for /ḥ/, but ḤRN and Χαρραν 'Harran' for */ḫ/; likewise, ʿZH and Γαζα 'Gaza' for */ġ/, yet ʾLYʿZR and Ελιεζερ 'Eliezer' for */ʿ/. However, it is difficult to determine whether the distinct pronunciation of these sounds also points to distinct phonemic status, or whether the transcription practice of the Septuagint merely reflects a learned archaism which may have been confined to liturgical recitation (similar perhaps to the Late Medieval pronunciation [ˈmɔːdlɪn] preserved in the name of the institution *Magdalen College* in Oxford instead of [ˈmægdəlɪn] according to the modern pronunciation of the corresponding personal name).

All phonemic consonants, including, at least until shortly after the Babylonian Exile, the gutturals, could be lengthened, although they were articulated only once even then (like geminates in Italian: *ecco*, *spesso*, etc.) and hence appear as simple consonants in writing. Some peculiarities between them and /r/ (whose similarity to the gutturals may point to a uvular pronunciation at some stage) which are characteristic of the Tiberian pointing thus presumably result from later developments. The same applies to the double pronunciation of the "Begadkefat," on which see below. Medieval grammars mention a number of other idiosyncrasies of the Tiberian pronunciation tradition (e.g., a "hard," i.e. unaspirated, [p] in ʾ*appaḏnō* 'his palace' Dan 11:45), but these are all extremely difficult to date.

3.2. Vowels

One can attempt to reconstruct a stage of the Ancient Hebrew vowel system predating the Tiberian vocalization with the help of various bits and pieces of information: *matres lectionis* in consonantal texts; transcriptions mostly in Greek or Latin letters (chiefly names in the ancient versions of the Bible and the fragments of the *Secunda*, the second column of a polyglot edition with a contemporary rendering of the Hebrew text in Greek

script prepared by Origen, who died in 254 CE); later pointing traditions; and historical-comparative philology. However, because of the limited corpus, considerable diversity in the sources, the long period of attestation, and the coexistence of several Hebrew varieties and pronunciation traditions, this method does not lead to uncontested results. At best, one can suggest a tentative relative chronology of some important sound changes.

It is fairly safe to assume that the Proto-Semitic long vowels */ī/ and */ū/ generally remained stable through the ages. Original */ā/ regularly shifted to /ɔ̄/, an open /o/ sound distinct from the likewise secondary closed /ō/, as it did, albeit over a longer period of time, in other Canaanite languages. According to the Tiberian pronunciation, secondary /ā/ (which resulted from tonic or pretonic lengthening) was also backed to /ɔ/, perhaps around 500 CE but in any case after the *Secunda.* Yet many later traditions restored the pronunciation as [ā], so this is how it often appears in transcriptions. Since H never serves as a *mater lectionis* for /ī/, the lowering of stressed stem-final /-ī/ to /-ē/, an open /e/ sound as in English *bed* (German long *ä* as in *spät*) distinct from closed /e/, took place, according to spellings like DWH /dawē/ (< */dawī/) 'ill', already in pre-Exilic times.

The reflexes of the etymological short vowels /a/, /i/, and /u/, by contrast, were subject to far-reaching changes, especially (if certain basic historical assumptions prove correct) in the post-Exilic period. In pronunciation, /i/ except before /y/ was usually realized as a closed short [e] and /u/ except before /w/ as a closed short [o], for the respective lengthening grades in tonic or pretonic syllables regularly appear as /ē/ and /ō/ in later pointings. Both are weaker than /a/. Short *ɛ* as in English *bet,* which has its own sign in the Tiberian vocalization, also seems to have emerged only in the post-Exilic period but its phonemic status is not entirely clear. As a consequence, the Tiberian system, the most precise Semitic vocalization tradition, distinguishes seven vowel qualities: *i* (◌ִ), *e* (◌ֵ), *ɛ* (◌ֶ), *a* (◌ַ), *ɔ* (◌ָ), *o* (◌ֹ, ◌וֹ), *u* (◌ֻ, ◌וּ). There seems to be growing agreement that the Tiberian vowel signs do not mark vowel length, but such information can be supplied, to varying degrees of certainty, on historical grounds. (The inherited distinction between long and short vowels collapsed in later stages of Hebrew and plays no role in the modern language, although it is hard to say when exactly that happened.)

Etymological diphthongs, on the other hand, exhibit variation already in the earliest directly attested stages of Hebrew. In the Northern dialect, as in Ugaritic and Phoenician, */aw/ and */ay/ had already been consistently monophthongized to /ō/ and /ē/ respectively when the orthography was standardized (cf. YN /yēn/ < */yayn/ 'wine' in ostraca from Samaria). At a somewhat later period, but presumably before the sixth

century BCE, they seem to have undergone gradual monophthongization in Southern Hebrew too but were often preserved in spelling (as in YYN for 'wine' in epigraphic documents from Judea). Hence W and Y almost automatically developed into vowel letters for /ō/ and /ē/ as time went by. According to the Tiberian pointing, however, diphthongs were often expanded into triphthongs when stressed: *báyiṯ* < */bayt/ 'house', *mɔ́wɛṯ* < */mawt/ 'death', but, for unknown reasons, *yōm* < */yawm/ 'day'. Ancient triphthongs, by contrast, had been monophthongized already in the earliest texts.

3.3. Stress and syllable structure

Comparative evidence, especially from Phoenician, suggests that short unstressed word-final vowels disappeared in Canaanite, and presumably in Northwest Semitic in general, shortly after 1000 BCE. As a consequence, stress fell on the last syllable in most Hebrew words, but the Masoretes indicate regular penultimate stress in some grammatical forms (in general, certain endings and suffixes). According to the Tiberian pointing, stress was phonemic, as is evidenced by minimal pairs like the 3fem.sg. "perfect" /bɔ́ʾā/ 'she came' vs. the fem.sg.abs. participle /bāʾɔ́/ 'coming'. No phonemic stress can be unambiguously demonstrated for older phases of Northwest Semitic.

The inherited syllable structures are /CV/, /CVC/, and presumably also /CCVC/. The latter, if accepted, is etymological in a few individual words like the numeral 'two' and the original form of the G-stem imperative according to the least problematic reconstruction. Loss of the case endings in the singular then produced the secondary pattern /CVCC/, with a word-final consonant cluster, which was, however, resolved by means of an anaptyctic vowel (its symbol named *sɛḡōl*) at a later stage, hence */kalb-u/ > /kalb/ > Tiberian *kɛ́lɛḇ* 'dog'. For the same reason, the so-called "segolates" in Tiberian Hebrew (i.e., nouns conforming to the original patterns *qaṭl, qiṭl,* and *quṭl*) kept their stress on the first syllable in the singular. Closed syllables with a long vowel were avoided. At the end of an intonation unit, short vowels in an open penultimate or final syllable could be (slightly) lengthened ("pause").

3.4. Sound changes in Ancient Hebrew

The common Northwest Semitic shift of word-initial */w-/ to /y-/ (except in /wa-/ 'and' and a few other words) and assimilation of /n/ to the

immediately following consonant are also operative in Hebrew. At least in the received consonantal text, however, root-final /n/, excluding the frequent verb *ntn* 'to give', has been restored due to paradigm pressure (e.g., *zāqantā* 'you have become old'). Also, /n/ in contact with another consonant as well, tends to be preserved before laryngeals as well, as in the G-stem "imperfect," e.g., *yinḥal* 'he inherits' (comparable examples exist in other Northwest Semitic languages, too).

Early loss of syllable-final glottal stops with compensatory lengthening of the preceding vowel is also attested in other Semitic languages and seems to have occurred in Canaanite already in the Late Bronze Age. Despite the age of this sound change in early Canaanite material, however, the glottal stop is often preserved in spelling in Hebrew. The corresponding lengthening grades are /ā/ for */a/, /ē/ for */i/ (presumably due to its pronunciation as [e]), and /ō/ for */u/ (presumably because it sounded like [o] in pronunciation), hence */raʾš-/ > */rāš/ > /rōš/ 'head', spelled RʾŠ. Some exceptions in the Tiberian pointing seem to result from hypercorrect vocalizations, e.g., *zʾēḇ* 'wolf' for expected *zēḇ* (< */ðiʾb/).

As in Aramaic, metathesis often occurs with a root-initial sibilant and the /t/ of a prefix that would immediately precede the sibilant. Voiced sibilants and "emphatics" also trigger partial voicing assimilation (i.e., */ts/ > /st/, but */tz/ > /zd/ and */tṣ/ > /ṣṭ/). A peculiar feature of Hebrew, by contrast, is the assimilation of /h/ to /t/, especially with suffixes on 3fem.sg. "perfects" (e.g., */gamalat-hū/ > /gamalattū/ 'she weaned him', a phenomenon not yet clearly attested in pre-Exilic times); the assimilation of */dt/ > /tt/, on the other hand, appears but rarely in writing (e.g., with the feminine numeral 'one'), although it may have been more common in pronunciation (unless one assumes that a helping vowel appeared in such cases and that a form like /ʾaḥadtī/ 'I took' was pronounced [ʾaḥadətī]).

3.5. The path to Tiberian Hebrew

Other sound changes that give Tiberian Hebrew its distinctive shape among the "classical" Semitic languages and also form the basis of Modern Hebrew seem to have become operative only, sometimes considerably, after the Babylonian Exile. They can be attributed to language-internal developments, imperfect learning after the gradual erosion of the Judean standard language, and Aramaic substrate pronunciation:

- Especially with nominal forms (including the participle), an etymological short vowel in the tonic syllable was replaced by its corresponding lengthening grade, i.e., */a/ > /ā/, */i/ > /ē/, */u/ > /ō/. Many

scholars attribute this phenomenon to an erroneous use of pausal forms in context, owing to increasing influence of Aramaic (which does not have special forms for pausal intonation), although lengthening under stress occurs fairly automatically in many languages. Medieval grammarians, too, remark that all stressed vowels, even etymologically short ones, were pronounced longer than unstressed vowels. Nonetheless, others date tonic lengthening to a much earlier period. Since the pointing does not express length, this phenomenon is sometimes also referred to as "backing" or "lowering."

– Word-final long consonants were simplified and plosive stops spirantized, compare the etymological form */libb/ 'heart' with Tiberian *lēḇ*. Only rarely does analogy prevent spirantization, as with *ʾat* < /ʾatt/ < /ʾattī/ 'you (fem.sg.)' under the influence of the corresponding plural form.

– Word-final consonant clusters, by contrast, were regularly resolved by an auxiliary vowel which appears as an unstressed *ɛ* in the Tiberian pointing (*a* with gutturals) and which seems to have caused assimilation of */a/ in the preceding syllable. This phenomenon is usually called "segolization", as in */malk/ > */málək/ > *mélɛḵ*. Original */i/ and */u/ in the first syllable appear as [e] and [o] in the vocalization. Inconsistencies in the rendering of these auxiliary vowels in Septuagint transcriptions and in Origenʾs *Secunda* point to their nonsystemic nature.

– At least in some parts of the speech area, especially in Samaria and Northern Galilee, the gutturals /ʾ/ and /ʿ/, as well as /r/ (which would have been similar to these in pronunciation if one assumes a uvular or voiceless articulation like French *r*), were weakly articulated, presumably from ca. 200 BCE on at the latest. Hence lengthening them became impossible and yielded to compensatory lengthening of the preceding vowel. This change is reflected in the difference between the etymologically correct transcription of the personal name Σαρρα (< */śarrat-/ 'princess') in the Septuagint Pentateuch (ca. mid 3rd c. BCE) and the Tiberian vocalization *Śārā*. Weak articulation somewhat later also targeted /h/ and /ḥ/ but did not cause compensatory lengthening there. The Masoretes indicated the presence of fleeting auxiliary vowels like the *pataḥ furtivum* with etymological gutturals in syllable-final position (hence *rūᵃḥ* for */rūḥ/ 'wind'). A root-final guttural triggers the shift */i/ > /a/.

– The non-emphatic plosive stops developed fricative allophones, in all likelihood via an aspirated pronunciation when in weak articulation (i.e., usually following a vowel) and not lengthened: /b/:: /b̲/

(labiodental *v* as in *very*), /g/ :: /g̱/, /d/ :: /d̲/ (like *th* in *this*), /k/: /k̲/, /p/ :: /p̄/ (= *f*), and /t/ :: /t̲/ (like *th* in *thin*). Since *g̱* was pronounced like older */ġ/ and /k̲/ like */ḫ/, this change normally presupposes that the mergers of */ġ/ and /ʿ/ and of */ḫ/ and /ḥ/ had been completed. As the Septuagint Pentateuch still preserves reflexes of a distinct pronunciation of */ġ/ and */ḫ/ (see Section 3.1), the appearance of these spirantized allophones is unlikely to have taken place before the third century BCE. It may be attributed to the influence of Aramaic pronunciation, for only Hebrew and Aramaic consistently spirantize all six stops /b g d k p t/ (comparable phenomena in other Semitic languages target only some of them). The Tiberian Masoretes indicate the plosive variants of these so-called "Begadkefat" sounds by means of a dot (*dagesh*) in the letter. Especially European pronunciation traditions ignore the allophones /g̱/ and /d̲/, often also /t̲/, whereas the Yemenite reading tradition preserves all six of them.

– Once short unstressed vowels in open syllables could no longer be articulated (arguably a constraint borrowed from Aramaic), they were either lengthened or reduced. The Tiberian pointing marks the absence of a vowel, including an original short vowel, by *shwa* (ְ). In pronunciation, however, a nonsyllabic short auxiliary vowel appeared, which, being an allophone of zero (so to speak), is not transcribed here. The appearance of such an auxiliary vowel may also have been governed by the phonetic environment, especially the sonority of the consonants involved, since a word-initial cluster like /tr/ with sounds of an increasing degree of sonority is much easier to pronounce than a cluster like /mq/ with a decrease in sonority. Byforms with a prothetic glottal stop (*zrōᵃʿ* and *ʾɛzrōᵃʿ* 'arm') would at any rate point to word-initial consonant clusters. Fleeting, likewise nonsystemic and thus nonfunctional, vowels with gutturals are indicated by the *ḥaṭef* signs in the vocalization (i.e., a combination of the symbol for a short vowel and *shwa*), transcribed with superscript letters here. It is also quite reasonable to assume that word-initial /y/ and /w/ were pronounced [i] and [u] after a following short vowel had disappeared. Vowel reduction, which eventually resulted in vowel deletion, may have taken place gradually during a longer period of time; evidence like the disappearance of *matres lectionis* for certain short vowels in some epigraphic documents suggests that it was completed by the middle of the third century CE in Aramaic, but its onset in Hebrew is difficult to date.

– Tiberian Hebrew has many instances of an interchange between */i/ and */a/, but the exact circumstances cannot always be determined

precisely. The frequent, though not entirely consistent, shift */i/ > /a/ in closed stressed syllables (e.g., *zāqántā* 'you have become old', from */zaqínta/), commonly referred to as "Philippi's Law," was apparently not yet operative in the transcriptions given by Origen around 250 CE. Its counterpart, the likewise unsystematic change */a/ > /i/ (pronounced [e]) in unstressed closed syllables, does not appear in ancient transcriptions either. Admittedly, many examples occur in names and may thus not be representative for living use (e.g., the Tiberian pointing consistently has */magdál/ > *miḡdā́l* 'tower', but the original form still features in New Testament transcriptions of the name Μαγδαληνή 'Magdalene').

– Some alleged exceptions to the "Canaanite Shift" */ā/ > /ō/, in particular in names of professions according to the *qaṭṭāl* pattern (such as *dayyān* 'judge'), but also in the "perfect" of "hollow roots" (e.g., *qām* 'he stood') and verbs ending in a vowel (like the second *ā* in *bānā* 'he built') are difficult to explain and thus hard to date. It seems impossible to decide with certainty whether these must count as archaisms, as interdialectal borrowings, as analogical formations (at least in verbal forms), or as more recent developments caused by the influence of Aramaic (where etymological */ā/ apparently remained stable during the period in question).

4. Morphology and morphosyntax

4.1. Personal pronouns

Personal pronouns occur as independent words and as suffixes, which are grammatical morphemes attached to nouns, prepositions, and verbs. They distinguish three persons, masculine and feminine gender (except in the first person), and singular and plural number. Independent personal pronouns generally express the subject in nominal clauses with equational ('A is B') or prepositional ('A is in/by/at/with etc. B') expressions. Finite verbs, on the other hand, already encode the subject; here the use of an independent personal pronoun reinforces the subject or highlights a contrast. Only a few forms are attested in pre-Exilic inscriptions; for comparative purposes, the reconstructed persons, together with their immediate ancestors and the corresponding Tiberian spellings in parentheses, are also added (Table 1 and below).

The problem of the quantity of the final vowels in these forms, which apparently combine properties of short and long vowels, is briefly

Table 1. Hebrew independent personal pronouns

	Singular				Plural	
1	ʾNY	/ʾanī/	(ʾ*ānī*, ʾ*ānōḵī*)	NḤNW	/naḥnū/	((ʾ*a*)*náḥnū*)
2masc.	ʾT	/ʾattā/	(< */ʾantā/ ʾ*at(tā)*)	—	/ʾattim/	(< */ʾantumū/ ʾ*attɛm*)
2fem.	—	/ʾattī/	(< */ʾantī/ ʾ*at*)	—	/ʾattinnā/	(<*/ʾantinnā/ʾ*atten(ā)*)
3masc.	HWʾ	/hū(ʾ)/	(< */hūʾa/ *hū*)	—	/him(ā)/	(< */humū/ *hem(mā)*)
3fem.	—	/hī(ʾ)/	(< */hīʾa/ *hī*)	—	/hinnā/	(*hennā*)

discussed in the chapter on Phoenician. Several shorter and longer by-forms coexist in the Masoretic text (including, e.g., a reflex of the old 2fem.sg. form /ʾattī/, spelled ʾTY but vocalized ʾ*at*) and other traditions like the Dead Sea Scrolls (e.g., a 2masc.pl. /ʾattimmā/, patterned after the 2fem.pl., in Qumran manuscripts and in the Samaritan tradition of Hebrew). They seem to result from both ancient dialectal distinctions and more recent workings of analogy. Many developments, such as the leveling of the /i/ vowel in the second and third persons plural, are therefore difficult to date.

Pronominal suffixes, by contrast, indicate a pronominal possessor or relation when attached to nouns in the construct state and to prepositions; with transitive verbs, they express a pronominal direct object. The so-called "singular suffixes" appear with a base ending in a consonant and take a linking vowel, mostly /a/ (often identified with the ancient accusative case in the singular and then extended by analogy); forms of the "imperfect" and the imperative without afformatives, on the other hand, take the linking vowel /i/ or an "energic" ending /-an/: -Y /-ī/ 'my (masc./fem.)' (with verbs: -NY /-nī/ 'me'), -K(H) /-ak(ā)/ (-*ḵā*, in pause -*ḗḵā*) 'your (masc.)', -K(Y) /-ak(ī)/ (-*ēḵ*) 'your (fem.)', -H (later -W) /-ō/ (usually explained as from */-á-hū/ with loss of intervocalic /h/) 'his', -H(H/ʾ) /-ahā/ (-*āh*) 'her', -NW /-anū/ (-*ēnū*) 'our (masc./fem.)', -KM(H) /-akim(ā)/ (-*ḵɛm*) 'your (masc.pl.)', -KN(H) /-akin(nā)/ (-*ḵɛn*) 'your (fem. pl.)', -(H)M(H) (rarely -MW /-amū/) /-a(hi)mā/ (-*ām*) 'their (masc.)', -(H) N(H) /-a(hi)nnā/ (-*ān*) 'their (fem.)'. Tiberian *ē* in the 2fem.sg. and 1pl., and *ɛ* in the pausal 2masc.sg., could reflect an old genitive */-i/ or a borrowing from vowel-final bases.

Vocalic bases of the construct state in the masculine plural and dual as well as singular forms and prepositions ending in a vowel, by contrast, do not require a linking vowel. This produced a different set of forms which also occur with feminine plurals in Hebrew (often excepting the third person): -Y /-ayy/ (-*ay*) 'my (masc./fem.)', -(Y)K(H) /-ēkā/ (-*ḗḵā*) 'your (masc.sg.)', -YK(Y) /-ēkī/ (-*áyiḵ*) 'your (fem.sg.)', -(Y)H(W)

or /-ēhū/ or (with loss of intervocalic /h/) -(Y)W /-ēw/ (*-āw*) 'his', -(Y)H /-ēhā/ (*-ēhā*) 'her', -(Y)NW /-ēnū/ 'our (masc./fem.)', -(Y)KM(H) /-ēkimā/ (*-ēḵɛm*) 'your (masc.pl.)', -(Y)KN(H) /-ēkinnā/ (*-ēḵɛn*) 'your (fem.pl.)', -(Y)HM(H) /-ēhimā/ (*-ēhɛm*) 'their (masc.)' (fem.pl. nouns mostly take the corresponding singular suffix, e.g. *ʾarṣōṯām* 'their lands'), -(Y)HN(H) /-ēhinnā/ (*-ēhɛn*) 'their (fem.)' (but usually with the corresponding singular suffix in the fem.pl.). At a somewhat later stage, graphic analogy restored the etymological writing -Y- (for /-ē-/ < */-ay-/) for the 3masc. sg. plural suffix, since -W was by then used for the singular suffix /-ō/ (compare ʾNŠW 'his men' in *KAI* 193:18 with ʾNŠYW, pointed *ʾᵃnāšāw,* in 1 Sam 23:8 and elsewhere). Tiberian Hebrew replaced the closed /ē/ of the plural construct ending before /-ā/, then pronounced as an open *ɔ̄,* by a likewise open *ɛ̄.*

4.2. Demonstrative pronouns

Early inscriptions attest only the masculine singular ZH /zɛ̄/ (< */ḏī/, a fossilized genitive of an earlier determinative-relative pronoun) and its feminine counterpart ZʾT /zōt/ (< */ḏaʾt/; the variant /zō/, rare in the Hebrew Bible but common in Rabbinic Hebrew, is as yet unattested in the epigraphic corpus) of the near-deictic demonstrative pronoun ('this'). It is, however, very likely that the common masculine and feminine plural form was /ʾi(l)lɛ̄/ (< */ʾi(l)lī/?), which underlies Tiberian *ʾellɛ̄* (ελλε and ελη in ancient transcriptions). The Rabbinic Hebrew variant *ʾellū* already occurs in Sir 51:24, although it does not necessarily reflect an ancient by-form. As in Phoenician and early Aramaic, the independent third-person singular and plural pronouns will also have acted as far-deictics ('that'), but epigraphic attestations from pre-Exilic times are still lacking. This is also true for *hallāzɛ̄* (masc.sg.), *hallēzū* (fem.sg.), and *hallāz* (common sg.), which occur rarely in Biblical Hebrew but became more frequent in later periods. These are mostly viewed as dialectal variants of *zɛ̄* and *zōṯ;* some scholars, by contrast, associate them with middle deixis like Latin *iste* ('that one there', i.e., distant from the speaker but close to the addressee).

Hebrew can distinguish adjectival from pronominal usage by repeating the definite article with the demonstrative, contrast ZʾT [QBRT] 'this is [the tomb]' (*KAI* 191 B 1) or ʾRWR HʾDM ʾŠR YPTḤ ʾT ZʾT 'cursed be the person who opens this' (ibid. lines 2–3) with HʿT HZH 'this time' (*KAI* 196:2). Demonstratives used as adjectives without the definite article, as is normal in Phoenician and Moabite, are fairly rare (e.g. Josh 2:20). Their existence indicates that the expansion of the article to the pronoun is a secondary phenomenon in Hebrew.

4.3. Definite article

The prepositive article in Canaanite is commonly explained as from a presentative particle /han/ and appears to have only gradually turned into a marker of definiteness, i.e. of contextual identifiability, by way of grammaticalization. Phoenician evidence points to an onset of this development between ca. 1000 and 900 BCE. It is no doubt connected with the rise of the postpositive article /-āʾ/ in Aramaic (the "emphatic state") and, perhaps, also with the appearance of various morphemes highlighting definiteness in Ancient North Arabian languages. This may have been triggered by a far-reaching restructuring of the verbal system, since the emergence of morphological definiteness markers seems to go together with a loss of formal means of expressing the perfective aspect (which is semantically related to nominal definiteness, compare atelic "I ate apples" with telic "I ate the apples"), as other languages like Germanic show. First-millennium Canaanite, Aramaic, and North Arabian also all share a certain reduction in the pattern of use or the functional range of the nonjussive (i.e., perfective-preterital) "short imperfect" (see below). If such an explanation proves true, the restructuring of the verbal system and the rise of the definite article in West Semitic may count as an instance of areal convergence. The growing use of a *nota obiecti*, in particular with definite direct objects (see below), may also have reinforced the need for morphological definiteness marking.

With the Canaanite article, whose occurrence in Hebrew, Phoenician, and Moabite may result from language contact, the assumed original form */han/ is prefixed to the noun to which it refers and thus establishes a stress-unit. As a consequence, the /n/ assimilates to the following consonant, thereby causing lengthening, and disappears from writing. The constraint against lengthening gutturals and /r/ in Tiberian Hebrew triggers compensatory lengthening of the /a/ (usually before /ʾ/, /ʿ/, and /r/) or a shift to *ɛ*, often depending on the stress pattern. Attributive adjectives following a grammatically definite head noun also take the article in Hebrew; after a proclitic preposition, the /h/ of the article mostly drops out: BŠT HTŠʿT /baš-šat(t) hat-tišʿīt/ 'in the ninth year' (frequent in the Samaria ostraca). Predicative adjectives in nominal clauses, by contrast, remain grammatically indefinite: ʾRWR HʾDM /ʾarūr haʾ-ʾadam/ 'cursed be the person'.

The definite article does not appear with names, which already rank highest on the definiteness scale, or with nouns in the construct state (exceptions are rare, e.g. 2 Kgs 23:17, 25:11); hence it does not occur with suffixed (and thus definite) nouns either. A grammatically definite final element of a construct chain renders the entire expression definite: BGD

ʿBDK /bigd ʿabdak/ ‘the dress of your servant’ (*KAI* 200:8, 9). Consequently, an indefinite expression like ‘a dress of your servant’s’ would have to be paraphrased with ‘a dress belonging to your servant’ (*/bigd la-ʿabdak/). A subsequent adjective can refer to the last noun of such a chain or to the entire expression.

Since there is no indefinite article in Hebrew, the notion of indefiniteness usually remains unmarked. In exceptional cases, however, the numeral ‘one’ can be employed for this purpose (e.g. 1 Sam 1:1).

4.4. Interrogative and indefinite pronouns

Interrogatives differentiate between persons and things, reflecting a distinction between animate and inanimate that is otherwise less consistently realized in the grammatical system of Semitic languages. As yet only the pronoun for persons MY /mī/ ‘who?’ (< */mīya/) is clearly attested in pre-Exilic inscriptions: MY ʿBDK ‘who is your servant?’ (*KAI* 192:3 and elsewhere). Its expected counterpart for things is MH /mā/ ‘what?’ (< */mah-/; in Tiberian Hebrew, it often forms a stress unit with the following word, which causes lengthening of its first consonant or, with gutturals, a shift of the vowel: cf. *ma(h)-llk̲ā* ‘what is with you?’; *mē* ʿ*āśīṯā* ‘what have you done?’). Many commentators supply the latter in *KAI* 196:9: [LM]H TʿŠW KZʾT ‘why (lit. for what) do you act like this?’. There are currently no epigraphic attestations of the interrogative adjective ʾ*ay*/ʾ*ē* ‘which one?’ (< */ayy-/) known from Biblical Hebrew.

Like other languages, Biblical Hebrew often uses the interrogatives as indefinites ‘whoever/whatever’. The pre-Exilic inscriptions contain only the genuine indefinite pronoun for things MʾWMH /maʾūmā/ ‘anything’ (Tiberian *mʾūmā*), whose etymology remains debated. In addition, ʾ(Y)Š /ʾīš/ ‘man, human being’ can be used in a generic (and thus gender-neutral) sense, as can *nɛ́pɛ̄šɛš* ‘person’ or *dāb̲ār* ‘thing’ in Biblical Hebrew.

4.5. Relative particle

The usual, indeclinable, relative particle in Classical Hebrew is ʾŠR /ʾašar/ (Tiberian ʾᵃšɛr). Most scholars derive it from the noun */ʾaṯ̲ar-/ ‘place’ (in a similar fashion, German *wo* ‘where’ can introduce relative clauses in some dialects). Beyond Hebrew, it occurs only in Moabite as a relative particle, presumably due to language contact or parallel development.

ʾŠR connects a clause with the preceding expression independent of the syntactic function of that expression, compare KL SPR ʾŠR YBʾ ʾLY /kull sipr ʾašar yabū ʾilayy/ 'every letter which comes to me' (*KAI* 193:11–12) with KKL ʾŠR ŠLḤ ʾDNY KN ʿŠH ʿBDK /ka-kull ʾašar šalaḥ ʾadōnī kin ʿaśō [or: ʿásā] ʿabdak(ā)/ 'according to everything (about) which my lord sent, so your servant has done' (*KAI* 194:2–3). The clause introduced by ʾŠR can also be substantivized, as happens several times in the formula ʾR(W)R ʾŠR /ʾarūr ʾašar/ 'cursed be the one who (opens this tomb)', or lexicalized, as in the frequent title ʾŠR ʿL HBYT /ʾašar ʿal hab-bēt/ 'royal steward (lit. the one who is above the house)'.

Additionally, post-Exilic Hebrew in particular increasingly uses the proclitic relative particle *šɛ-* (< */ša-/?), which seems to go back to an old byform of a Northern dialect (cf. (ʾ)Š in Phoenician) and has practically replaced ʾŠR in Rabbinic and Modern Hebrew. Some archaic passages in the Bible (e.g. Ex 15:13, 16) use *zū* in the same function. This word is a reflex of the inherited Northwest Semitic relative pronoun */ðū/ (Ugaritic /dū/, Old Byblian /zū/), but it has likewise become indeclinable.

4.6. Nouns

Semitic nouns with their semantically distinct patterns (albeit in a very general sense) are formed by internal or external modifications of a root consisting mostly of three, less frequently of two or four consonants. The majority of Semitic etymological patterns appear in Hebrew, but owing to secondary sound changes like vowel reduction or the shortening of word-final long consonants, it is not always easy, or even possible, to associate a particular noun in its Tiberian garb with one of the etymological patterns. Moreover, the vocalization exhibits several peculiarities which are difficult to explain. Just a few examples: The noun 'king', for instance, has the basic form */malk/, as in Aramaic, as becomes clear from suffixed *malkī* 'my king', instead of the expected Canaanite counterpart */milk/ often found in transcriptions of Phoenician names. The abstract noun 'beginning' related to */raʾš-/ > /rōš/ 'head' is *rēšīṯ*, which presupposes either an underlying byform */riʾš-/ or a shift */aʾ/ > /ē/ as in Aramaic (cf. Syriac *rēš*). *Nomina professionis* seem to preserve the basic pattern *qaṭṭāl* without the expected shift */ā/ > /ō/. The regular bisyllabic plural base of the noun patterns *qaṭl*, *qiṭl*, and *quṭl*, whose expansion by /a/ is commonly viewed as a characteristic feature of Northwest Semitic, has left traces in later vocalizations as pretonic lengthening in the absolute state (*mlāḵīm* <*/malak-īma/) and spirantization of a stop after a preceding short vowel (before that vowel had disappeared) in the construct state (*malḵē* < */malak-ay/) shows.

Dual forms, by contrast, take the same (monosyllabic) base as the singular. In post-Exilic Hebrew, perhaps owing to Aramaic influence, the bisyllabic plural was extended to nouns according to the patterns *qall, qill,* and *qull.*

Nouns and adjectives inflect for number (singular, dual, and plural), gender (masculine and feminine), and state (absolute and construct). The unmarked form is the absolute state; the construct state, or "bound form," expresses a genitive relationship with the word immediately following: possessor and possessed form a stress unit. Endings mark all these dimensions (Table 2); adjectives agree in number and gender with the noun to which they refer.

As in the other Canaanite idioms and in Aramaic, the masculine plural in /-īm/ for the absolute state is a fossilized reflex of the old genitive-accusative ending /-īma/ (preserved in Ugaritic) which, supposedly being the more frequent form, was generalized after the collapse of the inflectional case system (see the chapter on Phoenician for a brief outline). Some instances of /-īn/ (e.g. *middīn* 'carpets' Jdg 5:10), as in Aramaic and Moabite, may reflect dialectal forms; this latter ending became more widespread in Rabbinic Hebrew. In a similar fashion, the ending /-ē/ of the dual construct (genitive-accusative) has been extended to the masculine plural and replaced older */-ū/ (nominative) and */-ī/ (genitive-accusative), again leveling the case difference. Perhaps this is at least partly due to the fact that */-ī/ could no longer have been distinguished from the 1sg. possessive suffix /-ī/ (which had by then merged with the oblique form */-iya/ > /-ī/). The difference between the old feminine endings */-t/ and */-at/ (> /-ā/ in the absolute) was originally lexical and could vary even in closely related dialects (compare Northern Hebrew ŠT /šatt/ < */šant-/ 'year', as in the Samaria ostraca, with Southern Hebrew *šānā* < */šanat-/, as in the Masoretic text). Besides a few individual words, /-t/ remained the normal ending of certain noun patterns like the feminine singular active participle but underwent segolization in Tiberian Hebrew (*/kōtibt/ > *kōṯéḇɛṯ* 'writing' in the basic stem).

Table 2. Hebrew nominal inflection

		Masculine		Feminine	
abs.	sg.	(no ending)		-H	/-ā/ (<*/-at/) or -T /-t/
	du.	-YM	/-aym/>/-ēm/	-TYM	/-taym/>/-tēm/
	pl.	-(Y)M	/-īm/	-(W)T	/-ōt/ (<*/-āt/)
cst.	sg.	like sg.abs.		-T	/-(a)t/
	du.	-Y	/-ay/>/-ē/	-TY	/-(a)tay/>/-(a)tē/
	pl.	like du.cst.		like pl.abs.	

The *plene* spelling of the masculine plural absolute ending /-īm/ with Y as a vowel letter, corresponding to the usual orthography of the Masoretic text, is still uncommon in the pre-Exilic inscriptions, where the writing -YM seems confined to the masculine plural of *nisbe* adjectives with the affix /-ī/ < */-iy/ (fem.sg. /-iyā/ or /-īt/; masc.pl. /-īm/ < /-iyīm/; the expected fem.pl., to be reconstructed from the corresponding Tiberian form, is /-iyōt/). However, it remains doubtful whether the letter Y in, for instance, KTYM /kitt(iy)īm/ 'Kitteans' serves as a vowel letter or indicates the glide /y/. Examples for the spelling of the feminine plural are uncertain.

According to the Tiberian pointing and some comparative evidence from Phoenician, feminine abstracts in /-īt/ also have a plural in /-iyōt/. This form has been extended to nouns in /-ūt/, owing to dissimilation (or analogy?), instead of expected */-uwōt/. Feminine nouns in /-ōt/ in the singular originally had an identical plural ending, which, however, later gave way to /-iyōt/. Nouns with stressed word-final */-ī/, which was lowered to /ē/ in Canaanite and Aramaic but disappeared before affixes and endings (cf. Tiberian *qānē* < /qanē/ 'reed' from */qanī/, pl. *qānīm* < /qanīm/), must be distinguished both from *nisbe* adjectives in /-ī/ < */-iy/ and from triconsonantal ("sound") forms ending in the glide /-y/. Yet the pronunciation of the latter group's */-y/ in the absolute singular and construct as /-ī/ (e.g. */gady/ 'kid', Tiberian *gḏī*) facilitated migration between distinct patterns and caused such nouns occasionally to behave like those in */-ī/ (contrast Tiberian *kēlīm* < /kilīm/ 'vessels', from */kily/ or */kaly/, with the usual sound pattern *gḏāyīm* < /gadayīm/ 'kids' from */gady/). Most of these forms, it is true, are not unambiguously attested in the epigraphic corpus.

The singular marks an individual thing or a collective; the dual (construed as plural with verbs) ceases to be productive and is increasingly confined to paired body parts, certain expressions of time or length, and the numeral 'two'; the plural can indicate a plurality of individuals or an amplification of the singular if relevant. Plural forms without a corresponding singular are traditionally called *pluralia tantum,* such as PNM /panīm/ 'face' or RḤMM /raḥamīm/ 'mercy'. *Dualia tantum* like MYM /maym/ 'water' occur less frequently. Some words pointed as duals in the Tiberian text actually result from the reanalysis of nondual forms according to false analogies (e.g. *yrūšāláyim* 'Jerusalem'). Not all substantives which behave like feminines in concord with adjectives and verbs are marked: "natural" feminines include the names of cities and countries, nouns like ʾRṢ /ʾarṣ/ 'land, earth', and so on. With a masculine collective, the feminine ending can single out an individual or a special member of the group (like Biblical Hebrew ʾoniyyā 'fleet' and ʾoniyyā 'ship').

Some substantives occur with both genders (e.g. Biblical Hebrew *dέrεḵ* 'way'), but even then one gender is usually more common than the other. Masculine nouns can take feminine plural endings (e.g. Biblical Hebrew *mqōmōṯ* from *māqōm* < */maqōm/ 'place'), less often the other way round (e.g. ṢMQM ŠḤRT 'black raisins' in Lak(7):25). Those rare words which are attested with both plural endings (such as Biblical Hebrew *šānīm*, less frequently *šānōṯ* 'years') may partly reflect dialectal forms, partly subtle differences in meaning (such as perhaps collective vs. individual plural?). A few nouns expand their plural base by /-ah-/ (e.g. /ʾamā/ 'maid-servant', Biblical Hebrew pl. *ʾᵃmāhōṯ* < */ʾamahōt/) or apophony (e.g., /ʿīr/ 'city', Biblical Hebrew pl. *ʿārīm;* /bin/ 'son', pl. /banīm/). The masculine plural often includes the feminine as well, so, e.g., /banīm/ can be used for 'children' regardless of sex.

In a construct chain between a *nomen regens* (or several of them), which indicates a thing possessed and loses its primary stress, and the following *nomen rectum,* marking the possessor, only the latter can have a suffix or the definite article. A construct often expresses an attributive relationship, as in 'city of holiness' = 'holy city'. Very occasionally, a preposition can intervene between *nomen regens* and *nomen rectum* (as in Isa 9:2: *śimḥaṯ baq-qāṣīr* 'the joy during harvest'); even less frequently, an adverb interrupts a construct chain: especially in Archaic Hebrew, this also happens with a linking vowel /ī/ (Gen 49:11) or /ō/ (Gen 1:24) – the *litterae compaginis* of traditional grammar – or with the "enclitic *mem*" which is known from Ugaritic but does not serve any recognizable function. At times, a subordinate clause can follow a *nomen regens* in the construct. In such cases, the noun usually has an adverbial function and thus basically acts like a preposition. The long vowel in the construct (hence also before suffixes) of ʾB /ʾab/ 'father' (pl. /ʾabōt/), ʾḤ /ʾaḥ/ 'brother', and /ḥam/ 'father-in-law' (unattested in the inscriptions) is common Semitic.

The terminative affix /-ah/ (> /ā/ in Biblical Hebrew, but spelled with H and thus labeled *he locale*), indicating motion toward, can be added not only to place names and geographical terms but also to certain adverbs (e.g., ŠMH /šammah/ 'thither').

4.7. Numerals

Thanks to economic texts from Samaria and Arad, even the rather small corpus of epigraphic Hebrew contains a fair number of numerals. Biblical Hebrew, whose vocalization provides important clues for the older forms, can largely fill in the remaining gaps. (Those unattested in the inscriptions are given in reconstruction only.) The cardinal 'one' is an adjective, the

others are substantives: 1 ʾḤD /ʾaḥad/ (fem. /ʾaḥatt/ < */ʾaḥadt/), 2 ŠNYM /šnēm/ (dual; fem. /štēm/; according to others, masc. /šinēm/ and fem. /šittēm/ < */šintaym-/, depending on whether one believes in the existence of original word-initial consonant clusters), 3 ŠLŠ /šalōš/, 4 ʾRBʿ /ʾarbaʿ/, 5 ḤMŠ /ḥamiš/, 6 ŠŠ /šišš/, 7 /šabʿ/, 8 /šamōnɛ̄/, 9 TŠʿ /tišʿ/, 10 ʿŠR /ʿaśr/ (fem. /ʿaśarā/), 100 MʾH /miʾā/, 1000 ʾLP /ʾalp/, 3000 /šalōšat ʾalapīm/ etc., 10,000 /ribabā/ and /ribbō/. The feminine forms of the cardinals 'three' to 'nine' take the ending /-ā/ (spelled H; Tiberian *ḥᵃmiššā* 'five' with secondary gemination is formally assimilated to subsequent *šiššā* 'six'). All tens are masculine plural forms of the corresponding units in the absolute state, 'two hundred' is a dual /miʾatēm/, likewise 'two thousand' /ʾalpēm/. Numerals from 3 to 10 have the opposite gender to the thing counted, presumably because the "feminine ending" here marks an individual entity (/šalōšā parīm/ 'three bulls', lit. 'a triad of bulls'). With the numerals for 11 to 19, the unit precedes the ten (e.g. /šalōšā ʿaśr parīm/ 'thirteen bulls').

Ordinals, which only exist for the first decade, are adjectives derived from the corresponding cardinals with the vowel sequence /a–ī/ and the *nisbe* ending /-ī/ (but /rīšōn/ 'first', fem. /rīšōnā/; /šinī/ 'second'), hence ŠLŠY /šalīšī/ 'third' etc. Contrary to the cardinals, however, they exhibit straightforward concord. Their feminine counterparts (in /-īt/) also mostly indicate fractions (with some rare byforms on the *quṭl* pattern, i.e. /rubʿ/ 'quarter', /ḥumš/ 'fifth'). The usual word for 'half' is */ḥiṣy/ > Tiberian *ḥᵃṣī.* Distributives can be expressed by asyndetically repeating numerical expressions. Multiplicatives are rendered in many different ways, including the feminine singular or dual of a cardinal and various periphrastic expressions (e.g. with /paʿm/ 'step').

4.8. Verbs

The finite verbal conjugations are inflectional categories which express person, number, and gender by means of specific morphemes. They mark tense (past or present-future), aspect (i.e., the inner contour of an event: completed or in progress), and modality (various nuances of possibility, reality, or desirability). All conjugations and verbal nouns are based on derivational categories ("verbal stems") of a verbal root consisting of two, three, or, rarely, four consonants. These derivational patterns specify the lexical meaning in terms of situation type (causative, factitive) or differentiate between active, passive, and several medial nuances. The most frequent word order in Ancient Hebrew is Verb-Subject-Object, but it is less easy to say whether this also acts as the unmarked order of constituents. Subject and predicate generally agree in gender

Table 3. Hebrew "perfect"inflection

	Singular			Plural
1	KTB-T(Y)	/kataḇ-tī/ (*kāṯáḇtī*)	KTB-NW	/kataḇ-nū/ (*kāṯáḇnū*)
2masc.	KTB-T(H)	/kataḇ-tā/ (*kāṯáḇtā*)	KTB-TM	/katab-tim/ (*kṯaḇtɛm*)
2fem.	—	/kataḇ-t(ī)/ (*kāṯaḇt*)	—	/katab-tín(nā)/ (*kṯaḇtɛn*)
3masc.	KTB	/katab/ (*kāṯaḇ*)	KTB-W	/katab-ū/ (*kāṯḇū*)
3fem.	—	/katab-ā/ (*kāṯḇā*) (< */katab-at/)	—	(presumably identical to 3 m.pl., as in Biblical Hebrew)

and number; however, a third-person predicate preceding compound subjects often occurs in the singular.

With the "perfect," often also labeled "suffix-conjugation," personal endings (termed "afformatives" here in order to distinguish them from possessive suffixes and derivational endings) are added to the "perfect" base (Table 3). The labels "perfect" and "imperfect" are preferred here to "suffix-conjugation" and "prefix-conjugation" by reason of brevity, even though the use of a semantically based label might not be perfectly appropriate for a morphological category; and also because the prefix-conjugation involves some endings as well.

The vowel in the second syllable of the "perfect" in the unmarked stem is basically lexical and differs from root to root. In principle, it corresponds to the distinction between fientive verbs (verbs denoting an action), which usually have /a/, and stative verbs (verbs rendering a state), many of which have /i/ (e.g. /kabid/ 'he was heavy') or, less frequently, /u/ (as in /qaṭun/ 'he was small', which is restriced to permanent states; cf. the different use of *ser* and *estar* for 'to be' in Spanish). Gutturals and /r/ often trigger a change of this vowel to /a/.

Like the pronouns and possessive suffixes, the final vowels of the "perfect" afformatives also seem to oscillate between short and long, hence /ā/ did not shift to /ō/. This may also be related to the stress pattern. Later pointings and extensive use of *plene* writing in the Qumran material partly compensate for the limitations of the epigraphic corpus and the consonantal spelling. Due to the time gap and the nonlinear development of Hebrew, a number of uncertainties remain:

– It is controversial whether the *plene* writing KTBTH for the 2masc. sg., which regularly occurs in Qumran as opposed to the equally regular defective spelling in the Masoretic text, was already in use in pre-Exilic times. All possible attestations in the early inscriptions could, in principle, also be analyzed as forms with a third-person suffix.

- Due to the lack of direct evidence, one cannot say with certainty whether and to what extent the afformative of the 2fem.sg. had preserved the etymological form /-tī/ (/-ti/) in pre-Exilic times (as an archaism, this older variant occurs twice in the Masoretic text of Jdg 5:7: *qamtī* 'you have risen') or, like Tiberian Hebrew, had replaced it with secondary /-t/. The loss of the functionally superfluous vowel resulted in the restoration of the formal difference from the 1sg., since old Northwest Semitic /-tū, -tu/ (< original Semitic */-ku/) had already shifted to /-tī, -ti/ in early Canaanite. The only relevant witness from Qumran, the Isaiah scroll 1QIs^{a}, has both -TY and -T. Presumably, this form exhibits the same development as the independent 2fem.sg. pronoun.
- In the old inscriptions, the 3fem.sg. afformative occurs only with the weak root *hyī* 'to be' but, as in Tiberian Hebrew, this form ends in /-t/. According to the Masoretic text and the Dead Sea Scrolls, one would expect the ending /-ā/ (written with H as a vowel letter) for sound roots. Older /katab-at/ has been preserved before pronominal object suffixes.
- The byform in -TMH /-timmā/ for the 2masc.pl. in Qumran Hebrew seems to be a late variant which results from analogy with the independent personal pronoun. No evidence for such a late variant exists for the 2fem.pl., whose standard form is unattested in the epigraphic corpus as well.
- As a rule, the inherited form for the 3fem.pl., */-ā/ (identical to the corresponding singular Hebrew), was replaced by the 3masc.pl.

The exact function of the "perfect" depends on the lexical meaning of the verbal root in the respective stem and on the broader context. Stative verbs express states independent of any particular location in time and thus behave like conjugated adjectives. Hence such forms appear to be semantically identical to nominal clauses. With fientive verbs, by contrast, to which an ancestor of the "perfect" conjugation was extended in a much earlier period of Semitic (as with the "have"-perfect in Romance, where a construction like "I have bought a house" derives from *"I have a bought house"), the "perfect" mostly occurs with individual events in the past, in subordinate clauses with a location in time relatively anterior to that of the verb in the corresponding main clause (cf. *KAI* 194:2f., cited in Section 4.5). This event can be punctual and completed (as in WSM-KYHW LQḤH ŠMʿYHW /wa-Samakyahū laqaḥō Šamaʿyahū/ 'and as for Samakyahū, Šamaʿyahū seized him [and then brought him to town]' *KAI* 194:6); it can endure in the past (*bihyōṯ hay-yɛlɛḏ ḥay dibbarnū ʾēlāw* 'when

the child was still alive, we talked to it' 2 Sam 12:18); or it can have a present significance (NSH ʾYŠ LQRʾ LY SPR LNṢḤ /nissō ʾīš la-qrō lī sipr la-niṣḥ/ 'nobody has ever tried to read out a letter to me' *KAI* 193:9–10).

It is controversial whether the functional range of the "perfect" indiscriminately covers all these distinctions or whether it gives an event a perfective nuance independent of its true duration. A resultative nuance often close in meaning to a state regularly occurs with some verbs of feeling and thinking (e.g., Lʾ YDʿTH /lō yadaʿtō/ 'you have not recognized it = you don't know it' *KAI* 193:8; cf. *hᵃlō yḏaʿtɛm* 'don't you know?' 2 Sam 11:20). Past-perfective and resultative meet in the case of performatives, where the utterance is identical to the act it describes (as in BRKT ʾTKM /birriktī ʾatkim(ā)/ 'I hereby bless you' KAgr(9):8:1; ŠLḤT ʾT ŠLM /šalaḥtī ʾat-šalōm/ 'I hereby send peace' Mur(7):1:1). Nevertheless, not all uses of the perfect can be subsumed under the categories of tense and/or aspect. Instances of the "gnomic perfect," for instance, which highlight the universal truth of knowledge gained by experience, verge on the domain of epistemic modality (ʿ*ārūm rāʾā rāʿā nistār* 'a smart person sees danger and takes refuge' Prov 27:12; in English, by contrast, gnomic statements are usually in the present, but compare "Faint heart never won fair lady"). The same may apply to certain prophetic passages, where the "perfect" is used for a future event and above all reinforces the speakerʾs certainty (ʾ*āmar šōmēr* 'the watchman will say' Isa 21:12). Some instances, again often in poetry, can also be understood in a deontic-modal way ("perfect of wish," e.g. Ps 4:2, 22:22). However, the precise interaction of the semantic categories tense, aspect, and modality in such cases and the distinction between primary and metaphorical meanings remain a matter of debate.

A firm combination of the "perfect" and the conjunction /wa-/ 'and' eventually produced a new conjugation in Classical prose, the "perfect consecutive," which is chiefly employed for rendering deontic-modal nuances. Its origin may lie in the use of /wa-/ in the apodosis of conditional clauses, where the subsequent "perfect" indicates nonpast events (cf. 2 Sam 11:19–21: 'if the king asks you . . . , you shall say to him [*w-ʾāmartā*]'). This conjugation often serves to elaborate on a preceding imperative to express, e.g., a purpose or a further, subordinate, command (e.g. *hāḇū* [imperative, main command] . . . *w-šaḇtɛm* [secondary command] *mē-ʾaḥᵃrāw w-nikkā wā-mēṯ* [double purpose] 'put [Uriah out in front where the fighting is fiercest] and then withdraw from him, so that he will be hit and die' 2 Sam 11:15). It also occurs with ongoing or repeated past events (*w-ʿālā hā-ʾīš* 'and the man would go up' 1 Sam 1:3). Such an overlap between modality and habitual past is known from other languages as well (cf. 'would' in 'he would do so every day'). Ultimately the Masoretes tended to single out this conjugation by marking

final stress in the first and second persons of the singular, thereby secondarily distinguishing it from the plain "perfect." It gradually disappeared in post-Exilic times (cf. *w-hɛʿɛḇīr ʾōṯām* 'he would set them to labor' in 2 Sam 12:31, which is omitted in the parallel verse in 1 Chr 20:3). Its loss may have been influenced or at least reinforced by an increasing use of Aramaic and possibly also by other, dialectal, Hebrew varieties which did not share this innovation of literary Judean prose but generally used /wa-/ for sequences of plain "perfects" referring to past events only. The latter, termed the "copulative perfect," became more and more common in later Hebrew, but its existence in Classical prose and in the pre-Exilic inscriptions, where the "imperfect consecutive" was the usual means of expressing progress in narrative, is debated.

The second pillar of the Hebrew verbal system is the "imperfect" or "prefix-conjugation." Person, number, and gender are marked by morphemes prefixed ("preformatives") to the "imperfect" base of a given stem (e.g. /-ktub-/); some forms also take afformatives (Table 4).

As with the "perfect," the base vowel in the stem syllable of the unmarked stem is lexical. Transitive-fientive verbs with /a/ in the "perfect" base usually have /u/ in the "imperfect" but /a/ with a root-final guttural. Others, including stative verbs which mostly have /i/ in the "perfect," also have /a/, whereas /i/ rarely occurs as a base vowel of the "imperfect." With the "imperfect" base vowel /a/, however, the preformative vowel /a/ had dissimilated to /i/ already in some early Northwest Semitic languages, as shown by Ugaritic: hence /yizqan/ with the "perfect" /zaqin/ 'he is old', /yišlaḥ/ with /šalaḥ/ 'he sent'. This principle is called the "Barth-Ginsberg Law." By the time of the earliest vocalized manuscripts, the dissimilated preformatives /yi-/, /ti-/, etc. had been extended to all sound roots in Hebrew and Aramaic (hence Tiberian *yiḵtoḇ*), whereas remnants of original /ya-/ have only been preserved in certain classes of weak roots. Since it is unknown when exactly the dissimilated form was generalized in Hebrew, the present historical reconstruction uses the original form for pre-Exilic material.

Table 4. Hebrew "imperfect" inflection

	Singular		Plural	
1	ʾ-KTB	/ʾa-ktub/ (*ʾɛḵtoḇ*)	N-KTB	/na-ktub/ (*niḵtoḇ*)
2masc.	T-KTB	/ta-ktub/ (*tiḵtoḇ*)	T-KTB-W	/ta-ktub-ū/ (*tiḵtḇū*)
2fem.	—	/ta-ktub-ī/ (*tiḵtḇī*)	—	/ta-ktúb-nā/ (*tiḵtóḇnā*)
3masc.	Y-KTB	/ya-ktub/ (*yiḵtoḇ*)	Y-KTB-W	/ya-ktub-ū/ (*yiḵtḇū*)
3fem.	T-KTB	/ta-ktub/ (*tiḵtoḇ*)	—	/ta-ktúb-nā/ (*tiḵtóḇnā*)

In order to adequately understand the functional range of the Hebrew "imperfect," it is important to realize that this form reflects a partial merger of two different conjugations which can still be distinguished in Ugaritic and Classical Arabic: first, a "long" form with a short final vowel /u/ in forms without afformatives (/ya-ktub-u/ etc.) and an additional expansion with /-na/ in the 2–3pl. and the 2fem.sg. (/ya-ktub-ūna/, /ta-ktub-īna/, etc.); second, a historically older "short" form without these characteristics. According to some scholars, the latter was also distinguished by consistently being stressed on the preceding syllable (e.g., /yáktub/), of which traces have been preserved in the Masoretic accentuation. The two conjugations had rather different functional ranges. When short unstressed final vowels disappeared in Canaanite and Aramaic, many forms, including some of the most frequent, could no longer clearly be distinguished on morphological grounds. Contrary to Phoenician and Aramaic, however, the paradigm of the "short imperfect" has been widely generalized in Hebrew, so that the forms expanded with /-n(a)/ have largely disappeared. This is often explained on phonetic grounds, such as sandhi with the following word. The older differentiation into a long and a short form of the "imperfect," however, still has far-reaching implications for clear differences in meaning, word order, and, chiefly with the classes of II*ī*/*ū* and III*y*/*ī* verbs, also in morphology.

"Imperfects" that do not occur clause-initially by and large reflect old long forms. Their functional range covers relative present-future, which interacts with modality (since the future is basically uncertain and the notion of certainty is fundamental to many modal nuances), and the imperfective aspect inherent also in past events portrayed as continuous or repeated (this being an obvious point of contact with the present tense, which is by definition ongoing). After ʾZ /ʾiz/ *ʾāz* 'then', an "imperfect" can also refer to past events that are not necessarily durative or habitual. The exact nuance is often difficult to determine. Discursive passages frequently exhibit various shades of epistemic modality, while the location in time must be determined on the basis of the context (e.g., LʾNRʾH ʾT ʿZQH /lō narʾɛ̄ ʾat-ʿAzīqā/ 'we can't [or: don't] see ʿAziqa' *KAI* 194:11; ʾḤY YʿNW LY /ʾaḥḥayy yaʿnū lī/ 'my brothers can [or: will] witness for me' *KAI* 200:10; *wa-ʾᵃnī ʾāḇō ʾɛl-bēṯī* 'and I, how can I return to my house?' 2 Sam 11:11). Owing to a formal overlap between epistemic and deontic modality (just as *must* and *may* can express different degrees of both certainty and obligation), some deontic-modal uses are also attested (cf. the use of the long form for a wish in 1 Sam 17:37 but the usual short form in 1 Kgs 8:57). Narrative passages, by contrast, generally employ the "(long) imperfect" for durative-habitual events (*ū-mikkōsō ṯištɛ̄* 'and

it used to drink from his cup' 2 Sam 12:3; *w-ḵen yaᶜᵃśē* 'and so he would do [to all the cities of the Ammonites]' 2 Sam 12:31). Temporal, purpose (often after /wa-/), and generalizing relative clauses also take the "long imperfect." Some forms of the 2–3pl. have preserved a remnant /-ūn/ (< */-ūna/), the original "long imperfect" endings (*nun paragogicum*), often in pausal intonation and before gutturals.

"Imperfects" that occur in initial position in main clauses, by contrast, generally correspond to old short forms, so word-order constraints to some extent restore the functional differentiation. Most free-standing occurrences are "jussives." They express different types of deontic modality such as wishes and commands (YŠMᶜ ʾDNY /yišmaᶜ ʾadōnī/ 'let my lord hear!' *KAI* 200:1) and take the negation ʾL /ʾal/ (ʾL TŠMᶜ /ʾal tišmaᶜ/ 'don't listen!' Mur(7):1:2). An indissoluble connection of the conjunction /wa-/ with a "short imperfect" (the "imperfect consecutive"), on the other hand, constitutes one of the most distinctive hallmarks of Classical Hebrew prose style. By the time of the Masoretic punctuation, the bonding of the two elements was reinforced by gemination in the prefix (/wa-yaktub/ > *wayyiḵtoḇ*), unlike /wa-/ (> *w*) with the long form. Since this resulted in a closed initial syllable, the vowel /a/ of the conjunction has been preserved. Except for some free-standing forms in Early Hebrew poetry, the sharply defined past perfective function of the "short imperfect" has only been preserved in this new conjugation (consequently *yarᶜem* 'he thundered' in the archaic passage 2 Sam 22:14 has been replaced by *wayyarᶜem* in the later reworking in Ps 18:14). It mostly occurs with sequences of completed main events in the past and thus acts as the default narrative form. Not all instances are strictly sequential, though, but many alleged exceptions refer to the same event expressed by two main verbs, e.g., 'they ate and drank'.

Events rendered with this form appear concentrated in a single point; circumstances expressed by the durative "long imperfect," by a "perfect" in subordinate clauses, or by a participle or other nominal construction constitute the background against which the main line of the story evolves. With stative verbs, this conjugation usually renders an ingressive situation (*wattiḵbaḏ hammilḥāmā* 'the battle became fierce' 1 Sam 31:3, from *kbd* 'to be heavy'). Such sequences often start with an initial situation described by the "perfect" (HKW . . . WYLKW HMYM /hikkū . . . wa-yalikū ham-maym/ '[the stonecutters] struck [toward each other], then the water flowed' *KAI* 189:4). Syntactic and semantic constraints do not allow this narrative form to be used together with a negation, in which case /lō/ and the perfect come into play. Likewise, a switch to the "perfect" occurs when the narrative flow is interrupted by another element, such as an adverb, that occurs clause-initially. One

could imagine that the "imperfect consecutive" served as a literary prestige device that was soon imitated by other chanceries (as in Moab) and in less formal texts, such as the petition of a harvester (*KAI* 200). Like the "perfect consecutive," it disappeared in later periods but continued to be used in classicizing texts (e.g. from Qumran).

Before object suffixes with the "imperfect," remnants of the old "energic" ending /-an(na)/ (with /á/ > ɛ in Tiberian Hebrew) have been preserved. The "cohortative" in /-ā/ (a vestige of the subjunctive in */-a/?) in the 1sg./pl. is confined to self-exhortation in Classical Hebrew.

The imperative basically corresponds to the second person of the "short imperfect" without a preformative: masc.sg. /ktub/ (*kṯoḇ*), occasionally expanded by /-ā/; fem.sg. /ktub-ī/ (*kiṯḇī*); masc.pl. /ktub-ū/ (*kiṯḇū*); fem.pl. /ktúb-nā/ (*kṯóḇnā*). Only the masculine forms are attested in the epigraphic material. It is quite likely that the unstable word-initial consonant cluster, whose existence follows from the direct etymological connection of the imperative with the base of the "short imperfect," was often resolved with anaptyctic vowels in pronunciation, which then caused spirantization of a plosive stop as second root letter. Suffixes can be attached to an /-n-/ apparently taken over from the energic (ŠLḤNW 'send it!' Arad(6):4:2).

Both forms of the participle, active /kōtib/ 'writing' and passive /katūb/ 'written', inflect like a noun for gender, number, and state. They are often substantivized, especially with professions and groups of persons. The active feminine singular frequently undergoes segolization in Tiberian Hebrew (*kōṯéḇɛṯ* beside *kōṯḇā*). When used predicatively, the active form renders an ongoing situation contemporaneous with the tense value of the context. Instances with a verbal function occur, albeit infrequently, already in pre-Exilic Hebrew for the present tense (MŠʾT LKŠ NḤNW ŠMRM /maśśaʾōt Lakiš naḥnū šōmirīm/ 'we are watching the smoke signals from Lachish' *KAI* 194:10f.) or for the immediate future (*mēqīm ʿālɛ̄ḵā rāʿā* 'I am on the point of bringing disaster on you!' 2 Sam 12:11). The latter is particularly common after the presentative /hinnɛ̄/. Together with a finite form of the root *hyī* 'to be', the participle marks durative or habitual situations in the past (with the "perfect" of *hyī*) or in the future (with the "imperfect"). However, only in post-Exilic Hebrew was it gradually integrated into the verbal system as a normal present-tense form. Aramaic influence seems to have reinforced this process by way of contact-induced replication of a use pattern that was significantly more advanced in Aramaic at that time.

The "infinitive absolute" in Hebrew corresponds to the common Semitic infinitive */katāb-/ > /katōb/ (*kāṯōḇ*). In Classical Hebrew, it often features in "paronomastic" constructions together with a finite verb of the

same root and, usually, in the same stem to mark an assertion (ŠLḤ ŠLḤT /šalōḥ šalaḥtī/ 'I hereby send' Mur(7):1:1). Also, several adverbs, often from derived stems, are lexicalized infinitive absolutes (e.g., *haškēm* 'tirelessly', /halōk/ 'continuously'). It can also appear instead of an imperative (among the epigraphic witnesses, this is especially common in the Arad letters, e.g. NTN /natōn/ 'give!' Arad(6):1:2 and elsewhere) and, rather infrequently, replace a finite verbal form without overtly marking tense, aspect, or modality. This last function, which is much more widespread in the Phoenician royal inscriptions, occurs quite rarely in Classical Hebrew (occasionally, WʾSM in *KAI* 200:5, 6f. is understood as an infinitive absolute rendering a circumstantial event 'while he was measuring', but it can also be parsed as a "perfect") and completely disappeared after a short-lived renaissance in the Second Temple period.

Another form, the "infinitive construct," appears after proclitic prepositions for temporal and purpose clauses and as a complement (usually introduced by /la-/) after auxiliary verbs. It has the pattern /ktub/ (*kṯoḇ*), with suffixes /kutb-/ (*koṯb-*); the relationship with the infinitive absolute is debated. Owing to the dual nature of the infinitive, nominal uses ('my writing') take possessive suffixes, verbal uses ('to write me') object suffixes. The quotative marker LʾMR /lēmōr/ 'saying' is a fossilized adverbial infinitive.

4.9. "Weak" verbs

Verbal roots that do not consist of three stable consonantal root letters ("radicals," often indicated by Roman numbers) exhibit certain peculiarities with respect to "sound" (or "strong") roots. Such "weak" (in an opposite sense as in Indo-European linguistics!) roots can be divided into different classes that exhibit predictable behavior; the alternative term "irregular" is thus misleading. Certain overlaps, however, show that the boundaries between these classes were not always clear. Since the consonantal writing is so ambiguous, the Tiberian pointing and historical-comparative material have to serve as the point of departure here.

– Many I*y* verbs I*y* originally had root-initial /w/ (e.g. *yšb* < **wθb* 'to sit'), which has often been preserved in the causative stem. The "imperfect" is largely based on the second and third radicals, especially with roots which have /i/ as their lexical base vowel. This is often viewed as a remnant of bi-radical roots, although sound forms are also attested: imv.masc.sg. /šib/ (*šeḇ*) 'sit down!', /daʿ/ 'know!' (from *ydʿ*), etc., "imperfect" /yašib/ (*yēšeḇ*), /yidaʿ/ (*yēḏaʿ*). The place of the infinitive construct is taken by a feminine verbal noun in

/-t/ (/šibt/, /daʿt/) that undergoes segolization in Tiberian Hebrew (*šéḇɛṯ, dáʿaṯ*). Many I*n* roots behave similarly, since the first radical disappears due to assimilation of /n/: /yiggaš/ < */yingaš/ (from *ngš* 'to approach'), imperative /gaš/, infinitive construct /gašt/ (*géšɛṯ*), and other verbs with the "imperfect" basel vowel /a/, but /yaṣṣur/ < */yanṣur/ (*yiṣṣor,* from *nṣr* 'to protect'), imperative /nṣur/ (*nṣor*), infinitive construct /nṣur/ (*nṣor*). The verb *ntn* 'to give' (/yattin/ *yittɛn,* /tin/ *tɛn,* /titt/ *teṯ*) is a special case since it has the form *ytn* in Ugaritic and Phoenician. Likewise, *lqḥ* 'to take' resembles a I*n* verb (/yiqqaḥ/, /qaḥ/, /qaḥt/ *qáḥaṯ*), as often (though not always) also *hlk* 'to go' does as well .

– "Hollow roots," or II*ī* and II*ū* roots, with a long vowel between the first and last radicals, preserve that vowel in the "imperfect" base and in the infinitive construct (/(ya-)śīm/, /śīm/ 'to place'; /(ya-)qūm/, /qūm/ 'to stand'). In the "short imperfect," it was shortened, hence the Tiberian distinction between *yā́qom* (< */yaqum/) for the jussive as well as the "imperfect consecutive" (with penultimate stress) and the long form *yāqūm* (< */yaqūm/). The "perfect," by contrast, has /a/, less frequently /i/, as with sound roots, which, unexpectedly, is long in the Masoretic text (*qām*), as in Aramaic, and did not shift to /ō/; likewise in the participle. Before consonantal afformatives, either the base vowel was shortened (*qamtā* 'you stood up') or another, long, vowel was added to avoid a doubly closed syllable (regularly in the causative stem: *hᵃqīmōṯī* 'I have erected'). While both strategies serve the same purpose in the end of obeying a phonological constraint, they do not seem to be interchangeable, and shortening of the long base vowel occurs more commonly, especially in the G-stem. Verbs which also have root-final /-ī/ (III*y*/*ī*) treat their middle radical like a consonantal glide.

– Verbs III*y*/*ī* as well as former verbs *III*w*/*ū* have monophthongized the intervocalic glide in most forms (3masc.sg. */banaya/ > */banā/, which should lead to /banō/ but appears as *bānā* 'he built' in the Tiberian text; 3masc.pl. */banayū/ > /banū/). Base-final /ī/ is preserved before consonantal afformatives (e.g., 2masc.sg. /banītā/). In the 3fem.sg., by contrast, the /-t/ of the old afformative was reanalyzed as a third radical (hence /hayāt/ > /hayatā/ *hayṯā* 'she was') and only preserved in rare byforms (as shown by HYT instead of expected *HYTH in *KAI* 189:3, these were used even in Jerusalem). The "long imperfect" ends in stressed /-ɛ̄/ (*/yabniyu/ > */yabnī/ > /yabnɛ̄/ *yiḇnɛ̄*); the short form has lost the vocalic reflex of the final radical (*/yabniy/ > /yabni/ > /yabn/, Tiberian *yíḇɛn,* with anaptyxis). The

infinitive construct usually ends in /-ōt/, the absolute one in /-ō/, the participles in /-ē/ (active) and /-ūy/ (passive).

– "Geminate" roots with a long second radical (II = III) exhibit both sound (e.g., 3masc.sg. /sabab/ *sāḇaḇ* 'he surrounded', from *sbb,* and always in the participle and the infinitive absolute) and weak forms (e.g., 3masc.sg. /qall/ *qal* 'he is light', from *qll,* and generally before consonantal afformative, hence /sabbōtī/ 'I surrounded' with additional /-ō-/ in order to prevent an overlong syllable consisting of a long consonant followed by yet another consonant). With the "imperfect," Tiberian Hebrew has, besides reflexes of the inherited forms like *yāsōḇ* (< */yasubb/), "Aramaizing" variants with a long first radical and a simple second radical (*yissoḇ*). Occasionally, these have somewhat distinct meanings.

– Weak articulation of gutturals and /r/ in Tiberian Hebrew has given rise to various other peculiarities, such as compensatory lengthening of the preceding vowel in many cases when a consonant could not be lengthened.

4.10. Verbal stems

In order to express factitive and causative situation types (*Aktionsarten*) on the one hand and active, middle, and passive voice on the other, Semitic languages use various derivational categories, called verbal stems (*binyanim* in traditional grammar), which underlie finite verbal conjugations and verbal nouns. They are derived from the unmarked basic stem (G-stem, after German "Grundstamm," Hebrew *Qal*) via apophony, consonantal length, or additional morphemes. The exact nuance of every verb in a particular stem depends on the meaning of the root and can differ substantially from case to case. Only a few roots are productive in more than a small portion of all the possible stem modifications. Here, too, many peculiarities can best be assessed in light of the vocalization:

– The N-stem (*Nifʿal*) has the prefix /na-/ (Tiberian *ni-*): "perfect" and participle /naktab/ (Tiberian *niḵtaḇ* and *niḵtāḇ*), the latter often with gerundival nuances, just as Latin *invictus* 'unconquered' = 'invincible'; "imperfect" /yakkatib/ (< */yankatib/; *yiḵkāṯeḇ*); imperative and infinitive construct /hikkatib/ (*hikkāṯeḇ*); infinitive absolute /naktōb/ or /hikkatōb/ (*niḵtōḇ, hikkāṯōḇ*). This stem expresses various nuances of the middle voice, including reciprocity (as in *lḥm* N 'to fight') but rarely genuine reflexivity. It acts as a detransitivizing counterpart to active G-stem verbs (*rāʾā* G 'he saw', *nirʾā* N 'he appeared') and

renders the ingressive manifestation of a particular quality with stative roots. Some verbs also have middle meanings in the G-stem (e.g., *ṣpn* both 'to hide something' and, like N, 'to hide [oneself]').

– The D(oubling)-stem (*Piʿel*), by contrast, increases the transitivity of the verb or indicates verbal plurality (e.g., when a considerably larger number of direct objects is involved). It is formed by lengthening the middle radical: "perfect" /kittib/ (*kittḇ, qiddaš*); "imperfect," imperative, and infinitive construct /(ya-)kattib/ ((*y-)kattḇ*); infinitive absolute /kattōb/; participle /mukattab/ (*mkattḇ*). Low-transitivity G-stem verbs regularly have a factitive meaning in the D-stem (*qāḏaš* G 'he was holy', *qiddaš* D 'he made holy'). This stem is also used with many denominal verbal roots.

– The C(ausative)-stem (*Hifʿil*) cannot always be clearly distinguished from the factitive D-stem on semantic grounds, but it generally focuses on the action itself instead of on the result (*hiqdīš* C 'he sanctified'). Intransitive verbs become singly transitive, transitive ones in part doubly transitive (e.g., 'to show someone something'). Again, some denominal verbs appear in the C-stem even though no causative nuance is involved. The characteristic prefix /hi-/ (< */ha-/) disappears between vowels: "perfect" /hiktib/ (*hiḵtīḇ*, presumably with secondary lengthening of the /i/ in the second syllable, which is always written defectively in pre-Exilic inscriptions; before consonantal afformatives, /i/ becomes /a/: 2masc.sg. *hiḵtaḇtā*); "imperfect" /yaktib/ < */yahaktib/ ("long imperfect" *yaḵtīḇ* in Tiberian Hebrew; before consonantal afformatives with /i/, pronounced [e], as also appears in the "short imperfect": *yaḵteḇ*); imperative /haktib/ (*haḵteḇ*); infinitive construct /haktib/ (*haḵtīḇ*), absolute *haḵtēḇ* (pre-Tiberian form unknown; by analogy, one would expect */haktōb/?); participle /maktib/ < */muhaktib/ (*maḵtīḇ*).

As in Ugaritic and Aramaic, the G, D, and C stems in Northwest Semitic all once had a reflexive counterpart with a /t/ prefix or infix. Hebrew, by contrast, has preserved only the tD stem (*Hiṯpaʿel*) as a productive category mostly expressing reflexivity and related notions (such as iterativity with the root *hlk* 'to walk'): "perfect," imperative, and infinitive construct /hitkattib/ (*hiṯkattḇ*); "imperfect" /yatkattib/ (*yiṯkattḇ*); infinitive absolute *hiṯkattēḇ*. Fossilized remainders of the Gt-stem, whose functions were partly absorbed by the *Nifʿal* (the closest equivalent in terms of meaning), survive in archaic place names and some instances of the root *pqd* 'to muster' in Jdg 20:17; occasionally, perhaps, (lexicalized) remnants of the Ct-stem can also be identified, whose functional range was then in part incorporated into the tD stem. The most likely

example is the root *ḥwy* Ct 'to bow down'. (Interestingly, the same root also provides most of the certain examples of the Ct in Ugaritic, which suggests that the Ct-stem was slowly becoming unproductive already in that earlier stage of Northwest Semitic.)

In addition to that, G, D, and C each formed an "internal" passive by means of apophony using the vowel sequence /u/–/a/. These mostly act as genuine passives by exchanging the grammatical roles of subject and object of an underlying active expression. The Dp (Hebrew *Puʿal*) and Cp (*Hofʿal*) variants remained fully productive in Hebrew, whereas the Gp (*Qal* passive), presumably due to its large functional overlap with the N-stem, soon became confined to the participle /katūb/. Only a few very frequent roots are also attested in the finite conjugations. The Gp "perfect," which is formally identical to the *Puʿal* in the Tiberian pointing because the vowel in the first syllable has been preserved by the lengthening of the second radical, while the Gp "imperfect" resembles that of the *Hofʿal*. Gp instances can, however, be identified when their active counterpart is a G- and not a D- or a C-stem form.

Since most II*ī*/*ū* roots and some geminate verbs do not lengthen the middle radical, the corresponding D-stem functions were taken over by morphological byforms according to the pattern /qōmim/ (active), /qōmam/ (passive), and /hitqōmim/ (reflexive; with /i/ > *e* in the Tiberian vocalization) in the "perfect." Very rarely, this so-called L-stem (*Pōlel*) is also attested with sound roots ("*Pōʿel*") and sometimes credited with a distinct meaning (i.e., expressing relations, like the "third stem" in Classical Arabic), but no consistent functional range can be identified on the basis of the surviving examples. D-stem forms according to the sound pattern are in part already attested in later biblical books (e.g. *qiyyam* 'he confirmed' Esth 9:32), but their use increased only in post-biblical times. A few other (lexicalized?) stems (e.g., *Pilpel, Paʿlal*) seem to be confined to particular roots.

4.11. Prepositions and particles

The most frequent Hebrew prepositions are the three proclitics B /bi-/ 'in, at', L /la-/ (< /li-/) 'for, to, by', and K /ka-/ 'as' (*b-, l-, k-*). They specify relations whose exact nuance depends on the particular verb and construction. When attached to a noun with a definite article, the /h/ of the article disappears. Their longer nonclitic byforms have an expansion /-mō/ (always used with /ka-/ before monosyllabic suffixes). Also common are: ʾḤR(Y) /ʾaḥar(ē)/ 'after', ʾL(Y) /ʾil(ē)/ (*ʾɛl*) 'toward', ʾT /ʾitt/ (*ʾēt*) 'together with', BYN /bēn/ 'among', MN /min/ 'from' (the /n/ assimilates to the

following consonant; monosyllabic singular suffixes are generally attached to the longer base /mimmin-/ < */minmin-/), ʿD(Y) /ʿad(ē)/ 'until, to', ʿL(Y) /ʿal(ē)/ 'on, above, against', ʿM /ʿimm/ (*ʿīm*) 'with'. Further, some nouns used adverbially act like prepositions: ʾṢL /ʾiṣl/ (*ʾēṣɛl*) 'besides', BʿD /baʿd/ (*báʿaḏ*) 'behind', TḤT /taḥt/ (*táḥaṯ*) 'below'. Combinations of prepositions and nouns can produce compound prepositional expressions like BD /bōd/ (< */bi-yad/) 'by means of', LPNY /la-panē/ (*lip̄nē*) 'before', etc. Prepositions (originally) ending in /-ē/ (< /-ay/) take plural suffixes; similarly /taḥt/, in all likelihood due to the influence of /ʿal(ē)/. The most frequent adverbial ending is /-am/ (Tiberian *-ām*), which is often understood as a fossilized accusative case in /-a/ together with mimation.

Lʾ /lō/ serves as a general negation for nouns and adverbs; the "short imperfect" denoting wishes, by contrast, takes the negation ʾL /ʾal/ (mostly used for a punctual and specific prohibition, as opposed to /lō/ with the "long imperfect" for general prohibitions, especially in legal texts). Except for the compound /balī/ (*blī*) 'without', /bal/ (which is quite normal in Phoenician) appears much less frequently in Hebrew. The negative particle ʾYN /ʾēn/ 'there is not' acts as a counterpart to the existential marker YŠ /yēš/ 'there is' and can take singular suffixes after /-an-/ (*-ɛn-*).

An object marker ʾT /ʾat/(?) (*ʾɛṯ*), before suffixes /ʾōt/ (< */ʾāt/?), in part compensates for the loss of a morphological object case (the accusative) and can optionally indicate the direct object of a transitive verb, especially when the object is definite. It thus restores the distinction between the object and a (prototypical) subject. Personal names, which are maximally definite, practically always take the object marker. In passive constructions, it can, by analogy with the active counterpart, also highlight the subject. Partial affectedness of an object is usually expressed with the preposition /bi-/.

The most widespread conjunction, proclitic W /wa-/ (*w*) 'and', usually connects clauses on the same level, but it can also introduce subordinate clauses. Occasionally, it appears with disjunctive ('or') or, rarely, causal relationships. ʾW /ʾō/ 'or', ʾP /ʾap/ 'also', and GM /gam(m)/ 'also' are likewise coordinating; subordinating conjunctions include ʾM /ʾim/ 'if' (with "perfect" or "imperfect"; the apodosis is often introduced by /wa-/); KY /kī/ 'because'; 'that' (regularly also with an asseverative nuance 'yes!' but rarely used like /ʾim/); LW /lū/ (later ʾLW /ʾillū/), negated LWLY /lūlē/, 'may' (with "perfect," "imperfect," or imperative) or 'if' for unfulfilled or unfulfillable conditions (mostly with the "perfect"); PN /pan/ (*pɛn*) 'lest'; and others. It is, however, mostly variation between verbal conjugations which creates a certain structure in the discourse, not so much the oscillation between main and subordinate clauses as in European languages.

Presentative markers like HN /hinn/ (*hēn*) and, especially, HNH /hinnɛ̄/ (with object suffixes usually attached to /-an-/ -*ɛn*-) 'look!' direct the attention of the hearer or reader to the emergence of a referent into the speech situation or to the unfolding of a proposition in the discourse. A participial clause is often employed for dramatic vividness; /wa-hinnɛ̄/ can act as a marker of surprise (mirativity) or, with a following participle, indicate that the speaker is an eyewitness (direct evidentiality), which mostly occurs in prophetic passages. Other lexemes can also perform presentative functions, just like existential and locative constructions.

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The Languages of Transjordan

Klaus Beyer

1. Introduction

Several Canaanite languages were spoken east of the Jordan River and the Dead Sea, all of them known from only a few inscriptions each: Ammonite and South Gileadite (Deir ʿAlla) in the north, which are best grouped together with the equally poorly attested North Hebrew of the cosmopolitan, ethnically and religiously diverse state of Israel as Central Canaanite; and Moabite and Edomite in the south, which are best associated with the richly preserved South Hebrew of the isolated border state of Judah as the conservative South Canaanite.

The transcription and pronunciation of the distinctive Semitic sounds must be laid out before the interpretation of the phonology. Semitic letters are transliterated in roman capitals and Semitic sounds are transcribed in italic minuscules (names with initial capitals): *b̲ p̄* English *v f*, *d̲* English *th* in *this*, *ġ ḡ* non-rolled uvular *r* (backed pronunciation = velarized *g̈*), *ḥ* fricated *h*, *ḫ k̲* German *ch* in *ach*, *k p t* after 250 BCE with aspiration as in English, *q ḳ* velarized *k*, *r* apical *r*, *š* English *sh*, *ś* Polish *ś* (between *s* and *š*), *ᵗṣ* velarized *ᵗs*, *t̲* English *th* in *thing*, *ṭ* velarized *t*, *w y* English *w y*, *z* voiced *s*, *ʾ* glottal stop as in *uhʾoh*, *ʿ* laryngeal continuant, *ā* long *a*, *a̲* half-long *a* (half-long, because in Hebrew it does not > *ɔ̄*), *ɛ̄* long *ɛ* (open), *ɔ̄* long *ɔ* (open), *e ē o ō* close, acute accent syllable with primary stress, only on polysyllabic words, grave accent syllable with secondary stress in any construct; the Proto-Semitic and Classical Arabic short vowel phonemes *a i u* are usually pronounced *a e o*, except *i* before *y* and *u* before *w*, and are here transcribed accordingly (phonetically); the central vowel *ə* appears only later; *mm kk* represent long, not doubled *m k*; / stands between alternatives.

2. Moabite

Moabite is the best attested of the East Jordanian languages, thanks especially to the large, famous inscription, discovered in 1868, of King

Mesha – more correctly: Mosha (MŠʿ *Mōšáʿ* 'Salvation (by/is Kamosh)' as in Ps 68:21 and presumably from **wṯʿ*; the Septuagint has Μωσα; *Mēšáʿ* only in 2 Kgs 3:4 and 1 Chr 2:42) – near modern-day Dhīban. It was erected about 835 BCE to commemorate the liberation of Moab from Israelite rule with the help of his god Kamosh, the national god of the Moabites, and the dedication of a mountain sanctuary as a sign of thanksgiving to his god. (This principal Moabite inscription, *KAI* 181, is cited below by line number alone.) At least two official bureaucrats were involved in its composition, as is shown by the fact that in the report on the building of cities in 21–29 neither the imperfect consecutive nor the accusative particle *ʾȁt* is used, as they often are in the battle accounts, whereas *ʾanā́kṵ* 'I' appears twelve times with the perfect. There are also a fragment of a second inscription of the same king from the Moabite capital city (*KAI* 306, "Kerak" below) and a fragmentary third royal inscription, about a century later, on a portion of an octagonal stone pillar ("Pillar" below). All three use a very regular monumental alphabet (midway between the Old Phoenician and the Old Aramaic); quite regular spelling with (also found elsewhere in West Semitic) dots used as word dividers (except that monoliterals are never separated); and vertical strokes (about one per line) as clause dividers (in Kerak as word dividers). Their style and content clearly reflect the officialese of the kingdom of Moab, which could only contend with its neighbors and the great powers Assyria and Babylonia between the 9th and 6th centuries BCE. In addition there are two tiny fragments, several "Seals," and a completely preserved two-line "Papyrus" bearing a divine judgment (ca. 500 BCE).

2.1. Moabite phonology

Since the ambiguity of the script and the irregularity of Moabite vocalization are mitigated neither by supplementary pointing nor by contemporary grammarians, Moabite spelling must be considered with care and in detail – on the basis of nothing but a few fragmentary inscriptions – to build on it, and with the help of comparative Semitics to amplify, the word-skeletons of the inscriptions into full forms and from these to be able to construct an albeit only very incomplete grammar. For already the obvious divergences from the neighboring South Hebrew (*ʾanā́kṵ* 'I', endings of the fem.sg.abs. *-at* and masc.pl. as well as masc./fem.du. *-n*, *ū* as third radical, verbal stem with infixed *t*, demonstrative without article, all features except the monophthongizations *aw* > *ō* and *ay* > *ē* linguistically older than South Hebrew) prevent Moabite from liberally assimilating South Hebrew forms.

To the sole Phoenician readings of the letters Š *š*, Z *z*, Ṣ *ᵗṣ*, and Ḥ *ḥ* should very probably be added a second reading from the neighboring South Canaanite South Hebrew and cuneiform transcriptions: Š *ś*, Ḥ *ḫ*, and ʿ *ġ* (*ATTM* 1: 102 n. 1, 2: 52). Final consonant length is probably also preserved (*ATTM* 2: 56 + Phoenician Καππα with –α added in Greek).

Moabite examples of the dual readings of the letter Š as *š* (Proto-Semitic *s*, as the future *s* was still *ᵗs*, since *š* is not an original Semitic consonant, as still shown by Assyrian and Arabic): 2 ŠLŠN *šalāšḯn* 'thirty', 2, 8 ŠT *šatt* 'year', and as *ś:* 3 ʾʿŠ ʾaʿ*ś* 'I made', 30 ʾŠʾ ʾ*áśśe/a*ʾ 'I took', etc.; Ḥ as *ḫ:* 3, 21, 24, 25 QRḤH *qorḫáḫa* 'its bare knoll/upper town', 11, 15 ʾLTḤM ʾ*altáḫem* 'I besieged' with 19, 32, Pillar 5 ḤLH *ḥēláḫu* 'his strength/ramparts', and as *ḫ:* 3 ʾḤR ʾ*aḫàr* 'after', 11, 15 ʾḤZH ʾ*āḫózha* 'I took it', etc.; ʿ as ʿ*:* 2, 14, 21, 29 ʿL ʿ*àl* 'over', 15 ʿD ʿ*àd* 'until', and as *ġ:* 22 ŠʿRYH *šaġarḗha* 'its gates', 27 ʿYN *ġayyḯn* 'ruins', etc. Syllable-final glottal stop ʾ is always written, and so probably also still pronounced (as in the contemporary Hebrew: *ATTM* 1: 104f., 2: 52f.): 3 ZʾT *zāʾt* 'this' (fem.), 5 YʾNP *yeʾnáp* 'he was angry', 6 YʾMR *yáʾmor* 'he said', 20 ʾŠʾH ʾ*aśśé/áʾhu* 'I brought it', Pillar 3 RʾŠ *raʾš* 'head', etc., in the hypocoristic ending *-áʾ* on names (*ATTM* 2: 47) Papyrus 2 YŠʿʾ *Yešʿáʾ*, MLKʾ *Melkáʾ*, Seal MŠʿʾ *Mōšaʿáʾ* etc., even after a consonant: 7 ʾRʾ ʾ*ar*ʾ 'I saw', except that ʾ*a*ʾ > ʾ*ā* in the same short-voweled syllable (as in Arabic): 24 ʾMR ʾ*ā́mor* (*ʾ*áʾmor*) 'I said', 11, 15f. ʾḤZH ʾ*āḫózha* 'I took it'; therefore it is not the case that ʾ*tī* 'to come' is lurking inside KMŠYT *Kamošáyyat* (1, Kerak 1) and MLKMYT *Melkomáyyat* (Ammonite Tell el-Mazar ostracon 7:1, 5th century BCE); nor is it the case that *raʾš* 'head' is lurking inside RŠH *rāšḗ* 'having the authority' (20). Conversely, *n* is never written before a consonant within a word, in *mèn* 'from', or in the article *han-*, and thus is also never pronounced: 2, 8 ŠT *šatt* (**sant*) 'year', 30 ʾŠʾ ʾ*áśśe/a*ʾ (*ʾ*ánśe*ʾ) 'I took', 4 MKL *mèk-kòll* (< *mèn kòll*) 'from all', 10 MʿLM *mèʿ-ʿālám* (< *mèn ʿālám*) 'from of old', 12, 17, 33 MŠM *mèš-šámmạ* (< *mèn šámmạ*) 'from there', etc.; all assimilations of *han-* (19 times, Pillar 3 times, Papyrus 4 times, Seal 3 times) are listed below under "Declension." Long consonants are written singly both medially and finally, as in the examples given for assimilated *n* and 27 ʿYN *ġayyḯn* 'ruins' etc., 4, 6, 9, 19, 33 Y suffix (with pl. nouns) *-áyy* 'my', 1, Kerak 1 YT double hypocoristic affix (*ATTM* 1: 445, 2: 323) in the name KMŠYT *Kamoš-áyy-at,* like Ammonite MLKMYT *Melkomáyyat.*

The original diphthong *aw* survives only in 31, 32 in the non-Moabite place name ḤWRNN *Ḥawrānḗn* (foreign or localized *aw* beside Moabite *ay* > *ē*) '(city) of two (foreign gods by the name of) Hawran'. Original *ay* is still written several times with Y: 22 ŠʿRYH *šaġarḗha* 'its gates', 25 BYTH *bētáhu* 'his house', Papyrus 2 BYT *bēt* 'house' and 1 RḤYN *reḥḗn* 'mill',

etc., and always in the ending of the masc.pl.cst. Y *-ē.* But original *aw* is otherwise always, and original *ay* almost always, written without W or Y, which speaks for the consistent monophthongizations *aw* > *ō* and *ay* > *ē,* which fits well into the development of Canaanite (*ATTM* 1: 116f., 2: 54f.; Garr 35–40): 1 MŠʿ *Mōšáʿ* 'Salvation', 4 HŠʿNY *hōšeʿánį* 'he delivered me', 13 ʾŠB ʾ*ṓšeb* 'I settled'; and 7 BTH *bētáhų* 'his house', 23, 27, 30bis BT *bḕt* 'house', 8 YMH *yaméhų* 'his days', 15 LLH *lēlḗ* 'night', Pillar 5 ḤLH *ḥēláhų* 'his strength/ramparts', etc.

On the Aramaic model, the letters H W Y are used as vowel letters, and in contrast to the Greek alphabet also designate consonants. Only all final stressed long vowels and unstressed and therefore only half-long *-ę -į* are always written, medial *-ē-* sometimes, and short medial vowels until the 6th century BCE never. Being the most common Semitic vowel, *a* (except H *-ā́*) is not expressly written. The case vowels and all other unstressed short final vowels have already disappeared (probably in the 10th century BCE as in Phoenician: *ATTM* 1: 87f.), as is recognizable from the fact that the accusative particle ʾ*ȁt* is often used. Since in Moabite names in cuneiform it is not until the 7th century BCE that *u* appears alongside *a* for undoubted ɔ (*Ma/Mu-*ʾ*a-a-ba* 'Moab': *ATTM* 1: 137; Garr 31), ɔ should probably not be assumed in the Moabite official language as it is in Ugaritic (14th–13th c. BCE), Ammonite (9th–6th c. BCE), and Hebrew (before the 7th c. BCE). The long and half-long vowel inventory thus remains *-ā -ą -ā-, -ɛ̄ -ē -ę -ē-, -ī -į -ī-, -ō -ō-, -ū -ų -ū-*. The West Semitic sound changes (*-ī́* often > *-ḗ,* Canaanite pause, etc.) make it likely that stress (ˊ ˋ) could only be borne by the final or penultimate syllable. In endingless forms except the imperative and jussive the stress is on the last stem syllable, but generally on the last syllable when this consists of a long vowel + consonant or a short vowel + long consonant or pair of consonants, or when it is contracted from two syllables. Examples follow.

-ā́ H: 18 BNH *banā́* 'he built', Papyrus 1 KH *kā* 'so'; *-ą* unindicated: 6, 27 Hʾ *hū́ʾą* 'he', 8, 9, 13, 15 BH *báhą* 'in it', 22 Šʿ RYH *šaġarḗhą* 'its gates', 11, 15f. ʾḤZH *ʾāḫózhą* 'I took it', 6 ʾʿNW ʾ*aʿannúwą* 'I will oppress', 12, 17, 33 ŠM *šámmą* 'there', etc.; *-ā-* unindicated (as until 500 BCE *-ɔ́-* < *-ā-*, then increasingly W): 1–29 ʾNK ʾ*anā́kų* 'I', ŠLŠN *šalāšín* 'thirty', 3 BMT *bā́mat* 'mountain sanctuary', 16 GBRT *gabarā́t* 'women', etc.

-ḗ (< *-ī́*) H: 15 LLH *lēlḗ* 'night', 18 YHWH *Yahwḗ,* Pillar 4 MQNH *maqnḗ* 'cattle', etc.; *-ḗ* (< *-áy*) Y: no examples; *-ę* (< *-ay*) Y: masc.pl.cst. 8 YMY *yàmę* 'days of', 13, 18 PNY *pànę* 'in front of', etc.; *-ē-* (< *-ay-*) Y: only in place names or with main stress 2 DYBNY *dēbā́nį* 'Debanite', 21, 28bis DYBN *Dēbā́n,* 22 Šʿ RYH *šaġarḗhą* 'its gates', etc.; *-ē-* unindicated: 7, 23, 27, 30bis Pillar 3, Dhīban 2 BT *bēt(-)* 'house', 8 YMH *yaméhų* 'his

days', 15 LLH *lēlḗ* 'night', 16 GRN *gērḗn* (*ē* < **awe*) 'inhabitants', 24 ʾN ʾ*ēn* 'there is not', etc.

-ī Y: 27f., Kerak 2 KY *kī* 'because', 14 LY *lī* 'to me'; *-i̱* Y: 1f. DYBNY *dēbā́ni̱* 'Debanite', 2.3 ʾBY ʾ*ábi̱* 'my father', 4 HŠʿNY *hōšeʿáni̱* 'he delivered me', 21, 26f. BNTY *banítī* 'I built', 23, 26, Kerak 3 ʿŠTY ʿ*aśítī* 'I made', etc.; *-ī-* always unindicated: 2, 4, 5, and frequently, Pillar 2, Papyrus 1 masc.pl.abs. ending -N *-ím*, 10, 13bis, 20, 25 ʾŠ ʾ*īš* 'man', 29 QRN *qīrím* 'towns', Pillar 2 ʾSRN RBN ʾ*asīrím rabbím* 'many prisoners', etc.

-ṓ H: 14 NBH *Nabṓ; -ō-* (< *-aw-*) unindicated: 1 MŠʿ *Mōšáʿ*, 4 HŠʿNY *hōšeʿáni̱* 'he delivered me', 13 ʾŠB ʾ*ṓšeb* 'I settled'.

-ṹ W: long imperfect 5 YʿNW *yaʿannṹ* 'he oppressed'; *-u̱* W: Papyrus 1 ʾMRW ʾ*amáru̱* 'they said'; *-u̱* unindicated: 1–29 ʾNK ʾ*anā́ku̱* 'I', 6 YḤLPH *yaḥlóphu̱* 'he succeeded him', 7 BH *báhu̱* 'on him', 7, 25 BYTH *bētáhu̱* 'his house', 10 LH *láhu̱* 'for him', Pillar 5 YRʾ *yárʾu̱* 'they saw' or *yīráʾu̱* 'they feared', etc.; *-ū-* unindicated: 6 Hʾ *hṹʾa̱* 'he'.

A Canaanite pausal pronunciation, in which short stressed vowels in open penultimate or singly closed final syllables at the end of a clause (at least before the vertical dividers of the Mosha inscription) are lengthened, either as in Phoenician to full length (*a* > *ā* > *ō*) or in Moabite probably instead as in nearby South Hebrew to half length (*a* > *a̱*), can only be deduced from vocalized transcriptions of Phoenician words (*yad* > Ιωτα, with Greek α) and the pointing of the Hebrew Bible, since adding pausal vowel letters is not usual. Long vowels remain unchanged in pause. Triply long syllables like Aramaic *qāmt* (OAram. 'I stood', Middle Aram. 'you stood') are impossible in Canaanite (Phoenician *kapp* remains Καππα).

2.2. The pronouns

The third most common word on the Mosha inscription (after *wa* 'and' and *be* 'in') is the personal pronoun 'I'. It is the first and last preserved word and appears 15 times in all, almost always before a 1sg. perfect (mostly 'I built'). It is certainly revealing for the self-image of the Moabite king. 1 ʾ*anā́ku̱* 'I am' is the preposed subject of a nominal clause, 27 *hṹʾa̱* (masc.) and [28] *hʾa̱* (fem.) 'it was' are postposed. Differently from Hebrew, the personal pronoun is not used as a copula 'is' etc. The form 24 ʾ*ēn* (*ʾ*ayn*) is used as a negation 'is/was not', etc.

'I' ʾNK (with no final Y *-i̱*, which would have to be written, thus except in the late Papyrus 1 with an unwritten *-u̱*, so that as in Akkadian and Ugaritic, < Proto-Semitic = Eblaite ʾ*án*ʾ*ā* + *kū)* ʾ*anā́ku̱* 1–29.

'He' H^{ʾ} (in cuneiform Ugaritic and in the Hebrew name Jehu *u-a*, Qumran Hebrew HW^{ʾ}H, < Proto-Semitic = Eblaite *súwa) hū́^{ʾ}a* 6, 27.

'They' masc. HM (Qumran Hebrew HMH) *hémą* 18 (but even though it is written separately, probably an object suffix).

With the noun and verb suffixes there are linking vowels in place of the short case vowels or short imperfect endings, out of which they developed. Masculine singular imperatives and short imperfects of roots that end with consonants thus have, like Arabic, no original linking vowel. In these cases, therefore, the pure form of the suffixes *-hu/a* can be postulated.

'My' Y *-ī/i* in 14 LY *lī* 'to me', 19 BY *bī* 'with me', 2.3 ^{ʾ}BY ^{ʾ}*ábi* 'my father'.

'Your (sg.)' masc. K (Qumran Hebrew KH) *-áką* in Papyrus 1 LK *láką* 'to you'.

'His' H (Masoretic and Qumran Hebrew HW) *-áhu* in 5f. ^{ʾ}RṢH ^{ʾ}*ar^{t}ṣáhu* 'his land', 6 BNH *benáhu* 'his son', 7 BH *báhu* 'on him', 7, 25 BTH *bētáhu* 'his house', 10 LH *láhu* 'for him', 19 HLTḤMH *heltaḥemáhu* 'his warring', Pillar 5 ḤLH *ḥēláhu* 'his strength/ramparts'.

'Her' H (Qumran Hebrew HH) *-áhą* in 8, 9, 13, 15, 19, 31 BH *báhą* 'in it', 3, 21, 24, 25 QRḤH *qorḥáhą* 'its bare knoll', 12 DWDH *duwād-áhą* 'her beloved', 22 MGDLTH *magdala/ātáhą* 'its tower(s)'.

'Your (pl.)' masc. KM (Qumran Hebrew KMH) *-kémą* in 24f. LKM *lakémą* 'for you'.

'My' (with pl. nouns) Y *-áyy* in 4 ŠN^{ʾ}Y *śāne^{ʾ}áyy* 'my enemies', 6.9.33 YMY *yamáyy* 'my days', 19 PNY *panáyy* 'my face'.

'His' (pl. n.) H (Qumran Hebrew YHW) *-ēhu* in 8 YMH *yamēhu* 'his days', 8 BNH *banēhu* 'his sons'.

'Her' (pl. n.) YH (Qumran Hebrew YHH) *-ēhą* in 22 Š^{ʿ}RYH *šaġarēhą* 'its gates'.

'Their' (pl. n.) HM (Qumran Hebrew HMH) *-hémą* in Papyrus 2 MHM *mèh-hémą* 'from them'.

The following object suffixes occur:

NY *-(á)ni* (only verb suffix) 'me' on the perfect (of the causative stem): 4 HŠ^{ʿ}NY *hōše^{ʿ}áni* 'he delivered me', 4 HR^{ʾ}NY *har^{ʾ}ā́ni* 'he showed me'.

H *-hu* 'him' on the short imperfect (imperfect consecutive of the basic stem): 6 YḤLPH *yaḥlóphu* 'he succeeded him', 12f. ^{ʾ}[S]ḤBH ^{ʾ}*a[s]ḥóbhu* 'I dragged it', 20 ^{ʾ}Š^{ʾ}H ^{ʾ}*aśśé/â^{ʾ}hu* 'I brought it'; basic or factitive stem: 19 YGRŠH *yagróšhu/yagarréšhu* 'he expelled him'.

H *-hą* 'her' on the short imperfect (imperfect consecutive) of the basic stem: 11 ^{ʾ}ḤZH ^{ʾ}*āḥózhą* 'I captured it'; of the causative stem: 8f. YŠBH *yašébhą* 'he brought it back', on the perfect of the causative stem: 17 HḤRMTH *haḥremtī́hą* 'I dedicated it'.

HM *-hémą* 'them' masc. on the short imperfect (imperfect consecutive) of the basic stem (even though it is written separately, it is probably a suffix and not a pronoun): 18 ʾSḤB HM *ʾásḥob-hémą* 'I dragged them'.

2.3. Declension

The feminine singular absolute still ends in *-at* as in Ammonite and North Hebrew (Phoenician *-ā́t* with pausal ending); the entire dual and the masculine plural absolute still end in *-n* as in Akkadian (dual only), Aramaic, and Arabic, which in the rest of Canaanite is replaced by the *-m(a)* of the singular (the reverse in Classical Arabic), which is probably still lurking in the name of the Ammonite national god *Mélkom* (with the nominative ending *-om* that was still productive in Canaanite until 1500 BCE) and beneath the adverbial affix (originally an accusative ending) *-am* on 15 *ᵗṣóhram* '(until) noon' (cf. Hebr. *yáwmam* 'by day'). See Table 1. As a result of the loss of the case endings, a genitival connection can no longer be recognized anywhere but in the construct state of the first component; genitive periphrases are not attested. All feminine forms except the dual are written alike. In the plural (not the dual) the triconsonantal nouns with the least phonological substance, in the forms *qatl* (the most common Semitic nominal form), *qitl, qutl,* the substance is augmented by the insertion of an *a* after the second root consonant: *qatal-*, *qital-*, *qutal-*. The nominal forms, normally referenced as *qtl,* can form meaning classes, to the extent that the words are derivations.

Nouns in the absolute state, but not yet demonstrative pronouns (3 *zāʾt* 'this' as in Old Phoenician, from which the adjectival use of the predicative 'this is' is indistinguishable), are definitized by prefixing the indeclinable article *han-* 'the', whose *-n* always assimilates to the first consonant of the following noun (and is never written). The article

Table 1. Moabite nominal inflection

		masc.	fem.
sg.	abs.	–ˊ	T–*ˊ(a)t*
	cst.	–ˋ	T–*ˋ(a)t*
du.	abs.	YN *-ḗn*	TN *-(a)tḗn*
pl.	abs.	N *-ḯm*	T *-ā́t*
	cst.	Y *-ḕ*	T *-ā̀t*

appears as follows: 9, 29, 31 *haʾ-*; 3, Pillar 4, Papyrus 1 *hab-*; 1f. *had-*; 21 *hay-*; 25, 26, Pillar 4, Papyrus 1 *ham-*; Seal *has-*; 11, 22, 23, 24 *haʿ-*; 15 *haṭṣ-*; 12, 24bis, 29 *haq-*; 11 *baq-* (< *be-haq-*, but 19 *be-he-*); Pillar 3, Papyrus 1 *har-*; 4, 15, Papyrus 2 *haš-*.

Adjectives (5) and appositives (1, 5, 20, 21f., not 16f.) appear after their head word and agree in definiteness (but no article on the demonstrative pronoun: 3), gender, and number.

With the numbers 'three' to 'ten', a counted item in the plural absolute follows the cardinal number (from 'three' on the numbers are substantives) in the opposite gender in the absolute or construct singular (16). With the numbers over '20', a counted item in the singular (2, 8, 20) or plural (16f.) absolute follows the absolute masculine plural or else precedes it (28).

2.4. The verbal stems

The assignment of forms to the stems and the perfect and imperfect vowels of the basic stem must be deduced from the neighboring Semitic languages. Most common is the basic stem. Its starting point is the masculine singular imperative = Canaanite and Early Old Aramaic (*ATTM* 1: 148) infinitive construct, comprising the root and the characteristic vowel **qtu/i/al.* Moabite has neither a recognizable internal passive, which appeared late in Semitic and soon disappeared again and in the 1st millennium BCE only as yet involved the vowel sequence *u–a,* nor an N-stem.

To the factitive stem, indicated by lengthening of the middle radical, probably belong (with prefix vowel *a* as in Ugaritic): 5 YʿNW *yaʿannṻ* (*ʿnū*) 'he oppressed', 6 ʾʿNW *ʾaʿannúwa̱* 'I will oppress', and perhaps (if it is not a basic stem): 19 YGRŠH *yagarréšhu̱* (*grš*) 'he expelled him' and Kerak 2 MBʿR *mobaġġér* (*bġr*) 'sacrificing'.

To the causative stem, indicated by the *h*-prefix in the perfect, imperative, and infinitive, with certainty belong the perfects: 4 HŠʿNY *hōšeʿánı̱* (*yšʿ*) 'he delivered me', 4 HRʾNY *harʾắnı̱* (*rʾī*) 'he showed me', 17 HḤRMTH *haḥremtḯha̱* (*ḥrm*) 'I dedicated it', and probably the short imperfects 8f. YŠBH *yašébha̱* (*šūb*) 'he brought it back', 13 ʾŠB *ʾóšeb* (*yšb*) 'I settled', and perhaps Kerak 2 MBʿR *mabġér* (*bġr*) 'sacrificing' (or factitive).

To the *t*-stem of the basic stem, indicated by an infixed *t* as in Ugaritic and Old Phoenician, plus in the perfect, imperative, and infinitive by the prefixed *h-* as in Hebrew (not attested in Ammonite or Edomite), belong: 11, 15 ʾLTḤM *ʾaltáḥem* (*lḥm*) 'I besieged', 32 HLTḤM *heltáḥem* 'besiege!', 19 HLTḤMH *heltaḥemáhu̱* 'his warring'.

2.5. The perfect

The endings of the 2sg.masc. certainly *-tą*, fem. certainly *-tį*, 1sg. TY *-tį* (**-kų*) correspond to the vowels of the singular suffixes *-ką -kį -į*. The perfects denote past and pre-past (7, 18, 19) facts. Whether there was a perfect consecutive is uncertain, since the two pairs of asyndetic imperatives, in which the first monosyllabic one approaches the vague sense 'up!' (14 LK *lek* 'sally forth', 32 RD *red* 'go down'; cf. Ps 46:9, 66:5 *lékų* without and with *wa-* + imperative), do not require it; and in 7 WYRŠ *wa-yaráš* 'and he had in fact taken possession of' with *wa-* 'and' introduces the entire following episode 7–10; on the other hand 19 WYŠB *wa-yašáb* is a pluperfect. Thus there are no unambiguous examples.

3masc.sg. endingless: 2 MLK *malák* 'he ruled', 6 ʾMR *ʾamár* 'he said', 7 ʾBD *ʾabád* 'he perished', 7 YRŠ *yaráš* 'he had taken possession of', 19 YŠB *yašáb* (the only example is after *wa-* 'and') 'he had stayed', etc.; H *-á́:* 18 BNH *baná́* (*bnī*) 'he built'; + suffix: 4 HŠʿNY *hōšeʿánį* (*yšʿ*) 'he delivered me', 4 HRʾNY *harʾá́nį* (*rʾī*) 'he caused me to see'.

3fem.sg. T *-at* (Aram. *-á́t*): 12 HYT *háyat* (*hyī*) 'it happened'.

1sg. TY *-tį:* 2f., 28f. MLKTY *malákti* 'I became king', 25 KRTY *karáttį* (*krt*) 'I hewed out', 29 YSPTY *yasáptį* (*ysp*) 'I annexed'; + suffix: 17 HḤRMTH *haḥremtḥą* (*ḥrm*) 'I dedicated it'; TY *-íti* (Aram. and Arab. with *-ay-* > *-ē-* and with *-ī-*): 21, 22, 22f., 26, 27f., 29f. BNTY *banítį* (*bnī*) 'I built', 23, 26, Kerak 3 ʿŠTY *ʿaśítį* (*ʿśī*) 'I made'.

3masc.pl. -ų unmarked(?): 10 YŠB *yašábų* 'they dwelt' (in case *ʾīš* 'people' is plural as in Hebrew); W *-ų:* Papyrus 1 ʾMRW *ʾamárų* 'they said'.

2.6. The imperfect, imperative, and infinitive

According to the Barth-Ginsberg Law (*ATTM* 1: 108–112), throughout West Semitic in the imperfect of the basic stem the prefix vowel *a* is dissimilated to *i/e* before an imperfect vowel *a* (which is unstressed except in an unsuffixed short imperfect): *yaqtal* > *yeqtal*, which affects the Moabite short imperfect 14f. *ʾéhlak* and the long imperfect 5 *yeʾnáp* as well as the North Hebrew name *Yeśra(ʾ)ʾél* 'Israel' (7, 14, 18) = 'El reigns/ed' (*śrʾ/ī*). All Moabite short imperfects (jussives) without endings or suffixes, with unstressed final stem syllable or with loss of a final root vowel, serve as short imperfect consecutives, which after *wa-* 'and' denote a past punctual continuation of action in the narrative:

3masc.sg.: 6, 14, [32] YʾMR *yáʾmor* (*ʾmr*) 'he said', 10 YBN *yabn* (*bnī*) 'he built', Seal YḤY *yaḥy* 'he proved/may he prove himself living'; +

suffix: 6 YḤLPH *yaḥlóphu* 'he followed him', 8f. YŠBH *yašébḥa* (*šūb*) 'he had him return', 19 YGRŠH *yagróšhu*/*yagarréšhu* 'he expelled him'.

1sg.: 3, 9 ʾʿŠ ʾaʿś (ʿśī) 'I made', 7 ʾRʾ ʾarʾ (rʾī) 'I saw', 9bis, Pillar 1, 2 ʾBN ʾabn (*bnī*) 'I built', 11, 16 ʾHRG ʾáhrog (*hrg*) 'I killed', 12 ʾŠB ʾašb (*šbī*) 'I kidnapped', 14f. ʾHLK ʾéhlak (*hlk*) 'I broke out', 17, 20 ʾQḤ ʾáqqeḥ (*lqḥ*, *l-* assimilated on the model of *n-* in *ntn* 'to give' and accordingly *e* as in the imperative *ten* and infinitive construct *tett*) 'I took', 24 ʾMR ʾámor (ʾmr) 'I said', 30 ʾŠʾ ʾáśśe/aʾ (*nśʾ*; *e* as in *lqḥ*, *ntn*, and infinitive *śeʾt*?) 'I took', 32 ʾRD ʾáred (*yrd*) 'I went down', 11, 15 ʾLṬḤM ʾaltáḥem (*lḥm*, *t*-stem) 'I besieged', 13 ʾŠB ʾőšeb (*yšb*) 'I settled'; + suffix: 11, 15f., 20 ʾḤZH ʾāḫózḥa 'I captured it', 12f. ʾ[S]ḤBH ʾa[s]ḥóbḥu (*sḥb*) 'I dragged it', 18 ʾSḤB HM ʾásḥob-héma (probably a separately written suffix) 'I dragged them', 20 ʾŠʾH ʾaśśé/áʾhu (*nśʾ*) 'I brought it'.

3masc.pl.: Pillar 5 YRʾ *yárʾu* (*rʾī*) 'they saw'.

The long imperfect denotes duration in the past:

3masc.sg.: 5 YʾNP *yeʾnáp* (ʾnp) 'he was angry', 5 YʿNW *yaʿannű* (ʿnū, factitive stem) 'he was oppressing'.

The cohortative denotes demands on the self:

1sg.: 6 ʾʿNW ʾaʿannúwa 'I will oppress'.

The imperative (2nd person only) denotes a command:

Masc.sg.: 14 LK *lek* (*ylk*) 'sally forth!', 32 RD *red* (*yrd*) 'go down!', 14 ʾḤZ ʾḫoz (ʾḫz) 'conquer!', 32 HLTḤM *heltáḥem* 'besiege!'.

Masc.pl.: 24 ʿŠW ʿśū (ʿśī) 'make!'.

The three infinitive constructs depending on a preposition take the place of a subordinate temporal or purpose clause.

Basic stem: 7 infinitive absolute (preceding) as cognate object ʾBD ʾabắd (ʾbd) 'perish', 15 after M *mè(n)-* 'from' BQʿ *bqàʿ* + HŠḤRT *haš-šáḥrat* 'daybreak', 21 after L *la-* 'in order to' SPT *sept* (*ysp*) 'annex'.

t-stem: 19 after B *be-* HLTḤMH *heltaḥemáhu* 'his warring'.

2.7. Prepositions, particles, and adverbs

Monoliteral prepositions are written together with the following word. Most frequent are B *be-* 'in' (31 times, 11 with article *baq-*), the accusative

particle ʾT *ʾàt* (generally speaking) only before a definite, usually animate, noun (15 times, almost exclusively in 5–18, Kerak 3, Pillar 3), L *la-* 'for' (19 times), M *mè(n)-* 'from' (9 times), ʿL *ʿàl* 'on' (2, 14, 21, 29, 33), ʾḤR *ʾaḥ̲ar* 'after' (3), ʿD *ʿad* 'until' (15). The preposition is repeated before two parallel expressions connected by *wa-* 'and' (7, 12, 13) and in unconnected, explanatory use (24, hence in 17 a double name). MPNY is a compound preposition *mèp-pànē* (19).

The conjunction *wa-* 'and' is frequent (introducing simultaneous episodes: 7, 10, 14, 18; polysyndetic 4 times: 16f.; in sequences of the same construct state: 13, 21, 30; of the same preposition: 7, 12, 13; conjunctions: 4; verbs: 22f.). Particles are KY *kī* 'because' (4bis, 5, 17, 27bis, 28, Kerak 2), 'that' (Pillar 5); GM *gam(m)* 'also' before Hʾ *hūʾ* 'he' (6); ʾŠR *ʾašár* 'which' (29), [K]ʾŠ[R] *[ka-]ʾašá[r]* 'correspondingly that' before a lacuna (31); ʾN *ʾēn* 'there is not' between subject and location (24).

In place of a subordinate temporal clause, which is not attested in Moabite, 4f. contains a nominal clause with a substantive as predicate that functions as a preposed temporal clause before the main clause 'and' + long imperfect 'while Omri was king of Israel, he long oppressed Moab'–a construction very different from that of Hebrew: before the specification of time no introductory *wa-yahy* 'and it came to pass', and after the 'and' that connects the subordinate and main clauses (Waw of apodosis) there is neither a preposed subject ('he' at least) nor a punctual action.

HN *héna* 'here' (Kerak 3), ŠM *šámma* 'there' (30), MŠM *mèš-šámma* 'from there' (12, 17, 33). The questions 'when?' and 'how long?' are originally answered with the accusative (2, 5, 7, 8bis; B *be-* 'during': 6, 9, 15, 33).

2.8. Syntax

Nominal clauses begin with the subject (4f., 24; Papyrus 2bis; Seal) or the nominal predicate (27f., cf. Papyrus 1) and can also refer to the past ('was': 27f., 'was not': 24; unambiguous is *háyat* 'it was': 12). Verbal clauses usually open reports of the deeds of the king with *wa-* 'and' + imperfect consecutive or decisively summarize his accomplishments with *ʾanáku* 'I' + perfect. But other subjects can also occur before the perfect (2, 7, 10, 12, 18f.). Direct and indirect objects usually follow the verb (except 17), and so do subordinate clauses (4bis, 5, 31).

3. Ammonite

The gateway land of Ammon, Moab's northern neighbor, is at the same time a kingdom of its own with a national god of its own (*Mélkom*), kings

(the ones attested in inscriptions: *ʿAmmīnadéb, Haᵗṣṣelʾél, Śanı́p*), a capital (*Ràbbat ʿAmmán*), and a chancery language of its own, attested in three royal inscriptions, namely the Amman Citadel fragment (9th c. BCE, *KAI* 307), the undamaged Tell Siran bottle inscription (7th c. BCE, *KAI* 308), and the Amman Theater fragment (6th c. BCE); there are also a few ostraca and many seals, whose orthography, names, grammar, and Aramaic alphabet (though circles or dots are hardly even once used consistently as word dividers) speak for an Ammonite language. The following divergences from Moabite are recognizable:

The *-n* of *mèn* 'out of' is not assimilated (Hesban 11), but medial *-n-* always is, as well as **-n* of the article **han-* (Bottle 4). Syllable-final ʾ is retained in Hesban ostracon 4:2, 7, 10 (receipt, around 600 BCE) ṢʾN *ᵗṣaʾn* 'flock' and 4:5 NKʾT *nakáʾt* 'resin'.

The change *ā* > *ɔ̄* took place, according to cuneiform transcriptions of Ammonite names, around 700 BCE. Because except occasionally in foreign names only stressed final long vowels are written, there are hardly any vowel letters; thus the Citadel inscription has only one (H *-ḗ/ā́:* 1), the bottle none at all, basically like Phoenician. That makes the texts ambiguous. The *-ɔ̄* of M *mɔ̄-* 'that which' (Bottle 1), the *-ī* of K *kī-* 'because' (Citadel 2), and the *-e̱* of the masc.pl.cst. BN *bàne̱* 'sons of' (Citadel 6; Bottle 1, 2, 3) are unindicated. When Y appears at the end of a personal name, what is intended is *-áyy* (*ʾayy* 'where is?' and the hypocoristic ending *-áyy*) or *-(y)y* (*yaḥáyy/yaḥy* 'he bestowed life'). On the other hand, *aw* could still be preserved in ʾWR *ʾawr* 'light' in the men's names ʾWRʾL *ʾAwrʾél* 'Light of El' and ʾLʾWR *ʾElʾáwri̱* 'El Is My Light', while the plural YWMT *yawamā́t* 'days' (Bottle 7) belongs to the old singular *yawm* (probably already > *yōm*), cf. MSBB ʿLK *mosōbéb* (< *mosawbéb)* *ʿalḗka̱* 'encircling you'.

The masculine plural absolute ends with M *-ím:* ʾLM *ʾelı̄́m* 'gods' (Citadel 6), RBM *rabbı́m* 'many' (Bottle 7), BʿRM *baʿīrı́m* 'domestic animals' (Hesban 11), ḤBLM *ḥabalı́m* 'ropes' (ibid. 4), but the feminine singular still with T *-at:* HGNT *hag-gánnat* 'the garden' (Bottle 4), MNḤMT *Monaḥḥémat* 'Comforter' (Seal Hübner 101). An energic I/II of the basic stem preceded by an intensifying infinitive absolute appears in MT YMTN *māt yamūtán(n)* 'he will surely die' (Citadel 2); a long imperfect of the factitive stem preceded by an infinitive absolute appears in KḤD ʾKḤD *kaḥḥā́d ʾakaḥḥéd* 'I will surely destroy' (Citadel 3). The seal Aufrecht 56 ends with a short imperfect with suffix TBRKH *tabarrékhu̱* 'may she bless him'. If a perfect consecutive were available, it would occur instead of the sequence of two short/long imperfects YGL WYŠMḤ 'may he/they experience/arouse rejoicing and joy' (Bottle 6). Perfect, imperative, and infinitive of the causative stem begin with H *ha-* (Bottle 2). The relative pronoun is ʾŠ *ʾaš* (Hesban 4 as in Phoenician; vs. Aram. and Arab. *ḏ̱ī*).

The contraction **bi-yàd* > BD *bà̀d* > *bə̀d* 'in the hand of' of Canaanite personal names is the only introducer used with the Ammonite national god Melkom (Aufrecht 1:2), though it occurs several times with El, so it appears to be Ammonite as well. To the feminine ʾMT *ʾàmat* 'wife of' should correspond the masculine *bàʿl* 'husband of'.

4. Edomite

A third kingdom, Edom, existed from the eighth to the sixth centuries BCE (734–552 BCE?) south of the Dead Sea, prosperous from trade and copper mining and in perpetual conflict with Israel and Judah, but independent of the Assyrians. The national god was Qaus and the capital Bosra, the only city in Edom. The prerequisites for an Edomite chancery language of its own were thus satisfied. Admittedly the scarcely 30 ostraca, seals, and inscriptions of the seventh – sixth century excavated in Edom are distinguished from South Hebrew only by a few special lettershapes and the frequent mention of the god QWS *Qaws* > *Qōs*. To a limited extent, the subsequent history of the Edomites can be gleaned from Aramaic and Greek sources.

5. The Language of the Inscription from Deir ʿAlla/Gilead

East Jordanian Gilead, which at first belonged to Israel, was conquered by Aramaic Damascus about 837 BCE (2 Kgs 10:32f.); in 732 it fell to Assyria. Around 800 BCE in modern Deir ʿAlla, probably ancient Sukkōt, a text was applied to a plastered wall with red and black ink (*KAI* 312) that tells about the pagan seer Balaam son of Beor (*Balʿám bàr Baġ́ár*?) known from Num 22–24. But the excavators found the plaster knocked from the wall by an earthquake and broken into 119 pieces on the floor, so that not one line is preserved in its entirety. The alphabet is Aramaic; the language is disputed: whether Canaanite or Aramaic, an earlier not yet separated stage of the two, or a subsequent blend; or an otherwise unknown West Semitic language of Gilead, comparable to the approximately contemporary Samʾalian of North Syria, which likewise has neither an article nor an emphatic state, not to mention inflects the masc. pl. with the highly archaic *-ū/-ī* (but attested too late for Akkadian influence), or else to the Ephraemite dialect where according to Jud 12:6 *š* was still pronounced *s*. So what's going on? Clearly, this inscription exhibits

several of the features that distinguish Aramaic from all the other Semitic languages of the first millennium BCE:

1. The unusual shift of Proto-Semitic emphatic *ś́* (in Canaanite > *ṯ*, in Arabic and Ethiopic > *ḍ*) to emphatic but voiced and spirantized velar *ǧ* written Q (in cuneiform *q* or *ḫ*) (*ATTM* 1: 101 top; 2: 42 bottom): 1:11 YQḤK *yeǧḥák* 'he laughs'; 1:12 QRN *ǧarŕn* 'enemies'?; 1:14 QQN *ǧūqa̱n* 'affliction'; 1:15 HQRQT *haǧréqat* 'she banished'; 2:5, 12, 14 NQR *neǧr* 'scion'.

2. The extended suffix 'his' (originally *-hū* and with dissimilation *-hī*) on the original masc.du.cst.gen./acc. > pl. *-ay* + *hū* > *-áw* (which also indicates that the Aramaic masculine plural construct earlier contained an *a* like the dual, and was not as in Arabic and Samʾalian originally *-ī*), then + *hī* > *-áwhī:* 1:1 ʾLWH *ʾeláwhī* 'to him' (continued on the next line).

3. *ʾaḥád* 'one' > ḤD *ḥad:* 2:10.

4. Singular *ben* 'son' > BR *bar* (Modern South Arabian *ber*): 1:2; 8d:2 in the name of Balaam (as indication of his Aramaic background as in the Phoenician texts *KAI* 24:1, 9; 25:3?).

5. Also striking is the prefix *ʾet-* on the reflexive stem: 1:5 ʾTYḤDW *ʾetyaḥádū* 'they gathered together' (Canaanite, OAram. *KAI* 216:14 *het-*).

6. The distinct verbal and nominal feminine singular endings: The 3fem.sg. perfect still ends with *-at* (Garr 60f., 125f., in Canaanite only on final *-ī* roots): 1:7f. ḤRPT *ḥarrépat* 'she mocked'; 1:11 RQḤT *raqáḥat* 'she mixed'; 1:15 HQRQT *haǧréqat* 'she banished', but the feminine singular absolute already ends with *-ā:* 1:8 ṢRH *ṯṣárrā* 'need'; ʾNPH *ʾanápā* 'cormorant(?)'; 1:11 ʿNYH *ʿanýyā* 'poor woman'; KHNH *kāhénā* 'priestess'; 2:9 ʿṢH *ʿéṣā* 'counsel' (still most likely ends with *-t* otherwise after *ā*/*ī*/*ū* or a short vowel + short consonant).

7. 1:10 ŠTYW *šatíyū* (archaic) or *šatŕw* (with Y *-ŕ-* once in this inscription to differentiate from Canaanite *šátu̱*?) 'they drank'.

8. The unsuffixed forms of the short imperfect and the imperative of final-*ī* roots ending with *-ī:* 2:6 YRWY *yárwī* (Canaanite *yarw, rwē*, Arab. *yárwi*) 'may he satiate himself'. No long imperfects, to whose 2fem.sg. and 2/3pl. suffixes an *-n* would be added, occur in this inscription.

9. 1:5 *ḥwī* 'to inform'; 1:7 *yhb* 'to give'; 2:12 *man* 'who?'; 2:7 the meaning 'to make' of *ʿbd* (Canaanite: 'to serve').

10. Lastly, it is at least worth mentioning that the diphthongs *aw* and *ay* are always written with W or Y, so they were probably also preserved in speech: Y *-ay-*: 1:1, 6; 2:6, 7bis; W *-aw-*: 1:1, 9, 10; 2:13.

Conversely, the following features are Canaanite: 1:14 ʿŠTR ʿ*Aṯṯár* > ʿ*Aštár* (Aram. > ʿTR ʿ*Aṯṯár*); 1:1 ʾŠ ʾ*īš* 'man' before a masculine indefinite job title 'a'; 1:6 MWʿD *mawʿéd* 'collection' (*yḏʿ* 'to arrange'); 1:2 MŠʾ *maśśàʾ* 'saying' (*nśʾ* 'to raise the voice'); 1:5 *rʾī* 'to see' (= Ps 66:5); 2:17 DʿT *daʿt* 'to know' (Aram. *maddáʿ*); 1:5 LKW *lékṵ* 'come!' (*ylk* 'to go', Aram. *hūk*); 2:7 DBR 'to speak/word' (Aram. *mll*); 2:12bis NʾNḤ *naʾnáḥ* 'sigh' (participle of the N-stem). Most striking, however, are the numerous short imperfect consecutives, which in Canaanite denote a continuation of action in the past, for which in Early Semitic until the development of the stative into a perfect only the short imperfect (jussive) was used, which persisted into the first millennium BCE almost exclusively only after *wa-* 'and'. All short imperfect consecutives from Deir ʿAlla can be read as either Canaanite or Aramaic. In 1:6 there is instead, corresponding to the usual Aramaic usage, an exceptional perfect with prefixed *wa-* 'and': WNṢBW … WʾMRW *wa-ʾamárū* (rather than 1:2 WYʾMRW *wa-yaʾmórū*) 'and they agreed … and said', likewise 1:13.

This comparison at first glance suggests Aramaic with Canaanitisms. Since the exclusively Aramaic Q *ḏ* is just as much common Aramaic as the exclusively Aramaic suffixed definite article *-āʾ* (versus Canaanite and Arabic prefixed **han-*) that is not attested in Deir ʿAlla, Aramaic must have taken on its characteristic form in an isolated population probably in the north in the second millennium BCE at the latest, thus at a time when the short imperfect was still the usual narrative tense as remained common later in theophoric names. That in a religious-wisdom text such an archaic stylistic device was not replaced in the course of transmission or rejected in the initial formulation is understandable. It is noteworthy, however, that *wa-* 'and' always precedes the narrative short imperfect, as is also the rule in the surrounding Canaanite languages. Since there is no unambiguous short imperfect consecutive in Old Aramaic (*ATTM* 2: 15), there must have been in Deir ʿAlla an acceptance of a Canaanite style that belonged to the religious language, with biblical parallels (1:1–3: Num 22; 1:5: Ps 66:5) and selected individual forms, thus a style level, and not a developed dialect: Old Aramaic script and phonology, Canaanite and Old Aramaic forms, vocabulary, and syntax; for theologically educated Aramaeans understandable and accounted for as religious literature. The text probably did not achieve its final form immediately; instead, an early Canaanite version was not exactly translated into Aramaic, but rather, in accordance with the linguistic

development of the Gileadites, perhaps successively but in the event not consistently Aramaicized.

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Old and Imperial Aramaic

Margaretha Folmer

1. Introduction

The extensive and greatly ramified Aramaic language group has a continuous history from the tenth century BCE to the present day, so that Aramaic has the longest documented history of any Semitic language (see Jastrow 2008: 1).

Most twentieth-century scholars hold that among the Northwest Semitic languages, Aramaic represents a separate group distinct from Canaanite (which includes, for instance, Hebrew) and Ugaritic. Since the mid 1970s, following Robert Hetzron, the Northwest Semitic languages have been viewed as part of Central Semitic (which also includes Arabic). Central Semitic, in turn, is viewed as part of West Semitic (Huehnergard 2005). The earliest texts that can safely be identified as Aramaic are texts from the independent Aramaean city-states in Syria and Mesopotamia (10th–8th c. BCE). The use of Aramaic in these petty states is documented through many inscriptions, including treaties and royal, commemorative, and dedicatory inscriptions from Syria (Sefire: *KAI* 222–224; Afis: *KAI* 202; Ḥama: *KAI* 203–213), northern Mesopotamia (Tell Halaf: *KAI* 231), and northern Palestine (Tell Dan: Biran and Naveh 1993). The lengthy Aramaic-Akkadian bilingual text from Tell Fekheriye (end of the 9th c.; *KAI* 309) in northern Mesopotamia documents the Aramaic language of a city-state that had been conquered by the Assyrians only recently. It is not surprising, then, that the Aramaic of this inscription is permeated with influences from the Akkadian language.

In the course of the eighth century, the expansionist Assyrians became acquainted with the Aramaeans and the Aramaic of the city-states. On the basis of this contact, a particular form of Aramaic developed into the *lingua franca* and administrative language of the Neo-Assyrian empire (Gzella 2008; cf. 2 Kgs 18:17–37). This type of Aramaic is well known from the inscription of King Barrakib from Zinçirli in southern Turkey (*KAI* 216–218), the funeral inscriptions from Nerab in Syria (*KAI* 225–226), Aramaic inscriptions on administrative clay tablets from various centers in the Assyrian empire (Fales 1986; Hug 1993), and the famous

Assur ostracon (*KAI* 233), which is a letter from an Assyrian high official addressed to an Assyrian colleague. The inscription recently discovered in Bukān, Iran (*KAI* 320), east of the Neo-Assyrian empire, also belongs to this period (Lemaire 1998; Sokoloff 1999). During the Neo-Babylonian period (626–539), Aramaic continued to be used as a language of international communication under Chaldaean rulers. In this period it was also the spoken language. The best-known text from this otherwise poorly documented period (as far as Aramaic is concerned; see Hug 1993) is a letter of Adon, king of Ekron, to the Pharaoh (*KAI* 266). The text was found in Saqqara.

The use of Aramaic for all types of written communication reached its zenith in the Achaemenid period (538–331). Aramaic from this period is documented through many documents from Egypt (most of the documents from this period), Palestine, Asia Minor, Babylonia, the Arabian desert, and Iran. The eastern provinces of this empire are not as well documented as the western provinces, but the growing corpus can be complemented with testimonies from the post-Achaemenid period (e.g. the Aramaic inscriptions of King Aśoka from present-day Afghanistan and Pakistan, and the Aramaic heterograms in Middle Persian, from the 1st c. BCE onward).

This extensive corpus consists of heterogeneous texts. It comprises, for instance, official letters such as the correspondence of Arsames, satrap of Egypt (*TAD* A6.1–16), and the correspondence concerning the Jewish temple in Elephantine in Upper Egypt (*TAD* A4.1–10); private letters, on both papyrus (*TAD* A) and ostraca (*TAD* D), such as the Hermopolis papyri ([HP] *TAD* A2.1–7); legal documents (*TAD* B), most from Elephantine but a few from other places in Egypt and from Palestine; literary texts, such as the proverbs of Aḥiqar (*TAD* C1.1); a historical text, the Aramaic version of the Bisitun inscription of King Darius I (*TAD* C2.1); as well as numerous administrative texts, such as the Memphis shipyard journal (*TAD* C3.7), funerary inscriptions, dedicatory inscriptions, and graffiti (*TAD* D). As already indicated, most of these texts come from Egypt and date to the fifth century. The earliest evidence, such as the Hermopolis letters, were written toward the end of the sixth century, and the latest texts, such as the Wadi Daliyeh (near Samaria) legal documents (Gropp 2001) and the ostraca from Idumea (Lemaire 2006), date from the fourth century BCE. This variety of Aramaic is often referred to as "Official Aramaic," but the name does not do full justice to the heterogeneity of the textual material.

There is no consensus among scholars on the classification, extent, or even the names assigned to individual Aramaic dialects. This also holds for Old Aramaic (OA) and Imperial Aramaic (IA) – that is, texts written between the tenth century and the end of the Achaemenid period in 331

BCE. The reasons behind this are the different assumptions that underlie the classification of these dialects by different scholars (chronologically distinct phases of the language, the sociopolitical framework, literary genre, linguistic characteristics, or all of these factors together). There is broad scholarly consensus that the Aramaic of the independent Aramaean city-states should be called "Old Aramaic." The Aramaic of the Achaemenid period is commonly referred to as "Imperial Aramaic." In contrast, there is no consensus on the Aramaic of the regions under Neo-Assyrian and Neo-Babylonian administration. Some scholars consider it a part of OA (Degen 1969 [*AG*]), others a part of IA (Fitzmyer 1979: "Official Aramaic"), still others independent corpora (Fales 1986; Hug 1993: "jüngeres Altaramäisch," referring to the materials from the 7th–6th c.). The end point of IA is much debated as well. The end of the Achaemenid empire is formally marked by the second defeat of Darius III in 331, and for some scholars this also marks the end of IA. Some scholars, however, argue that IA continues until the third century CE (Beyer 1984–2004 [*ATTM*]: "nachachämenidisches Reichsaramäisch"). This comes from the insight that although with the fall of the Achaemenid empire a central administration ceased to control the Aramaic language and orthography, the use of Aramaic nevertheless was so profoundly rooted in society that even in the post-Achaemenid period, Aramaic continued to be used. While the Aramaic language gradually diversified in this period, its basic characteristics echo the Aramaic of the Achaemenid chanceries. This is particularly true for Nabataean Aramaic, Palmyrene Aramaic, Hatra Aramaic, and Qumran Aramaic (QA).

The Biblical Aramaic (BA) portions of Ezra (4:8–6:18; 7:12–26) also belong to IA. The official documents incorporated into this book (letters and a royal decree) are probably based on originals from the Achaemenid period (a different opinion is found in Grabbe 2006). Redactors, however, edited these documents and modernized their orthography. When the Masoretes vocalized these texts in the middle of the first millennium CE, the language of the texts drifted further from the original IA. Even though certain differences exist between the BA of Ezra and the BA of Daniel (2:4b–7:28), the Aramaic language of both books essentially reflects the same dialect of Aramaic. Notwithstanding that the final redaction of Daniel took place in the middle of the second century BCE, considerably later than Ezra (4th c.), Daniel Aramaic has preserved linguistic features that ultimately go back to the Achaemenid period.

On the other hand, the language of some eighth-century inscriptions from Zinçirli (ancient Samʾal, an Aramaean city-state in southern Turkey; *KAI* 214–215; another text discovered recently has been published by Pardee 2009) and the language of the Deir ʿAlla plaster inscription from

Jordan (*KAI* 312) are difficult to classify as Aramaic at all, let alone to assign to a specific Aramaic dialect. On the one hand, the language of these texts does attest to the common Aramaic innovations *br* 'son', *ḥd* 'one', and the 3masc.sg. pronominal suffix *-wh* (the latter only in the Deir ʿAlla text). On the other hand, these dialects do not provide evidence for the article *-*aʾ*, the loss of the N-stem, or the feminine ending *-ān* in verbs and nouns. For a balanced discussion of these innovations, see Huehnergard 1995: 280–281 (with bibliographical references). The language of the texts from Zinçirli and Deir ʿAlla is not included in the following description (see "The Languages of Transjordan," below, Section 5).

2. The Alphabet

Some time in the eleventh or tenth century BCE, the Aramaeans adopted the alphabet from the Phoenicians. From the eighth century onward, the letters of the Aramaic alphabet took on their characteristic forms (see the chapter "The Alphabet" above, Section 3.2). During the subsequent Neo-Assyrian, Neo-Babylonian, and Achaemenid administrations, the Aramaic cursive script was widely distributed but nevertheless remained uniform in character. Only after the collapse of the Achaemenid empire were Aramaic and the Aramaic script able to develop local forms in several places in the Hellenistic world where they were used, as they were no longer propagated and controlled by a powerful central administration.

The Aramaic alphabet contains 22 characters. Their primary function is to indicate consonants. In addition, some of the signs can be used as vowel letters to indicate long vowels (also called *matres lectionis*). Originally only final long vowels were indicated by these vowel letters, probably in an inconsistent manner:

Final h, w, and y: already in OA, final *h* is used as a vowel letter for /-ā/ and /-ē/, *w* for /-ū/, and *y* for /-ī/. In addition, *-h* and *-w* sporadically indicate /-ō/ in IA (Muraoka and Porten 2003 [*GEA*]: 29–30). After the contraction of /ay/ > /ē/, *-y* was also used for /-ē/ (in the ending of the m.pl./du.cstr.). It is uncertain, however, when this contraction took place.

Final ʾ: the loss of this consonant at the end of a syllable (end 6th c. BCE; see Section 3.2c) made it possible to use final ʾ as a vowel letter for /-ā/ and /-ē/ even in those instances where there was no etymological ʾ; as for instance in the deviant spelling *znʾ* of the demonstrative pronoun (Section 4.4).

Medial w and y: in early inscriptions, medial vowel letters are a rare phenomenon, but in the course of time their use gradually increased.

Already in the oldest OA inscriptions, medial vowel letters (especially in the Tell Fekheriye inscription, *KAI* 309: e.g. line 1 *dmwtʾ* /damūtaʾ/ 'statue, image'; line 12 *yšym* /yaśīm/, 3m.sg.impf. Peʿal of *šym* 'to put, to set up'). In medial position *y* is used for /-ī-/ and *w* for /-ū-/; after the contraction of the diphthongs /ay/ and /aw/, *y* and *w* are also used as vowel letters for /-ē-/ and /-ō-/. It remains uncertain, however, when this contraction should be dated.

Medial ʾ: in some rare instances, non-etymological medial ʾ is used for /-ā-/ and /-ē-/ (*GEA* 34). This is only found in texts from the end of the sixth century BCE onward (see Section 3.2c).

The letter *h,* on the other hand, is not used as a vowel letter in medial position. In OA /-ā/ is not regularly indicated, and in IA this vowel is not always written with a vowel letter ("*plene* spelling") (*ATTM* 1: 88; Cook 1990: 66; Folmer 1995 [*ALAP*]: 155–161; see also *GEA* 29). The same probably holds for /-ī/ (*ALAP* 161–172; Cook 1990). This phenomenon may be connected with word stress: unstressed final long vowels in a number of cases were written without a vowel letter ("defective spelling"), whereas stressed long final vowels were normally written with a vowel letter (e.g. *ʾnḥn* for /ʾanaḥnā/ 'we'). Beyer's assumption that unstressed /-ā/ was only written to avoid ambiguity (*ATTM* 1: 88) cannot explain every instance.

3. Phonology

3.1. Vowels

Due to the restraints set by the writing system, our knowledge of the OA and IA vowel system is very limited (*GEA* 26f.). Since only *long* vowels are indicated by vowel letters, and very inconsistently, we need to supplement our knowledge of the vowel system with information from other sources: vocalized text traditions, such as the Masoretic text, transcriptions of Aramaic words and names in writing systems which do indicate vowels (such as cuneiform texts, of which the Uruk incantation text from the mid 2nd c. BCE is especially informative, New Testament Greek, and Comparative Semitics). For IA, the following long and short phonemes are reconstructed: short /a/, /e/ (usually < */i/), /o/ (< */u/); long /ā/, /ī/, /ū/, /ē/ (derived from contraction of a diphthong or loss of etymological ʾ at the end of a syllable), /ɛ̄/, and /ō/ (derived from contraction of a diphthong or < */ā/). For OA, /a/, /i/, /u/ and /ā/, /ī/, /ɛ̄/, /ū/ can be reconstructed. The actual phonetic inventory may have been far more complicated than this concise outline suggests. It is, however, impossible

to reconstruct the complete phonetic reality from the materials that we have. In what follows, reconstructed vocalized forms are presented within phoneme slants, while the Masoretic vocalization of BA forms is added in italics after the consonant transliteration.

3.2. Consonants

The Aramaic alphabet contains 22 letters. In both OA and IA the letter *š* indicates two phonemes, namely /ś/ and /š/. OA has a larger number of phonemes than IA because in OA (a) the interdentals /ð/, /θ/, and /ḏ/ have not yet merged with the dentals; /ś/ and /s/ have not completely merged (see Section 3.3c), and (c) *q* was also used to indicate /ṣ́/, which in pronunciation was probably close to *q* (see *ATTM* 2: 51). Taking into account some phonological changes, it is likely that the 22 letters represent at least 23 IA phonemes, but in OA, at least 27. The IA phonemes can be grouped according to their likely place of articulation (manner of articulation in parentheses; + indicates "voiced"): *bilabials:* /b/ (stop +), /p/ (stop), /m/ (nasal +), /w/ (semivowel); *dentals* and *alveolars:* /d/ (stop +), /t/ (stop); /s/ (fricative sibilant), /ś/ (fricative sibilant), /z/ (fricative sibilant +), /l/ (lateral +), /r/ (rolled /r/ +), /n/ (nasal +); *postalveolars:* /ṭ/ (emphatic stop), /ṣ/ (emphatic fricative sibilant), and /š/ (fricative sibilant); *palatals:* /y/ (semivowel; *velars:* /g/ (stop +), /k/ (stop); *uvular:* /q/ (stop); *pharyngeals:* /ḥ/ (fricative), /ʿ/ (fricative +); *laryngeals:* /ʾ/ (stop), /h/ (fricative).

In general, the orthography can be characterized as extremely conservative. Often, however, it is impossible to define the limits of a given sound change because of the limited distribution of innovative spellings which reflect these changes. The orthography in IA texts nevertheless documents some sound changes. The most important are the following:

(a) The interdentals have merged with dentals: */ð/ > /d/, */θ/ > /t/, and /ḏ/ > /ṭ/. Beyer assumes the same date for all three sound changes (9th c., visible in the spelling only in documents from the 7th c. onward; *ATTM* 1: 100), but this is not very likely. In OA the spellings *z* for /ð/, *š* for /θ/, and *ṣ* for /ḏ/ are the rule (in the Tell Fekheriye inscription [*KAI* 309], however, *s* for /θ/, e.g. line 5 *ysb* /yāθib/ 'inhabitant'). Examples: OA *zhb* 'gold', *ʾḥz* 'to hold', *yšb* 'to sit, live', *nṣr* 'to preserve', as against IA spellings *dhb, ʾḥd, ytb, nṭr.* In IA, old and new spellings co-occur. The regular spelling with *z* in frequently used pronouns, such as *zy, znh, zʾ*, and *zk* (see Section 4.4) is remarkable. The hypercorrect spelling *zyn wzbb* /dīn wa-dabāb/ 'process' in *TAD* B3 4:17, instead of the expected spelling *dyn wdbb,* is further evidence that the sound change */ð/ > /d/ was a fact in IA.

(b) The emphatic voiced velar or uvular fricative /ǧ/, which arose from the Proto-Semitic sibilant /ś/ (according to *GEA* 8 an interdental), has merged with /ʿ/ (*ATTM* 1: 101: ca. 600 BCE, cf. also 99; and *ATTM* 2: 51). In OA, the sound is always represented with *q* (e.g. *qmr* 'wool', *ʾrq* 'land'), in IA with *ʿ* and *q* (*ʿmr* and *qmr; ʾrʿ* and *ʾrq*), in BA with *ʿ* only.

(c) /ʾ/ at the end of a syllable has lost its consonantal value. This is clear from the frequent spellings without *ʾ* (this paves the way for the use of *ʾ* in places where it is not etymological). According to Beyer this sound change should be dated as early as the 9th century, on the basis of the transcription of names in cuneiform texts (*ATTM* 1: 104–106). In Aramaic texts, however, this phenomenon is documented only from the end of the sixth century on (the emphatic state *mlkh* in *KAI* 203, a graffito from Ḥama, 8th c., is doubtful; the form also can be interpreted differently).

(d) Diphthongs /ay/ and /aw/ have contracted into /ē/ and /ō/ respectively. This change may have been completed by the IA period. The evidence for this, however, is scanty. In the language of the HP the monophthongization is a fact. Beyer dates the contraction of /ay/ and /aw/ to ca. 200–150 BCE (*ATTM* 1: 119) and thus needs other explanations for earlier spellings without etymological *w* and *y* (as scribal conventions, as abbreviations, or as mistakes; see *ATTM* 1: 120, 2: 55).[1]

(e) Regressive assimilation of */n/ before a consonant. In such cases, OA normally does not represent *n* in writing. The Tell Fekheriye inscription, however, does have an example of this spelling (*KAI* 309:2 *mhnḥt* /mahanḥit/, Hafʿel participle of *nḥt*). In IA, on the other hand, spellings with *n* predominate. Spellings without *n* also occur in IA. Most of these substandard spellings are found in letters, mainly in private letters (particularly HP). The evidence strongly suggests that */n/ at the end of a syllable was assimilated and was no longer pronounced in IA. Examples: *ʾpq* /ʾappeq/ and *ʾṣl* /ʾaṣṣel/ (1sg.imperf. Afʿel of *npq* and *nṣl* respectively).

(f) Representation of a "doubled" (strictly speaking, "long" in articulation, with one onset and release) consonant *CC* by *nC*. The *n* in these instances is not etymological. An example is *mndʿ* /mandaʿ/

1 Since the contraction of diphthongs cannot be dated with any certainty, *w* and *y* in original diphthongs have been treated as consonants (with the exception of HP). See also *ALAP* 173–188.

or /maddaʿ/ 'knowledge'. This phenomenon is not found in Aramaic texts antedating the Achaemenid period. It is impossible to tell with any certainty whether this phenomenon represents nothing more than a scribal practice to indicate for instance geminated consonants, or whether the spelling represents phonetic reality, namely degemination of geminates through nasalization – a phenomenon known from the Babylonian dialect of Akkadian. The answer is also of importance for the interpretation of the spellings of *n* for */n/ mentioned in (e) above (*ALAP* 74–94; *GEA* 10–16).

(g) Dissimilation of emphatic consonants, usually regressive dissimilation of /q/ > /k/ before /ṣ/ or /ṭ/ (e.g. *TAD* C 1:127 *kṣyr* /kaṣīr/ 'harvest' instead of *qṣyr*). Examples of this can be found in the Nerab (*KAI* 226:11) and Barrakib (*KAI* 216:19) inscriptions. OA *qtl* is an uncertain case. Either it is an instance of dissimilation (< *qṭl*) or it reflects the original form of the verb (cf. *ALAP* 101). Dissimilation of emphatic consonants is a limited phenomenon in IA, which is mainly found in the proverbs of Aḥiqar. In BA, this phenomenon is not attested.

3.3. Later sound changes

Some of the sound changes characteristic of later Aramaic had not yet taken place in IA. Nevertheless, sound changes which were completed by the time of Middle Aramaic may have started in IA. The most important are:

(a) Resolving a doubly closed syllable by means of an auxiliary vowel, such as in the *nomina segolata* (according to *ATTM* 1: 112, word-final consonant clusters were preserved at least until the end of the 5th c. BCE, perhaps even longer).

(b) Undoubling of doubled consonants in word-final position (*ATTM* 1: 120–122; between 200 and 150 BCE).

(c) Merging of */ś/ and */s/ (*ATTM* 1: 103; 2nd c. BCE). Already in IA */ś/ is sometimes written with *s*, e.g. *sb* /sab/ 'old man' (*GEA* 6f.). Already in an early period, the fact that the two phonemes sounded similar may have led to confusion.

(d) Elision of unstressed long final vowels (*ATTM* 1: 122–125; ca. 100 BCE).

(e) Aspiration of unvoiced stops /k/, /p/, and /t/ (*ATTM* 1: 125–126; ca. 250 BCE).

(f) Spirantization of labial, dental, and velar stops /b/, /g/, /d/, /k/, /p/, and /t/ to [v], [ɣ], [ð], [x], [f], and [θ] following a vowel (*ATTM* 1: 126–128; between the 1st c. BCE and the 3rd c. CE).

(g) Elision of unstressed short vowels in open syllables (*ATTM* 1: 128–136; completed in the 1st half of the 3rd c. CE).

4. Morphology and some morphosyntactic topics

4.1. Nouns

Both OA and IA have lost a productive system of case endings (ATTM 1: 79–81). Nouns, both substantives and adjectives, are formally marked (Table 1) for gender (masculine and feminine), number (singular, plural, and dual), and state (absolute, construct, and emphatic/determinate state). The emphatic or determinate state expresses the definiteness of the noun.

OA and IA share the same formal characteristics. However, whereas in OA ʾ is still a genuine consonant and -ʾ in the emphatic state ending represents /-aʾ/, this is certainly not the case in IA, where the substandard spellings *-h* and *-yh* (masc.emph.), *-th* (fem.emph.), and -ʾ (fem. sg.abs.) demonstrate that -ʾ had lost its consonantal value and represents /-ā/. Further remarks:

Masc.sg.abs.: The gentilic is expressed by the ending *-y* /-ay/ and is identical to the ending of ordinal numbers.

Masc.sg.emph.: In BA, the ending *-yʾ* /-ayā/ of the gentilic is often required to be read (so-called *qᵊre*) as *-ʾh,* vocalized *-aʾā.*

Fem.sg.abs.: Sometimes in IA the spelling -ʾ is used instead of the more frequent *-h.* Alternatively, the archaic ending *t* /-at/ is found in IA (*GEA* 65; *ATTM* 1: 444). In some of these instances the latter indicates the adverbial function of the noun (e.g. *rḥmt* /raḥmat/ ‘affectionately’ in *TAD* B2 4:7; cf. *brḥmh* /baraḥmā/ ‘with affection’ in *TAD* B2 2:14; see

Table 1. Aramaic nominal inflection

		Sg.		Pl.	
masc.	abs.	-ø		*-n*	/-īn/
	cst.	-ø		*-y*	/-ay/
	emph.	-ʾ	/-ā/	*-yʾ*	/-ayyā/
fem.	abs.	*-h*	/-ā/	*-n*	/-ān/
	cst.	*-t*	/-at/	*-t*	/-āt/
	emph.	*-tʾ*	/-tā/	*-tʾ*	/-ātā/

Hoftijzer and Jongeling 1995, 2: 1071). The high frequency of *-t* in HP alongside spellings with *-h* is striking (e.g. *tqbh* and *tqbt,* the etymology of which is unclear), but it certainly cannot be explained as a survival of the old system of case endings (*ALAP* 252–257). The same alternation of *-h* and *-t* is found in HP in the infinitive of the derived conjugations (*lmtyh* /lamētāyā/ and *lmytyt* /lamētāyat/, both Afʿel infinitives of *ʾty* 'to come') and the fem.sg. predicative participle in periphrastic constructions (e.g. *yhbt* in *hwy yhbt* /hwī yāhibat/ 'give' imv.).

Fem.sg.emph.: In BA, the *t* is normally punctuated with the *dagesh lene;* in some instances, omission of the *dagesh lene* indicates spirantization.

Masc.pl.abs.: Plene spellings of /-īn/ are relatively infrequent in IA, just as in OA. Sometimes, however, they do occur even in OA (e.g. *ʾlhyn* /ʾelāhīn/ 'gods' in the Tell Fekheriye inscription, *KAI* 309:4). The *y* represents a consonant in the gentilic ending *-yn* (*ḥlkyn* 'Cilicians'); in BA, the *qᵊre,* the prescribed reading, often requires the reading *-ʾyn* /-āʾīn/. Sometimes this is also found in the *kᵊtiv,* the transmitted text.

Masc.pl.cst.: It is uncertain whether the diphthong was contracted or not (Section 3.2d).

Masc.pl.emph.: It remains uncertain whether IA testifies to the later Eastern Aramaic ending /-ē/ (cf. *GEA* 39 n. 186, on *ʿmmʾ* 'peoples' in the Aḥiqar proverbs, *TAD* C1 1:94, 162). The gentilic has the ending *-yʾ* /āyē/ (< */ayayyā/), which in BA often has the *qᵊre -ʾy* /-āʾē/.

Du.abs.: The dual ending can only be established with certainty for the absolute form (in the construct and emphatic the ending coincides with the ending of the masculine plural): *-yn* /ayn/ (e.g. *ydyn* /yadayn/ 'two hands'). The ending cannot be distinguished from the *plene* form *-yn* /-īn/.

Many noun formations can be established for OA and IA (Leander 1928: 68–89). There is no evidence that in OA and IA an auxiliary vowel was inserted into the singular of the original monosyllabic nouns **qaṭl, *qiṭl, *quṭl* (the later *nomina segolata*). In the plural these nouns are characterized by /a/ between the second and third root consonants: /qaṭalīn/, /qeṭalīn/, /qoṭalīn/. In BA, the singular of these nouns is frequently based on the vocalization of these nouns in Hebrew (e.g. *mlk mɛlɛḵ* 'king', *ṣlm ṣɛlɛm* 'statue'), but the later Aramaic forms with their characteristic bisyllabic structure are attested as well (e.g. *ṭʿm ṭᵊʿem* 'understanding', *ksp kᵊsapō* 'silver'). These forms display the characteristic reduction of the stem vowel (*ᵊ*).

Many nouns in IA exhibit morphological peculiarities. Only a few of these can be mentioned here (for further detail see *GEA* 72–75): masculine nouns with the formal features of the feminine plural (sg. /šem/ 'name', pl. *šmhn* /šemahān/ [*šmht*]); feminine nouns without the formal features

of feminine singular nouns (*ʾm* /ʾemm/ 'mother'; *yd* /yad/ 'hand', du. *ydyn* /yadayn/; *ʾrʿ* /ʾarʿ/ 'land'; *ktn* /kettān/ 'garment'); feminine nouns without the formal characteristic of the feminine plural ending (*mln* /mellīn/, sg.abs. *mlh* /mellā/ 'word', pl.cst. *mly,* pl.emph. *mlyʾ; šnn* /šanīn/, sg.abs. *šnh* /šanā/ 'year'); nouns with singular and plural based on different roots (sg. *ʾnth* /ʾettā/ 'wife', pl. *nš(y)n* /nešīn/; sg. *br* /bar/ 'son', pl. *bnn* /banīn/; sg. *brh* /barā/ 'daughter', pl. *bnn* /banān/). Some nouns have a plural extended with *-h-* (sg. *ʾb* /ʾab/ 'father', pl. *ʾbhn* /ʾabahīn/; BA *-ān*). The form *by* /bay/ 'house' is irregularly formed (sg.cst. *byt* /bayt/, emph. *bytʾ* /baytā/; pl.emph. *btyʾ* /bātayyā/).

Two or more nouns can be combined in the construct noun phrase. The principal function of this construction is to indicate possessive relationships: *byt ʾlhʾ* 'the house of God'. The particle *zy* (see Section 4.5) can be used for this purpose instead: *bytʾ zy ʾlhʾ*. A proleptic pronominal suffix is particularly frequent in possessive relationships that indicate inalienable possession (e.g. kinship relations). In such instances, it is attached to the first noun (*ʾḥwhy zy yhwḥnn* 'the brother of Y.'; cf. *ALAP* 259ff.).

4.2. Personal pronouns

The personal pronouns are shown in Table 2.

2masc.sg.: OA*ʾt* without *n.* Similarly in Nerab (*KAI* 225–226). In OA and IA always spelled without *-h.* This might be a defective spelling of unstressed /-ā/ (*ATTM* 1: 123, 423; Cook 1990: 63f.), in which case some fluctuation in the spelling would be expected. Only in BA (*kᵊtiv*) and in QA are *plene* spellings with *-h* attested (see *GEA* 43f.).

Table 2. Aramaic independent personal pronouns

			OA	IA	
sg.	1	'I'	*ʾnh*	*ʾnh*	/ʾanā/
	2masc.	'you'	*ʾt*	*ʾnt*	/ʾáttā/
	2fem.	'you'	—	*ʾnty*	/ʾáttī/
	3masc.	'he'	*hʾ*	*hw*	/hū/
	3fem.	'she'	*hʾ*	*hy*	/hī/
pl.	1	'we'	—	*ʾnḥn(h)*	/ʾanáḥnā/
	2masc.	'you'	—	*ʾntm*	/ʾattom/
	2fem.	'you'	—	—	
	3masc.	'they'	*hmw*	*hmw*	/hómū/
			hm	*hm*	/hóm/
	3fem.	'they'	—	—	

2fem.sg.: The frequent spelling *ʾnt* in IA may be a defective spelling of unstressed /-ī/ (*ALAP* 161–168).

3masc.sg.: OA *hʾ* /huʾ/ (< */huʾa/) and IA *hw* /hū/ (on the development of this pronoun see *GEA* 31). The spelling *hwʾ* in BA may be influenced by Biblical Hebrew (*GEA* 43, n 205).

3fem.sg.: OA *hʾ* /hiʾ/ (< */hiʾa/) and IA *hy* /hī/ (on this development see *GEA* 3). BA *hyʾ* may be influenced by Biblical Hebrew (*GEA* 43 n. 205).

1pl.: The OA and IA spellings *ʾnḥn* probably reflect a defective spelling of unstressed /-ā/ (see Section 2). The frequency of the *plene* spelling *ʾnḥnh* increases in the course of the 5th. c. BCE (*ALAP* 152–154).

2masc.pl.: BA has *ʾntwn ʾantūn.*

3masc.pl.: OA *hm* and *[h]mw* (*KAI* 202 A 9). In addition to *hmw, hm* is attested twice in IA (direct object) (*GEA* 45). *hmw* may have been realized as /hómū/ (see *ATTM* 1: 423). BA has *hmw hemmō* and *hmwn hemmōn* (the latter in Daniel), with vowel dissimilation, similar to the later form *ʾnwn ʾennūn* (*ATTM* 1: 562f.). The older forms *hmw* and *hmwn* are always used as direct object (the only exception is Ezra 5:11; *hmw* functions here as a copula).

2fem.pl. and 3fem.pl.: These forms are not attested in OA and IA. BA has the 3fem.pl. form *ʾnyn ʾennīn* (see *ATTM* 1: 149).

The independent personal pronouns usually indicate the subject of the clause. In combination with a finite verb (which by itself contains the identification of the subject), these pronouns usually indicate contrast with another person. The 3masc.pl. *hmw* is also used for the direct object (instead of a verb with direct object pronominal suffix). In IA, the form *hm* is sometimes used. Instances of a finite verb with a 3masc.pl. direct object pronominal suffix are rare. The infinitive, on the other hand, is always combined with a 3masc.pl. direct object pronominal suffix (*GEA* 151–152).

4.3. Possessive pronouns

The possessive pronouns are combined with the construct form of the noun (Table 3). The diphthong */ay/ of the masculine plural may have contracted to /-ē/ in IA (Section 3.2d and *ALAP* 182–184). A reconstruction of the linking vowel is found in *ATTM* 1: 449. This vowel joins the pronoun to a singular noun ending with a consonant. The nature of this vowel is uncertain.

2masc.sg.: According to Beyer this is a defective spelling of unstressed /-ā/ (*ATTM* 1: 449, 451).

Table 3. Aramaic pronominal suffixes

		On sg. or fem.pl. nouns			On masc.pl. nouns		
		OA	IA		OA	IA	
sg.	1	*-y*	*-y*	/-ī/	*-y*	*-y*	/-ayy/
	2masc.	*-k*	*-k*	/-ákā/	*-yk*	*-yk*	/-áy-kā/
	2fem.	—	*-ky*	/-ékī/	—	*-yky*	/-áy-kī/
	3masc.	*-h*	*-h*	/-eh/	*-wh*	*-why*	/-áw-hī/
	3fem.	*-h*	*-h*	/-ah/	*-yh*	*-yh*	/-áy-hā/
pl.	1	*-n*	*-n*	/-ánā/	—	*-yn*	/-áy-nā/
	2masc.	*-km*	*-km*	/-okūm/	*-ykm*	*-ykm*	/-ay-kūm/
	2fem.	—	*-kn*	/-ekenn/	—	*-ykn*	/-ay-kenn/
	3masc.	*-hm*	*-hm*	/-ohūm/	*-yhm*	*-yhm*	/-ay-hūm/
	3fem.	*-hn*	*-hn*	/-ehenn/	—	—	(/-ay-henn/)

2fem.sg.: In IA sometimes written *-k,* possibly a defective spelling of unstressed /-ī/ (*ALAP* 161–168).

3masc.sg.: With masculine plural nouns, the spelling is *-ẇh* in OA; in IA *-ẇh* is sometimes found in addition to *-ẇhy. -ẇh* may be a defective spelling of unstressed /-ī/ (*ALAP* 169–172; Cook 1990: 56–59). There is no certain evidence for contraction of the diphthong /aw/ > /ō/ in this morpheme before the fourth century BCE (*ALAP* 188). The pronominal suffix /-hī/ is also found after other long vowels, such as following /ū/ in the construct singular of the nouns *ʾḥ* /ʾaḥ/ 'brother' and *ʾb* /ʾab/ 'father', thus *ʾḥwh(y)* /ʾaḥūhī/ 'his brother', *ʾbwhy* /ʾabūhī/ 'his father'.

3fem.sg.: The pronunciation of this pronominal suffix is uncertain. The form /-hā/ was probably only used after a diphthong or a long vowel. In other positions, only /-ah/ was used. On the basis of the spelling *-hh* in *ʾḥthh* /ʾaḥathā/ 'his sister' in one of the Hermopolis letters (*TAD* A2 7:4), instead of expected *ʾḥth* /ʾaḥatah/, Beyer concludes that the pronominal suffix was /-hā/ (see *ATTM* 1: 449, 451), but this remains uncertain (*ALAP* 237–241; cf. Cook 1990: 55). The BA *kᵉtiv -yh* (*qᵉre* /-ah/), the same form as the pronominal suffix *-h* with masculine singular nouns and feminine nouns, probably reflects the Late Aramaic form. In QA, on the other hand, both *-h* and *-hʾ* are used in all positions.

1pl.: Probably a defective spelling of unstressed /-ā/ (see Section 2 above); in addition the *plene* spelling *-nʾ* is also found (thus in BA).

2masc.pl.: In addition, there is also *-k(w)n* in IA (with *-n* instead of *-m*); always *-kn* in HP. In BA *-km* and *-kwn* are found.

3masc.pl.: In addition, the spellings *-hwm* and *-h(w)n* are found in IA (with *-n* instead of *-m*); in HP always *-hn*. BA has both *-hm* and *-hwn* (however *-hwm* in Jer 10:11).
3fem.pl.: The evidence for IA is uncertain.

In addition to a noun with a possessive pronominal suffix, IA also has a noun combined with *zyl-* (< *zy l*) and suffix, e.g. *byt' zyly* /baytā dīlī/ 'my house'. This construction is related to the genitive construction with *zy* and is principally used to indicate inalienable possession (see *ALAP* 259–312). In OA, the independent possessive pronoun *zyl-* is not attested.

All these pronominal suffixes can be used in combination with verbs to indicate a pronominal object; for the 1sg., *-ny* /-nī/ is found instead of *-y*.

4.4. Demonstrative pronouns

The demonstrative pronouns are shown in Table 4.

In OA, */ð/ is always spelled with *z*. In IA, the spelling *z* predominates. Sometimes, however, the later spelling *d* can be found: *dnh* (masc.sg.), *dh* (fem.sg.), *dk* (masc.sg.), etc. (*ALAP* 49–56). These spellings establish the pronunciation /d/ for IA, as against /ð/ for OA (see Section 3.2a).

'this': In IA, the masculine singular form is normally written with *-h* (once *zn'* and once *zn*). OA (*znh*) and BA (*dnh*) also have the spelling *-h*. Beyer postulates a pronunciation /dénā/ for *znh* (*ATTM* 1: 555), which can explain Middle Aramaic *dn* /den/ as apocopation of an

Table 4. Aramaic demonstrative pronouns

	OA	IA	
		'this'	
masc.sg.	*znh*	*znh*	/denā/
fem.sg.	*z'*	*z'*	/dā/
pl.	*'l, 'ln*	*'lh*	/'ellɛ̄/
		'that'	
masc.sg.	—	*zk*	/dek/
fem.sg.	—	*zk*	/dāk/
pl.	—	*'lk*	/'ellēk/

unstressed long vowel (see Cook 1990: 64). The OA plural form *ʾl* can be explained as a defective spelling (in place of *ʾlh*). In addition, OA has a form *ʾln* (with a deictic element *-n*). BA has *ʾlh, ʾl* (one instance), and *ʾlyn*. The element *-n* in OA *ʾln* /ʾellɛn/ probably has a source other than *-n* in BA *ʾlyn* (see also Cook 1990: 64).

'that': The third person personal pronouns are also used in OA and IA (and BA) for far deixis. In addition, IA has some rare and difficult variant forms. In part, they can be explained as idiosyncrasies: *znk* (masc.sg.) is only found in texts of a single scribe (*TAD* B2 3, 4). It may be explained as a mixed form, a combination of *znh* and *zk*. The singulars *zky* and *dky*, in most cases used as a feminine, can be explained as relics from an earlier period; alternatively, *-y* /-ī/ can be explained as a secondary development, by analogy with the 2fem. sg. pronominal suffix. The ending *-ʾ* /-ā/ in *dkʾ* may derive from the feminine singular ending *-ʾ* /-ā/. The forms *zkm*/*dkm* 'that' (IA; masc. sg.) and *dkn dekkēn* 'that' (BA; masc. and fem.sg.) are certainly connected with the pronouns *zk* and *dk*, notwithstanding that their precise interpretation remains unclear (2pl. pronominal suffix *-km*/*-kn* or deictic *-n*?). The plural form is sometimes written *ʾlky*.

In attributive phrases, the modifying element in general follows the modified noun and agrees with the noun in number, gender, and state. Sometimes demonstrative pronouns precede the modified noun. Most cases involve time adverbs (*ALAP* 325ff.): *ʿd znh ywmʾ* 'until today' (as opposed to *bytʾ znh* 'this house').

4.5. Other pronouns

The OA relative particle is *zy* /ðī/. In IA *zy* is pronounced /dī/. This is evidenced by the rare spelling *dy* in IA (see Section 3.2a). The interrogative particles in OA and IA are *mn* /man/ 'who?' and *mh* /mā/ 'what?'. IA has an indefinite pronoun *mndʿm* /mandaʿm/ (the *n* is not etymological), sometimes spelled *mdʿm* /maddaʿm/.

4.6. Numerals

Cardinal numbers are often indicated with strokes in IA. As a consequence cardinal number words (Table 5) are relatively rare in IA.

Only a brief outline of the complex counting system in IA can be given here (for details, see *GEA* 87ff.). The numbers 3–10 end with *-h* (cst. *-t*) when masculine nouns are counted; the form without the ending *-h* is

Table 5. Aramaic cardinal numbers[a]

	With masculine nouns		With feminine nouns	
1	*ḥd*	/ḥad/	*ḥdh*	/ḥadā/
2	*tryn*	/terayn/	*trtyn*	/tertayn/
3	*tlth*	/talātā/	*tlt*	/talāt/
4	*ʾrbʿh*	/ʾarbaʿā/	*ʾrbʿ*	/ʾarbaʿ/
5	*ḥmšh*	/ḥamešā/	(*ḥmš*)	(/ḥameš/)
6	*šth*	/šettā/	(*št*)	(/šett/)
7	*šbʿh*	/šabʿā/	*šbʿ*	/šabʿ/
8	*tmnyh*	/tamāniyā/	(*tmnh*)	(/tamānɛ/)
9	(*tšʿh*)	(/tešʿā/)	(*tšʿ*)	(/tešʿ/)
10	*ʿšrh*	/ʿaśarā/	(*ʿšr*)	(/ʿaśr/)

[a]Those unattested in IA are in parentheses.

used when feminine nouns are counted. The numbers 11–19 are composed of *ʿšrh* + *w* + a number between 1 and 9 when masculine nouns are counted (e.g.*ʿšr wtryn* /ʿaśarā waterayn/ 'twelve'). There are no examples for feminine nouns. In OA and BA, on the other hand, the construct noun phrase is used in these instances and the first term of this phrase is a number between 1 and 9, e.g. BA *try ʿšr* /tᵊrē ʿaśar/ 'twelve' (see Leander 1928: 116; *GEA* 90). The numbers 30–90 are based on the numbers 3–9 and have the masculine plural ending *-n* /-īn/, e.g. *tltyn* /talātīn/ 'thirty', *šbʿn* /šabʿīn/ 'seventy'. The number *ʿšrn* /ʿaśarīn/ 'twenty' is based on the number *ʿšr* 'ten', but originally this form was a dual (literally 'twice ten'). Other frequent numbers are *mʾh* /meʾā/ 'hundred', *mʾtyn* /meʾtayn/ 'two hundred' (du.), and *ʾlp* /ʾalp/ 'thousand'. Many compound cardinals above 20 are constructed by coordinating cardinals in descending order, often with the coordinator *wa,* as in 25 = *ʿšrn wḥmšh* /ʿaśarīn waḥamešā/ 'twenty and five'. The form of the units 3–10 in these compounds is defined by the gender of the counted noun, just as described above. Both the construct noun phrase (*bšnt x* /bašanat x/ 'in the year x') and the appositive (*šql ḥd* /teql ḥad/ 'one shekel') can be used.

Aramaic has ordinal numbers for 1–10. In IA, these numbers are very rare, but in BA they are more frequent. The ordinal number *qdmy qadmāy* 'first' derives from a root different from that of the cardinal number 1 and is characterized by the endings /-āy/ (masc.sg.) and /-āyā/ (fem.sg.) (for nominal endings, see Section 3.1). The ordinal numbers 3–10 also have the ending /-āy/ etc. These numbers are based on the nominal pattern *qaṭīl* and the root of the cardinal numbers 3–10 (e.g. *ʿšyry ʿaśīrāy* 'tenth'). The ordinal number 'second' has a formation of its own: masc. sg. *tnyn tenyān.*

4.7. Particles

The most frequent IA *prepositions* are: *ʾḥr* /ʾaḥar/ 'after'; *ʾḥry* /ʾaḥaray/ 'after, following'; *ʾl* /ʾel/ 'to'; *b-* /ba/ 'in'; *byn* /bayn/ 'between, in'; *ḥlp* /ḥalp/ 'instead of'; *k-* /ka/ 'as'; *kwt* /kawāt/ 'according to'; *l-* /la/ 'to, for'; *lhn* /lāhen/ 'except' (< *lʾ hn* 'not if'); *mn* /men/ 'from'; *ʿd* /ʿad/ 'until'; *ʿl* /ʿal/ 'on, to, concerning, against'; *ʿlwy* /ʿelāway/ 'on'; *ʿm* /ʿem/ 'with'; *qbl* /qobl/ 'according to'; *qdm* /qodām/ 'in front of'; *qdmt* /qadmat/ 'before'; *tḥt* /teḥōt/ 'under'. In addition to these simple forms, there are compound forms. Some examples: *lqbl* /laqobl/ 'in front of'; *br mn* /bar men/ 'except'; *mnʿl* /menʿal/ 'on top of'; *mn qdm* /men qodām/ 'from in front of', etc. New prepositions developed from the close combination of nouns and prepositions, e.g. *byd* /bayad/ 'in the hand of' > 'through' and *ʿl pm* /ʿal pom/ 'according to the mouth of' > 'according to'. In IA, the preposition *ʾl* has only survived in the address of letters (see *ALAP* 621–629). All other functions of *ʾl* were taken over by the preposition *ʿl*. In OA, on the other hand, *ʾl* is the normal preposition to indicate direction. The prepositions *b, l,* and *k* are proclitics. In addition, *l* indicates the direct object in IA and BA, especially if the direct object is both definite and animate (*ALAP* 340–371). The /n/ in the preposition *mn* does not assimilate to a following consonant in OA and IA. All the prepositions can be combined with a pronominal suffix. The prepositions with a consonantal ending are combined with the so-called "singular" pronominal suffixes. The so-called "plural" pronominal suffixes are used in all other instances.

The most common *adverbs* are: *ʾd(y)n* /ʾedēn/ 'then'; *ʾp* /ʾap/ 'also'; *bgw* /bagaww/ 'in the middle of'; *kʿn* /kaʿan/ 'now' (and the related forms *kʿt, kʿnt*); *mḥr* /maḥar/ 'tomorrow'; *tmh* /tammā/ 'there'; *tnh* /tanā/ 'here'; *twb* /tūb/ 'moreover, still'. Also, adjectives can be used as adverbs. The most frequent example of this is *šgyʾ* /śaggī/ 'very'.

The most important *conjunctions* are: *ʾw* /ʾaw/ 'or'; *w* /wa/ 'and'; *hn* /hen/ 'if' (*hn lʾ* /hen lā/ 'if not'; > *hlh* /hellā/ in *TAD* A2 2:10); *zy* /dī/ 'that' (at the head of an object clause; sometimes written *dy*); *kzy* (occasionally written *kdy*) /kadī/ 'when'; *ky* /kī/ 'because'. Often combinations of prepositions and *zy* result in new conjunctions: *mn zy* /men dī/ 'since'; *ʿd zy* /ʿad dī/ 'until'.

Remaining particles: lm may introduce direct speech; it is normally found at the beginning of the quoted utterance or in second position (*ALAP* 265 n. 24). The particle of existence is *ʾyty* /ʾītay/ (sometimes *ʾyt*) 'there is' (once in the guise of *yt* in an early 5th c. text; see *ALAP* 218). *ʾyty* is negated by *lʾ* /lā/ *(lʾ ʾyt(y))*; sometimes > *lʾyt(y)*). This particle can also be combined with a pronominal suffix, as in the following example from BA: *ʾytwhy ʾītōhī* 'he is not'. There are two negations, *lʾ* /lā/ (in HP also

lh) and *ʾl* /ʾal/. The main function of *lʾ* is to negate declarative clauses. Other functions are the negation of the nominal clause and the negation of a following word. The negative particle *ʾl* is used to negate imperfect forms with a volitive meaning (sometimes *lʾ* is used instead of *ʾl*).

4.8. Verbs

In the following, the focus is on the morphology of the IA verb. The functions of the IA verb are described at length by Gzella (2004), who also takes the situation in OA into account. The IA *"imperfect"* (or "prefix conjugation") assumes the forms shown in Table 6.

2masc.pl.: Always in the defective spelling in OA; in IA also *plene -wn.*
2fem.pl.: See below on 3fem.pl.
3masc.pl.: In OA always found in the defective spelling. The Tell Fekheriye inscription does not attest the long form of the prefix conjugation with *-n.* In addition to the spelling *-n,* IA also attests the *plene* spelling *-wn.* The masculine form is also found with feminine subjects in IA.
3fem.pl.: IA has only one form for both indicative and volitive functions. The vocalization of the afformative *-n* is uncertain. This *-n* can reflect /-ān/ or /-na/ or, following Beyer, represent a consonant without a vowel (/-n/ < */-na/; see *ATTM* 1: 82, 147). If the reconstruction without a vowel is correct, then the form /-ān/ in Middle Aramaic has developed through analogy with the afformative /-ā/ of the 3fem. pl. perfect (*ATTM* 1: 147). Muraoka, on the other hand, posits that

Table 6. Imperial Aramaic preformatives and afformatives of the imperfect[a]

	Person	Preformative	Long-imperfect afformative			Short-imperfect afformative		
sg.	1	*ʾ-*	*-Ø*		*ʾktb*	*-Ø*		*ʾktb*
	2masc.	*t-*	*-Ø*		*tktb*	*-Ø*		*tktb*
	2fem.	*t-*	*-n*	/-īn/	*tktbn*	*-y*	/-ī/	*tktby*
	3masc.	*y-*	*-Ø*		*yktb*	*-Ø*		*yktb*
	3fem.	*t-*	*-Ø*		*tktb*	*-Ø*		*tktb*
pl.	1	*n-*	*-Ø*		*nktb*	*-Ø*		*nktb*
	2masc.	*t-*	*-n*	/-ūn/	*tktb(w)n*	*-w*	/-ū/	*tktbw*
	2fem.	*t-*	*-n*	/-ān/	*tktbn*	*-n*	/-ān/	*tktbn*
	3masc.	*y-*	*-n*	/-ūn/	*yktb(w)n*	*-w*	/-ū/	*yktbw*
	3fem.	*y-*	*-n*	/-ān/	*yktbn*	*-n*	/-ān/	*yktbn*

[a]Exemplified with *ktb* 'to write'.

the affomative was /-na/ in IA. He bases his hypothesis on the volitive form *thytn* in IA (*TAD* A2 5:5, HP; 2fem.pl. impf. Afʿel of *ʾty* 'to come', without consonantal *y* as in *lhwyn lɛhɛwyān* in Dan 5:17). An affomative /-ān/ for this form would be surprising, since one would expect the *-n* to be dropped, just as in the singular (*GEA* 102f.). In OA both the long form (indicative) and the short form (volitive) are written with *-n,* as in the Tell Fekheriye inscription (*KAI* 309): volitive *lʾpn, lhynqn,* and indicative *yhrgn* (see below). There is no evidence for the 3fem.pl. in IA. BA has feminine forms in the *qᵊre* and *kᵊtiv: lhwyn* in Dan 5:17 (cf. 3masc.pl. *lhwn;* cf. *ALAP* 475f.).

The short form of the imperfect ("short imperfect," "jussive") is used in both OA and IA to indicate speaker's volition. The long form, on the other hand, mostly indicates present and future tense. The OA Tell Fekheriye inscription in addition has the proclitic precative particle *l-* /la/ (or /lu/; cf. Akkadian *lū;* for *l-* in Zinçirli, see Huehnergard 1987). This particle is used with 3masc.sg., 3masc.pl. (*-w*), and 3fem.pl. (*-n*) forms (e.g. *lʾpn* /laʾapān/ 'may they bake' in *KAI* 309:22; *lhynqn* /lahayniqān/ 'may they suckle' in lines 20, 21). The particle is not attested in OA texts from Syria. The corresponding 3fem.pl. form in the Sefire inscriptions has a preformative *y* (*yʾpn* /yaʾapān/ and *yhyqnqn* /yahayniqān/ *KAI* 222 A 22, 23; 223 A 2, both with volitive meaning). Nor does the Bukān inscription provide evidence for the precative particle *l-;* the same forms as in the Sefire inscriptions are found in this text (*yhynqn* and *yʾpw [sic* 3masc. pl. despite the fem. subject] in *KAI* 320:6f., both with volitive function). The opposition between *lšm* /laśim/ 'may he erect' and *yšym* /yaśīm/ 'he will erect' in the Tell Fekheriye inscription (*KAI* 309:11, 12) is characteristic for the functional distinction between long and short forms. In BA, the precative *l-* may be preserved in some imperfect forms of *hwy* 'to be' (see below): *lhwʾ* (3masc.sg.), *lhwn* (3masc.pl.) and *lhwyn* (3fem.pl.). It is not found in IA.

When combined with an object pronominal suffix, the imperfect form in OA, IA, and BA is sometimes augmented with *n* and sometimes not. This *n* is probably a relic of the ancient energic ending /-an-/ or /-anna-/ (in IA, the energic form without a pronominal suffix is preserved in some rare instances). The short imperfect is constructed without *n,* which makes it possible to distinguish between volitive and indicative forms. There are many problems connected with the interpretation of imperfect forms with *n,* particularly in those instances in which either the pronominal suffix or the affomative itself already contains /n/ (1sg. pronominal suffix *-ny;* 2fem.sg. affomative *-n* and masc.pl. *-wn;* see *ALAP* 241–252; *ATTM* 1: 476–478).

The "*perfect*," also called the "suffix conjugation," in most of its occurrences refers to past or completed events, in a variety of nuances. The perfect is characterized by affomatives indicating person, number, and gender (Table 7).

Table 7. Imperial Aramaic affomatives of the perfect[a]

sg.	1	*-t*	/-t/	/katabt/
	2masc.	*-t*	/-tā/	/katábtā/
	2fem.	*-ṯy*	/-tī/	/katábtī/
	3masc.	*-Ø*	/-Ø/	/katab/
	3fem.	*-t*	/-at/	/katabat/
pl.	1c.	*-n*	/-nā/	/katábnā/
	2masc.	*-tm*	/-tūm/	/katabtūm/
	2fem.	*-tn*	/-ten/	/katabtenn/
	3masc.	*-w*	/-ū/	/katabū/
	3fem.	--	(/-ā/)	(/katabā/)

[a]Exemplified with *ktb* 'to write'.

1sg.: There is no proof in IA for an auxiliary vowel preceding the affomative as in later Aramaic. The earliest evidence for this derives from the second century BCE (here the auxiliary vowel resolves a doubly closed final syllable; cf. *ATTM* 1: 112).

2masc.sg.: On the possibility of defective spelling of the long final vowel, see Section 2.

2fem.sg.: Only *plene* spellings are attested in IA.

3fem.pl.: There is no evidence in OA or IA for a 3fem.pl. form. The BA *kᵊtiv* has *ktbw;* the *qᵊre,* on the other hand, assumes a form *ktbh* (vocalized as *kᵊṯáḇā*).

1pl.: Possibly a defective spelling of a long final vowel (see Section 2). BA only has the *plene* spellings *-nʾ* and *-nh.*

2masc.pl.: In IA also *-tn,* and in some rare instances *-twn.*

2fem.pl.: It is impossible to distinguish this form from the variant 2masc. pl. form with *-tn.* This form is not attested in OA.

The *imperative* (used for second person commands) shares the affomatives of the imperfect: masc.sg. without ending; fem.sg. *-y* /-ī/, unattested in OA; masc.pl. *-w* /-ū/; fem.pl. unattested in OA and IA.

The masculine singular active *participle* is *ktb* /kātib/; the masculine singular passive participle is *kt(y)b* /katīb/. Participles are inflected as nouns; their construct and emphatic forms are only used for typical nominal functions, as in attributive or construct noun phrases. For verbal functions (e.g. the expression of the present tense), the absolute is

used. Participles are not combined with object pronominal suffixes. The analytical construction with the preposition *l* + pronominal suffix is used instead.

Only the *infinitive construct* is attested in IA, often in combination with the preposition *l.* There is no evidence for an infinitive absolute in IA (*GEA* 110). In OA texts from Sefire both the absolute and construct infinitives are attested (Peʿal: *ʾgr, nkh;* Paʿʿel: *rqh;* Hafʿel: *hskr;* cf. *AG* 69ff.; Fassberg 2007: 242). Other OA inscriptions evidence only the infinitive construct. The later Nerab inscriptions and the Assur ostracon also have evidence for the infinitive absolute (Hug 1993: 103). The important question as to whether the infinitive absolute is native to Aramaic or derives from contact with a Canaanite language such as Hebrew remains unanswered (Fassberg 2007: 242). The form of the infinitive construct in its various stem-formations is important for the classification of the Aramaic dialects. Already in OA the evidence for the infinitive is diverse (Table 8).

Infinitive of the simple stem (Peʿal): In IA, the Peʿal infinitive is characterized by the prefix *m-*, with the possible exception of the frequent form *lʾmr,* which is only used to introduce direct speech. This form may reflect an old infinitive form without the prefix, since it is principally, but not exclusively, found in a formula in legal documents. There are two instances of this infinitive of *ʾmr* with the prefix *m-*, but neither one introduces direct speech (*ALAP* 189). In OA the Peʿal occurs without *m-* in the inscriptions from Syria (e.g. *prq* in *KAI* 222 B 34; see *AG* 69). The Tell Fekheriye inscription, on the other hand, has Peʿal infinitive forms with *m-* (*KAI* 309:9f.: *l-mʾrk* /la-maʾrak/ from *ʾrk; l-mld* /la-mallad/ from *ldd* or, alternatively, a form of a hollow root; *l-mlqḥ* /la-malqaḥ/ from *lqḥ; l-mšmʿ* /la-mašmaʿ/ from *šmʿ*). In BA, the Peʿal infinitive also has the prefix *m-*. The form *l-bnʾ*, vocalized as *le-bbᵊnɛ̄* (Ezra 5:3, 13) is often called an exception and connected with the OA unprefixed infinitive. However, the form can also be explained by assimilation of /m/ to /b/. The form *lmbnyh* in Ezra 5:9 reflects an infinitive with a 3masc.sg. object pronominal suffix

Table 8. Imperial Aramaic infinitive construct

	HP, proverbs of Aḥiqar, Memphis shipyard journal		Other IA	
	Prefix	Suffix	Prefix	Suffix
Peʿal	*m-*	*-Ø*	*m-*	*-Ø*
Paʿʿel	*m-*	*-h*	*Ø-*	*-h*
Afʿel	*m-*	*-h* (in HP also *-t*)	*Ø-*	*-h*
Itpeʿel/ Itpaʿʿal	—	—	—	—

rather than a Peʿal infinitive with an ending /-ā/, as suggested by the vocalization.

Derived conjugations: So far, only the Paʿʿel and Afʿel infinitives are attested in IA. OA also has the Itpeʿel or Itpaʿʿal (*[bh]tlḥmh* in Tell Dan, from *lḥm* with 3masc.sg. object pronominal suffix). The IA affix is *-h* (before pronominal suffixes *-wt-* and *-t-;* it is uncertain whether *-t-* reflects /-ūt-/ or /-at-/). Most IA infinitives do not have a prefix. In HP, the proverbs of Aḥiqar, and the Memphis shipyard journal, on the other hand, the infinitives have a prefix *m-* (HP: Afʿel *mtyh* /mētāyā/, *mytyt* /mētāyat/, *mḥth* /maḥḥātā/, and with a pronominal suffix *mwšrt-hm* /mōšārat-hūm/ or /mōšārūt-hūm/; proverbs of Aḥiqar: Afʿel *mnḥtwt-h* /maḥḥātūt-eh/, *mnḥtwt-hm* /maḥḥātūt-hūm/; Paʿʿel *mšlmwt-h* /mašallamūt-eh/; Memphis shipyard journal: *mnpqh* /mappāqā/). In *mwšrt-hm* (HP), the vowel preceding the pronominal suffix is unknown. In the proverbs of Aḥiqar, on the other hand, the *plene* writings *mnḥtwth, mnḥtwthm,* and *mšlmwt-h* evidence /-ū-/. In later Western Aramaic (Jewish Palestinian, Samaritan, Christian Palestinian) as well, the infinitive of the derived conjugations is characterized by *m-* (see Fassberg 2007: 247). In OA, on the other hand, these infinitives do not have a prefix *m-* but an affix /-h/ or /-t/ instead (all the examples are from Sefire; see *AG* 69ff., Fassberg 2007: 242): Paʿʿel *l-ʾbdt, l-ḥzyh,* with pronominal suffix *l-ḥzbt-hm;* Afʿel *hmtt, l-hldt,* with pronominal suffix *l-hmtt-y.* There is also evidence for an infinitive without the affix (Paʿʿel *l-šgb* from *śgb*). It is uncertain whether the Tell Fekheriye forms *l-kbr, l-šlm,* and *l-ḥyy* (*KAI* 309:7f.) represent Paʿʿel infinitives without prefix and affix (/la-kabbar/, /la-šallam/, /la-ḥayyay/) or abstract nouns (Fassberg 2007: 242f.). In some OA and IA dialects (Sefire for OA, HP for IA), the writing of the ending in the derived conjugations wavers between *-h* and *-t* (see also Section 4.1).

4.9. Verbal stems

Voice (active, passive, and middle in different varieties, in addition to reflexive notions), transitivity, and causation (factitive or causative) are categories expressed by a set of verbal stems derived from the simple stem. They are formed by modifying it internally and externally, using both consonants and vowels (Table 9).

The "internal" passive forms (forms characterized by ablaut only) of Peʿal,[2] Paʿʿel, and Hafʿel are remnants of an earlier stage of the language.

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2 The traditional names Peʿal, Peʿīl, and ʾItpeʿel, used here for the sake of simplicity, actually reflect later forms of Aramaic which are characterized by reduction of the short

Table 9. Aramaic derived verbal stems

	Active	Passive	Medio-passive/ reflexive
simple stem	*paʿal*	*paʿīl*	*ʾitpaʿel*
intensive stem	*paʿʿel*	*poʿʿel*	*ʾitpaʿʿal*
causative stem	*hafʿel*	*hofʿel*	*ʾittafʿal*

These forms have almost completely disappeared from the later phases of the language, while their function has been taken over by the remaining stem formations. In IA, these internal passives can still be found, usually the passive of the Peʿal. Both the perfect and the participle are frequent, but the imperfect is probably also attested in IA (*y(w)bl* /yūbal/ in HP). In IA, the only certain evidence for the Paʿʿel and Hafʿel internal passive is provided by the Paʿʿel participle (*GEA* 120), but it remains uncertain whether the vocalization was /makottab/ or /makattab/, the latter in agreement with the BA pointing. The same is true for the Hafʿel participle (/mahaktab/ or /mahoktab/). Possible examples from IA are *mktbh* (sg. fem.) 'written' and *mbny* 'built'. In OA, the infinitive of internal passives is attested, in addition to perfect and participle forms (*AG* 66ff.). BA has preserved internal passive perfects (Peʿīl, Hofʿel) and participles (e.g. the Paʿʿel passive participle *mbrk mᵉḇāraḵ* 'blessed' or the 3fem.sg. Hofʿel perfect *hqymt hoqīmaṯ* 'she was lifted up' Dan 7:4).

The stems with the prefix *ʾit-* have gradually taken over the functions of the internal passives. In unvocalized texts these reflexive stems cannot be distinguished from one another. Therefore it is often impossible to tell whether a given verb is an Itpeʿel or an Itpaʿʿal. Only evidence from unambiguous active forms, such as the Peʿal and Paʿʿel participle and infinitive, or evidence from later dialects, can prove conclusively whether a given verb is an Itpeʿel (the reflexive stem based on the simple stem) or an Itpaʿʿal (the reflexive stem based on the intensive stem, characterized by a doubled second root consonant). There are several possible Ittafʿals in IA, all without the *h* which characterizes the causative stem (*GEA* 117). There is no certain evidence for this form in OA or BA (Folmer 2003: 236–237).

In OA and IA, perfects, imperatives, and infinitives of the reflexive stems are almost exclusively prefixed with *ʾt-* instead of *ht-*. This fact casts doubt on the reconstruction of original *ht-* for Aramaic. In the cases

unstressed vowel in an open syllable (therefore more precisely Pᵊʿal or Pʿal). The Afʿel is the later form of the Hafʿel.

where *ht-* is found in Aramaic (as always in BA), influence from Hebrew can be assumed. In IA, the form *ht-* is found only in a private letter from Hermopolis (*TAD* D7 9:9 *hzdhry* /hizdaharī/ 'watch out' imv. with metathesis and progressive assimilation). Hebrew influence is unlikely in this instance (cf. *GEA* 116).

In the causative stem, forms with initial *h-* (Hafʿel) and ʾ- (Afʿel) alternate (perfect, imperative, and infinitive). In medial position, intervocalic /h/ often elides, both in the imperfect and in the participle. It is thus impossible to tell whether the IA spellings with initial and medial *h* reflect retention of original /h/. The same is true for the prefix *ht-* of the reflexive stem.

Some verbs borrowed from Akkadian were borrowed in the Akkadian causative stem Šafʿel. Among them is the frequent verb *š(y)zb,* derived from Akkadian *ezēbu* 'to save' (see also *GEA* 116, *ATTM* 1: 444).

Table 10 is an overview of the default forms (without any additional endings) of the perfect, imperfect, imperative, infinitive, and participle of the strong verbs in the various stems (on the less frequent stems, see above).

Peʿal: In addition to verbs with a characteristic stem-vowel /a/ in the perfect, there are also verbs with the stem-vowel /e/ (< */i/) (compare /katab/ 'he wrote' and /saleq/ 'he rose'). The stem-vowel /o/ (<*/u/), on the other hand, is rare. The perfect *ktb* /katab/ matches with imperfect /yekt*o*b/, *slq* /saleq/ with imperfect /yess*a*q/ (see also the description of I*n* verbs). For the OA and IA infinitive without *m-* see Section 4.8.

Paʿʿel: For the infinitive with prefix *m-* see Section 4.8.

Afʿel: In addition to the older Hafʿel forms, Afʿels with initial *h-* > ʾ- and forms with elision of intervocalic *h* occur in IA (e.g. 3masc.sg.perf. *ʾktb* /ʾakteb/ and imperf. *yktb* /yakteb/); for the infinitive with prefix *m-* see Section 4.8.

Itpeʿel and *Itpaʿʿal:* In verbs with an initial sibilant (/z/, /s/, /ṣ/, /ś/, /š/), the sibilant and the /t/ of the prefix change places (metathesize, e.g. *ʾtšʾr > ʾštʾr). In addition, /t/ is partially assimilated to /z/ and /ṣ/ (progressive assimilation): (*/tz/ >) */zt/ > /zd/, and (*/tṣ/ >) */ṣt/ > /ṣṭ/. Thus the masculine plural Itpeʿel (or Itpaʿʿal?) imperative of *zhr* is *ʾzdhrw* /ʾezdaharū/ 'take heed'.

4.10. "Weak" verbs

Table 11 is an overview of the default forms of the paradigms of the classes of IA weak verbs in the Peʿal and Afʿel, the most characteristic

Table 10. Aramaic derived verbal stem inflection

	Peʿal	Peʿil	Itpeʿel	Paʿʿel	Itpaʿʿal	Afʿel
3masc.sg.perf.	*ktb*	*kt(y)b*	*ʾtktb*	*ktb*	*ʾtktb*	*hktb*
	/katab/	/katīb/	/ʾetkateb/	/katteb/	/ʾetkattab/	/hakteb/
3masc.sg.imperf.	*yktb*	*yktb*	*ytktb*	*yktb*	*ytktb*	*yhktb*
	/yektob/	/yoktab/	/yetkateb/	/yakatteb/	/yetkattab/	/yahakteb/
masc.sg.imv.	*ktb*	—	*ʾtktb*	*ktb*	*ʾtktb*	*hktb*
	/ktob/		/ʾetkateb/	/katteb/	/ʾetkattab/	/hakteb/
inf.	*mktb*	—	*ʾtktbh*	*ktbh*	*ʾtktbh*	*hktbh*
	/maktab/		/ʾetkatābā/	/kattābā/	/ʾetkattābā/	/haktābā/
part.	*ktb*	*kt(y)b*	*mtktb*	*mktb*	*mtktb*	*mhktb*
	/kāteb/	/katīb/	/metkateb/	/makatteb/	/metkattab/	/mahakteb/

Table 11. Aramaic weak verb inflection

	Strong	I*n*	I*ʾ*	I*y*	I*w*	II*w*	II*y*	III*ʾ*	III*wy*	II = III
					Peʿal					
3masc.sg.perf.	*ktb* /katab/	*npq* /napaq/	*ʾmr* /ʾamar/	*ybl* /yabal/		*qm* /qām/	*šm* /śām/	*mṭʾ/h* /maṭā/	*bnh* /banā/	*gz* /gazz/
3masc.sg.imperf.	*yktb* /yektob/	*y(n)pq* /yeppoq/	*y(ʾ)mr* /yēmar/	*ybl* /ʾabel/		*yq(w)m* /yaqūm/	*yš(y)m* /yaśīm/	*ymṭʾ/h* /yemṭā/	*ybnh* /yebnē/	*ygz* /yeggoz/ *ynʿl* /yenʿol/
masc.sg.imv.	*ktb* /ktob/	(*pq*) /poq/	*ʾmr* /ʾmar/	*bl* /bel/		*qwm* /qūm/	*š(y)m* /śīm/	(*mṭʾ*) /mṭā/	*bny* /bnī/	*gz* /goz/
inf.	*mktb* /maktab/	*m(n)pq* /mappaq/	*m(ʾ)mr* /mēmar/	*mwbl* / mawbal/		*mqm* /maqām/	*mšm* /maśīm/	*mmṭʾ/h* /mamṭā/	*mbnh* /mabnē/	*mgz* /maggaz/ *mnʿl* /manʿal/
act.part.	*ktb* /kātib/	*npq* /nāpeq/	*ʾmr* /ʾāmar/	*ybl* /yābel/		*qym* /qāyim/	*šym* /śāyim/	*mṭʾ/h* /māṭē/	*bnh* /bānē/	(*gzz*)
					Afʿel					
3masc.sg.perf.	*hktb* /hakteb/	*h(n)pq* /happeq/	*like Iy*	*hybl* /*haybel*/	*hwṭb* /hawṭeb/	*hq(y)m* /haqīm/		not attested	*hḫwy* /haḥwī/	*hnʿl* /hanʿel/
3masc.sg.imperf.	*yhktb* /yahakteb/	*yh(n)pq* /yahappeq/	*like Iy*	*yhybl* /*yahaybel*/	*yhwṭb* /yahawṭeb/	*yhqym* /yahaqīm/		not attested	*yhḫwh* /yahaḥwē/	*yhnʿl* /yahanʿel/
masc.sg.imv.	*hktb* /hakteb/	*h(n)pq* /happeq/	*like Iy*	*hybl* /*haybel*/	*hwṭb* /hawṭeb/	*htb* /haqīm/		not attested	*hḫwy* /haḥwī/	*hnʿl* /hanʿel/
inf.	*hktbh* /haktābā/	(*hnpqh*) /happāqā/	*like Iy*	*hyblh* /*haybālā*/	*hwṭbh* /hawṭābā/	*hqmh* /haqāmā/		not attested	*hḫwyh* /haḥwāyā/	(*hnʿlh*)
act.part.	*mhktb* /mahakteb/	*mh(n)pq* /mahappeq/	*like Iy*	*mhybl* /*mahaybel*/	(*mhwṭb*)	*mhqym* /mahaqīm/		not attested	*mhḫwh* /mahaḥwē/	(*mhnʿl*)

stems (see further the remarks on the individual verb classes). Roman numbers indicate the first, second, or third root consonant. Not every paradigm of every class is attested. The overview gives reconstructions in parentheses in cases where the forms cannot be derived from other forms of the same paradigm. In the Afʿel, spellings with initial and medial *h* alternate with forms with initial ʾ and forms with loss of intervocalic *h* (Section 4.9).

(a) *In verbs:* Syllable-final */n/ assimilates to a following consonant. In IA, however, spellings both with and without the graphic representation of /n/ are found (see Section 3.2e). In the Peʿal imperative, the first root consonant */n/ was dropped. Originally, *ntn* 'to give' was used in all the conjugations of the Peʿal. Only later was the verb restricted to the imperfect and infinitive while *yhb,* with the same meaning, was used in the perfect, imperative, and participle (suppletion). Traces of a perfect of *ntn* can be found in IA (HP, and early legal documents from Elephantine). Some early IA texts still have the Peʿal imperfect of *yhb* (HP; see *ALAP* 641–648), just as in OA (Sefire, *KAI* 222 B 38: *thb* 'you give'). There is some evidence in IA for forms of *lqḥ* 'to take' following the I*n* paradigm (e.g. the 3masc.sg.imperf. *yqḥ* /yeqqaḥ/). This is often explained as an analogy to the antonym *ntn* (see *GEA* 12 n. 52). Forms with /l/, however, are more frequent (3masc.sg.imperf. *ylqḥ* etc., inf. *mlqḥ*). The Peʿal forms of *slq* 'to go up' (and presumably the Afʿel as well) are probably to be explained in the same way, e.g. the infinitive *mnsq* in *TAD* B3 7:10, 13 (*mslq* > *msq* > *mnsq*). The form with *n* is also attested in IA (*TAD* B3 10:15). In OA texts from Syria, the I*n* verbs demonstrate assimilation of /n/ at the end of a syllable. *Lqḥ* and *slq* also have assimilated forms, e.g. *yqḥ* and *ysq* (*AG* 73f., 78f.). In the Tell Fekheriye inscription, however, the I*n* verbs are written with *n (mhnḥt* /mahanḥit/ in *KAI* 309:2, Hafʿel participle of *nḥt*), and the relevant forms of *lqḥ* are written with *l* (imperf. *ylqḥ* /yilqaḥ/ in line 17 and *tlqḥ* /tilqaḥ/ in line 18; inf. *mlqḥ* /malqaḥ/ in line 9). The evidence from one of the Nerab inscriptions is mixed (Peʿal imperf. *tnṣr* 'you protect', from *nṣr,* in *KAI* 225:12, as against *ysḥw* 'may they tear out', from *nsḥ,* in line 9 of the same text). BA has spellings with and without */n/. BA has no evidence for *lqḥ* and *slq* in the Peʿal. BA does, however, have evidence for the Hofʿel of *slq: hsq hussaq* 'he was brought up', Dan 6:24.

(b) *Iʾ verbs:* Apart from *ʾmr* 'to say', which has the stem vowel /a/ in the imperfect and imperative (because of the /r/ in its root), some

Iᵓ verbs have /o/ and some have /e/ in the imperfect, e.g. *ʾḥd* (*o*) 'to hold' and *ʾzl* (*e*) 'to go'. */ʾ/ has disappeared in IA at the end of a syllable but is often preserved in writing. Spellings without *ʾ* are also found: Peᶜal imperf.1sg. *ʾmr* /ʾēmar/ (< *ʾʾmr)*, 3masc.sg. *yth* /yētē/ (< *yʾth;* cf. (h) below), and inf.cst. *mmr* /mēmar/ (< *mʾmr*). In the Afᶜel, these verbs have merged with the I*wy* verbs (just as in BA; see Rosenthal 2006 [*GBA*] §124).

(c) *Iwy verbs:* No IA Peᶜal imperfect forms with the first root consonant /y/ represented in writing are yet known, but this may be accidental. In IA and BA, verbs which in BA have the stem vowel /e/ drop their first root consonant /y/ in the imperative (e.g. *bl* /bel/ 'bring'; *tb* /teb/ 'sit down'; *dᶜ* /daᶜ/ 'know', with /a/ caused by /ᶜ/). In BA, there are imperfect forms which reflect the original /y/ (*yytb yēṭaḇ* 'it pleases', with the stem vowel /a/, Ezra 7:18), forms with gemination of the second root consonant (*ytb yetteḇ* 'he sits down' Dan 7:26), and forms which are spelled with a non-etymological *n* preceding the second root consonant (*tndᶜ tendaᶜ* 'you will know' Dan 4:22 etc.). The spelling in IA is inconclusive regarding the pronunciation of these forms (see, for example, 2masc.sg. *tkl;* 3fem. sg. *ttb, tld;* 2fem.pl. *tdᶜn*). In the Peᶜal infinitive, there is evidence only for *w,* e.g. *mwbl* /mawbal/ 'to bring' (*I*w*), *mwnq* /mawnaq/ 'to suckle' (*I*y*). These forms do not substantiate Muraoka's hypothesis that in IA the I*w* verbs have displaced the original I*y* verbs in both the infinitive and the imperfect (*GEA* 122f.). In the Afᶜel, spellings without the *y* or *w* of the diphthong /ay/ or /aw/ are rare. Most of the evidence is found in HP and it demonstrates that in the language of these letters, the diphthongs /ay/ and /aw/ were contracted in these positions (e.g. 2fem.sg. *tšry* /tōšerī/ 'you must send', for **twšry;* 3masc.pl. *ytw* /yētaw/ 'they must bring' for **yytw;* interpreted differently in *ATTM* 1: 119f.; see, however, the addendum in 2: 55). The Iᵓ verbs have merged with the I*wy* verbs in the Afᶜel (see (b) above).

(d) *IIw and IIy verbs:* Most of these verbs have the stem vowel /ū/ (II*w*) or /ī/ (II*y*) in the Peᶜal imperfect. They are often referred to as "hollow roots" because of the long vowel in place of the second root consonant. *Hwk* 'to go' certainly has the stem vowel /ā/: *yhk* /yahāk/. In the Peᶜal perfect, there are forms with /ā/ (3masc.sg. *qm* /qām/ from *qwm* 'to stand up') and with /ī/ (*ṭyb* /ṭīb/ from *ṭyb* 'to please', *myt* /mīt/ from *mwt* 'to die'). In the passive participle, the *y* is a vowel letter. The form cannot be distinguished in writing from the 3masc.sg. perfect with stem vowel /ī/ (e.g. *šym* /śīm/). In the Peᶜal

active participle and the Paʿʿel, the *y* represents a consonant. The BA form *qʾm* (*qāyem* > /qāʾem/ 'standing') is not yet attested in IA.

(e) *IIIʾ verbs:* The IA spellings with *-h* instead of *-ʾ* demonstrate that the /ʾ/ at the end of a syllable has lost its consonantal value (see Section 3.2c), e.g. *mṭh* /maṭā/ (3masc.sg. Peʿal perf. 'he arrived' from *mṭʾ*), *ymṭh* /yemṭā/ or /yemṭē/ (3masc.sg.imperf.). Some spellings show that this class is in the process of merging with the III*wy* verbs, which later led to the complete disappearance of the IIIʾ verbs: *mṭṭ* /maṭāt/ (3fem.sg. Peʿal perf.), *qryt* /qarayt/ (1sg. Peʿal perf. 'I called' from *qrʾ*), *mṭw* /maṭaw/ (3masc.pl. Peʿal perf.). For this reason, it is uncertain whether the spelling *ymṭh* (3masc.sg.imperf.) reflects /yemṭā/ or /yemṭē/ (as in the case of III*wy* verbs). The infinitive *mmṭh,* reflecting either /memṭā/ or /memṭē/, is another ambiguous form. There are no attestations of Afʿel forms.

(f) *IIIwy verbs:* Rare writings with *-ʾ* instead of *-h* clearly indicate that this class has merged with the IIIʾ verbs (see (e) above), e.g. 3masc. sg. Peʿal perf. *rbʾ* /rabā/ 'he grew up'. It remains unclear whether the *w* in the masculine plural perfect, imperfect, and imperative afformative reflects the consonantal element of the diphthong /aw/, the vowel /ū/ (as with the strong verbs), or the vowel /ō/ (as in the BA vocalization of these verbs). In the Peʿal imperfect, there is a functional distinction between the long forms (normally used for the present and future tense) and the short form (used for volition in the 2–3masc.sg. and 3fem.sg.), corresponding to the distinction between the long and short forms of the masculine plural and 2fem.sg. imperfect of other verb classes, e.g. 3masc.sg. *ybnh* /yebnē/ 'he builds / will build' (long form) versus *ybny* /yebnay/ 'may he build' (short form); cf. *GEA* 137, *ALAP* 496–509. This opposition, which also is attested in OA (*AG* 76f.), has disappeared in BA. In BA, only the long form masculine singular and 3fem.sg. is used, for both declarative and volitive functions. IA *yhwh* /yehwɛ̄/ 'may he be' (3masc.sg.imperf. of *hwy* 'to be') appears in BA in the guise of *lhwh lɛhɛwɛ̄.* This form may have been used to avoid confusion with the divine name YHWH. By analogy with the 3masc.sg., the *l* is also used with the 3masc.pl. *lhwn lɛhɛwōn* and the 3fem.pl. *lhwyn lɛhɛwyān.* The prefix *l* can be explained from the precative particle *l-* which is found in OA (cf. *lhwy* in the Tell Fekheriye inscription, *KAI* 309:12; its vocalization is uncertain). The 3masc.sg. *lhwh* and its plural counterpart is otherwise found only in QA. The Peʿal perfect probably has two formations, one with stem vowel /a/ and one with /i/; compare 1sg. *bnyt* /banayt/ 'I built' with *ṣbyt* /ṣabīt/ 'I

desired'. The same distinction is known from BA (*GBA* §145). In the Peʿal imperative singular, the distinction between masculine and feminine is invisible (e.g. *hwy* /hwī/ 'be', both masc. and fem.imv. sg.). In forms of *ḥwy* 'to live' and *hwy* 'to be', the *w* is consonantal and does not indicate a long vowel.

(g) *II = III verbs:* The Peʿal perfect, imperfect, imperative, and infinitive of these verbs, also called *mediae geminatae* or *ʿayin-ʿayin* verbs, have weak forms (3pl.perf. *gzw*). The verb *ʿll* 'to enter' is more often spelled with non-etymological *n* in forms with a prefix or preformative (e.g. in the Peʿal imperfect and infinitive and the Afʿel perfect, imperfect, imperative, and infinitive), alongside spellings without an *n* (e.g. *ʾʿl* 1sg. Peʿal imperf.). This can be taken as indirect evidence that the first root consonant was also doubled in spellings without the *n* (such as *ʾʿl* /ʾeʿʿol/; see Section 3.2f and *ATTM* 1: 148, on resolving gemination through *n*). The Afʿel of *ʿll* also has forms with *n,* which likewise indicate that the first root consonant was doubled – even in those instances not spelled with *n.* It is impossible, however, to come to firm conclusions regarding the phonetic reality behind this *n.* The formation of other verbs of this class is unclear. OA does not have corresponding forms with *n.* BA, on the other hand, does have examples with *n;* cf. *GBA* §164: *ynʿl yenʿal* (Peʿal imperf.), *mnʿl manʿal* (Peʿal inf.), *hnʿl hanʿel* (Afʿel perf.), *yhnʿln yᵊhanʿalūn* (3masc.pl. Afʿel. imperf.), etc., in addition to some Afʿel or Ofʿel forms without this *n.*

(h) *Doubly weak verbs:* The verb *ʾty* 'to come' has the characteristics of both I*y* verbs and III*y* verbs. In the Peʿal imperfect, the spelling sometimes lacks the etymological *ʾ,* as in *yth* /yētē/ (*TAD* B3 4:22). In the Afʿel this verb has merged with the I*wy* verbs (see (b) above): *yhyth* /yahaytē/ (3masc.sg.imperf.), *hyty* /haytī/ (3masc.sg.perf.), *hytyh* /haytāyā/ (inf.), and *mhyth* /mahaytē/ (masc.sg.part.). Imperfect forms which lack both the intervocalic /-h-/ of the Hafʿel and the /y/ of the diphthong /ay/ are very difficult to recognize, e.g. *ytw* /yētaw/ (3masc.pl. Afʿel short imperf.) and *mtyh* /mētāyā/ (inf., alongside *mytyt* /mētāyat/) in the HP (see Section 3.2d).

5. Vocabulary

The IA vocabulary is rich in loanwords derived from Akkadian, Persian, and Egyptian. In addition, a few loanwords from Greek are known (*GEA* 342–356). Words of Akkadian and Persian origin are often of an

administrative nature (e.g. titles of functionaries, legal terminology, letter formulas). Egyptian loanwords, on the other hand, often refer to items used in daily life. A large number of loanwords from Egyptian have to do with the shipbuilding industry. Akkadian loanwords already appear in OA; Persian and Egyptian loanwords only entered the Aramaic vocabulary during the period of Persian administration of the ancient Near East. These loans were often completely assimilated to Aramaic morphology. Sometimes, however, these efforts were less successful (this is particularly true for Egyptian loanwords).

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AG = Degen 1969

ALAP = Folmer 1995

ATTM = Beyer 1984–2004

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GBA = Rosenthal 2006

GEA = Muraoka and Porten 2003

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KAI = Donner and Röllig 2002

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TAD = Porten and Yardeni 1986–1999

Old South Arabian

Rebecca Hasselbach

1. Introduction

The term "Old South Arabian" (OSA) designates the languages attested in inscriptions from pre-Islamic southwest Arabia. Most of the inscriptions were discovered in the area of today's Yemen, specifically the eastern central Yemeni highlands and the wadi deltas leading to Ramlat as-Sabʿatayn. A smaller number of inscriptions has been found in today's Oman and northern Arabia. Since medieval Arab grammarians referred to this area as "Ṣayhad," the language of the inscriptions is also called "Ṣayhadic" (Beeston 1984: 1). This designation, however, is not generally used today. The terms "Old South Arabian" and "Epigraphic South Arabian" are more commonly encountered in the scholarly literature.

1.1. Origin and history

The historical period of southwest Arabia begins in the early first millennium BCE, although material records, which include rock paintings that originate between the fifth and second millennia BCE, have shown that the area was settled long before this time (Müller 1987: 50). It is a matter of dispute when the tribes that produced the inscriptional material migrated into southwest Arabia and where they came from (Schippmann 2001: 17). The most widely accepted theory today is that an unknown group migrated into the area in the late third millennium BCE, since we do not find evidence for significant changes in the material culture after that time. Furthermore, there is evidence that the population of southwest Arabia was of a mixed nature at the beginning of the first millennium CE, so that we can say with relative certainty that there must have occurred several waves of migration (Schippmann 2001: 17).

Despite the fact that it is impossible to say with certainty when the various population groups known to us from the written material migrated into southwest Arabia, we know, based on descriptions by the Greek geographer Eratosthenes, that there were four separate nations in the third century BCE, whom he called the Sabaioi, Minaioi, Kittibanoi,

and Atramotitai. The inscriptional material attests to four main languages or dialects, which, based on Eratosthenes, are referred to as Sabaic, Minaic, Qatabanic, and Hadramitic. We do not have any evidence for the native names of these languages (Beeston 1984: 1).

The earliest evidence for the existence of the OSA kingdoms, more specifically the kingdom of Saba, comes from the Bible in the famous story recounting the visit of the queen of Sheba to Solomon (1 Kgs 10:1–13). It is uncertain how much, if any, of this story reflects historical events, since the biblical text itself was composed no earlier than the fourth century BCE. Some historians consider the text evidence for the fact that the Sabaeans had established themselves as important traders by the tenth century BCE (de Maigret 2002: 28). Other biblical passages recounting events that date to the seventh and sixth centuries describe Sabaeans as merchants of incense, spices, and similar goods (see Ps 72:10, Isa 60:6, Ezek 27:22, and Jer 6:20).

Additional evidence for the presence of Sabaeans in the late eighth and early seventh centuries BCE comes from inscriptions of Assyrian kings. A Sabaean named *Itamra* is mentioned in an inscription of Sargon (715 BCE), in which he is described as bringing tribute to the Assyrian king. Another Sabaean, called *Karibilu*, appears in an inscription of Sennacherib from the year 685 BCE (Müller 1987: 50). The names *Yiṯ*ʿʾ*amar* and *Karibʾilu* are known from Sabaean rulers in early Sabaic inscriptions and are commonly identified with the Sabaeans that appear in the Assyrian texts (see e.g. Müller 1987: 50; Kitchen 1994: 111).

Further, we have archeological evidence from excavations conducted for example in Hajar Bin Humeid that shows the development of a major culture in southwest Arabia. During the excavations at this site, archeologists discovered a jar inscription dating to the ninth or eighth century BCE that is written in an early form of the OSA alphabet (Kitchen 1994: xxi). Despite the progress made in tracing the early development of the OSA cultures, particularly with the help of archeological data, their chronology especially in the early first millennium BCE is still very much debated. The dates provided in the following paragraphs should thus not be taken as absolute dates. They represent the chronology most commonly found in the current scholarly literature.

As in the external textual evidence, the earliest attested kingdom in the OSA inscriptional material proper is the kingdom of Saba. The earliest Sabaic period is commonly referred to as the *Mukarrib* period based on the title of the ruler used at the time, which is written *mkrb* in the inscriptions and vocalized based on Arabic (for the dating of the *Mukarrib* period see Section 1.2). The period of the *Mukarrib*s constitutes the apogee of the Sabaean kingdom. At this time, the other OSA territories

were subject to Saba. The Sabaeans established trade relations over a vast area, including Ethiopia, where Sabaic inscriptions dating to this time were discovered (Müller 1987: 50). Furthermore, there is evidence for extensive building activities during the *Mukarrib* period, as exemplified in the building of the great dam of Marib around 550 BCE, which existed until the seventh century CE and secured the irrigation of the area.

Around 450 BCE, the Minaeans gained independence from Saba. In the fourth century, Qataban and Hadramawt equally established themselves as independent kingdoms, so that we have evidence for four independent kingdoms from the fourth century on. The restructuring of the power relations in Southwest Arabia coincided with a change in the titulary of the Sabaean rulers. From around 350/330 BCE – the exact date is debated – rulers are called *mlk* 'king' instead of *mkrb* (Kitchen 1994: xxiv). The four kingdoms coexisted for two to three centuries. This time was characterized by constant rivalries and battles for control over the major trade routes.

During their time of independence, the Minaeans controlled major parts of the incense route, up to the oasis of Dedan in northern Arabia. They further extended their trade relations to Gaza, Egypt, Phoenicia, and Ionia (Müller 1987: 51). This extension of Minaean trade is also reflected in the spread of their inscriptional material, for which see Section 1.2. The Minaean kingdom was the first to lose its independence, at the turn of the second century BCE. Initially, it became a vassal of Qataban and was subsequently taken over by the Sabaeans. The Qatabanian kingdom with its capital Timnaʿ flourished in the third century BCE. At the end of the second century BCE, Qataban lost its western territories to Saba but continued to exist in a reduced form until around 160 CE when it was conquered by Hadramawt. Hadramawt had risen to a major power in southwest Arabia in the late first millennium BCE because of its control of the incense-producing areas in Ḏofar in today's Oman.

Toward the end of the second century BCE we find evidence for a new population group that quickly gained political importance in southwest Arabia, the Himyar, who established their capital Zafar in the southern Yemeni highlands. The citadel of Zafar, called Raydan, is often mentioned in inscriptions. The Himyar founded a relatively long-lasting kingdom into which they incorporated the two remaining OSA kingdoms, Saba (around 275 CE) and Hadramawt (around 300). The Himyarite era lasted from approximately 115 BCE to 533 CE. The beginning of the end of the OSA and Himyarite cultures occurred in 523 CE. In this year, the Himyar killed the Christian population of the city of Najran, which caused the (Christian) Ethiopians to invade southwest Arabia in 525. During the Ethiopian campaign, the Himyarite king was killed and

the area became an Ethiopian province. The South Arabian population asked the Persians for aid against the Ethiopians. The Persians drove the Ethiopians out of southwest Arabia in 577 but also made the territory a Persian province. The conquest by the Persians marks the end of the Himyarite kingdom and the OSA cultures. As a final destructive event, the great dam of Marib broke at the beginning of the seventh century. The oasis was destroyed and the area around Marib became a wasteland.

1.2. The OSA languages and inscriptional material

At the beginning of OSA studies, Sabaic, Minaic, Qatabanic, and Hadramitic were understood as dialects of a single language that was called OSA. The designation of the four as "dialects" was maintained until the mid twentieth century, when Beeston argued that they are sufficiently different to be considered independent languages (Beeston 1984). Beeston's analysis has been widely accepted among scholars working on OSA. Despite the fact that Sabaic, Minaic, Qatabanic, and Hadramitic are now considered distinct languages, they are clearly linguistically related and derive from a common ancestor since they share certain morphological innovations. One of the main isoglosses attested in all four OSA languages is the suffixed definite article *-(h)n* (Beeston 1987: 103). There are, however, also significant differences between the four languages.

Sabaic is the most distinctive of the OSA languages. It has third-person independent pronouns, pronominal suffixes, and a causative with /h/, while the corresponding forms of Minaic, Qatabanic, and Hadramitic have /s_1/; compare Sabaic *-hw* 'his' versus Minaic *-s_1w*. Sabaic is more innovative regarding this phonological feature than the other OSA languages. Sabaic further has a prefix-conjugation that is characterized by suffixed *-n*, *yfᶜln*, referred to as the N- or "long" imperfect, which is used as an indicative imperfect. The remaining three OSA languages use this form either only sporadically, namely Minaic, or not at all, namely Qatabanic and Hadramitic. It is thus likely that the long imperfect is a Sabaic innovation that was in part taken over by the other OSA languages. From the Middle Sabaic period on, suffixed *-n* is further regularly found on infinitives of derived stems and on prepositions. Infinitives and prepositions with suffixed *-n* do not occur in other OSA languages and thus equally seem to be Sabaic innovations.

Minaic, Qatabanic, and Hadramitic likewise exhibit language-internal innovations. Qatabanic has a verbal form *b-* + prefix-conjugation that is used as an indicative imperfect and that functionally corresponds to the Sabaic long imperfect. This form with prefixed *b-* is sporadically found

in Minaic. Qatabanic further has a form of the dual in pronominal suffixes, relative pronouns, and the construct state that is orthographically represented by ⟨W⟩ instead of expected ⟨Y⟩. The same phenomenon appears in prepositions in which we likewise find final *-w* for Sabaic *-y.* It is unclear how to analyze these forms with *-w* in Qatabanic. It is obvious, however, that substituting *-w* for *-y* in certain environments is a Qatabanic-internal phenomenon. Lastly, Qatabanic has long forms for 3sg. pronominal suffixes, *-$s_1$ww* beside *-s_1* (3masc.sg.) and *-$s_1$yw* beside *-s_1* (3fem.sg.), that also appear in Hadramitic but not in Sabaic or Minaic.

These few examples show that OSA consists of four related but distinct languages that developed independently after branching off from a common ancestor. Sabaic is the most distant from the other OSA languages, although it must be noted that many features that are typical of Sabaic are only fully developed from the Middle Sabaic period on. Minaic, Qatabanic, and Hadramitic are, as far as we can tell, linguistically closer to each other, although each of them also exhibits its own unique innovations.

Based on geographic factors, OSA was originally classified as "South Semitic" together with Arabic, Modern South Arabian, and Ethiopian Semitic. In the last few decades, a different classification of Semitic based on shared morphological innovations has gained wider acceptance. According to this classification, Arabic is no longer subgrouped with Modern South Arabian and Ethiopian Semitic but with Ugaritic, Aramaic, and Canaanite in a branch of West Semitic called "Central Semitic." The classification of Arabic as Central Semitic is primarily based on the verbal system: Modern South Arabian and Ethiopian Semitic, like Akkadian, have a G-stem imperfect based on the form **yVqattVl,* while Central Semitic languages have an imperfect base **yVqtVl-u.* The imperfect of Central Semitic is an innovation that marks Arabic and the Northwest Semitic languages as members of the same subgroup of West Semitic. The genetic classification of OSA depends on whether its verbal system corresponds to that of Central Semitic, or to that of Modern South Arabian and Ethiopian Semitic. In an influential article consisting of a detailed analysis of weak verbs – verbal roots containing either /w/ or /y/ – Norbert Nebes (1994b) shows that Sabaic clearly had a base **yVqtVl* for the imperfect and thus participated in the Central Semitic innovation. Nebes further assumes that at least Minaic and Qatabanic share the same form of the imperfect. The evidence is insufficient to draw any conclusions regarding Hadramitic (Nebes 1994b: 78). Today, OSA as a whole is classified as Central Semitic. This also means that Modern South Arabian, despite its name and geographic proximity, is not a descendant of OSA.

Among the OSA languages, Sabaic has by far the largest written corpus. So far, approximately 5,300 Sabaic inscriptions have been

published. Minaic, Qatabanic, and Hadramitic are, in this order, significantly less often attested in inscriptions. A comprehensive description of the phonology, morphology, and syntax of the latter three is not yet possible with the available data.

One of the major problems since the beginning of OSA studies has been to determine when especially the earlier inscriptions were written. At the end of the nineteenth and beginning of the twentieth century, inscriptions belonging to the *Mukarrib* period were mostly attributed to the eighth century BCE. This date was based on the assumption that the names of the rulers in the OSA inscriptions of this period are to be identified with those in the Assyrian royal inscriptions mentioned above. This chronology is called the "long chronology" (Schippmann 2001: 36). In the 1950s, Jacquéline Pirenne (1956) criticized the long chronology and developed an alternative periodization claiming that the *Mukarrib* period did not begin before the fifth century BCE. Since Pirenne's chronology assumes a significantly later starting point than the previous model, it is referred to as the "short chronology." Pirenne's short chronology is primarily based on a paleographic analysis of the texts. Her main argument is that the OSA alphabet, which presumably is a direct descendant of the Phoenician alphabet, could not have been fully developed in its attested monumental form by the eighth century BCE since the Phoenician script only obtained its characteristic shape around 1000 BCE. This analysis has been sharply criticized because of Pirenne's paleographic analysis of the OSA material (see also Section 2). In the last two to three decades, the long chronology has once again gained wider acceptance, so that the earliest Sabaic inscriptions are currently dated to the eighth century BCE (von Wissmann 1982: 44; Kitchen 1994: 111; de Maigret 2002: 191; Stein 2003: 5). The latest Sabaic inscription that can be dated with certainty was written in 559 CE. Sabaic is thus continuously attested over a period of 1400 years. During this time, the language naturally changed, and scholars distinguish three main periods: Old Sabaic (OS), Middle Sabaic (MS), and Late Sabaic (LS) (Stein 2003: 5).

Old Sabaic is attested from the eighth to the third centuries BCE. Inscriptions from this time primarily originate in Marib and the Jawf, much less in the central Yemeni highlands. Middle Sabaic includes inscriptions from the third century BCE to the third century CE. Inscriptions from this period constitute the majority of texts known for Sabaic and come from Marib and its environs, and frequently from the central Yemeni highlands. Since the geographical distribution of Old and Middle Sabaic inscriptions is not exactly the same, it is still difficult to determine the exact relationship between the two dialects (Stein 2003: 6). It is possible to distinguish various dialects of Sabaic during the MS period. The

variant that was used in the central Yemeni highlands is called "Standard" or "Central" Sabaic (Stein 2003: 9). Central Sabaic is relatively homogeneous linguistically and represents the official language used in inscriptions. Dialects that differ from Central Sabaic are mostly found in the periphery of the central Yemeni highlands. An important dialect is that of the city Haram in the eastern Jawf, an area that originally belonged to the Minaean kingdom. The Haramic dialect, however, does not seem to have been influenced by Minaic. Instead, it exhibits features of Arabic (Kogan and Korotayev 1997: 221). Another dialect of Sabaic is Radmanite, which is attested southwest of the Qatabanian territory in Wadi Bayhan and dates to the first to third centuries CE. The last important language that appears during the MS period is Himyaritic, which is attested in the southern highlands.

Late Sabaic is attested in the fourth to sixth centuries CE. This time is commonly referred to as the "monotheistic" period, since the pantheon of gods from the earlier periods was replaced by a single god, *Raḥmānān.* LS seems to be a southern variant of Sabaic, which occasionally already appears during the MS period in the Himyarite area (Stein 2003: 6). This means that with the political rise of the Himyar, the variant of Sabaic they used spread as well. The differences between Middle and Late Sabaic are thus at least in part caused by original dialect variation.

Minaic inscriptions primarily originate in the Minaean capital Maʿin, ancient *qrnw,* northwest of Marib, and in Baraqish, ancient *yṯhl.* A few Minaic inscriptions were found in the Minaean trade colony al-ʿUla in northern Arabia, and outside Arabia in Egypt and on the island of Delos (Beeston 1984: 59). Minaic inscriptions first appear at the same time as Sabaic inscriptions, in the eighth century BCE (Nebes and Stein 2004: 455). These inscriptions were found in cities along the Wadi Maḏab, in Nashan, Kaminahu, Haram, and Innabah. At this period, these cities were independent city-states. Based on their location, these early inscriptions are called "Maḏabic." The Maḏabic inscriptions belong to a different historical context from the inscriptions that are commonly referred to as Minaic – Minaic inscriptions date to the time of the independent kingdom of Maʿin in the second half of the first millennium BCE and primarily come from Maʿin. Minaic ceases to be written after the loss of political independence in the second century BCE (Beeston 1984: 59; Nebes and Stein 2004: 455).

Qatabanic inscriptions are attested from the middle of the first millennium BCE to the second century CE. They primarily come from the area of Wadi Bayhan and Wadi Harib, southeast of Marib, and from the plateau south of the two wadis (Beeston 1984: 64). Hadramitic appears at the same time as Qatabanic, meaning around the fourth century BCE, and ceases to be written in the third century CE (Beeston 1984: 68). Hadramitic

represents the smallest inscriptional corpus and is primarily attested in the city Shabwa at the southwest entrance of Wadi Hadramawt, and southeast of Shabwa in Samarum (Beeston 1984: 67).

Most of the OSA texts are monumental inscriptions that were incised in stone, for example on altars, statues, and walls, less frequently on metal. The majority of these inscriptions have official character and represent dedicatory inscriptions, building inscriptions, and legal texts. In addition, there exist thousands of short graffiti that solely contain personal names. The dedicatory and building inscriptions in particular are very formulaic and primarily written in the third person and thus provide only limited information regarding OSA grammar. For Sabaic, about 1040 dedicatory inscriptions, 850 building inscriptions, 200 legal texts, and 1300 graffiti are known (Stein 2003: 3). It is noteworthy that no literary texts, such as myths and epics, have been found among the OSA material.

Besides the monumental inscriptions, thousands of inscriptions written on wooden sticks dating to the MS period have been found. These wooden stick inscriptions differ in important aspects from the monumental inscriptions: they are written in a cursive variant of the OSA alphabet and represent letters and legal texts reflecting everyday life situations. These texts include first- and second-person forms and are the closest approximation to the spoken language that we have. Because the wooden stick inscriptions are written in a cursive script and contain many words that are not known from the monumental inscriptions, they are often still difficult to understand.

2. Writing system

The inscriptions of the four OSA languages and Sabaic dialects employ the same alphabetic script throughout their history. The alphabet consists of 29 consonants, corresponding to the number of consonant phonemes currently reconstructed for Proto-Semitic.

The order of the alphabet attested in inscriptions more or less corresponds to the order of the Ethiopic syllabary, not to that commonly used for Northwest Semitic alphabets (Stein 2003: 11):

OSA: *h l ḥ m q w s₂ r b t s₁ k n ḫ ṣ s₃ f ʾ ʿ ḍ ǧ d ġ ṭ z ḏ y ṯ ẓ*
Geʿez: *h l ḥ m š r s q b t ḫ n ʾ k w ʿ z y d ǧ ṭ p ṣ ḍ f*
Hebrew: *ʾ b g d h w z ḥ ṭ y k l m n s ʿ p ṣ q r ś š t*

The origin of the OSA alphabet has long been a matter of debate. The shapes of the individual letters indicate that the script is related to the Canaanite alphabets. The question remains from which Canaanite

alphabet OSA developed and when it split off from the other variants. As mentioned in Section 1.1, Pirenne assumed that the OSA alphabet is a direct descendant of Phoenician and did not develop before the fifth century BCE. Since we now have evidence for an early variant of the OSA script that dates to the ninth century, Pirenne's theory is no longer viable. The common opinion today is that the OSA alphabet derives from a Proto-Canaanite variant and split off before 1000 BCE, probably around the fourteenth or thirteenth century (Schippmann 2001: 38).

In the eighth century BCE – at the time of the earliest Sabaic inscriptions – the script is fully developed and exhibits the basic form it retains until the end of OSA writing. Throughout these 1400 years, the basic form of the letters changed only marginally, although Old, Middle, and Late Sabaic writing styles can nevertheless be distinguished. The OS script is very geometrical and simple, consisting mostly of unornamented lines. In MS, the letters are more ornamented and some originally straight lines are curved. In LS, letters are primarily written in relief instead of the previous incised writing style. The only script that differs significantly from the monumental style from which it developed is the variant on wooden stick inscriptions used during the MS period.

The alphabet used for OSA languages spread beyond southwest Arabia. The pre-Islamic alphabetic script found in North Arabia is a direct descendant of the OSA script, as is the Ethiopic syllabary, which is still used in Ethiopia today. The following list shows the basic form of the OS variant of the alphabet:

𐩯 /h/, 𐩣 /l/, 𐩨 /ḥ/, 𐩬 /m/, 𐩲 /q/, 𐩺 /w/, 𐩦 /s$_2$/, 𐩵 /r/, 𐩱 /b/, 𐩸 /t/, 𐩪 /s$_1$/, 𐩫 /k/, 𐩭 /n/, 𐩧 /ḫ/, 𐩤 /ṣ/, 𐩥 /s$_3$/, 𐩠 /f/, 𐩡 /ʾ/, 𐩴 /ʿ/, 𐩢 /ḍ/, 𐩣 /g/, 𐩹 /d/, 𐩻 /ġ/, 𐩷 /ṭ/, 𐩽 /z/, 𐩢 /ḏ/, 𐩰 /y/, 𐩷 /ṯ/, 𐩾 /ẓ/.

OSA is generally written from right to left, although the earliest inscriptions are boustrophedon, meaning the first line is sinistrograde, the second dextrograde, etc. Short vowels are not written. Long vowels are indicated only in rare cases, and mostly in word-final position, where ⟨W⟩ is used for /ū/ and ⟨Y⟩ for /ī/ and /*ay/. Consonantal gemination is likewise not indicated in the orthography. Individual words are separated by a word divider consisting of a short vertical line (Stein 2003: 15).

3. Phonology

In the following description of OSA phonology and morphology, the subsections first discuss Sabaic, followed by Minaic, Qatabanic, and Hadramitic, depending on the available evidence.

Table 1. Proto-Semitic and Old South Arabian consonants

PSem.	*ʔ	*ʕ	*b	*d	*ð	*g	*ɣ	*h	*ḥ	*k	*kʔ	*l	*ɬ	*ɬʔ	*m
OSA	ʾ	ʿ	b	d	ḏ	g	ġ	h	ḥ	k	q	l	s_2	ḍ	m
Arabic	ʾ	ʿ	b	d	ḏ	g	ġ	h	ḥ	k	q	l	š	ḍ	m
Hebrew	ʾ	ʿ	b	d	z	g	ʿ	h	ḥ	k	q	l	ś	ṣ	m

PSem.	*n	*p	*r	*s	*ᵗs	*ᵗsʔ	*t	*tʔ	*θ	*θʔ	*w	*χ	*y	*ᵈz
OSA:	n	f	r	s_1	s_3	ṣ	t	ṭ	ṯ	ẓ	w	ḫ	y	z
Arabic	n	f	r	s	s	ṣ	t	ṭ	ṯ	ẓ	w	ḫ	y	z
Hebrew	n	p	r	š	s	ṣ	t	ṭ	š	ṣ	w (> y/#_)	ḥ	y	z

Sabaic has reflexes of all 29 Proto-Semitic consonants. Table 1 lists the Proto-Semitic, OSA, and corresponding Classical Arabic and Hebrew phonemes according to their traditional transliterations.

Contrary to Arabic and corresponding to Proto-Semitic, OSA has three sibilant phonemes. The phonetic realization of these three phonemes is unknown, so that they are best transliterated as s_1, s_2, and s_3. Originally, these were transliterated according to their Arabic cognates as s_1 = *s* and s_2 = *š*, and, since there is no third sibilant in Arabic, s_3 was randomly transliterated as *ś*. This transliteration does not indicate any relationship to Hebrew *ś*. If we consider the reconstruction of Proto-Semitic sibilants commonly followed today, s_1 might have been realized as [s], s_2 as fricative lateral [ɬ], and s_3 as affricate [ᵗs], although it has to be stressed that it is impossible to confirm this reconstruction in the case of Sabaic with certainty. The differentiation of three sibilants is consistent in OS and MS. In LS, s_1 and s_3 merge and are written as ⟨S_1⟩ (Stein 2003: 26).

It is equally difficult to say how the emphatic consonants *q̣*, *ṣ*, *ṭ*, *ẓ*, and *ḍ* were realized in OSA; that is, whether they were glottalized as in Proto-Semitic and Ethiopian Semitic, or pharyngealized as in Arabic. Stein assumes that they were pharyngealized since it is possible for more than one emphatic consonant to exist in the same root, as in QṢṢ, QṬR, and QYḌ (Stein 2003: 19). It should be noted, however, that all the roots quoted by Stein contain /q/, which does not tend to dissimilate even in Ethiopic despite its glottalized realization. Furthermore, infixed /t/ in *t*-stems does not assimilate to an emphatic first root consonant. This lack of assimilation rather argues against an interpretation of the emphatic consonants as pharyngealized in OSA. In Latin transcriptions, Proto-Semitic /p/ is transliterated with the letter ⟨F⟩. This indicates that at the time these transcriptions were made, /p/ was most likely pronounced [f] (Stein 2003: 17). From MS on, ⟨Ṣ⟩ and ⟨Ẓ⟩ are increasingly used interchangeably, which indicates a merger of the two phonemes. In LS, /ḏ/

and /z/ merge as well (Stein 2003: 24). The phoneme /n/ is only sporadically assimilated to a following consonant in OS, while in MS and LS, the assimilation of /n/ becomes regular (Stein 2003: 19).

In Hadramitic, s_3 and $\underline{t}$ have merged and can be represented by either letter – the numeral 'three', for example, can be written s_2ls_3 and $s_2l\underline{t}$. There is also evidence that *z* and $\underline{d}$ merged into one phoneme (Beeston 1984: 68).

As mentioned above, vowels are written only sporadically in OSA and only when they are long. Consequently, for the greatest part, vowels have to be reconstructed by comparison with other Semitic languages. On the basis of this comparative approach, Sabaic had at least three vowel qualities, /a/, /i/, and /u/, and two quantities, short (/a/) and long (/ā/). In addition, it had two diphthongs, /aw/ and /ay/. Sabaic-internal evidence for vowels comes from *matres lectionis*, consonantal letters that can be used to represent certain vowels. In OSA, the graphemes ⟨W⟩ and ⟨Y⟩ can indicate the long vowels /ū/ and /ī/. In OS, this use is primarily attested word-finally. In MS and LS, ⟨W⟩ and ⟨Y⟩ are also increasingly found for word-internal long vowels (Stein 2003: 44). Sabaic has no *mater lectionis* for /ā/, although Radmanite exhibits plural formations in which a non-etymological ⟨H⟩ is infixed, as in *bnhy* 'sons of'. It is uncertain whether this ⟨H⟩ represents a long vowel or a consonantal infix (Stein 2003: 40).

In OS, the diphthongs /aw/ and /ay/ are most commonly written with ⟨W⟩ and ⟨Y⟩. This spelling indicates that the diphthongs were preserved in most cases. From MS on, spellings are increasingly found without /w/ and /y/, which implies that they were at least in part contracted. In MS, the word 'day', for example, is written both *ywm* and *ym;* 'house' is attested as *byt* and *bt.* Defective spellings are the norm in LS. Stein assumes that /aw/ contracted to /ō/ and /ay/ to /ē/ (Stein 2003: 41). It is equally possible that they contracted to /ū/ and /ī/ respectively. We can thus tentatively reconstruct the vowel system shown in Table 2 for Sabaic.

Minaic is the only OSA language that regularly affixes non-etymological ⟨H⟩ in certain nominal forms, pronouns, and particles, as in the masculine singular construct *fʿlh* and the feminine plural of nouns *fʿlhtn.* This affixed

Table 2. Sabaic vowels

Short		Long		Diphthongs
i	*u*	*ī*	*ū*	*aw / aw > ō / (ū?)*
		ē (?)	*ō* (?)	*ay/ ay > ē / (ī?)*
a		*ā*		

⟨H⟩ does not occur in verbal forms. As in Radmanite, it is uncertain how to analyze this added letter. It has been suggested that ⟨H⟩ represents either a *mater lectionis* for /ā/, or a marker of stress (Stein 2003: 40; Kogan and Korotayev 1997: 224). The former interpretation implies that the construct ended in /a/ as in Classical Ethiopic (Geʿez), or even in /ā/.

4. Morphology

4.1. Nominal morphology

Like all other Semitic languages, OSA languages have two genders, masculine and feminine. In general, masculine nouns are unmarked, as in *bn* 'son', while feminine nouns are marked by *-t,* as in *bnt* 'daughter'. OSA further has a set of feminine nouns that are unmarked, which includes basic vocabulary items such as *ʾm* 'mother' and *ʾrḍ* 'land'. This phenomenon is known from other Semitic languages and reflects a cross-Semitic feature. Paired body parts, such as *ʿyn* 'eye' and *yd* 'hand', are likewise treated as feminine. In general, grammatical gender is a stable phenomenon in OSA. Only a few substantives occur as both masculine and feminine. Agreement in gender between substantive and attributive adjective as well as subject and predicate is regular. There are a few exceptions in which a feminine verb is used with an inanimate masculine subject, but these are extremely rare (Stein 2003: 70).

All four OSA languages have three numbers: singular, dual, and plural. In Sabaic, nominal plurals are primarily formed by pattern replacement – that is, by "broken" or "internal" plurals. External plural markers are only used with a small set of nouns. The most common broken plural pattern is *ʾfʿl,* which is used for approximately 50 percent of attested nouns, as in *ʾhgr* 'cities' from the singular *hgr* and *ʾlbb* 'hearts' from the singular *lb* (Stein 2003: 75). The vocalization of this plural pattern follows either Arabic *ʾafʿāl* or Ethiopian *ʾafʿūl.* The latter is more likely since modern Yemeni Arabic uses the pattern *ʾafʿūl,* which probably goes back to OSA substrate influence (Stein 2003: 82). Other frequently occurring plural patterns include *fʿl,* perhaps to be vocalized as *fuʿūl,* which is formed of nouns with the singular *fʿl/fʿlt; mfʿlt* of the singular *mfʿl;* and *ʾfʿl(n),* which is the plural of the singular *nisbe* formation *fʿly.* Broken plurals are construed in the gender of the corresponding singular (Beeston 1984: 28). For the forms of external plurals see below.

The OSA languages have four states: absolute, indeterminate, determinate, and construct. The absolute state is almost exclusively used for cardinal numbers, for certain adverbial expressions, and for predicative

participles. The functions of the absolute state in OSA are thus similar to those of the same state in Akkadian. The indeterminate state is used when the noun is indefinite, the determinate state corresponds to a noun with a definite article, and the construct state is used for possessive constructions and before asyndetic relative clauses. The form of the individual states can vary in the OSA languages.

The Sabaic absolute state (Table 3A) has no ending in the singular, as in the cardinal numbers *ʾḥd* 'one', *ṯny* 'two', *ṯlṯ* 'three', etc. The absolute state in the dual and plural is only attested in numerals, where it has the form *-y*, as in *ʿsry* '20' and *ṯlṯy* '30' (Stein 2003: 86). The indeterminate state has mimation in the singular and feminine plural, and nunation in the dual and masculine plural. This state is used during all periods of Sabaic but can be absent in personal names, names of seasons,

Table 3. Old South Arabian nominal inflection

A. Sabaic

	Absolute/Construct		Indeterminate		Determinate	
	masc.	fem.	masc.	fem.	masc.	fem.
sg.	*-Ø*	*-t*	*-m*	*-tm*	*-n*	*-tn*
du.	*-Ø/-y*	*-ty*	*-n*	*-tn*	*-nhn*	*-tnhn*
pl.	*-w/-y*	*-t*	*-n*	*-tm*	*-nhn*	*-tn*

B. Minaic

	Absolute/Construct	Indeterminate	Determinate
sg.	*-h* (abs. *-Ø*)	*(-m)*	*-n*
du.	*-y/-hy* (abs. *-ny*)	*-ny*	*-nhn/-nyhn*
pl.	*-hw/-hy*	*-hn*	—

C. Qatabanic

	Absolute/Construct	Indeterminate	Determinate
sg.	*-Ø*	*-m*	*-n*
du.	*-y/-w/-h(y)* (abs. *-myw*)	*-myw*	*-nyhn*
pl.	*-w/-y/(-h/-hy)*	—	*-nyhn*

D. Hadramitic

	Absolute/Construct	Indeterminate	Determinate
sg.	*-Ø*	*-m*	*-hn/-n*
du.	*-y/-hy* (abs. *-nyw*)	*-nyw*	*-yhn/-yn*
pl.	*(-hy)/-hty* (fem.)	—	*(-yhn)*

and cardinal directions, where unmarked forms are often found instead (Stein 2003: 84). The determinate state, which functions like the definite article attested in other Semitic languages, ends in *-n* in the singular and feminine plural and in *-hn* in the dual and masculine plural. The /h/ in these forms is most likely consonantal and reflects the original form of the morpheme, **-han.* As far as we can tell, the construct state has no ending. An interesting phenomenon of OSA is that several *nomina regentia* and *nomina recta* can occur in the same construction; that is, 'the A and B of C' (1) and 'the A of B and C' (2) are regularly expressed by the construct state.

(1) *hqny.* *ʾlmqh.* *kl.* ***mbny.*** ***w-tmlʾ.*** ***gnʾ-n.***
dedicate.3MASC.SG.SC DN all building.CST and-completion.CST wall.DET
'He dedicated to Almaqah the entire building and completion of the wall.' (Jamme 1962 [J] 555:1)

(2) *[s$_1$m]hwtr.* *d̲-ʾmrm.* *ʾḫ.* ***ydʿʾl.*** ***w-yṯʿʾmr.*** *hqny . . .*
PN REL-GN brother.CST PN and-PN dedicate.3MASC.SG.SC
'Sumhuwatar of Amrum, brother of Yadaʿ-ʾIl and of Yaṯaʿʾamar, has dedicated' (J 832:1)

The construct also frequently occurs before asyndetic relative clauses (3).

(3) *ywm.* *hwfy-hw.* *ʾlmqh.* *b-kl.* *ʾḍbʾ.*
when save.3MASC.SG.SC-3MASC.SG.ACC DN in-all battle.PL.CST
w-mwṣtt. ***hyʿ.***
and-mission.PL.CST undertake.3MASC.SG.SC
'when Almaqah saved him in all battles and missions he undertook' (J 831:2)

Since short vowels are not written in OSA, the status of the original Semitic case endings can be determined only through orthographic representations of the dual and the external plural. The dual, however, is too infrequently attested in OS to make any statement about a potential case distinction and has only one form, which ends in *-y,* from MS on. This leaves only the external masculine plural as indicator for any type of case inflection. As mentioned above, the external plural is rare, broken plurals being preferred instead, so that the data for external plurals is limited. A substantive that uses the external plural regularly is the word *bn* 'son', which has two forms in the construct, *bnw* and *bny.* In OS, these are regularly used for the nominative and the oblique respectively. In

MS, the two forms are occasionally confused, while in LS, *bny* is increasingly employed for both original cases (Beeston 1984: 32). This means that at least in OS and in part in MS the construct state distinguished two cases, a nominative in *-ū* and an oblique in *-ī* (Stein 2003: 91), while in LS the differentiation was lost. Furthermore, the construct of the noun *ʾḫ* 'brother' is written with ⟨Y⟩ independent of syntactic context when it occurs in the plural before pronominal suffixes from MS on. This phenomenon likewise indicates the loss of case distinction. Lastly, in the demonstrative pronoun for far deixis ('that'), which is based on the anaphoric pronoun in OSA, we find a morphological distinction between nominative and oblique. In the masculine singular, the nominative is expressed by *hʾ*, with an orthographic variant *hwʾ*, while the oblique ends in *-t*, *hwt*. The same case distinction is attested in the feminine and plural forms. The distinction of two cases in the anaphoric pronoun is stable in all periods of Sabaic.

The evidence for case inflection in the dual, plural, and anaphoric pronoun in various periods of Sabaic is not as random as it might appear at first sight, but corresponds to cross-linguistic tendencies. Typological studies have shown that the singular is more likely to exhibit case inflection, followed by the plural and then the dual. This means that when a language loses case inflection, the loss most commonly first occurs in the dual, then in the plural, and finally in the singular. Furthermore, pronouns tend to preserve the original case inflection longer than substantives and adjectives – as can easily be exemplified by English, which lost case inflection except in independent pronouns. In the case of Sabaic this means that OS preserved case inflection most likely in all three numbers. In MS, the dual lost its case distinction, as shown in its regular spelling with *-y* in all syntactic environments, while the plural was preserved in most cases. In LS, we find evidence that the plural had lost its case distinction as well. The anaphoric pronoun, on the other hand, preserved its original cases throughout LS; that is, it did not lose its case inflection throughout the attested periods of Sabaic. Despite the orthographic limitations, we can thus trace the development of the Sabaic case system at least to a certain degree.

Attributive adjectives are inflected like substantives and agree with the noun they modify in gender, number, and state.

Minaic (Table 3B) differs from Sabaic in a few points. The most striking feature is the insertion of ⟨H⟩ in the masculine plural and the singular construct. Mimation is used irregularly in Minaic and does not seem to have any semantic or syntactic function (Beeston 1984: 61). Furthermore, Minaic employs external plurals more frequently than Sabaic. Qatabanic (Table 3C) has forms of the dual that are written as final *-w* beside duals that end in *-y*. As in Minaic, external plurals are used more frequently in

Qatabanic than in Sabaic. Hadramitic uses the forms shown in Table 3D. The determinate ending with /h/ in the singular and dual occurs in early texts, while the variant without /h/ appears in late texts. The forms with /h/ reflect the more original form of the morpheme.

4.2. Pronouns

OSA, like other Semitic languages, has independent and suffixed pronouns (Table 4). The independent pronouns are commonly used to express the subject of a clause in the nominative, while pronominal suffixes express the possessor on nouns and the direct object on verbs. The Sabaic forms correspond for the most part to what we would expect from comparisons within Semitic. One of the major characteristics of Sabaic is that third-person independent pronouns and pronominal suffixes begin with /h/. In all other OSA languages, the corresponding forms have /s_1/. The same distribution of /h/ and /s_1/ is also found in the causative stem (see Section 4.4).

The form *-hw* for the 3fem.sg. pronominal suffix is attested only in MS dedicatory inscriptions from Marib. Other text genres from the

Table 4. Old South Arabian personal pronouns

	Sabaic	
	Independent	Suffixed
1sg.	*ʾn*	*-n* (acc.)
2masc.sg.	*ʾnt*/*ʾt*	*-k*
2fem.sg.	—	*-k*
3masc.sg.	*hʾ*/*hwʾ*	*-hw*/(*-h* OS)
3fem.sg.	*hʾ*	*-h*/(*-hw* only MS)
2du.	*ʾtmy*	*-kmy*
3du.	*hmy*	*-hmy*
1pl.	—	*-n*
2masc.pl.	*ʾntmw*	*-kmw*
3masc.pl.	*hmw*	*-hmw (-hm)*
3fem.pl.	—	*-hn*

	Minaic	Qatabanic	Hadramitic
3masc.sg.	*-s_1*/*-s_1w*	*-s_1*/*-$s_1$ww*	*-s_1*/*-$s_1$ww*
3fem.sg.	*-s_1*	*-s_1*/*-$s_1$yw*	*-$\underline{t}$*/*-$\underline{t}$yw*/*-s_3*/*-$s_3$yw*
3du.	*-$s_1$mn*	*-$s_1$my*	*-$s_1$my*
3masc.du.	—	—	*-$s_1$mn*/*-$s_1$myn*
3masc.pl.	*-s_1m*	*-s_1m*	*-s_1m*
3fem.pl.	*-s_1n*	*-s_1n*	*(-s_1n)*

same area use *-h* (Stein 2003: 133). The dual regularly has the ending *-y* already in the earliest texts, even for the independent pronoun, where it represents the nominative. Stein assumes that the spelling with ⟨Y⟩ in the nominative represents *ē* < **ā*. This /ē/ presumably developed through a similar process of vowel coloring known as *imāla* in Arabic (coloring of *ā* > *ē*). Contrary to the independent forms, Stein thinks that the ⟨Y⟩ in the pronominal suffixes reflects the oblique case *-ay* (Stein 2003: 131 n. 10, 134). It is unclear to me why Stein explains the ⟨Y⟩ in the independent and suffixed forms differently, especially since there is no further evidence for vowel coloring corresponding to Arabic *imāla* outside the forms of the dual – note that *imāla* in Arabic affects all long /ā/ unless the coloring is blocked by certain types of consonants such as emphatics. It is more likely that the independent pronouns in the dual reflect the original oblique case that was analogically extended to the nominative forms after the loss of case distinction in the dual.

As mentioned above, Minaic, Qatabanic, and Hadramitic have third-person pronouns with initial /s_1/. Hadramitic has feminine forms with /$\underline{t}$/ and /s_3/ instead of /s_1/. The Hadramitic variants in the feminine can be used interchangeably, while 3masc. pronouns regularly have /s_1/. The change from /s_1/ to /$\underline{t}$/ and /s_3/, the latter two merged in Hadramitic, was probably caused by the feminine vowel /i/ that underlies both the independent and suffixed 3fem. forms – that is, 3fem.sg. possessive *-s_1i etc. The masculine vowel /u/, on the other hand (e.g. 3masc.sg. possessive *-s_1u) did not influence the preceding consonant. A similar development is known from Modern South Arabian, where the feminine vowel /i/ likewise influenced the quality of the preceding consonant. The long forms attested in Qatabanic and Hadramitic are suffixed to nouns in the dual and nouns with external plural markers, but not to verbs or broken plurals (Beeston 1984: 65).

OSA languages have two types of demonstrative pronouns: a paradigm for near deixis ('this') and another paradigm for far deixis ('that') (Table 5). The former is expressed by the common Semitic demonstrative bases *$\underline{d}V$* (singular) and *ʾVl* (plural), while the latter corresponds to the anaphoric pronoun. Only far demonstrative pronouns distinguish two cases, a nominative and an oblique.

Demonstrative pronouns are most commonly used attributively ('this inscription'), as in (4); less frequently pronominally ('this is the inscription'), as in (5). In both cases they precede the noun.

(4)	*hqnyw.*	*ʾlmqht̲hwnbʿlʾwm.*	***d̲n*** (9)	*ṣlm-n*
	dedicate.3MASC.PL.SC	DN-lord.CST-GN	DEM	statue.DET

Table 5. Sabaic demonstrative pronouns

	Near Deixis	Far Deixis	
		Nominative	Oblique
masc.sg.	*ḏn*	*hʾ/hw*	*hwt*
fem.sg.	*ḏt (ḏtn)*	*hʾ/hy*	*hyt*
masc.du.	*ḏyn*	*hmy*	*hmt (hmyt)*
masc.pl.	*ʾln*	*hmw*	*hmt (hmwt)*
fem.pl.	*ʾlt*	*hn*	*hnt*

'They dedicated this statue to Almaqah-Ṯahwan, the Lord of Awwam.' (J 615:8–9)

(5) ***ḏn.*** *ms*$_3$*nd.* *krbʾl.* (2) *wtr.* *bn.* *ḏmrʿly*
DEM inscription.CST PN son.CST PN
'This is the inscription of Karibʾil-Watar, son of Ḏamarʿalay.' (G. Ryckmans 1949 [Ry], 586:1–2)

In the other OSA languages, demonstrative pronouns are much less frequently attested, so that it is not possible to compile full paradigms. Minaic has hardly any evidence for demonstrative pronouns. The forms attested are a masculine singular *ḏn* and a feminine plural *ʾhlt* (Beeston 1984: 63). Qatabanic corresponds to Sabaic in most cases, as shown in the forms of the masculine singular near demonstrative *ḏn,* the feminine singular *ḏt,* the masculine plural oblique far demonstrative *s*$_1$*mt,* and the masculine dual oblique *s*$_1$*myt.* It also has forms that do not conform to Sabaic, such as the masculine plural near deictic *ḏtn* and far deictic nominative *s*$_1$*m.*

The Sabaic relative pronoun distinguishes two genders and three numbers (Table 6A). The plural *ʾl* is the OS form; *ʾlw* and *ʾly* occur in MS for the nominative and oblique respectively. The form *ʾlht* is used in LS and occurs for both genders. Since the plural exhibits two cases in MS, it is likely that the singular likewise distinguished case in the form of different final vowels. Stein assumes that the dual preserved two cases, although the original nominative vowel *-ā* was not orthographically distinguished from the dual oblique *-ay* because of the assumed underlying *imāla (ā* > *ē*) (Stein 2003: 147). This interpretation is unnecessary since the two original cases of the dual had most likely merged and were expressed by the original oblique as in the aforementioned independent pronouns and pronominal suffixes. The feminine relative pronoun *t-,* which probably had the form /tī-/, based on its Arabic parallel, occurs in LS, where it is used instead of *ḏt.*

The relative pronoun has three main functions. It is used to introduce a relative clause (6), as determinative pronoun indicating the possessor

Table 6. Old South Arabian relative pronoun

	A. Sabaic		B. Minaic		C. Qatabanic		D. Hadramitic	
	Masculine	Feminine	Masculine	Feminine	Masculine	Feminine	Masculine	Feminine
sg.	*ḏ-*	*ḏt* /*t-* (LS)	*ḏ(n)*	*t-*/*ḏt*	*ḏ-*/*ḏw*	*ḏt*	*ḏ-*	*ḏt*
du.	*ḏy*	*ḏty*	*ḏy*	*ḏtyn*	*ḏw*	—	—	—
pl.	*ʾl*/*ʾlw*/*ʾly*/*ʾlht*	*ʾlt*/ *ʾlht*	*ʾhl*/*hl* (*ḏl*)	—	*ḏtw*	*ḏtw(?)*	—	—

of an entity or membership in a group similar to Classical Arabic *ḏū* (7), and instead of the construct (8) (Stein 2003:145), as shown in the following examples from Sabaic.

(6) *hqnyw …* *ḏn* (9) ***ṣlm-n.*** ***ḏ-ʿs$_2$r-hw.***
dedicate.3masc.pl.sc dem statue.det rel-give.as.tithe.3masc.pl.sc-3masc.sg.acc
'They dedicated … this statue, which they gave to him as tithe.' (J 615:8–9)

(7) *ʾlʾws$_1$.* *bn.* *ns$_2$ʾkrb.* ***ḏ-mḏb.***
PN son.cst PN rel-GN
ʾʾIl-ʾAws, son of Nasaʾ-Karib, the one of Maḏab' (J 831:1)

(8) *hqny.* *ʾlmqh-ṯhwn-bʿl-ʾwm.* (6) ***ṣlm-n.*** ***ḏ-ḏhb-n.***
dedicate.3masc. DN-lord.cst-GN statue-det rel-bronze.det sg.sc
'He dedicated the bronze statue to Almaqah-Ṯahwan, Lord of Awwam.' (J 612:5–6)

Sabaic exhibits a phenomenon unique among Semitic languages: a relative pronoun that introduces a clause in which the noun stands in a different case from the noun of the main clause can agree in case with the syntactic context of the relative clause – compare English *I saw the man* (acc) *who* (nom) *went around the corner* and *This is the man* (nom) *whom* (acc) *I saw* – a construction not found in other Semitic languages; or it can agree with the head noun, as is typical in Semitic languages with case distinction – see Classical Arabic *humā r-rajulāni* (nom) *llaḏāni* (nom) *raʾaytuhumā* 'those are the two men I saw'. Sabaic, where this phenomenon can obviously only be traced in MS relative clauses that have plural reference, seems to prefer the first type, which is unusual compared to other Semitic languages (for examples in Sabaic see Stein 2003: 147).

In addition to the inflected forms of the relative pronoun, Sabaic has an undeclined pronoun *ḏ-*, which is most commonly used to introduce relative clauses (9) rather than as determinative pronoun etc. (Stein 2003: 150).

(9) *ṣlmt-n* . . . (4) *ḏ-s₁ftt*
statue.FEM.PL.DET REL-promise.3FEM.SG.SC
'the statues . . . which they had promised' (J 706:3–4)

The relative pronouns of the other OSA languages are based on the same element *ḏ-* in the singular as in Sabaic, but can have diverging forms. Minaic (Table 6B) has two relative pronouns for the feminine singular that are used interchangeably. In the masculine singular, Minaic occasionally exhibits an alternate form with *-n*, which does not occur in Sabaic. Furthermore, the plural pronouns in Minaic have infixed /h/ like other plural forms in the language. The plural *ḏl* is attested only once (Beeston 1984: 63). Qatabanic (Table 6C) has extended the singular base *ḏ-* to the plural. In the dual, it has *-w* instead of *-y*. Hadramitic (Table 6D) offers evidence only for the masculine and feminine singular.

Sabaic uses the indefinite pronouns *mn* 'who(ever)' and *mhn* 'what(ever)', which can also be used as relative pronouns. When they function as relatives, Sabaic commonly suffixes the enclitic particle *-mw* (Stein 2003: 151). Qatabanic has a pronoun *ʾy* that can stand for 'who(ever)' and 'what(ever)' alongside *mn*.

For a reflexive pronoun, Sabaic uses the word *nfs*$_1$ 'soul' (Stein 2003: 153).

4.3. Conjunctions, prepositions, negative, and enclitic particles

The most commonly used conjunction in Sabaic is *w-* 'and, but'. Besides *w-*, Sabaic has a conjunction *f-*, which primarily serves to express progress, similar to Arabic *fa-* (Nebes 1995; Stein 2003: 207). Both conjunctions occur to mark the predicate of a clause after a fronted subject or other fronted element (10).

(10) *w-yḏʿʾl. mlk. ḥḍrmwt. w-ḏ-s₁ʿr. bn. mṣr-hw.*
CONJ-PN king.CST GN CONJ-REL-remain. INF.CST of army-3MASC. SG.GEN
f-ʾtww . . .
CONJ-return.3MASC.PL.SC
'And Yadaʿʾil, king of Hadramawt, and those who remained of his army, returned . . .' (J 643:3)

'Or' is expressed by *ʾw* and *f-ʾw*.

Sabaic has a number of proclitic prepositions that are written together with the following noun. The most common of these are *b-* 'in, with, by', *l-* 'to, toward, for', and *k-* 'like'. The preposition *l-* is further used to express

the dative (Beeston 1984: 55). All three prepositions have etymological and semantic equivalents in other West Semitic languages. Unique to Sabaic is the preposition *bn* 'from', which is a derivative of *b-* (< *b-* + *n*). *Bn* has a variant *ln* 'from' that occurs only in OS. The common Semitic preposition *mn* 'from' is only attested in the Haramic dialect. Besides these Semitic proclitic prepositions and their derivatives, OSA has numerous prepositions that are derived from nouns, such as *ʾṯr(y)* 'behind, after' and *ʿbr* 'to, toward'. Most prepositions can occur with suffixed *-n,* which occurs particularly in MS and LS. The suffix seems to express the ablative in most cases, as in *ʿl* 'on, against' versus *ʿln* 'from above' and *ʿm* 'with' versus *ʿmn* 'from' (Stein 2003: 232). Many prepositions further have a byform with final *-y,* mostly without any noticeable change in meaning, such as *ʿl(y)* 'on, against', *qdm(y)* 'before', *qbl(y)* 'before', and *tḥt(y)* 'under'.

Minaic uses *k-* instead of Sabaic *l-* 'to, for'. Original *k-* 'like' has prefixed s_2; that is, it appears as s_2k- (Beeston 1984: 64). Minaic does not have prepositions with suffixed *-n.* Furthermore, prepositions that have a vocalic ending are commonly written with ⟨H⟩, sometimes followed by ⟨Y⟩, as in *ḫhy* 'before'. The function of this ⟨H⟩ is uncertain. Since it occurs when we would expect the preposition to have a final vowel, it might stand for /ā/ or the like, although this assumption requires further proof. Qatabanic regularly has final *-w* for Sabaic *-y.* Like Minaic, Qatabanic has no prepositions with suffixed *-n,* at least as far as we can tell (Beeston 1984: 67). In Hadramitic, we find *h-* instead of Sabaic *l-* 'to, for', and *hn* for Sabaic *ln* 'from' (Beeston 1984: 70).

The Sabaic negative particle is *ʾl,* which can negate both nominal and verbal clauses. LS further has a negative particle *dʾ*. A similar form occurs in Radmanite, where it is written *d-*. Haramic is the only OSA language/dialect that has the construction *lm* + short imperfect, the same construction as Classical Arabic *lam yaqtul,* which negates events anterior to the moment of speaking/reference (Stein 2003: 238).

The most common enclitic particle is suffixed *-m*/*-mw* with a rarer variant *-my.* This particle is suffixed to prepositions and conjunctions, less frequently to nouns and verbs. It most likely functions to emphasize/place focus on the basic statement (Nebes 1991; Stein 2003: 228).

4.4. Verbal system

The greatest morphological differences between the OSA languages are found in the verbal system. Despite the fact that all OSA languages have a prefix-conjugation and a suffix-conjugation, the realization of the prefix-conjugation in particular can differ significantly in each language.

Sabaic has two variants of the prefix-conjugation, a short form and a long form. The latter is characterized by suffixed *-n* and is therefore also referred to as the N-imperfect. The short variant does not have any special marker besides the common person and number affixes. Table 7 shows the attested forms of the Sabaic suffix- and prefix-conjugations. The suffix-conjugation has /k/ in the 1sg. and the 2nd persons, contrary to Classical Arabic and Northwest Semitic languages, which have /t/ in the corresponding forms. OSA shares this phenomenon with Modern South Arabian and Ethiopic. This shared feature is one of the reasons why OSA has often been subgrouped with the latter two as "South Semitic." For the classification of OSA as Central Semitic see Section 1.2.

The final vowel of the dual is not represented in the orthography in OS. From MS on, the dual is generally written as ⟨Y⟩. As with other dual forms, Stein interprets this writing as *ē* < *ā* by *imāla* (Stein 2003: 170). When pronominal suffixes are attached to the verb, the final vowels of the dual and plural are not written.

The suffix-conjugation is primarily employed to express verbal actions in the past, both punctual and continuous; that is, events anterior to the time of reference. In most cases, it is best translated as simple narrative past tense or pluperfect (11).

(11) ***hqny[y. m]*** (4) *rʾ-hm.* *ʾlmqhṯhwnb ʿlʾwm* (5) *ṣlm-m.* *ḏ-ḏhb-n.*
dedicate. lord-3DU. DN statue. REL-
3DU.SC GEN INDET bronze.DET
ḏ-s₂ft-hw . . .
REL-promise.3DU.SC-3MASC.SG.ACC
'They dedicated a bronze statue to their Lord Almaqah-Ṯahwan, Lord of Awwam, which they had promised him (previously).' (J 658:3–5)

Furthermore, the suffix-conjugation can have present-tense reference with stative verbs, as in *rḥmk* 'you are merciful' (Ry 508:11). When the suffix-conjugation occurs in the protasis of a conditional clause, it likewise expresses present-tense connotation.

The prefix-conjugation, both long and short, is used for circumstantial events – events occurring simultaneous with the main verb – or events after the time of reference (= non-anterior). Consequently, the prefix-conjugation often refers to the present or future (12). It can also express circumstantial actions that refer to an event in the past. In the latter case, it has to be translated as past tense (13) (Stein 2003:166).

Table 7. Sabaic verb inflection

		Suffix-Conjugation	Prefix-Conjugation	
			Short	Long
sg.	1	*fʿlk*	—	—
	2masc.	*fʿlk*	*tfʿl*	*tfʿln*
	2fem.	*fʿlk*	—	—
	3masc.	*fʿl*	*yfʿl*	*yfʿln*
	3fem.	*fʿlt*	*tfʿl*	*tfʿln*
du.	3masc.	*fʿl* (OS), *fʿly* (MS)	*yfʿly*	*yfʿlnn*
	3fem.	*fʿlty, fʿltw*	[*tfʿly*]	*tfʿlnn*
pl.	2masc.	*fʿlkmw*	—	*tfʿlnn/yfʿlnn*
	3masc.	*fʿlw*	*yfʿlw*	*yfʿlnn*
	3fem.	*fʿly*	*tfʿln*	*tfʿlnn*

(12) *l-ṯwbn.* *s*$_2$*ʿb-hw* (10) *w-hgr-hw.* *ṯwb.*
PREC-reward. tribe-3MASC. CONJ-city-3MASC. reward.CST
3MASC.SG.PCL SG.GEN SG.GEN
ynʿmn …
be.pleasant.3MASC.SG.PCL
'May he reward his tribe and his city with a reward that is pleasant …' (Robin 8:9–10)

(13) *bḏt.* *hws*$_2$*ʿ.* *lmqh.* *ʿbd-hw.* *ʾls*$_2$*rḥ. yḥḍb.*
because grant.3MASC. DN servant-3MASC. PN
SG.SC SG.GEN
b-ḫrʾn. *w-s*$_2$*kr …* ***w-ys*$_3$*mkw***
PREP-cause. CONJ-be. CONJ-ascend.
to.panic.INF victorious MASC.PL.PCS
'because Almaqah granted his servant ʾIls$_2$araḥ-Yaḥḍub to cause X to panic and to be victorious while they ascended …' (J 576:3)

The short prefix-conjugation in particular can also serve as a narrative tense.

Besides the indicative use of the prefix-conjugation, both the long and short forms can be employed modally, most often with prefixed *l-*: *l-* + *yfʿl* is commonly used for the jussive (*fl.yzʾ. hws*$_2$*ʿn* 'and may he further grant' J 643:6); *ʾl* + *yfʿl* and sporadically *ʾl* + *yfʿln* stands for the negative imperative (*w-ʾl. tʿyrn. ʾys*$_1$*n* 'and do not [masc.sg.] shame the man' Ryckmans et al. 1994, 6:3–4); *l-* + *yfʿln* is used for the precative (*w-hʾ. lyḥmdn-kmw* 'and may he praise you' Ryckmans et al. 1994, 9:3). Especially in late texts, the long imperfect is used in instances in which we would expect the short imperfect for modal notions. When

l- is prefixed to a verbal form beginning with *y-*, the /y/ of the prefix is often not written; that is, we find both *lfʿl* and *lyfʿl* for the jussive (Stein 2003: 239).

The imperative, which is derived from the long imperfect, is only found in the wooden stick inscriptions. The following forms are attested so far:

masc.sg.	*fʿln*, less often *fʿl*
masc.du.	*fʿln*
masc.pl.	*fʿlnn*

The imperative is used for direct commands (14).

(14) *w-ʾnt.* ***f-s₃ḫln.*** *ʿbd. ḏ-dwrm*
'And you, take care of the servant of Ḏū-Dawrum.' (Ryckmans et al. 1994, 6:2)

The greatest problem regarding the Sabaic verbal system is the functional differentiation of the long and short imperfect, since they often overlap in use (Nebes 1994a: 202). From a statistical perspective, the long imperfect occurs more frequently than the short form, in approximately three out of four attestations. This statistical frequency, however, does not consider the different periods of Sabaic. In OS, the short imperfect generally occurs more frequently than the long variant, independent of function. In MS, the short imperfect is more often used as a narrative form than the long imperfect, although the long form appears more frequently in general. The use of the short imperfect becomes less frequent in LS, where it is most often replaced by the perfect (Tropper 1997: 35). It is thus possible to trace certain processes in the development and use of the various verbal conjugations and to draw at least tentative conclusions regarding their original functions. It has to be stressed that the following reconstruction of the functions and origin of the two prefix-conjugations based on Tropper (1997) is not preserved in this way in any of the Sabaic dialects and still requires further proof. The reconstruction can, however, serve as a starting point for further investigations and is therefore included in the present description.

According to Tropper, the original function of the short imperfect was to express perfective aspect, past tense, and modality, more specifically the jussive (Tropper 1997: 43). The long imperfect was used for imperfective aspect, circumstantial notions, and non-anterior events. After prefixed *l-*, the long imperfect further had modal function (Tropper 1997: 44). This means that the short form functionally corresponded to

common Semitic *yaqtul,* which is reconstructed as preterite/perfective in Proto-Semitic – a function that is preserved only in vestiges in Central Semitic – and as jussive, while the long imperfect originally corresponded to Central Semitic *yaqtulu;* that is, the verbal form expressing imperfective aspect etc. From a morphological point of view, the long form of Sabaic corresponds to the energic – compare, for example, Classical Arabic *yaqtulan(na)* – not to Central Semitic *yaqtulu.* The derivation from the energic explains the modal function of the Sabaic long imperfect, which was not originally part of the functional range of the Central Semitic imperfect (Tropper 1997: 49). This means that a form formally derived from the energic took over the functions of and replaced the original Central Semitic imperfect. This development must have occurred before the textually documented periods, since we already find attestations for imperfective *yfʿln* in OS. We can further observe the spread of the long imperfect throughout the attested periods of Sabaic, and the replacement of the original past/perfective use of *yaqtul* by the perfect in LS.

In Minaic, the ending of the dual and plural of the suffix conjugation is not commonly written. This means that the dual and plural are orthographically identical with the 3masc.sg. Qatabanic and Hadramitic have a 3fem.pl. of the suffix-conjugation *fʿln,* similar to Arabic *faʿalna,* instead of Sabaic *fʿly.* Qatabanic further has a masculine dual form *fʿlw.* The long imperfect is only rarely attested in the three non-Sabaic OSA languages. In Qatabanic, the long prefix-conjugation occurs only in late texts and is probably the result of Sabaic influence. Minaic sporadically exhibits an imperfect with prefixed *b-,* which functionally corresponds to the long imperfect of Sabaic (Beeston 1984: 61). This imperfect in *b-* seems to be the normative form of the imperfect in Qatabanic. Forms without *b-* in Qatabanic serve to express the jussive and are used in conditional clauses (Beeston 1984: 64).

Sabaic distinguishes at least six verbal stems: the basic or G-stem (G), a D-stem (D), a causative stem (C), a stem with infixed /t/ (Gt), a stem with prefixed /t/ (tD), and a stem with prefixed s_1t- (tC).

The G- and D-stems can be distinguished orthographically only in the infinitive – infinitives have suffixed /n/ in the D-stem (*fʿln*) – and in the prefix-conjugation of I*n* and I*w* verbs, in which the first root letter is not written in the G-stem whereas in the D-stem all root vowels are represented orthographically. In all other forms, the D-stem looks like the G-stem in its written form; that is, *fʿl* in the suffix-conjugation and *yfʿl(n)* in the prefix-conjugations. The verbal noun of the D-stem most frequently appears as *tfʿl.* Many verbs that can be identified as D have factitive or causative meaning, although there are also verbs that do not seem to have any significant semantic difference from their G counterpart (Stein

2003: 156). The C-stem has the form *hfʿl* in the suffix-conjugation and *yhfʿl(n)* in the prefix-conjugations. The verbal noun has the form *hfʿlt.* The C-stem primarily occurs as causative to the G-stem (Stein 2003: 156).

The stem with infixed /t/ is written as *ftʿl* in the suffix-conjugation and *yftʿl* in the prefix-conjugation. In I*w* roots, the /w/ is assimilated to the infixed /t/, as in *ythbnn* 'they will receive' from WHB. This assimilation is evidence for the fact that there is no vowel between the first root radical and the infix. This means that this stem most likely had a prothetic vowel in the suffix-conjugation like the corresponding stem in Arabic – that is, *Vftaʿil* or the like – although the prothetic vowel is never indicated in the orthography (Stein 2003: 163). The stem with infixed /t/ is used as reflexive and passive of the G-stem.

The stem with prefixed /t/ appears as *tfʿl* in the suffix-conjugation and as *ytfʿl(n)* in the prefix-conjugations. II*w/y* roots are mostly written plene, as in *ts*$_2$*ym* 'he appointed'. This spelling indicates gemination of the second root consonant. The prefixed *t*-stem thus most likely had a form similar to the Arabic Form V *tafaʿʿala.* The stem is used as reflexive and passive of the D-stem. The stem with prefixed *s*$_1$*t* occurs as *s*$_1$*tfʿl* in the suffix-conjugation and *ys*$_1$*tfʿl* in the prefix-conjugation and is used as reflexive and passive of the C-stem (Stein 2003: 159). There is no evidence that Sabaic had an N-stem. It is possible, however, that it had an L-stem (*fāʿala*), although its existence cannot be proven with certainty (Beeston 1984: 12).

Besides the *t*-stems, Sabaic must have had an internal passive, meaning a passive formed by vowel ablaut. This can be concluded from text passages in which a verb has to be translated as passive because of its context (Stein 2003: 164), as in (15).

(15)	*l-qbly.*	*ḏ-**wld.***	*l-h*(9)*mw.*	*bn-m*
	because	bear.3MASC.SG.SC	to-3MASC.PL.GEN	SON.INDET
	'because a son was born to them' (J 669:8–9)			

Minaic has verbal forms that are written with a doubled second radical, *fʿʿl.* This spelling was originally taken as proof of the existence of the D-stem. This interpretation is unlikely since gemination is not commonly expressed in OSA writing, including Minaic. It is more likely that these occurrences reflect a reduplicated verbal stem similar to Ethiopic *katātaba* (Kogan and Korotayev 1997: 233). In Minaic, Qatabanic, and Hadramitic, the C-stem generally has /s$_1$/ instead of Sabaic /h/. The suffix-conjugation thus regularly appears as *s*$_1$*fʿl* and the prefix-conjugation as *ys*$_1$*fʿl.*

The G infinitive in Sabaic is *fʿl.* All other verbal stems have suffixed *-n* after the OS period (Table 8). The infinitive is often used like a finite verb

Table 8. Sabaic infinitives

G	*fʿl*	Gt	*ftʿln*
D	*fʿln*	tD	*tfʿln*
C	*hfʿln*	Ct	*s₁tfʿln*

form. In a sequence of verbs, usually only the first is a suffix- or prefix-conjugation, while the subsequent ones are replaced by infinitives (16). The infinitive can also be employed instead of the jussive (17) (Beeston 1984: 21).

(16) *bḏt.* *hws₂ʿ.* ***w-hrdʾn*** *ʿbd-hw . . .*
because grant.3MASC.SG.SC CONJ-help.INF servant-3MASC.SG.GEN . . .
'because he granted and helped his servant . . .' (J 576:1)

(17) ***w-l-wzʾ.*** *ʾlmqhṯh*(13)*wnbʿlʾwm.* *ḫmr.* *ʿbd-hw . . .*
CONJ-PREC-continue.INF DN grant.INF servant-3MASC.SG.GEN
'and may Almaqah-Ṯahwan, Lord of Awwam, continue to grant his servant . . .' (J 612:12–13)

Besides its use as a substitute for verbal forms, the infinitive is, as expected, employed as a verbal noun, most often for the verbal object. In this function, the infinitive can be introduced by various prepositions, *b-*, *l-*, or *bn,* which are lexically determined (18).

(18) *bḏt.* *hws₂ʿ.* *mrʾ-hmw.* *krbʾl.* *byn.* ***b-s₂kr*** . . .
because grant.3MASC.SG.SC lord-3MASC.PL.GEN PN PREP-conquer.INF . . .
'because he granted their lord Karibʾil-Bayyin to conquer . . .' (J 643:4)

When the infinitive is introduced by the preposition *l-*, it is, as in other West Semitic languages, used to denote the purpose or result of the respective verbal action.

The infinitive does not have suffixed *-n* in Minaic, Qatabanic, or Hadramitic in any of the derived stems (Beeston 1984: 61).

The active participle of the G-stem is written *fʿl* in Sabaic and is declined like other nouns, with the masculine plural taking external plural markers. When the participle is used predicatively, it seems to appear in the absolute state (see Section 4.1). The passive participle is not orthographically distinct from the active participle but must have had different vowels from the active variant (Stein 2003: 201). Other verbal stems

Table 9. Sabaic active participles

G	*fʿl*	Gt	*mftʿl*
D	*mfʿl*	tD	*mtfʿl*
C	*mhfʿl*	Ct	—

have prefixed /m/ in the participle. As in the G-stem, active and passive cannot be distinguished based on the orthography (Table 9).

5. Syntax

Among the OSA languages, only Sabaic provides sufficient material to describe the syntax of the language in more detail. The other languages are thus not considered in the following description. For a detailed discussion of Sabaic syntax see Nebes and Stein (2004).

The first sentence of an inscription commonly begins with the subject (S) or a deictic expression followed by the predicate (19). In other verbal clauses, the normal order is VS(O) (20).

(19) ***ʾIʾws$_1$.*** *bn. ns$_2$ʾkrb . . .* ***hqny.*** *ʾlmqh . . .*
S V
‘ʾIlʾaws$_1$, son of Nas$_2$akarib, . . . dedicated to Almaqah . . .’ (J 831:1)

(20) ***w-wqh-hw.*** ***mrʾ-hw.*** *s$_2$mr. yhrʿs$_2$ . . .*
CONJ-command.3MASC.SG.SC-3MASC.SG.ACC lord-3MASC.SG.GEN PN . . .
V S
‘And his lord Samir-Yuharʿis commanded him . . .’ (J 658:11)

When sentence elements other than the verb stand at the beginning of a verbal clause, the verb is commonly introduced by *f-* (21), less often by *w-*. Fronted elements are only rarely resumed in the main clause.

(21) *w-bn-hw.* ***f-ytʾwlnn . . .***
CONJ-from-3MASC.SG.GEN CONJ-return.3MASC.PL.PCL
‘And from there, they returned . . .’ (J 576:7)

(22) *w-mlk-n.* *ʾls$_2$rḥ. yḥḍb.* *w-ʾs$_1$d. . . .* *w-ʾfrs$_1$-hw.*
CONJ-king.DET PN CONJ-soldiers.CST CONJ-cavalry-3MASC.SG.GEN

f-tʾwlw . . .
CONJ-return.3MASC.PL.SC

'And the king ʾIls$_2$araḥ-Yaḥḍub and the soldiers, who . . . , and his cavalry returned.' (J 577:1)

Nominal clauses most frequently have the order subject – predicate. When the predicate is a prepositional phrase, it is fronted before an indefinite subject as in Arabic. The predicate in Sabaic agrees with a preceding subject in gender and number, although from MS on, the verb of a subject in the dual appears in the plural. This lack of agreement is caused by the loss of the dual during the attested periods of Sabaic.

In Sabaic conditional clauses, the protasis is introduced by the particle *hm/hmy;* only Haramic uses *hn.* The apodosis is either unmarked or introduced by the conjunction *w-* or *f-.* The protasis usually contains a verb in the suffix-conjugation, while in the apodosis the verb can be in the suffix-conjugation, prefix-conjugation, or imperative (23).

(23)	*w-**hmy.*** (5)	***ʿwdk.***	*ʿmn.*	*yhnʾ.*	*rkb-n.*	*mʿs$_2$rn.*
	CONJ-if	return.2MASC.SG.SC	from	PN	horseman.DET	*miʿs$_2$ar-*measure.DU
	glgnm. (6)	***w-ʿwdn*** . . .				
	sesame	CONJ-bring.back.2MASC.SG.IMV				

'And when you return from Yahna the horseman, bring back 2 *miʿs$_2$ar*-measures of sesame . . .' (Ryckmans et al. 1994, 7:4–6)

Nebes and Stein distinguish two types of relative clause in Sabaic: independent and dependent. Independent relative clauses have no preceding noun to which they refer and are introduced by the relative particle *ḏ-* 'who/what(ever)' (24) or by indeclinable *mn* 'who(ever)'.

(24)	***ḏ**-bn-hw.*	*dʿw.*	*w-**ḏ**-bnh.*	*ʾl.*	*dʿw* . . .
	REL-from-3MASC.SG.	know.3MASC.SG.SC.PASS	CONJ-REL-from-3MASC.SG.	NEG	know.3MASC.SG.SC.PASS

'whoever is known by him, or whoever is not known by him . . .' (J 616:40)

Dependent relative clauses are used attributively; that is, they refer to a preceding sentence element. An attributive relative clause must be introduced by a relative pronoun when the noun it refers to has either the determinate ending *-n* or the indeterminate ending *-m.* Relative clauses always follow the element they modify (25).

(25)	*hqnyw.*	*mrʾ-h*(6)*mw.*	*ʾlmqhṯhwnbʿlʾwm.*	*ṣl*(7)*m-m.*
	dedicate.3MASC.PL.SC	lord-3MASC.PL.GEN	DN	statue.INDET

ḏ-ḏhb-m. ***ḏ-s₂ft-hw***
REL-bronze.INDET REL-promise.3MASC.PL.SC-3MASC.SG.ACC
'They dedicated a bronze statue to their Lord Almaqah-Ṯahwan, Lord of Awwam, which he (his servant) had promised.' (J 670:6–7)

Asyndetic relative clauses are construed with the head noun in the construct followed by the relative clause (26). This type of construction is very frequent in Sabaic.

(26) *bḏt.* *ḫmr.* *ʾlmqhṯ*(7) *bd-hw.*
because grant.3MASC.SG.SC *hwnblʾwm.* DN servant- 3MASC.SG.GEN
hwfy(8)*n-hw.* ***b-mlʾ.*** ***s₁tmlʾ*** . . .
please.INF-3MASC.SG.GEN PREP-pleasure.CST seek.3MASC.SG.SC
'because Almaqah-Ṯahwan, Lord of Awwam, granted his servant to please him with the pleasure he had sought' (J 612:6–8)

Resumptive pronouns are only obligatory in the genitive. When the pronoun would resume the subject or direct object, it is most commonly omitted (Beeston 1984: 43).

6. Lexicon

The OSA lexicon shares a large amount of common Semitic basic vocabulary. In addition, it also has a significant number of isolated lexemes that are not known from other Semitic languages. Even if a root or word has cognates in other Semitic languages, it can be difficult to determine the exact meaning of the OSA word because of frequent semantic shifts.

There are numerous lexical connections between OSA and Ethiopian Semitic and between OSA and North Arabic – the latter is particularly frequent in Haramic. During the monotheistic period – that is, in LS – we also increasingly find Greek and Aramaic loanwords. There does not seem to exist a close relationship between OSA and Modern South Arabian, despite its geographical proximity. The modern Yemeni Arabic dialect, on the other hand, has numerous loanwords that come from OSA.

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Old Persian

Michiel de Vaan & Alexander Lubotsky

1. Introduction

1.1. The language

Old Persian (OP) is an Old Iranian language belonging to the Indo-Iranian branch of the Indo-European language family. Speakers of Proto-Iranian may have migrated southwest around 1000 BCE from Central Asia. In 843, the Persians are mentioned in an Assyrian inscription as *Parsua,* who live in the vicinity of Lake Urmia. After a further southward migration they settled in southwestern Iran, giving their name to the region which still bears it today (OP *Pārsa,* Modern Persian *Fārs,* Greek *Persís*).

The extant OP corpus is rather small, and large parts consist of repetitions. All in all, about 6700 word tokens are attested. Together with Avestan, which continues a more easterly dialect of Iranian, OP is our main source of information for Old Iranian. The OP texts date from the sixth to the fourth century BCE and are written in a unique cuneiform script. The original texts were written or dictated by speakers of OP and did not suffer any later changes at the hands of copyists. The corpus, therefore, mainly consists of primary sources, unlike in the case of many other ancient Indo-European languages.

OP was the native language of the kings of the Achaemenid dynasty, who used it as their representative language from Darius I to Artaxerxes III (522–338). Outside Persis proper we find hardly any linguistic traces of OP in antiquity, except of course for personal names, names of deities, and official terminology. In large parts of the Persian Empire, stretching as far as India, Aramaic was used as the administrative language. It is from the Aramaic script that the later Middle Persian script developed.

In the Persian heartland itself, Elamite and Babylonian also enjoyed high status, as is clear in particular from their use beside OP in the royal inscriptions. Elamite was probably spoken by the inhabitants of Persis before they were subdued by the Iranians; the palace administrative texts

found on clay tablets in Persepolis (known as the "Fortification Tablets" and "Treasury Tablets") are written nearly exclusively in Elamite. The Babylonian variety of Akkadian was the language of the northwestern neighbors of the Persians; its use in inscriptions ties in with the ancient traditions of Babylonian and Assyrian rule in Persis.

In the inscriptions of the later kings (after Xerxes I) we find a number of orthographic and grammatical errors as compared with the older texts. It may be surmised that the spoken language had changed fundamentally, and that the phonology at least had reached a stage which we later find reflected in Middle Persian. In other words, this period witnessed the continued attempt to use OP as a written, ceremonial language, although the text composers were no longer fluent in the language.

1.2. Sources

The most important and longest inscriptions are those carved in stone from the royal palaces of Darius I and Xerxes I in Persepolis and Susa, on Darius's tomb at Naqš-i Rustam (in Persis), on a cliff near Bisutun (Behistun, in Media), and on a small monument found near the Suez Canal. Many of these texts have come down to us in three versions: Old Persian, Elamite, and Babylonian. In addition, some OP inscriptions are preserved on vases, seals, and weights, and in remnants of a clay tablet version of the rock inscriptions from Egypt.

This very incomplete attestation of OP lends more weight to the indirect transmission in other languages – even though this subject is fraught with considerable interpretative difficulties itself. The most important languages which have preserved OP words or names are Elamite, Akkadian, and Aramaic. They often enable us to restore OP forms for which the inscriptions offer us uncertain evidence, or no information at all. More OP names and terms can be found in Hebrew, Egyptian, Lydian, Lycian, Greek, Latin, and (Early) Middle Indic texts.

1.3. Writing

The first cuneiform signs were deciphered in 1802 by Georg Friedrich Grotefend; other scientists contributed toward a solution, bringing about the completed decipherment in 1851. The OP script is regarded as an independent creation on the basis of the then extant cuneiform writing systems of Mesopotamia, with the inclusion of some characteristics of the Aramaic consonant script. The OP script runs from left to right.

The invention of the script was directly motivated by the wish to create an OP version of Darius's inscription in Bisutun, next to the Elamite and Babylonian versions which had been planned from the beginning. It is disputed whether it was indeed Darius who took the first steps toward inventing an OP script, or whether it was his predecessor Cyrus who made the first plans. In any case, it is assumed that the imperfection of the script (see below) resulted from a certain haste in its inauguration: apparently, the OP version of the royal inscription could not be delayed.

The complete inventory of signs includes 36 phonetic signs, 8 logograms (word signs), 23 number signs, and one word divider (which occurs in two different forms). Three of the phonetic signs are used for the vowels *a, i, u.* The remaining signs are for consonants, and they come in three varieties: some indicate either a consonant or a consonant plus *a* (these are transliterated variously in the literature as ⟨C⟩, ⟨Ca⟩ or ⟨C^{a}⟩; we use ⟨C⟩), some indicate a consonant plus *i,* and some signs indicate a consonant plus *u.* The latter two series are attested incompletely; that is, they were not fully developed by the inventors of the script.

Vowels: ⟨a⟩, ⟨i⟩, ⟨u⟩
Consonants: ⟨b⟩, ⟨c⟩, ⟨ç⟩, ⟨d⟩, ⟨f⟩, ⟨g⟩, ⟨h⟩, ⟨j⟩, ⟨k⟩, ⟨l⟩, ⟨m⟩, ⟨n⟩, ⟨p⟩, ⟨r⟩, ⟨s⟩, ⟨š⟩, ⟨t⟩, ⟨θ⟩, ⟨v⟩, ⟨x⟩, ⟨y⟩, ⟨z⟩
Consonant + *i:* ⟨di⟩, ⟨ji⟩, ⟨mi⟩, ⟨vi⟩
Consonant + *u:* ⟨du⟩, ⟨gu⟩, ⟨ku⟩, ⟨mu⟩, ⟨nu⟩, ⟨ru⟩, ⟨tu⟩

The defective script and the ambiguity of the C-signs render a one-to-one conversion from script to language impossible. In order to get from a transliteration of the signs (here given between ⟨ ⟩) to a transcription of the OP words, one must interpret the ambiguous signs and sign combinations. This interpretation is guided by our knowledge of other old Indo-Iranian languages, the evidence of Middle and Modern Persian, and the writing conventions of Old Persian. A given sequence of OP signs can sometimes allow for several different phonetic interpretations, but one may also encounter two different sign sequences used for the same OP phonetic sequence (Table 1).

2. Phonology

2.1. Vowels

Short: /a/ /i/ /u/ Long: /ā/ ?/ī/ ?/ū/

Table 1. Old Persian orthography

(Combination of) sign(s)	OP phonetic sequence	Notes
⟨C⟩	C or C*a*	
⟨C-a⟩	C*ā*	
⟨C-C⟩	C*aC(a)* or C*anC(a)*	[1]
⟨a-⟩	*#a-* or *#ā-*	
⟨C-i⟩ or ⟨Ci-i⟩	C*i*	[2] [3]
⟨C-u⟩ or ⟨Cu-u⟩	C*u*	[2] [3]
⟨C-i⟩	C*i* or C*ai*	[4]
⟨C-u⟩	C*u* or C*au*	[4]
⟨-i-y⟩, ⟨-u-v⟩	*-i, -u*	
⟨-C-i-y⟩, ⟨-C-u-v⟩	*-Cai#, -Cau#*	
⟨a-r-⟩	*#r̥-* or *#ar-* or *#ār-*	
⟨C-r-C⟩	*-Cr̥C-* or *-CarC-*	[5]
⟨h-C⟩	*haC* or *hạC*	[6]
⟨u-(v-)⟩	*u-* or *hu-*	

Notes:

1. The nasal consonants *m* and *n* are hardly ever written before another consonant. If on external grounds we must assume a nasal, the transcription uses a superscript *n* or *m:* ⟨a-h-t-a⟩ /ähaⁿtā/ 'they were'. In word-final position after a vowel *m* is written, but *n* is not: ⟨a-b-r-m⟩ /abaram/ 'I carried' vs. ⟨a-b-r⟩ /abaraⁿ/ 'they carried'.
2. The sequences /Ci/ and /Cu/ are written as ⟨Ci-i⟩ and ⟨Cu-u⟩ where separate signs ⟨Ci⟩ and ⟨Cu⟩ exist. If such signs are not available, we find ⟨C-i⟩ and ⟨C-u⟩.
3. It is uncertain whether OP had a phonemic length difference between *i* and *ī, u* and *ū.* Regardless, the script does not distinguish length in the case of ⟨i⟩ and ⟨u⟩.
4. We can distinguish /Ci/ and /Cai/, /Cu/ and /Cau/ only with those consonants for which signs ⟨Ci⟩ or ⟨Cu⟩ exist, for instance, ⟨mi-i⟩ *mi* and ⟨m-i⟩ *mai,* whereas the verbal ending ⟨t-i-y⟩ may stand for both *-tiy* and *-taiy.*
5. OP must have had a phonemic difference between Proto-Iranian (PIr.) **ar* and **r̥* (vocalic *r*), but the script does not show it. Vocalic *r* was probably pronounced [r] or [ər] but is transcribed here as ⟨ạr⟩. Since it is in complementary distribution with consonantal *r, ạr* is an allophone of /r/.
6. The sign ⟨h⟩ is often used for expected ⟨h-i⟩. In such cases, it is transcribed as *hạ:* gen. sg. ⟨C-h-y-a⟩ *-Cahạyā* instead of ⟨C-h-i-y-a⟩ *-Cahiyā* from **-ahya,* ⟨h-z-a-n-m⟩ *hạzānam* 'tongue'. Probably, **hi* had phonetically become [hə]. Only in ⟨h-i-du-u-⟩ *Hiⁿdu-* 'India' do we find the sequence ⟨h-i-⟩ /hi-/.

2.2. Consonants

The Old Persian consonants are shown in Table 2.

The sign ⟨l⟩ only occurs in a few foreign names. It is uncertain whether a phoneme /ž/ existed, as it is not graphically distinguished from /j/. The pronunciation of OP *ç* is equally uncertain; it may have been a sibilant, since it developed into *s* in Middle Persian.

Table 2. Old Persian consonants

Labial	p	b	f				m	v		
Dental	t	d	θ	s	z	ç	n		r	(l)
Palatal	c	j		š	ž?			y		
Velar	k	g	x							
Laryngeal			h							

When two consonants collide (whence one might expect a geminate) a single consonant is written: **ucāram-maiy* > *ucāramaiy.*

2.3. Phonotactics

Short **-a* which stood in word-final position in Proto-Iranian is reflected as OP long *-ā:* ⟨m-n-a⟩ *manā* 'of me', ⟨u-t-a⟩ *utā* 'and'. If an enclitic word is added, however, the old short vowel is retained: ⟨m-n-c-a⟩ *mana-cā* 'and of me', ⟨u-t-m-i-y⟩ *uta-maiy* 'and my'.

Word-final **-i* and **-u* are written ⟨-i-y⟩ and ⟨-u-v⟩, which are generally interpreted phonetically as *-iy* and *-uv.* If an enclitic follows we only find the vowel: ⟨p-t-i-y⟩ *patiy* 'against' but ⟨p-t-i-m-i-y⟩ *pati-maiy* 'to me'.

Words which ended in **-h* (from earlier **-s*) in Proto-Iranian end in short *-a* in OP: ⟨mi-i-θ⟩ *miθa* 'false' < **miθah.* But if the enclitics *-cā* 'and' or *-ciy* 'even' follow, the result is *-š-cā:* ⟨m-n-š-c-a⟩ *manaš-cā* 'and mind', ⟨k-š-c-i-y⟩ *kaš-ciy* 'whoever'.

If the Proto-Iranian word ended in **-d,* either this undergoes complete assimilation to *c* before the same enclitics (e.g. ⟨y-c-i-y⟩ *yaciy* 'whichever' < **yac cid* < **yad cid*), or we find the sequence *-šc-* which was generalized from cases with final **-h* (e.g. ⟨a-n-i-y-š-c-i-y⟩ *aniyaš-ciy* 'something else').

Initial *h-* becomes *š* after prefixes ending with *-i* or *-u,* for instance *ni-* + *had-* > *nišad-* in *nišādaya-* 'to set down'. This sandhi form is retained in the imperfect of the same verb: ⟨n-i-y-š-a-d-y-m⟩ *niyašādayam* from **ni-a-hādayam.*

The preverb ⟨h-m-⟩ *ham-* 'together' yields *ha^{n}-* before *t, k,* and *g*: ⟨h-m-t-x-š-i-y⟩ *ham-ataxšaiy* 'I exerted myself' but ⟨h-t-x-š-t-i-y⟩ *ha^{n}taxšataiy* 'he collaborates'.

The sequence *-iya-* is twice found contracted to *-ī-.* Apart from ⟨n-i-y-š-a-d-y-m⟩ *niyašādayam* (inscr. of Darius) we once find ⟨n-i-š-a-d-y-m⟩ *nīšādayam* (inscr. of Xerxes). The word ⟨m-r-i-k-a⟩ *marīkā* 'young man' (voc.sg.) has developed via **mariyaka* from PIr. **maryaka.*

The sequence **dru-* contains an anaptyctic vowel *u*: ⟨du-u-ru-u-v-a⟩ *duruvā* 'firm' (cf. Skt. *dhruvá-* 'id.'), ⟨a-du-u-ru-u-ji-i-y⟩ *adurujiya* 'he lied'.

3. Morphology

Due to the limited size of the OP corpus, we have only a very imperfect idea of the nominal and – especially – the verbal forms of the language.

3.1. Nouns and adjectives

Nouns can be of masculine, feminine, or neuter gender. The stem classes comprise vowel stems (Table 3A) and consonant stems (Table 3B). Since the vowel stems were the main productive category of nouns, we have a more complete picture of their paradigm than of that of the consonant stems.

Of the eight inherited cases, OP has lost the dative; its function was taken over by the genitive. The abl.pl. *-aibiš* contains what was originally the instrumental ending. In the locative we often find a variant with the postposition *-ā* 'in'. Due to phonetic merger, some endings, such as *-ā* and *-āyā*, can have many different functions.

Besides singular and plural number, there is a dual, mainly used for natural pairs and with *uba-* 'both': *yāumainiš ami utā dastaibiyā utā pādaibiyā* 'I am skilled with my hands and with my feet'.

The comparative and superlative take the inherited suffixes *-iyah-* and *-išta-*, *-tara-* and *-tama-* respectively: *haya tauviyā* 'the stronger one', *Auramazdā . . . haya maθišta bagānām* 'Ahuramazdā, the greatest of the gods'; *apataram* (adv.) 'outside', *fratamā anušiyā āha^{n}tā* 'they were the foremost followers'.

3.2. Pronouns

a. The personal pronouns (Table 4) of the 1st and 2nd person have stressed and enclitic forms. No personal pronoun of the 2pl. is attested. The anaphoric pronoun in *-š-* or *-d-* ('he, she, it') only occurs in enclitic forms.

b. The demonstrative of near deixis 'this (here)' combines the three stems *i-*, *ima-* and *a-*, which form a suppletive paradigm (Table 5A). Equally suppletive is the formation of the pronoun of far deixis *hauv, ava-* 'that (over there)' (Table 5B). Another demonstrative pronoun is *aita-* 'this (just mentioned)'.

c. The relative pronoun (Table 6) has the stem *haya-* in the nominative singular masculine and feminine alongside suppletive *taya-* in all other case forms.

Table 3. Old Persian nominal stems

		Stem				
		A. Vowel stems				
		-a-	*-ā-*	*-i-*	*-u-*	*-au-*
sg.	nom.m.f.	*-a*	*-ā*	*-iš (-iy?)*	*-uš*	*-āuš*
	acc.	*-am*	*-ām*	*-im*	*-um*	*-āvam, -āum*
	nom.acc.n.	*-am*			*-uv*	
	ins.	*-ā*	*-āyā*		*-uvā*	
	abl.	*-ā*	*-āyā*	*-iyā*	*-auv*	
	gen.	*-ahạyā*	*-āyā*	*-aiš, -iyā*	*-auš*	*-auš*
	loc.	*-aiy, -ay-ā*	*-āy-ā*	*-iy-ā*	*-auv, -av-ā*	*-auv-ā*
	voc.	*-ā*				
du.	nom.	*-ā*				
	gen.	*-āyā*				
	ins.	*-aibiyā*				
pl.	nom.	*-ā, -āha*	*-ā*	*-iya*		*-āva*
	acc.	*-ā*	*-ā*	*-iš*		*-āva*
	nom.acc.n.	*-ā*				
	abl.	*-aibiš*				
	gen.	*-ānām*	*-ānām*		*-unām*	*-unām*
	loc.	*-aišuv-ā*	*-āuv-ā*			*-ušuv-ā*
		B. Consonant stems				
		-ant-	*-r-*	*-n-*	*-h-*	*-p-, -t-, -d-, -θ-*
sg.	nom.	*-ā*	*-ā*	*-ā*	*-ā*	*Ø [1]*
	acc.	*-antam*	*-āram*	*-ānam*	*-āham*	*-am*
	nom.acc.n.				*-a*	
	ins.			*-nā*	*-ahā*	
	gen.	*-antahạyā*	*-(r)a*			*-a*
	loc.			*-niy*	*-ahạy-ā*	*-i, -iy-ā*
pl.	ins.				*-abiš*	*-biš*

Note 1: The only attestation is *napā* 'grandson' from the stem *napāt-*.

Table 4. Old Persian personal pronouns

	1sg.	1pl.	2sg.	3sg.	3pl.
nom.	*adam*	*vayam*	*tuvam*		
acc.	*mām, -mā*		*θuvām*	*-šim, -dim*	*-šiš, -diš*
gen.-dat.	*manā, -maiy*	*amāxam*	*-taiy*	*-šaiy*	*-šām*
abl.	*-ma*			*-šim?*	

Table 5. Old Persian demonstrative pronouns

		A. *i-/ima-/a-* 'this'			B. *hauv, ava-* 'that'		
		masc.	fem.	neut.	masc.	fem.	neut.
sg.	nom.	*iyam*	*iyam*	*ima*	*hauv(am)*	*hauv*	*ava(š-ciy)*
	acc.	*imam*	*imām*	*ima*	*avam*	*avām*	*ava(š-ciy)*
	ins.-abl.	*anā*			*avanā*		*avanā*
	gen.				*avahạyā*		
	loc.		*ahạyāyā*				
pl.	nom.	*imaiy*	*imā*		*avaiy*	[*a*]*vā*	
	acc.	*imaiy*	*imā*		*avaiy*		
	ins.			*imaibiš*			
	gen.	*imaišām*			*avaišām*		

Table 6. Old Persian relative pronouns

		m.	f.	n.
sg.	nom.	*haya*	*hayā*	*taya*
	acc.	*tayam*	*tayām*	*taya*
	ins.-abl.			*tayanā*
pl.	nom.	*tayaiy*	*tayā*	*tayā*
	acc.	*tayaiy*	*tayā*	*tayā*
	gen.		*tayaišām*	
du.	nom.	*tayā*		

d. The interrogative pronoun PIr. **ka-* 'who, what?' is not attested independently but occurs in the indefinite pronoun: *kaš-ciy* 'whoever' (masc.), *ciš-ciy* 'whatever' (neut.).

e. The pronominal adjectives ⟨a-n-i-y-⟩ *aniya-* 'other', ⟨h-ru-u-v-⟩ *haruva-* 'all, whole', and ⟨h-m-⟩ *hama-* 'the same' show partly nominal, partly pronominal case endings.

f. The reflexive pronoun PIr. **hvai-* and the possessive adjective **hva-* 'own' are not attested as such, but they can be inferred on the basis of OP *uvaipašiya-* 'own' (< **hvai-patya-*), *uvāmaršiyu-* 'having his own death' = 'having died a natural death'.

3.3. Numerals

Since the cardinal numbers are written with specific signs (𐎹 𐎺 𐎻 𐎼 𐎽 . . . 𐏁 = 1, 2, 3, 4, 5 . . . 10), there are only a few numerals of which we know the

phonetic form: OP *aiva-* 'one, only', *uba-* 'both'; *fratama-* 'first, foremost', ⟨du-u-vi-i-t-i-y-⟩ *duvitiya-* 'second', ⟨ç-i-t-i-y-⟩ *çitiya-* 'third', *navama-* 'ninth', *hakaram* 'once'. In addition, the indirect transmission in Elamite allows for the reconstruction of the ordinal **daθama-* 'tenth' and the fractions **çišuva-* 'one third', **caçušuva-* 'one fourth', **pancauva-* 'one fifth', **aštauva-* 'one eighth', and **navauva-* 'one ninth'.

3.4. Prepositions and postpositions

Prepositions are always written as separate words. With genitive-dative: *anuv* 'along', *nipadiy* 'on the track of', *pasā* 'after'. With accusative: *antar* 'within, among', *abiy* 'to, against', *upā* 'under, with', *upariy* 'above, against', *tara* 'through', *paišiyā* 'before', *patiy* 'during', *patiš* 'against', *para* 'beyond', *pariy* 'about', *pasā* 'after'. With instrumental-ablative: *anuv* 'along', *patiy* 'in', *yātā (ā)* 'as far as', *hacā* 'from', *hadā* 'with'.

Most of the postpositions occur as enclitics, forming a single word together with their head: enclitic locative + *ā* 'in', accusative, instrumental, or locative + *patiy* 'on, in', accusative + *parā* 'along'; genitive + *rādiy* 'on account of'.

3.5. Verbs

Like most older Indo-European languages, OP distinguishes between active and middle verbal endings. The middle expresses actions in the interest of the subject itself, such as reflexive and passive events: *avaθā xšaçam agaṛbāyatā* 'thus he took power', *Fravartiš . . . ānayatā abiy mām* 'Fraortes . . . was brought to me'. The moods which are found are the indicative, imperfect, injunctive, subjunctive, optative, and imperative. Of the three aspectual stems inherited from PIE, viz. present, aorist, and perfect, only the present remains in OP. There are three numbers, but the dual is attested only once, in ⟨a-ji-i-v-t-m⟩ *ajivatam* 'the two of us lived'.

Table 7 provides a survey of the verbal endings. We can distinguish four sets of endings: primary endings (in the present indicative), secondary endings (in the imperfect, injunctive, and optative), subjunctive endings (nearly the same as the primary endings, except for the 1sg. *-niy, -naiy*), and imperative endings.

The variation in the first syllable of many endings depends on the form of the verbal stem, which can be athematic (e.g. with 3sg. primary *-tiy,* subj. *-atiy*) or thematic (e.g. with 3sg. primary *-atiy,* subj. *-ātiy*). The same goes for the variants in the 2sg.imperative (athematic *-diy, -šuvā,*

Table 7. Old Persian verb endings

		Primary	Secondary	Subjunctive	Imperative
			A. Active		
sg.	1	*-(ā)miy*	*-am*	*-ā̆niy*	
	2	*-(a)hạy*	*-a*	*-ā̆hạy*	*-ā, -diy*
	3	*-(a)tiy*	*-a, -Ø, -š*	*-ā̆tiy*	*-(a)tuv*
du.	3		*-tam*		
pl.	1	*-(ā)mahạy*	*-(ā)mā*		
	2			*-tā*	
	3	*-a*^{n}*tiy*		*-a*^{n}*, -ha, -ša*	*-a*^{n}*tuv*
			B. Middle		
sg.	1	*-aiy*	*-(a)iy*	*-ānaiy*	
	2	*-(a)haiy*	*-šā*	*-āhaiy*	*-auvā, -šuvā*
	3	*-(a)taiy*	*-(a)tā*	*-ātaiy*	*-(a)tām*
pl.	3		*-a*^{n}*tā*		

thematic *-ā, -auvā*), and for the different secondary endings in the 3sg. and 3pl. active (athematic sg. *-Ø, -š*, pl. *-a*^{n}; thematic sg. *-a*, pl. *-a*^{n}, *-ha, -ša*).

The imperfect describes actions and events in the past and is formed by prefixing the augment *a-* before the verbal stem, e.g. active *akunauš* 'he made', *aku*^{n}*mā* 'we made', middle *akunava*^{n}*tā* 'they made'. Present forms with secondary endings but without the augment are called injunctives. In OP they are only attested as prohibitives in connection with *mā* 'not': *mā θadaya* 'may it not appear!'.

The subjunctive expresses a general or future possibility, a goal (after *mātaya* 'so that not'), and is used for the 1st person hortative: *haya Auramazdām yadātaiy yānam avahạyā ahatiy* 'who worships Ahuramazdā will have a blessing', *mātaya draugam maniyāhạy* 'so that you do not take it for a lie', *šiyāta ahaniy jiva* 'may I be happy while I live'.

The optative expresses a wish, a command, or a prohibition. It is characterized by the suffixes *-ai-* (with thematic verbs) or *-yā-* (athematic), e.g.: 3sg.act. *vināθayaiš* 'would damage', *biyā* 'may be', *mā ājamiyā* 'may it not come!', 2sg.mid. *yadaišā* 'may you worship'. When the present optative is combined with an augment it indicates a repeated action in the past: *avājaniyā* (< **ava-a-janyāt*) 'he used to kill', *akunavayantā* 'they used to do'.

A passive present is formed by adding the suffix *-ya-* to the verbal root: ⟨a-b-r-i-y⟩ *ab(ạ)riya* 'was brought', ⟨θ-h-y-a-m-h-y⟩ *θahạyāmahạy* 'we were called'. The endings are in great part active endings. The agent can

be referred to by the preposition *hacā* 'from', the postposition *rādiy* 'on account of', or an enclitic personal pronoun in the genitive-dative.

The aorist, which in its original PIE function expressed perfective aspect, is attested in five relic singular forms. There is no functional distinction (any more) between the aorist and the imperfect: 3sg.ind.act. *adā* 'he put', 1sg.mid. *adaršiy* 'I took possession'; imv. 2sg. *didiy* 'look!', *pādiy* 'protect!', 3sg. *pātuv* 'he must protect'.

The only remnant of the PIE reduplicated perfect is *caxriyā* 'he would have made', a 3sg. optative of the stem *ca-xr-* from the root *kar-* 'to make'. To express the resultative perfect, OP uses a periphrastic combination of the passive verbal adjective in *-ta-* with the copula 'to be'. Usually, however, the 3sg. verb form 'is' is omitted in the texts: *ava . . . naiy nipištam* 'that . . . is not written', *stūnā aθaⁿgainiya tayā idā kartā* 'the stone pillars which were made here'; with the imperfect: *xšaçam taya . . . parābartam āha* 'the empire . . . which was taken away'. When the agent is explicitly mentioned with transitive verbs (de facto: with *kar-*), it takes the genitive-dative: *ima taya manā kartam* 'this is what I have done'.

Of the verb *ah-/h-/as-* 'to be' we find the following forms: pres.act. 1sg. *amiy,* 3sg. *astiy,* 1pl. *amahay,* 3pl. *haⁿtiy;* impf. 1sg. *āham,* 3sg. *āha,* 3pl. *āha,* mid. 3pl. *āhaⁿtā;* subj.act. 1sg. *ahaniy,* 2sg. *āhay,* 3sg. *ahatiy.*

Five infinitives are attested, each of them with the suffix *-tanaiy* and the full grade of the root: *kaⁿtanaiy* 'to dig', *cartanaiy* 'to make', *bartanaiy* 'to carry', *nipaištanaiy* 'to write down', and *θaⁿstanaiy* 'to say'. They function as infinitives of goal (after the verbs 'to order', 'to be able', 'to dare'), and they take the form of a dative singular of an action noun in *-tan-*.

The present active participle is formed with the suffix *-nt- (tunuvant-* 'powerful'), the present middle participle with *-mna-* (*xšayamna-* 'ruling', *jiyamna-* 'ending'). The perfective passive participle in *-ta-* is usually formed from the zero grade of the root: *karta-* 'made', *nipišta-* 'written'. Its form cannot always be predicted on the basis of the present stem: *basta-* 'bound' from *band-* 'to bind'. A few forms have the suffix *-ata-: haⁿgmata-* 'having come together', *θakata-* 'completed'.

4. Syntax

4.1. Place names and personal names are usually introduced into a narrative by means of "naming phrases." These involve preposed nominal phrases which consist of the name, the word *nāma* (masc.) or *nāmā* (fem.) 'name', and an identifying noun. The main clause often refers back to the naming phrase using *ava-* 'that one': *Kāpišakāniš nāmā didā avadā hamaranam akunava* 'a fortress named Kāpišakāniš – there they fought

a battle', *Dādaršiš nāma Arminiya . . . avam adam frāišayam Arminam* 'an Armenian named Dādaršiš . . . him I sent to Armenia.'

4.2. Relative pronouns usually agree with their antecedent in number and gender: *kāram hamiçiyam haya manā naiy gaubataiy avam jatā* 'the disloyal army, which does not call itself mine: destroy it' = 'destroy the disloyal army which does not call itself mine', *Dārayavaum haya manā pitā avam xšāyaθiyam akunauš* 'he made Darius, (who was) my father, king'. As the examples show, the postposed main clause often uses anaphoric *ava-*. Case attraction may lead to assimilation of the relative clause to the case form of the antecedent, as in *kāra haya manā avam kāram tayam hamiçiyam* (instead of **haya *hamiçiya) aja* 'my army has destroyed the disloyal army'. Conversely, the antecedent can adopt the case of the relative: *martiya* (instead of **martiyam) haya draujana astiy avam . . . pạrsā* 'a man who is deceitful, punish him!'.

Sometimes the identifying nominal phrase is introduced by a relative pronoun. Such constructions may be considered nominal relative clauses without explicit antecedent: *hacā paruviyata hayā amāxam taumā xšāyaθiyā āha* 'of old which (is) our family were kings' = 'our family has been a royal lineage from of old'.

4.3. Most adverbs either are inherited from PIE or continue specific case forms of nouns. In addition, a verbal adjective with the prefixes *u-* 'good' or *duš-* 'bad', if formed from the same root as the main verb of the clause, has a function very similar to that of an adverb: *avam ubrtam abaram* 'him I have treated well-treated' = 'him I have treated well'.

4.4. Direct speech can be introduced by the conjunction *taya* (lit. 'that'): *yadipatiy maniyāhạiy taya ciyakaram āha avā dahạyāva* 'if furthermore you will think, "How many were those countries?"' Alternatively, the direct speech may follow the governing verb directly, without conjunction: *taya amaniyaiy kunavāniy avamaiy visam ucāram āha* 'of which I thought "I will do it," all that was successful for me' (where *taya* is a relative pronoun).

4.5. Clauses or phrases can be coordinated asyndetically, by enclitic *-cā* 'and', or by the conjunction *utā.* For instance: *iyam Gaumāta haya maguš adurujiya avaθā aθaⁿha* 'this is the Magian Gaumāta; he lied (and) spoke thus'; *duvitiyāmcā çitāmcā θardam* 'in the 2nd and 3rd year', *vašnā Auramazdāhā manacā* 'through the will of Ahuramazdā and me'; *vašnā Auramazdāhā utamaiy* 'id.', *manā Auramazdā upastām baratuv . . . utā imām dahạyāum Auramazdā pātuv* 'may Ahuramazdā bear me aid . . . and may A. protect this country'.

Disjunction is indicated by suffixed *-vā: yadiy imām dipim vaināhạy imaivā patikarā* 'when you see this inscription or these images', *xšapavā raucapativā* 'either by night or by day'.

4.6. Conjunctions

The main conjunctions for introducing subordinate clauses are:

taya 'that': *naiy azdā abava taya Bạrdiya avajata* 'it did not become known that Smerdis had been killed'; *draugadiš hamiçiyā akunauš taya imaiy kāram adurujiyaša* 'the Lie made them disloyal, so that they lied to the people'.

yaθā 'as': *yaθā paruvamciy avaθā adam akunavam āyadanā* 'as (they had been) before, thus I made the sanctuaries'.

yaθā 'when': *yaθā Mādam parārsa . . . avadā hamaranam akunauš hadā Mādaibiš* 'when he arrived in Media . . . he fought a battle there with the Medians'.

pasāva yaθā 'after': *ima taya adam akunavam pasāva yaθā xšāyaθiya abavam* 'this is what I did after I became king'.

yadā 'where': *utā aⁿtar aitā dahạyāva āha yadātaya paruvam daivā ayadiyaⁿ* 'and among these countries there was (one) where previously bad gods were worshiped'.

yaniy 'where(in)': *ima stānam . . . yaniy dipim naiy nipištām akunauš* 'this niche . . . in which he had not written an inscription'.

yātā 'during, until': *dādạršiš citā mām amānaya arminiyaiy yātā adam arsam mādam* 'Dādạršiš waited for me in Armenia until I reached Media'.

yāvā 'as long as': *yadiy . . . naiy-diš vikanāhạy utā-taiy yāvā taumā ahatiy paribarāhạdiš* 'if you . . . do not destroy them and, as long as you have the power, look after them'.

Commands can be expressed by a coordinate clause which is not introduced by a conjunction: *niyaštāyam hauv Arxa utā martiyā . . . Bābirauv uzmayāpatiy akạriyatā* 'I ordered (that) this Arxa and the men . . . would be impaled in Babylon'.

5. Linguistic Variation

5.1. Medisms

Part of the OP vocabulary has divergent phonological characteristics which betray its origin in a different dialect. These characteristics are

Table 8. Old Persian vs. Median consonantism

PIr.	OP	"Median"	OP examples
*t^s	*θ*	*s*	*aθa^{n}gam* vs. *asā* 'stone'
*d^z	*d*	*z*	*adam* 'I' vs. *vazṛka* 'great'
*t^sw	*s*	*sp*	*uvasam* vs. *uvaspā* 'with good horses'
*d^zw	*z*	*zb*	*haẓānam* 'tongue' vs. *patiyazbayam* 'I proclaimed'
*θr	*ç*	*θr*	*xšaçam* 'kingdom' vs. *XšaΘrita* (pseudonym of the Mede Fraortes)

usually regarded as Median – Median was spoken in the northwest of present-day Iran – but Median characteristics can also be found in Avestan and other Iranian languages. Among the consonants the differences shown in Table 8 are involved.

5.2. Late Old Persian

In the inscriptions of the successors of Xerxes I, the language differs considerably in all its elements from the texts of the preceding period. It is generally assumed that OP had ceased to be a living language and was only preserved as a written language which the authors did not fully command. This stage may be referred to as Late Old Persian. Some of the more striking characteristics of this phase are:

- voicing of *t* to *d: Ardaxcašca* instead of *Artaxšaçā;*
- loss of word-final consonants and probably also vowels, as is demonstrated by the many anomalous nominal endings, such as acc.sg. *imām bumām* for **imām bumīm,* gen.sg. *puça* instead of *puçahạya;*
- restriction of the relative pronoun to the forms *haya* and *taya;*
- loss of the imperfect, as shown by the many anomalous variants of the 1sg.: *akunavām, akunā, akunām, akunai, akuvanašāša,* all for earlier *akunavam.*

Other deviations from Darius's norm may be due to decreasing familiarity with the original spelling conventions:

- final /-a/ written as ⟨-a⟩: ⟨p-u-ç-a⟩ *puça;*
- /Ciy/ written as ⟨C-y-⟩: ⟨n-y-k-⟩ for **niyāka-;*
- defective spelling after ⟨Ci⟩: ⟨mi-t-r⟩ *Mitra* instead of ⟨mi-i-t-r⟩.

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Greek

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1. Introduction

1.1. Historical sketch

Greek is an Indo-European language that has been spoken on the Balkan Peninsula since the 2nd millennium BCE. Within the language family, correspondences with Indo-Iranian and Armenian, especially in the area of the morphological system, suggest a central group of languages that underwent innovations after other branches including Italic, Celtic, and Germanic had already separated from the original language. On the Balkan Peninsula, Greek must have come into contact with pre-Indo-European substrate languages, but traces of them can only be seen in the vocabulary (loanwords: e.g. ἀσάμινθος 'bathtub').

Greek is first attested in writing in the 14th and 13th centuries BCE in the "Mycenaean" documents primarily from Crete, the Peloponnese, and central Greece. These are administrative texts (lists of tributes, allocations, etc.) written in the syllabic script known as "Linear B," which is predominantly preserved on clay tablets from the Bronze Age palace archives of sites like Knossos, Mycenae, and Thebes. With the mid-20th-century decipherment of Linear B, Greek became the Indo-European language family attested for the longest stretch of history.

An extensive textual tradition commences, however, only several centuries after the end of the Mycenaean civilization around 1200 BCE. Its prerequisite was the takeover of the alphabet from the Northwest Semitic sphere (§1.2). The earliest, at first still brief, inscriptions date from the 8th century and are thus approximately contemporary with the recording of the Homeric epics, the *Iliad* and *Odyssey.* The latter represent the culmination of a centuries-old tradition of *oral poetry,* as shown by their stylistic and linguistic form (formulaic verse technique, metrically preserved archaisms). At the same time they constitute the most important reference point for Greek literature in the following centuries until well beyond the Classical period. Thus, epic influences are unmistakable for example in Archaic lyric (7th–5th c.) or 5th-century Athenian tragedy.

Our earliest extensively preserved prose texts come from the Classical era of the 5th and 4th centuries BCE. Alongside historians like Herodotus and Thucydides, the Athenian orators (Lysias, Demosthenes, etc.) and philosophers (Plato, Aristotle) are especially important here. Comedy (Aristophanes, Menander) gives us a glimpse of colloquial language, which in view of the nature of the sources is otherwise accessible to us only to a very limited extent through meager inscriptional evidence (graffiti and the like). Papyrus documents referring to everyday matters are not available before the Hellenistic period.

An awareness of the extensive dialectal variety of Greek is indispensable for the cultural understanding of all these texts. Until at least the 4th century every town or region uses its own local dialect, without any one of the dialects being regarded as a general standard. Even so, most literary genres are closely associated with a specific variety. Epic poetry, for instance, is generally Ionic in character, and choral lyric Doric.

On the basis of dialectal isoglosses, only a few of which can be mentioned here, the dialects of the Classical period are divided into four groups: Aeolic, Doric-Northwest Greek, Arcado-Cypriote, and Attic-Ionic. The first two go back to a northern Greek dialect sphere of the 2nd millennium BCE, the others to a southern Greek one. The most important criterion for this distinction is the southern Greek assibilation /ti/ > /si/. By contrast, the change of original (not secondary) /a:/ to /ɛ:/ in Attic-Ionic dates only to the early 1st millennium (e.g. Att.-Ion. δῆμος 'people' vs. Dor. δᾶμος; cf. §2). Within Attic-Ionic, most characteristic of Attic is the geminate consonant ττ in words like θάλαττα 'sea', where Ionic and other dialects have σσ (θάλασσα).

During the 5th century BCE, Athens established itself as a supraregional power in the Aegean, not least in reaction to the growth of the Persian empire, which was encroaching more and more into regions of Greek settlement in Asia Minor. This development, together with an intensification of inner-Greek trade exchange, led to an increase in dialect contact and mixture. Since Athens at the same time became culturally predominant, Attic spread far beyond its ancestral domain, thereby abandoning its most idiosyncratic traits such as the ττ geminate mentioned above. This "internationalized" Attic is the basis of the "Koine" (i.e., 'common language') into which all the regional dialects gradually merged from the 4th century onward. The Koine tread its own path to victory from the end of that century, in the "Hellenistic" period, with the expansion of the Macedonian empire and its successor states into the Near East and Egypt (Alexandria). By Roman times at the latest, the old local dialects had all but disappeared. Literary and other texts

were now regularly written in the Koine (e.g., the New Testament, and before it the Septuagint), with a more or less strong orientation towards 5th- and 4th-century Classical Attic depending on the level of education of each author and/or their intended audience. Due to the puristic efforts of the "Atticists," Attic increasingly turned into a linguistic yardstick, and because of the cultural significance of the Classical authors Attic has formed the basis of grammatical descriptions of ancient Greek to this day. The following sketch, too, follows this tradition. In addition, however, important developments in the Hellenistic Koine are highlighted, since Greek entered into the orbit of (Late) Old Testament culture in that period.

1.2. Script

Just as each region of Greece in the Archaic and Classical ages had its own dialect (§1.1), so too did each region have its own distinctive version of the alphabet, which was adapted from the Phoenician alphabet probably in the 9th century. All these "local" ("epichoric") alphabets share the important innovation that some of the Semitic consonant letters were reinterpreted as indispensable vowel symbols. Regional divergences especially concern the newly created supplementary letters added at the end of the alphabet for the phonemes /p^h/, /k^h/ and the phoneme sequence /ps/.

The Classical alphabet, which was officially introduced in Athens in 403/2 BCE, was originally the epichoric alphabet of the East Ionians of Asia Minor. Characteristic are the addition of Ω for open /ɔ:/ at the end of the alphabet and the reinterpretation of H as open /ɛ:/ instead of earlier /h/, which was possible because East Ionic, unlike most of the other dialects, no longer had a phoneme /h/. After the abandonment of the obsolete letters F (for lost /w/: §2.2) and Ϙ (for velar /k/ before back vowels) the following 24 letters were left. Most of them denote individual phonemes, but a few render phoneme sequences (Z, Ξ, Ψ) (cf. further §2):

Α, α	Β, β	Γ, γ	Δ, δ	Ε, ε	Ζ, ζ	Η, η	Θ, θ	Ι, ι	Κ, κ	Λ, λ	Μ, μ
/a(:)/	/b/	/g/	/d/	/e/	/sd/	/ɛ:/	/t^h/	/i(:)/	/k/	/l/	/m/
Ν, ν	Ξ, ξ	Ο, ο	Π, π	Ρ, ρ	Σ,σ/ς	Τ, τ	Υ, υ	Φ, φ	Χ, χ	Ψ, ψ	Ω, ω
/n/	/ks/	/o/	/p/	/r/	/s/	/t/	/ü(:)/	/p^h/	/k^h/	/ps/	/ɔ:/

2. Phonology

2.1. Vowels

In prehistoric times, Greek had five short and five long vowels (/a(:)/, /e(:)/, /i(:)/, /o(:)/, /u(:)/). Until the Classical period, the short-vowel system remained relatively stable, except that /u/ shifted to /ü/ in Attic-Ionic.

The long-vowel system not only underwent the corresponding shift of /u:/ to /ü:/ and – again in Attic-Ionic – the change of inherited /a:/ to /ɛ:/ (§1.1, 3.1.3), but also saw the addition of one back and one front vowel by vowel contraction (after loss of intervocalic consonants like *-*s*-) and compensatory lengthening (e.g. *-*Vns*- > /-V:s-/). The long vowels /e:/ and /o:/ created in this way were more close than inherited /ɛ:/ and /ɔ:/, so that (including a similarly created new /a:/) a system with five short and seven long vowels resulted (Table 1). Alongside these twelve vowels there are short and long diphthongs, some of which are likewise inherited, while others (especially among the long diphthongs) arose only within Greek:

/ai/, /ei/, /oi/, /üi/ (< /ui/)
/au/, /eu/, /ou/
/a:i/, /ɛ:i/, /ɔ:i/
(rare) /a:u/, /ɛ:u/, /ɔ:u/

Graphically, /e:/ appears in Classical orthography as EI and /o:/ as OY. This was made possible by the fact that the original diphthongs /ei/ and /ou/, which had always been written EI and OY, monophthongized early to /e:/ and /o:/ respectively, merging with the secondary long vowels. The more open (old) long vowels /ɛ:/ and /ɔ:/, on the other hand, were written with H and Ω (§1.2).

Possibly as a result of the /u:/ > /ü:/ shift, probably already in the 5th century, the new long vowel /o:/ developed into /u:/, so that the long vowels were better distributed on the back axis. There was no corresponding shift in the short vowels, because there was only one *o*-vowel there.

Table 1. Classical Greek vowels

Short			Long			
/i/	/ü/		/i:/	/ü:/		
				/e:/		/o:/
/e/		/o/			/ɛ:/	/ɔ:/
	/a/			/a:/		

Since on the front axis /i:/ remained unchanged, here there was no empty slot that could have been filled by /e:/. Nevertheless in the 4th century at the latest, /e:/ was raised to /i:/, thus merging with original /i:/. At the same time /ɛ:/ shifted forward, becoming a new /e:/, which ultimately, in the Roman period, likewise became /i:/. Once again a new /ɛ:/ arose at the same time, as the previous diphthong /ai/ monophthongized to /ɛ:/ (while /oi/ became /ü:/). The Roman period also saw the definitive loss of distinctive vowel quantity, which accompanied the change from pitch accent to stress accent (§2.3). Still later is the change from /ü(:)/ likewise to /i(:)/, resulting in the Byzantine–Modern Greek vowel system.

For the Hellenistic Koine, then, something like the system in Table 2 can be laid out. The diphthongs /ai/, /oi/, /üi/, /au/, and /eu/ are preserved, while /a:i/, /ɛ:i/, and /ɔ:i/ have become pure long vowels through loss of their second element. They are still written AI, HI, ΩI (Byzantine ᾳ, ῃ, ῳ with "ι subscript"), but the pronunciation is now /a:/, /e:/, /o:/.

2.2. Consonants

During the Classical period the phonological system of Attic included the consonants shown in Table 3. Consonantal /w/, which in earlier times is still attested in various dialects (spelled F), disappeared in the

Table 2. Koine Greek vowels and orthography

Short				Long				
/i/		/ü/		/i:/		/ü:/		/u:/
I		Y		I, EI		Y		OY
	/e/		/o/		/e:/		/o:/	
	E		O		H		Ω	
		/a/				/a:/		
		A				A		

Table 3. Classical Greek consonants

stops	/p/, /t/, /k/
	/b/, /d/, /g/
	/p^h/, /t^h/, /k^h/
nasals	/m/, /n/
liquids	/l/, /r/
fricatives	/s/, /h/

prehistory of Attic-Ionic, albeit later than its counterpart /y/; /w/ and /y/ were preserved only as the second component of diphthongs.

The stops comprise a labial, a dental (alveolar), and a velar series, each with a voiceless, voiced, and voiceless aspirated representative. Only in the Late Hellenistic and Roman period did the voiceless aspirates /pʰ/, /tʰ/, /kʰ/ (~ Φ, Θ, Χ) become fricatives (/f/, /θ/, /x/). Also late, but difficult to date, is the shift of the voiced stops to voiced fricatives (/b/, /d/, /g/ (~ Β, Δ, Γ) > /v/, /ð/, /ɣ/).

In addition to the labial and dental nasals with their own letters (Μ, Ν) there is a velar nasal [ŋ]. Since this occurs only for /n/ before a velar and possibly for a velar before /m/ (spelled ΓΓ, ΓΚ, ΓΧ, or ΓΜ), it does not have phonemic status.

Likewise, the word-initial voiceless pronunciation of the normally voiced /r/ is only allophonic; since Byzantine times it is graphically reflected by writing Ρ with a *spiritus asper* ("rough breathing," ῾Ρ, ῥ; cf. below), whereas early inscriptions occasionally show ΡΗ.

The phoneme /s/ is realized as [z] before voiced sounds. For the letter Ζ, a bi-phonemic pronunciation [zd] (rather than [dz]) is likely until the Classical period. Some time in the 4th century this must have been simplified to [z(z)], so that /z/ too acquired phonemic status in Hellenistic Greek.

Finally, the glottal fricative /h/ occurs only word-initially and in compound forms (e.g. εὔhορκος /eu-horkos/). While its loss in individual dialects such as East Ionic occurred early ("psilosis"), /h/ persists in the Koine well into the Roman period. However, as soon as the letter Η came to be used for /ɛ:/ and no longer designated /h/ (§1.2), the latter sound was no longer written, until the Alexandrian grammarians developed the *spiritus asper* from an epigraphic variant of Η, namely ⊢ (῾ in ἀ-, ἑ- etc.).

Nasals, liquids, (voiceless) stops, and /s/ can also be geminated; the voiceless aspirated geminated stops are written ΠΦ, ΤΘ, ΚΧ, with only the second element aspirated.

2.3. Accent

Until the Hellenistic period, Greek did not have a stress (intensity, loudness) accent, but a pitch (frequency) accent. This accent can fall on one of the last three syllables of a word if its last syllable is short (i.e. contains a short vowel) or on one of the last two syllables if the last one is long (i.e. contains a long vowel or a diphthong); the placement of the accent for each word is determined paradigmatically. Accents are written in papyri since the Alexandrian period, but systematically only later.

The acute accent marks high tone on a short vowel or a tone that rises over the duration of a long vowel/diphthong (nom. ἀγαθός). Its counterpart is the circumflex, which marks a tone that falls over the duration of a long vowel/diphthong (and cannot occur on a short vowel) (gen. ἀγαθοῦ). The grave accent replaces the acute when the acute would fall on the last syllable of a word that is followed neither by a toneless (enclitic) word nor by a pause (e.g. at the end of a clause) (nom. ἀγαθὸς ἀνήρ). Enclitic, and so without their own accent, are numerous particles, unstressed pronouns (§3.3.5), or forms of the auxiliary verb εἰμί 'to be' (§3.5.2).

3. Morphology

3.1. Nouns

3.1.1. General

The declension of nouns includes five cases (nominative, genitive, dative, accusative, vocative), three numbers (singular, plural, dual), and three genders (masculine, feminine, neuter). Traces of a separate instrumental, ablative, and locative are only visible as relics (cf. locative adv. οἴκοι 'at home', instrumental Mycenaean-Homeric *-pi* or -φι e.g. in βίηφι 'with force'). The dual, which was lost early in Ionic, survived in Attic until the 4th century, when it disappeared there too. The genders, as in many modern languages, only partly correspond with the biological sex of an item. To be sure, male beings are mostly masculine and female beings feminine, but inanimate and abstract items are far from always neuter, and e.g. diminutives in -ιον/-ίδιον (§5) are neuter even when they refer to persons (cf. παιδίον 'child').

Nouns are divided into three declensions according to the final sound of the stem: the first or *ā*-declension, the second "thematic" or *o*-declension, and the third declension. The *ā*-declension originally represents a subgroup of the third declension, but in historical times it rather groups with the *o*-declension, as *o*-stem masculines, especially in the adjective paradigm, are regularly paralleled by *ā*-stem "motionsfeminina" (e.g. masc. δίκαιος, fem. δικαία 'equitable'). Accordingly, the *o*-declension includes primarily masculines and neuters, and the *ā*-declension feminines, but exceptions do occur (e.g. fem. παρθένος 'maiden'), and within the *ā*-declension there is even a special masculine type (§3.1.3). Similarly, in the third declension certain formal types are associated with a specific gender (e.g. masc. -τήρ, fem. -σις, neut. -μα; cf. §5), but overall the three genders are balanced here.

3.1.2. *o*-Declension

Masc. λόγος 'word' and neut. δῶρον 'gift' serve as examples for the *o*-declension. Masculines and neuters are distinguished only in the nominative (and vocative) singular and the nominative and accusative plural. As in all neuter paradigms, the neuter nominative and accusative are identical. In the plural the nominative forms are also used for the vocative (Table 4). Alongside -οις, the dative plural is sometimes -οισι(ν) (with or without -ν), which predominates in a few non-Attic dialects. A typical feature of Homeric Greek is -οιο for the genitive singular.

Due to some sound changes in Attic-Ionic (esp. -ηο- > -εω-), there is a subgroup of the *o*-declension known as the "Attic" declension for words like νεώς 'temple' (Table 5); because of its irregularity this is lost in Koine Greek.

Table 4. Classical Greek o-declension

	Sg.	Pl.
nom.	λόγ-ος (δῶρ-ον)	λόγ-οι (δῶρ-α)
gen.	λόγ-ου	λόγ-ων
dat.	λόγ-ῳ	λόγ-οις
acc.	λόγ-ον (δῶρ-ον)	λόγ-ους (δῶρ-α)
voc.	λόγ-ε (δῶρ-ον)	= nom.

Table 5. Classical Greek "Attic" declension

	Sg.	Pl.
nom.	νεώς	νεῴ
gen.	νεώ	νεών
dat.	νεῴ	νεῴς
acc.	νεών	νεώς

3.1.3. *ā*-Declension

Examples for the *ā*-declension are fem. τιμή 'honor' and masc. πολίτης 'citizen' (Table 6). Masculines and feminines are distinct in the nominative and genitive singular, where the masculines have taken over -ς and -ου from the *o*-stems; and masculines in -της have their own vocative

Table 6. Classical Greek *ā*-declension

	Sg.	Pl.
nom.	τιμ-ή (πολίτ-ης)	τιμ-αί
gen.	τιμ-ῆς (πολίτ-ου)	τιμ-ῶν
dat.	τιμ-ῇ	τιμ-αῖς
acc.	τιμ-ήν	τιμ-ᾱ́ς
voc.	= Nom. (πολῖτ-α)	= Nom.

singular. The name "*ā*-declension" refers to the stem-final original /a:/ that in Attic-Ionic has mostly become /ɛ:/ (§2.1). In Attic the change generally does not occur after ε, ι, ρ as in χώρᾱ 'land' (gen. χώρας beside τιμῆς etc.). Again the dative plural has a variant -αισι(ν) (Homeric -ῃσι(ν)) alongside -αις. In the genitive plural the typical stem-final -α-/-η- is missing, since -ῶν is a contraction of -ᾱ́ων.

A subgroup of the *ā*-declension is formed by the otherwise identically inflected feminines like τράπεζα 'table' with short -α and -αν in the nominative and accusative singular. Since most of them involve the old suffix *-*ya* that can form motionsfeminina from consonant stems, this type is especially common in the feminines of adjectives and participles of the third declension (e.g. fem. πᾶσα 'each' < **pant-ya* alongside masc. πᾶς with the stem παντ-).

3.1.4. Third declension

According to the stem-final phoneme, the third declension is divided into consonant stems and vowel stems, each with further subgroups (*r*-stems, *i*-stems, *u*-stems, etc.). The case endings are basically identical for all of them, although this fact is occasionally obscured by sound changes. Thus in the accusative singular the -ν of the vowel stems and the -α of the consonant stems both go back to prehistoric *-*n:* after a consonant this turned into vocalic *-*n̥* > -α. Our examples for the consonant stems are the (masculine) *r*-stem πατήρ 'father', the (feminine) dental stem ἐλπίς 'hope', and the (neuter) *s*-stem γένος 'gender' (whose endings result from vowel contraction after the loss of intervocalic *-*s*-) (Table 7). The example πατήρ shows that, depending on the individual paradigm, the stem can appear in as many as three "ablaut grades" (πατηρ-, πατερ-, πατρ(α)-). Since the combination of stem-ending + -ς in the nominative singular often results in sound changes (e.g. *-*d-s* > -ς in ἐλπίς), the pure stem can best be seen in the genitive singular.

Table 7. Classical Greek third declension consonant stems

		(Masc.) *r*-stem 'father'	(Fem.) dental stem 'hope'	(Neut.) *s*-stem 'gender'	Endings
sg.	nom.	πατήρ	ἐλπίς	γένος	-ς/-Ø (neut. -Ø)
	gen.	πατρ-ός	ἐλπίδ-ος	γένους (< *-*es-os*)	-ος
	dat.	πατρ-ί	ἐλπίδ-ι	γένει (< *-*es-i*)	-ι
	acc.	πατέρ-α	ἐλπίδ-α	γένος	-α (neut. -Ø)
	voc.	πάτερ	= nom.	= nom.	-Ø (or = nom.)
pl.	nom./voc.	πατέρ-ες	ἐλπίδ-ες	γένη (< *-*es-a*)	-ες (neut. -α)
	gen.	πατέρ-ων	ἐλπίδ-ων	γενῶν (< *-*es-ōn*)	-ων
	dat.	πατρά-σι	ἐλπί-σι	γένεσι (< *-*es-si*)	-σι(ν)
	acc.	πατέρ-ας	ἐλπίδ-ας	γένη (< *-*es-a*)	-ας (neut. -α)

The model paradigms for the vowel stems are the (feminine) *i*-stem πόλις 'city', the (masculine) *u*-stem πῆχυς 'cubit', and the diphthong stem βασιλεύς 'king'. The original situation is obscured here, too, by the loss of intervocalic *-*y*- (*i*-stems) or *-*w*-. Moreover Attic in particular has undergone some profound changes (while other dialects display, for example, the more transparent πόλι-ος in the gen. sg.).

In the later Koine the accusatives in -α were often clarified into -αν, and the accusative plural was harmonized with the nominative plural where the two had still differed in Classical Greek (i.e. -ες for -ας).

Table 8. Classical Greek third-declension vowel stems

		(Fem.) *i*-stem 'city'	(Masc.) *u*-stem 'cubit'	Diphthong stem 'king'	Endings
sg.	nom.	πόλι-ς	πῆχυ-ς	βασιλεύ-ς	-ς/-Ø (neut. -Ø)
	gen.	πόλεως	πήχεως	βασιλέως (< *-*ēw-os*)	-ος
	dat.	πόλει	πήχει	βασιλεῖ (< *-*ēw-i*)	-ι
	acc.	πόλι-ν	πῆχυ-ν	βασιλέ-ᾱ (< *-*ēw-a*)	-ν/-α (neut. -Ø)
	voc.	πόλι	πῆχυ	βασιλεῦ	-Ø
pl.	nom./voc.	πόλεις (< *-*ey-es*)	πήχεις	βασιλῆς/-εῖς (< *-*ēw-es*)	-ες (neut. -α)
	gen.	πόλε-ων	πήχε-ων	βασιλέ-ων (< *-*ēw-ōn*)	-ων
	dat.	πόλε-σι	πήχε-σι	βασιλεῦ-σι (< *-*eu-si*)	-σι(ν)
	acc.	πόλεις	πήχεις	βασιλέ-ᾱς (< *-*ēw-as*)	-(α)ς (neut. -α)

3.2. Adjectives

The declension of the adjectives corresponds for the most part to that of the nouns. As a counterpart to *o*-stem masculines and neuters we find *ā*-stem feminines (§3.1.1), but in compounds separate feminine forms occur with some frequency only in post-Classical times.

In addition to the basic form there are a comparative and a superlative. Regular comparatives use the suffix -τερος (δίκαιος 'just' → δικαιότερος 'more just'), but many lexemes have instead an older formation with -(ί)ων (neut. -(ί)ον) (καλός 'beautiful' → καλλίων 'more beautiful'). This is inflected as an *n*-stem, but in the accusative singular masculine and feminine and in the nominative and accusative plural (all genders) there are also archaic *s*-stem forms (-(ί)ω and -(ί)ους instead of -(ί)ονα and -(ί)ονες/-(ί)ονας).

The comparative in -τερος goes with a superlative in -τατος (δικαιότατος 'most just', also elative 'very just'), the comparative in -(ί)ων with a superlative in -ιστος (κάλλιστος 'most beautiful'). Some adjectives have suppletive forms of comparison (i.e. comparatives and superlatives from etymologically unrelated stems: e.g. ἀγαθός 'good' → βελτίων/βέλτιστος 'better/best'). In the Koine the use of the superlative decreases, and the comparative then functions also as superlative/elative.

3.3. Pronouns

3.3.1. Article

The definite article ὁ, ἡ, τό goes back to an old demonstrative pronoun. Its oblique cases are formed from a stem το-/τη- and are inflected like *o*-stems (masc. and neut.) and *ā*-stems (fem.) (thus gen. sg. τοῦ, τῆς, τοῦ, etc.). A stem without the initial dental appears not only in the nominative singular masculine and feminine, but also in the nominative plural (οἱ, αἱ, but neut. τά).

The article precedes its head. If there is a modifier, it comes either in between, or else with repetition of the article after the head (ὁ ἀγαθὸς ἄνθρωπος or ὁ ἄνθρωπος ὁ ἀγαθός 'the good man'). The repetition is often suppressed, however, with attributive genitives (ὁ βωμὸς τῶν θεῶν 'the altar of the gods'). The article is also used on familiar or recently mentioned proper names (ὁ Σωκράτης) and in combination with demonstrative pronouns (§3.3.2). By contrast, it is not used on predicate nominals.

Greek does not have an indefinite article. Indefiniteness can be signaled with the indefinite pronoun τις, τι, and later also with the number εἷς, μία, ἕν 'one' (§3.4).

3.3.2. Demonstrative pronouns

The pronoun ὅδε, ἥδε, τόδε (inflected like the article + -δε) kataphorically points forward and is used for near deixis ('this here'). However, in post-Classical times ὅδε is ousted by the more general deictic οὗτος, αὕτη, τοῦτο (with oblique *o*-stem τουτο- in the masc. and neut. and *ā*-stem ταυτη- in the fem., but nom.pl. οὗτοι, αὗται, ταῦτα), which regularly points back to something that has been mentioned ('this') and may sometimes, but not always, be assigned to middle deixis. Far deixis is signaled by ἐκεῖνος, ἐκείνη, ἐκεῖνο ('that'). All these pronouns occur with the article in "predicative" position (ὅδε ὁ ἄνθρωπος 'this person').

3.3.3. Relative pronouns

The simple relative pronoun is ὅς, ἥ, ὅ, which takes the inflection of the *o*-stems and *ā*-stems respectively (gen. sg. οὗ, ἧς, οὗ, etc.). In addition, there is an indefinite generalizing relative pronoun ὅστις, ἥτις, ὅτι 'who/whatever', a compound of ὅς, ἥ, ὅ + indefinite τις, τι (§3.3.4; thus gen. sg. οὑτινος, ἥστινος, οὑτινος, etc.; also gen. sg. ὅτου, dat. sg. ὅτῳ and nom.-acc. neut. pl. ἅττα). This is also used when the speaker cannot or will not further specify an antecedent (e.g. σοφός ἐστιν ὅστις ἔφασκε 'wise is he who said', but σοφός ἐστιν ὁ ἀνὴρ ὃν ὁρᾷς 'wise is the man whom you see'). In the Koine, ὅστις increasingly replaces simple ὅς.

3.3.4. Interrogative and indefinite pronouns

The interrogative pronoun masc./fem. τίς, neut. τί is used substantivally ('who?, what?') and adjectivally ('which?'). In indirect questions ὅστις (§3.3.3) can be used as an alternative. The inflection of τίς, τί is based on a consonant stem τιν- (gen. sg. τίνος, dat. sg. τίνι, nom. pl. τίνες, etc.; alongside gen. sg. τοῦ, dat. sg. τῷ).

The indefinite pronoun τις, τι is formally identical with the interrogative pronoun, except that it is unstressed/enclitic (ἄνθρωπός τις 'any person', substantivally τις 'someone').

The proportion interrogative τίς: indefinite τις: relative ὅς: generalizing relative or indirect interrogative ὅστις is equally found among the pronominal adverbs; cf. e.g.

ποῦ 'where?'	που 'somewhere'	οὗ 'where'	ὅπου 'where(ever)'
πότε 'when?'	ποτε 'at some time'	ὅτε 'when'	ὁπότε 'when(ever)'

3.3.5. Personal pronouns

Personal pronouns (Table 9) are only used in the nominative when they are stressed (e.g. contrastive); elsewhere the person-marking inherent in the verb endings suffices. In the singular each of the other cases has both an enclitic and a stressed form, the latter of which is also used after prepositions.

The oblique forms of αὐτός, αὐτή, αὐτό are used as a third-person anaphoric pronoun, which otherwise means 'self/same' (attributive ὁ αὐτὸς ἄνθρωπος 'the same person', predicative ὁ ἄνθρωπος αὐτός 'the person himself').

There are also reflexive pronouns compounded with the stem αὐτο- (e.g. acc. 1sg. ἐμαυτόν/-ήν, 2sg. σ(ε)αυτόν/-ήν, 3sg. ἑαυτόν/-ήν, 1pl. ἡμᾶς αὐτούς, 2pl. ὑμᾶς αὐτούς, 3pl. ἑαυτούς or σφᾶς αὐτούς). In the Koine, especially in the plural, the third person gradually replaces the other persons (ὁρῶμεν ἑαυτούς 'we see ourselves' instead of ἡμᾶς αὐτούς). The possessive pronouns are ἐμός 'my', σός 'thy', ἡμέτερος 'our', ὑμέτερος 'your', but already in the Classical period, and especially later, when unstressed the genitive of the enclitic personal pronouns tends to be used instead (ὁ φίλος μου 'my friend' beside ὁ ἐμὸς φίλος). The third person corresponds: ὁ φίλος αὐτοῦ 'his friend'.

3.4. Numbers

Whereas the ordinal numbers inflect as *o*-stem or *ā*-stem adjectives, the cardinals are declinable only from '1' to '4' (also in combinations:

Table 9. Classical Greek personal pronouns

	First Person		Second Person	
	Sg.	Pl.	Sg.	Pl.
nom.	ἐγώ	ἡμεῖς	σύ	ὑμεῖς
gen.	ἐμοῦ, μου	ἡμῶν	σοῦ, σου	ὑμῶν
dat.	ἐμοί μοι	ἡμῖν	σοί σοι	ὑμῖν
acc.	ἐμέ με	ἡμᾶς	σέ σε	ὑμᾶς

Table 10. Classical Greek numbers

	Cardinals	Ordinals
‘1’	masc. εἷς (neut. ἕν), ἑνός, ἑνί, ἕνα (neut. ἕν), fem. μία, μιᾶς, μιᾷ, μίαν	πρῶτος
‘2’	δύο, δυοῖν (later δύο/δυῶν), δυοῖν (later δυσί), δύο	δεύτερος
‘3’	τρεῖς (neut. τρία), τριῶν, τρισί, τρεῖς (neut. τρία)	τρίτος
‘4’	τέτταρ-ες (neut. -α), -ων, -σι, -ας (neut. -α)	τέταρτος
‘5’	πέντε	πέμπτος
‘6’	ἕξ	ἕκτος
‘7’	ἑπτά	ἕβδομος
‘8’	ὀκτώ	ὄγδοος
‘9’	ἐννέα	ἔνατος
‘10’	δέκα	δέκατος

e.g. τρεῖς/τρία καὶ δέκα or, especially in the Hellenistic period, δέκα τρεῖς/τρία ‘13’, εἷς/μία/ἕν καὶ εἴκοσι ‘21’, etc.), and in the hundreds (e.g. διακόσιοι/-αι/-α ‘200’) and thousands (e.g. χίλιοι/-αι/-α ‘1000’). The word for ‘1’ is unique in distinguishing three genders (Table 10).

3.5. Verbs

3.5.1. General

The conjugation of the verb is so complex that the presentation here must be especially condensed. Most of the categories can be traced back to the Indo-European proto-language, but Greek has also innovated to an extent (e.g. passive forms) and, post-Classically, restructured or abandoned (e.g. rise of a periphrastic future, loss of the optative and perfect).

There are three persons, three numbers (singular, plural, dual: but on the dual cf. §3.1.1), four moods (indicative, subjunctive, optative, imperative), seven tenses (present, future, imperfect, aorist, perfect, pluperfect, and the rare future perfect), and three voices (“diatheses”; active, middle, passive). The multiplicity of forms is somewhat reduced in that the imperfect and pluperfect appear only in the indicative, the future and future perfect have neither subjunctive nor imperative, the perfect of the subjunctive and optative is mostly periphrastic, and the passive and middle are distinct only in the aorist and future (with the passive expanding in the Koine at the expense of the middle). Also part of the verbal paradigm are (a) an infinitive and a participle in the present, future, aorist, and perfect of each of the voices and (b) one verbal adjective in -τός, which usually expresses a possibility (παιδευτός ‘educable’),

and another in -τέος, to express a necessity (παιδευτέος 'one who must be educated').

The verbs are divided into a "thematic" (in -ω) and an "athematic" (in -μι) class. Their endings differ principally in the singular: the stem of the thematic verbs originally ends with an -ε/o- vowel but synchronically this vowel often merges with the endings proper (cf. παιδεύ-ο-μεν 'we educate' vs. δείκνυ-μεν 'we show').

To conjugate a verb one must know its "principal parts," which are derivable only to a limited extent (in entirely regular verbs). These are the present stem, the active and middle future stem, the active and middle aorist stem, the active perfect stem, the mediopassive perfect stem, and the passive aorist stem.

3.5.2. Present and imperfect

The thematic and athematic present appear in Table 11A. The athematic presents (of which those in -νῡμι constitute the largest group) are much less common than the thematic ones. However, a few frequent verbs are inflected athematically, such as the "root presents" (comprising only root + ending without suffixes) εἰ-μί 'to be' (see below) and φη-μί 'to say', and the "reduplicated" presents δί-δω-μι 'to give', τί-θη-μι 'to put', and ἵ-στη-μι 'to set up' (with a reduplication syllable containing -ι- before the root). Their archaic nature is still seen in the distinct ablaut grades of the active singular and plural (e.g. 1sg. δίδω-μι vs. 1pl. δίδο-μεν; cf. -νῡ- vs. -νυ- in δείκνυμι). Especially in the Hellenistic period, athematic verbs are entirely or partly thematized (e.g. -νύω instead of -νυμι, ἱστάνω instead of ἵστημι).

The imperfect is also formed on the present stem (Table 11B). At the front, as in the other past tenses (indicative aorist and pluperfect), comes the "augment," which is realized before a consonant as ἐ-, and before an initial vowel as its lengthening (e.g. ἐλπίζω 'to hope' → imperf. ἤλπιζον, ἄγω 'to lead' → imperf. ἦγον with /ɛ:/ < /a:/). The imperfect also carries the "secondary endings," which originally were distinguished from the "primary endings" of the present only in that they had no final *-*i.* Synchronically, however, this relationship is barely recognizable any more. In thematic verbs with vowel-final stems ("contract verbs" in -έω, -άω, -όω), the result of the contraction of this vowel with the ending is a somewhat distinct inflection that is, however, regular when the relevant contraction rules are taken into account (e.g. α + ε/η = ᾱ, thus 3sg. imperf. ἐ-τίμα-ες > ἐτίμᾱς from τιμάω 'to honor'; ε + ο = ου, thus 1pl. pres. ποιέ-ομεν > ποιοῦμεν from ποιέω 'to make').

Table 11. Classical Greek present-stem verb inflection

		Thematic 'to educate'		Athematic 'to show'	
		Active	Middle-passive	Active	Middle-passive
			A. Present		
sg.	1st	παιδεύ-ω	παιδεύ-ομαι	δεἰκνῡ-μι	δεἰκνυ-μαι
	2nd	παιδεύ-εις	παιδεύ-ῃ/-ει	δεἰκνῡ-ς	δεἰκνυ-σαι
	3rd	παιδεύ-ει	παιδεύ-εται	δεἰκνῡ-σι(ν)	δεἰκνυ-ται
pl.	1st	παιδεύ-ομεν	παιδευ-όμεθα	δεἰκνυ-μεν	δεικνύ-μεθα
	2nd	παιδεύ-ετε	παιδεύ-εσθε	δεἰκνυ-τε	δεἰκνυ-σθε
	3rd	παιδεύ-ουσι(ν)	παιδεύ-ονται	δεικνύ-ᾱσι(ν)	δεἰκνυ-νται
inf.		παιδεύ-ειν	παιδεύ-εσθαι	δεικνύ-ναι	δεἰκνυ-σθαι
part.	masc.	παιδεύ-ων, -οντος	παιδευ-όμενος	δεικνῡ́-ς, -ντος	δεικνύ-μενος
	fem.	παιδεύ-ουσα, -ούσης	παιδευ-ομένη	δεικνῦ-σα, -σης	δεικνυ-μένη
	neut.	παιδεῦ-ον, -οντος	παιδευ-όμενον	δεικνύ-ν, -ντος	δεικνύ-μενον
			B. Imperfect		
sg.	1st	ἐ-παίδευ-ον	ἐ-παιδευ-όμην	ἐ-δεἰκνῡ-ν	ἐ-δεικνύ-μην
	2nd	ἐ-παίδευ-ες	ἐ-παιδεύ-ου	ἐ-δεἰκνῡ-ς	ἐ-δεἰκνυ-σο
	3rd	ἐ-παίδευ-ε(ν)	ἐ-παιδεύ-ετο	ἐ-δεἰκνῡ	ἐ-δεἰκνυ-το
pl.	1st	ἐ-παιδεύ-ομεν	ἐ-παιδευ-όμεθα	ἐ-δεἰκνυ-μεν	ε-δεικνύ-μεθα
	2nd	ἐ-παιδεύ-ετε	ἐ-παιδεύ-εσθε	ἐ-δεἰκνυ-τε	ἐ-δεἰκνυ-σθε
	3rd	ἐ-παίδευ-ον	ἐ-παιδεύ-οντο	ἐ-δεἰκνυ-σαν	ἐ-δεἰκνυ-ντο
			C. Imperative		
sg.	2nd	παίδευ-ε	παιδεύ-ου	δεἰκνῡ	δεἰκνυ-σο
	3rd	παιδευ-έτω	παιδευ-έσθω	δεικνύ-τω	δεικνύ-σθω
pl.	2nd	παιδεύ-ετε	παιδεύ-εσθε	δεἰκνυ-τε	δεἰκνυ-σθε
	3rd	παιδευ-όντων (παιδευ-έτωσαν)	παιδευ-έσθων (παιδευ-έσθωσαν)	δεικνύ-ντων	δεικνύ-σθων
				'to put'	
			D. Subjunctive		
sg.		παιδεύ-ω, -ῃς, -ῃ	παιδεύ-ωμαι, -ῃ, -ηται	τιθ-ῶ, -ῇς, -ῇ	τιθ-ώμαι, -ῇ, -ῆται
pl.		παιδεύ-ωμεν, -ητε, -ωσι(ν)	παιδευ-ώμεθα, -ησθε,-ωνται	τιθ-ῶμεν, -ῆτε, -ῶσι(ν)	τιθ-ώμεθα, -ῆσθε, -ῶνται
			E. Optative		
sg.		παιδεύ-οιμι, -οις, -οι	παιδευ-οίμην, -οιο, -οιτο	τιθ-είμην, -εῖο, -εῖτο	τιθ-είην, -είης, -είη
pl.		παιδεύ-οιμεν, -οιτε, -οιεν	παιδευ-οίμεθα, -οισθε, -οιντο	τιθ-εῖμεν/ -είημεν, -εῖτε/ -είητε, -εῖεν/ -είησαν	τιθ-είμεθα, -εῖσθε,-εῖντο

Table 12. Conjugation of εἰμί 'to be'

		Indicative		Subjunctive	Optative	Imperative
		Present	Imperfect	Present	Present	Present
sg.	1st	εἰμί	ἦν, older ἦ (ἤμην)	ὦ	εἴην	
	2nd	εἶ	ἦσθα (ἦς)	ᾖς	εἴης	ἴσθι
	3rd	ἐστί	ἦν	ᾖ	εἴη	ἔστω
pl.	1st	ἐσμέν	ἦμεν (ἤμεθα)	ὦμεν	εἶμεν/εἴημεν	
	2nd	ἐστέ	ἦ(σ)τε	ἦτε	εἶτε/εἴητε	ἔστε
	3rd	εἰσί(ν)	ἦσαν	ὦσι(ν)	εἶεν/εἴησαν	ἔστων/ὄντων (ἔστωσαν)

There is an imperative (Table 11C; Hellenistic innovations in parentheses) for the second and third person (e.g. παιδευέτω 'he must educate!').

The subjunctive (Table 11D) is characterized by long-vowel ("primary") endings, which were transferred from the thematic inflection to the athematic early on. Where the indicative has -η-/-ω- (1sg. act., 2sg. mid.-pass.), it does not differ from the subjunctive.

The optative, lastly (Table 11E), is marked by a diphthong before the endings (of the "secondary" set, except in the 1sg. act.). Thematic verbs have forms with -οι-, athematic ones with -οι(η)-, -αι(η)-, or -ει(η)- according to the vowel of the verb root (e.g. τιθείην 'I would put' from τιθε-, διδοίην 'I would give' from διδο-, ἱσταίην 'I would set up' from ἱστα-). Since the verbs in -νυμι have been assimilated to the thematic verbs in the subjunctive and optative (subj. δεικνύ-ω, opt. δεικνύ-οιμι), τίθημι 'to put' is used here as an example of the athematic inflection. Its subjunctives are again explained by vowel contraction (e.g. 1sg. τιθῶ < *τιθέ-ω).

The athematic conjugation of εἰμί 'to be' (Table 12) is important (inf. εἶναι, part. masc. ὤν, ὄντος, fem. οὖσα, οὔσης, neut. ὄν, ὄντος). Hellenistic forms, which to an extent prefigure the later transfer of the verb into the middle (εἰμί → εἶμαι), are again parenthesized.

3.5.3. Aorist

In the productive "sigmatic" aorist (Table 13) an element -σ(α)- follows the verbal root (but the -σ- is sometimes obscured: e.g. ἤγγειλα 'I announced' with -ειλ- < *-*els*- from the pres. ἀγγέλλω). The endings are similar to the thematic secondary endings, but they have -α- in place of -ε/ο- except in the 3sg. active. As an aspectual category (§4.2.2), the aorist also has (unaugmented) modal forms, infinitives, and participles. The

Table 13. Classical Greek aorist-stem verb inflection

		Active	Middle
Indicative			
sg.	1st	ἐ-παίδευ-σα	ἐ-παιδευ-σάμην
	2nd	ἐ-παίδευ-σας	ἐ-παιδεύ-σω
	3rd	ἐ-παίδευ-σε(ν)	ἐ-παιδεύ-σατο
pl.	1st	ἐ-παιδεύ-σαμεν	ἐ-παιδευ-σάμεθα
	2nd	ἐ-παιδεύ-σατε	ἐ-παιδεύ-σασθε
	3rd	ἐ-παίδευ-σαν	ἐ-παιδεύ-σαντο
Imperative			
sg.	2nd	παίδευ-σον	παίδευ-σαι
	3rd	παιδευ-σάτω	παιδευ-σάσθω
pl.	2nd	παιδεύ-σατε	παιδεύ-σασθε
	3rd	παιδευ-σάντων (παιδευ-σάτωσαν)	παιδευ-σάσθων (π.-σάσθωσαν)
Subjunctive		παιδεύ-σω, -σῃς etc.	παιδεύ-σωμαι, -σῃ etc.
Optative		παιδεύ-σαιμι, -σαις (-σειας), -σαι (-σειε(ν)), -σαιμεν, -σαιτε, -σαιεν (-σειαν)	παιδευ-σαίμην, -σαιο, -σαιτο, -σαίμεθα, -σαισθε, -σαιντο
Infinitive		παιδεῦ-σαι	παιδεύ-σασθαι
Participle			
	masc.	παιδεύ-σᾱς, -σαντος	παιδευ-σάμενος
	fem.	παιδεύ-σᾱσα, -σᾱσης	παιδευ-σαμένη
	neut.	παιδεῦ-σαν, -σαντος	παιδευ-σάμενον

subjunctive endings are identical with those of the present, but otherwise here too, except in the infinitive active and the 2sg. imperative, the "alpha-thematic" system described above holds. Note that in Attic the parenthesized variants of the optative prevail.

The aorist passive stem (Table 14) is marked by -(θ)η-, to which in the indicative the active athematic secondary endings are added (without -θ- e.g. ἐ-κόπ-η-ν from κόπτω 'to strike').

Instead of a sigmatic aorist, many verbs have an (older) thematic or "strong" aorist, whose inflection to a great extent corresponds to that of the thematic imperfect or the non-indicative moods of the present. However, its stem is different from the present stem (e.g. pres. βάλλ-ω 'to throw' with imperf. ἔ-βαλλ-ον, but aor. indic. act. ἔ-βαλ-ον, subj. βάλ-ω, opt. βάλ-οιμι, imv. 2sg. βάλ-ε, inf. βαλ-εῖν, etc.). Especially common are the aorists εἶπον 'I said' (suppletive of the pres. λέγω) and middle ἐγενόμην 'I became' (from pres. γίγνομαι or suppletive of εἰμί; but Hellenistic Greek has pass. ἐγενήθην instead). In later stages of the language, fusion with the "alpha-thematic" inflection is typical (at first 3pl. εἶπαν in place of εἶπον, later 2sg. ἔγραψες 'you wrote' in place of ἔγραψας from γράφω, etc.).

Table 14. Classical Greek aorist passive stem

Indicative	ἐ-παιδεύ-θην, -θης etc.
Subjunctive	παιδευ-θῶ, -θῇς etc.
Optative	παιδευ-θείην, -θείης etc.
Infinitive	παιδευ-θῆναι
Imperative	
sg.	παιδεύ-θητι, -θήτω
pl.	παιδεύ-θητε, -θέντων (-θήτωσαν)
Participle	
masc.	παιδευ-θείς, -θέντος
fem.	παιδευ-θεῖσα, -θείσης
neut.	παιδευ-θέν, -θέντος

Much rarer are the mostly intransitive "root aorists" (unsuffixed verbal root + ending), whose inflection is similar to that of the passive aorist in -θην (1sg. indic. ἔ-βη-ν 'I went', subj. βῶ, opt. βαίην, etc.).

3.5.4. Future

The future (Table 15) must have arisen at least in part from an aorist subjunctive. It likewise has the tense marker -σ-, followed by the thematic (primary) endings.

The formation of the passive generally resembles the passive aorist, with the tense marker -σ- combined with -(θ)η-. However, it uses middle endings (1sg. παιδευ-θή-σομαι), just as elsewhere the future in Classical Attic, less so in the Koine, often has middle forms (e.g. φεύξομαι 'I will flee' beside pres. φεύγω, ἔσομαι 'I will be' beside εἰμί).

A future without -σ-, which looks like a present in -έω, is found with verb roots ending in liquids or nasals (e.g. μένω 'to stay', fut. μενῶ) and with verbs ending in -ίζω (e.g. νομίζω 'to think', fut. νομιῶ). This formation originated in roots like καλε- 'to call', in which intervocalic

Table 15. Classical Greek future

	Active	Middle
Indicative	παιδεύ-σω, -σεις etc.	παιδεύ-σομαι, -σῃ /-σει etc.
Optative	παιδεύ-σοιμι, -σοις etc.	παιδευ-σοίμην, -σοιο etc.
Infinitive	παιδεύ-σειν	παιδεύ-σεσθαι
Participle	παιδεύ-σων etc.	παιδευ-σόμενος etc.

-σ- regularly disappeared (*καλέ-σω > καλέω > καλῶ) and was not restored as in παιδεύσω (by analogy with cases like δείξω = *δείκ-σω 'I will show'). The Koine here regularizes (καλέσω, νομίσω, etc.).

3.5.5. Perfect, pluperfect, and future perfect

The perfect (Table 16A) has (a) in the active a special set of endings that despite similarities with the alpha-thematic endings of the aorist are different in origin; (b) in the most productive type, and again only in the active, a stem-forming suffix -κ-; and (c) throughout a reduplication syllable containing the vowel -ε-, in which normally the initial consonant of the root is repeated (C_xε-C_x . . .). If this is aspirated, the unaspirated counterpart appears (e.g. τέ-θη-κα 'I have put'). In roots beginning with more than one consonant (except stop plus liquid clusters like κλ-, δρ-) or with ῥ-, simple ἐ- is used (e.g. ἔ-κτι-κα 'I have founded' from κτίζω), and with an initial vowel the reduplication syllable is the same as the (lengthened) augment (e.g. ἦχα 'I have led' from ἄγω). The reduplicated perfect stem is also found in the future perfect and the pluperfect (the latter still being augmented in Classical times) (Table 16B). In the middle/passive, perfect and pluperfect take the athematic primary and secondary endings respectively. The moods of the perfect and the active future perfect are formed periphrastically with the corresponding forms of εἰμί + perfect participle (πεπαιδευκὼς ὦ/εἴην/ἔσομαι, etc.). Occasional periphrastic forms also occur elsewhere already in Classical times.

Table 16. Classical Greek perfect and pluperfect

Active	Middle-Passive
A. Perfect	
πε-παίδευ-κα, -κας, -κε(ν), -καμεν, -κατε, -κᾶσι(ν) (later -καν)	πε-παίδευ-μαι, -σαι, -ται, -μεθα, -σθε, -νται
Infinitive	
πε-παιδευ-κέναι	πε-παιδεῦ-σθαι
Participle	
masc. πε-παιδευ-κώς, -κότος fem. -κυῖα, -κυίᾱς neut. -κός, -κότος	πε-παιδευ-μένος, -μένη, -μένον
B. Pluperfect	
ἐ-πε-παιδεύ-κη/-κειν, -κης/-κεις, -κει(ν), -κε(ι)μεν, -κε(ι)τε, -κε(ι)σαν	ἐ-πε-παιδεύ-μην, -σο, -το, -μεθα, -σθε, -ντο

Roots ending with a dental or guttural do not have a stem-forming suffix -κ-; instead these sounds are usually aspirated (e.g. τέ-ταχ-α 'I have arranged' from ταγ-). Other, sometimes very old, intransitive perfects belong to a "strong" type without -κ-, but with root ablaut (e.g. πέ-ποιθ-α 'I have trusted' from middle pres. πείθομαι, γέ-γον-α 'I have become' beside later γεγένημαι from pres. γίγνομαι 'to become' or suppletive from εἰμί 'to be').

4. Syntax

4.1. Case syntax

The nominative is used for the subject of a clause and for attributes and predicate nominals agreeing with it. The vocative is used for address, often in combination with the particle ὦ.

The accusative stands for the direct object, whether affected (ὁδὸν ὁράω 'to see a path'), effected (ὁδὸν ποιέω 'to make a path'), or – also with intransitive verbs – an inner object (ὁδὸν εἶμι 'to follow a path'; similarly with substantivized neuter adjectives: δεινὰ ὑβρίζω 'to commit outrageous sacrilege'). Some verbs are construed with double accusative (e.g. αἰτέω τινά τι 'to ask someone for something'). The accusative further expresses extension in space or time (e.g. τρεῖς ἡμέρας πλέω 'to sail for three days') and also occurs as a free accusative of relationship with adjectives, participles, or intransitive verbs (ἀλγέω τοὺς πόδας 'to have pain in the feet', καλὸς τοὺς πόδας 'beautiful as regards the feet').

The genitive marks possession in the widest sense (belongings, characteristics, material, etc.: e.g. τριῶν ἡμερῶν ὁδός 'a journey of three days'), and hence, as a "partitive" genitive, the assemblage/group to which something belongs (e.g. τίς ἡμῶν; 'who of us?'; post-Classically ἐξ 'out of' + gen. instead). The genitive is also partitive with verbs of participating, touching, governing, etc., and with verbs of perception, where Greek likes to emphasize the fact that the object is only partially affected (Περικλέους ἀκούω 'to heed Pericles', οἴνου πίνω 'to drink (some) wine', τῶν Βοιωτῶν ἄρχω 'to rule over the Boeotians'). The prehistoric syncretism of the ablative (§3.1.1) with the genitive explains the ablatival use of the genitive with verbs of separation (later often ἀπό/ἐξ 'from/out of' + gen.) and in comparisons (καλλίων ἵππου 'more beautiful than a horse'; but also καλλίων ἢ ἵππος).

The dative indicates the indirect object, but also occurs as a free dative of advantage ('to do something for someone'). This is the basis of its use for the agent of an action in the passive perfect, while in other tenses

of the passive the preposition ὑπό + genitive is usually used instead. Once again because of prehistoric case syncretism, the dative further assumes the functions of the earlier instrumental and locative; to the former belong the dative of manner (τούτῳ τῷ τρόπῳ 'in this way'), the instrumental dative (λίθοις βάλλω 'to pelt with stones'), and the datives of motive (εὐνοίᾳ ποιέω τι 'to do something out of good will') and measure (πολλῷ καλλίων 'much more beautiful'); and to the latter the temporal dative (ταύτῃ τῇ ἡμέρᾳ 'on this day'). Actual locations usually require a preposition (e.g. ἐν Ἀθήναις 'in Athens'), but government relationships of prepositions that arose from syntactically free adverbs still reflect the ancestral assignment of cases. Thus "ablatival" prepositions like παρά 'from' and ἐξ 'out of' take the genitive, "locatival" prepositions like παρά 'at, near' and ἐν 'in' take the dative, and "directional" ones like παρά 'along, toward' and εἰς 'into' take the accusative.

Starting in the Koine, a striking increase in prepositional syntagms can be observed (cf. above on the genitive). This is especially noticeable in the Late Roman–Byzantine period in the dative, which in Modern Greek is replaced by the genitive or by εἰς + accusative. The periphrasis of the instrumental dative with ἐν + dative in Biblical Greek, on the other hand, may be due to Semitic influence.

4.2. Syntax of the verb

4.2.1. Voice

The active and passive voices are used much as in English. The passive occurs above all when the agent of the action cannot or is not wanted to be specified, or is less relevant. Certain verbs that are strictly speaking intransitive like ἄρχω + genitive 'to rule over' can also be passivized.

The middle implies a particular involvement of the subject of the verb in the action. With some verbs (esp. of personal hygiene: e.g. λούομαι 'to wash oneself') a directly reflexive relationship (identity of agent and patient) can be represented, but the reflexive pronoun (§3.3.5) is normally used for this purpose. More commonly, the middle expresses indirect reflexivity, in which a patient distinct from the agent is present (as direct object), but the agent is the beneficiary of the action (e.g. παρασκευάζομαι πλοῖον 'I am preparing a ship (for myself)'). Similarly middle are verbs with a causative meaning, where the agent alters his/her own mental or physical state or where the subject non-agentively undergoes an alteration of his/her state (στρέφω 'to turn (something)' vs. στρέφομαι 'to turn oneself', ἐκπλήττω 'to frighten (someone)' vs. ἐκπλήττομαι '(intr.)

to be frightened'). Similar semantic relationships are also found in "deponent" verbs that have no active forms (e.g. αἰσθάνομαι 'to perceive').

4.2.2. Tense and aspect

The present indicative is used not only for specific and general/habitual statements about the present of the speech act, but also for atemporal utterances. It occurs in a stylistically marked fashion with non-stative verbs as a historical present, where the visualization underscores the narrative relevance of the event portrayed in this way.

The perfect also has present reference, primarily describing the current state of the subject as the result of a past action (e.g. πέποιθα 'to be convinced' as the result of past πείθομαι 'to become convinced', τέθνηκα 'to be dead' from ἀποθνῄσκω 'to die'). Since from the Classical period on transitive-active perfects could also increasingly be formed, in which the resulting state concerns not only the subject but also the object (e.g. γέγραφα ἐπιστολήν lit. 'I am one who has written a letter' > 'I have written a letter'), in the Hellenistic period the perfect developed gradually into a narrative past tense, which eventually became synonymous with the aorist and was ousted by it.

The specific or general future (from the point of view of the speech act) is indicated by the future (or the future perfect in the case of states whose present reference is expressed by the perfect). In the Classical period only rarely, but in the Hellenistic period more commonly, a paraphrase with μέλλω + infinitive can be used instead ('to be about to'; only late θέλω ἵνα lit. 'to want'). The Koine also knows a colloquial futuric present.

The relationship between the past tenses (indicative) aorist and imperfect is aspectually determined. The "complexive" (or "perfective," but unrelated to the perfect) aspect of the aorist stem contrasts with the "non-complexive"/"imperfective" aspect of the present stem (pres., imperf.). The aorist expresses such past actions as are apprehended in their entirety, without their internal development being of any importance. This does not necessarily presuppose punctuality: a clause like ὁ πατὴρ ἔτη τριάκοντα ᾤκησε ἐν Ἀθήναις 'the father lived in Athens for thirty years' with the aorist ᾤκησε of the durative verb οἰκέω is perfectly grammatical. In context, an "ingressive" interpretation of the aorist of durative verbs often results (e.g. pres. βασιλεύω 'I am king', aor. ἐβασίλευσα 'I became king').

The imperfect (and the pluperfect as "imperfect of the perfect"), in contrast, is used for a "progressive presentation," in which the action is

perceived in its individual steps or as a development. Thus the imperfect not only describes former states or repeated events, but also portrays background events pictorially, within or following which a (foreground) event takes place. A special case is represented by the *imperfectum de conatu*, in which an imperfect like ἐδίδου is to be interpreted as 'he offered' (not 'he gave (repeatedly)').

Purely aspectual – and hence without past reference – is the use of the aorist stem in the rare "gnomic aorist" (for generalized maxims), in the non-indicative moods, and in the infinitives and participles (cf. also §4.2.4, 4.2.5).

4.2.3. Moods

Factual statements, or statements presented as factual, and questions about them are made in the indicative. The indicative imperfect or aorist (according to the aspect) is used with the modal particle ἄν in irrealis (counterfactual) statements (negative οὐ; e.g. ἐποίει/ἐποίησε ἄν 'he would do/would have done') and for repetition in the past (ὁπότε …, ἔλεγε/εἶπε ἄν 'whenever …, he used to say'). Without ἄν, but with introductory εἴθε/εἰ γάρ (later also grammaticalized ὤφελον, lit. 'I owed'), the indicative expresses an unfulfilled wish (negative μή).

The subjunctive originally represents an action as subjectively expected or expectable. In clauses of command (neg. μή) the 1st person is used for demands on the self (μὴ τοῦτο λέγωμεν 'let us not say that'), while the negated 2nd person of the aorist subjunctive replaces a negated aorist imperative ("prohibitive" subjunctive: 'do not begin to …'). The "deliberative" subjunctive in questions expresses the hesitant thought of the speaker (τί λέγωμεν; 'what should we say?', ποῖ τις φύγῃ; 'where can/should one flee?').

The optative, *qua* mood of possibility, is found in main clauses in wishes assumed to be fulfillable (with or without εἴθε/εἰ γάρ, neg. μή; e.g. μὴ γένοιτο ταῦτα 'hopefully that will not happen!'), but above all as the "potential" optative with ἄν (negative οὐ) to present possible actions (λέγοι τις ἄν 'one might say') or to formulate politely mitigated assertions (ὥρα ἄν εἴη 'it must be time'). As the optative disappeared in the Hellenistic period, it was replaced here by e.g. an indicative future.

The imperative is the mood of command (neg. μή). However, expressions of demand can also be formulated otherwise, depending on the pragmatic situation (e.g. δεῖ/χρή + infinitive 'one must', verbal adjective in -τέος, potential formulations like λέγοις ἄν 'you could speak = please

speak', οὐ μή + indicative future or subjunctive for emphatically negated future statements, etc.).

The use of moods in subordinate clauses is similar to that in main clauses, but it is also partly determined by the type of subordinate clause (cf. §4.3.2). After secondary tenses (indicative aorist, imperfect, pluperfect, historical present), a subordinate clause may contain an "oblique" optative instead of an indicative or subjunctive (but this optative too disappears in the Koine). Similarly, in the Classical period the "prospective" subjunctive is restricted to subordinate clauses (with ἄν, in part merged into the conjunction: εἰ + ἄν = ἐάν, ὅτε + ἄν = ὅταν, etc.); it refers to a future or general state of affairs (e.g. ὅστις ἄν τοῦτο ποιήσῃ, ζημιωθήσεται/ζημιοῦται 'whoever does this will be punished'). For the "iterative" optative in subordinate clauses see §4.3.2.

4.2.4. Infinitive

Infinitives and infinitive constructions occur as independent clauses only exceptionally (e.g. as jussive infinitives in legal language). They are normally obligatory constituents depending on (a) verbs of wishing, desiring, commanding/prohibiting, ability, etc.; impersonal expressions like δεῖ/χρή 'one must'; and adjectives of ability and quality (e.g. δεινὸς λέγειν 'skilled in speech', βούλομαι ἀπελθεῖν 'I want to depart') ("dynamic infinitive," neg. μή); and (b) verbs of thinking and speaking, where they imply the actual or supposed factuality of the event less explicitly than subordinate clause constructions e.g. with ὅτι 'that' ("declarative infinitive," neg. οὐ: e.g. ἔφη ἀφικέσθαι 'he said he (himself) had come'; for ὅτι see §4.3.2). While in the dynamic infinitive the use of the aorist or present variant is aspectually determined, and the infinitive future does not occur (present βούλομαι δειπνεῖν vs. aorist βούλομαι δειπνῆσαι 'I want to eat' according to how greatly the act of eating is of interest: §4.2.2), in the declarative infinitive the infinitive aorist mostly conveys anteriority, the infinitive present simultaneity, and the infinitive future, futurity. Already in the Koine the dynamic infinitive is in many places encroached upon by a purpose clause with ἵνα + subjunctive, and the declarative infinitive is increasingly replaced by ὅτι (later πῶς).

When and only when the subject of the declarative infinitive is different from the subject of the superordinate verb, an *Accusativus cum Infinitivo* construction is used in Classical Greek, with the subject of the infinitive appearing in the accusative (e.g. ἔλεγε τὸν πολίτην ἀφικέσθαι

'he said that the citizen had arrived'). If this construction is passivized, a *Nominativus cum Infinitivo* results (e.g. ὁ πολίτης ἀφικέσθαι ἐλέγετο 'it was said that the citizen had arrived').

The substantivized infinitive with article is already found in the Classical period, but becomes particularly common in (literary) Hellenistic Greek. When combined with prepositions it can even replace entire subordinate clauses; its subject too is in the accusative (e.g. πρὸ τοῦ ἀναβαίνειν τοὺς μάρτυρας 'before the arrival of the witnesses = before the witnesses arrive'). Worth mentioning, finally, is the infinitive of purpose after verbs like δίδωμι 'to give' (e.g. δίδωμί σοι τοῦτο φαγεῖν 'I give you this to eat').

4.2.5. Participles

Participles or participial constructions occur obligatorily after verbs of knowing and perceiving, and in part also after verbs of showing and announcing (e.g. τὸν Μῆδον ἴσμεν/ὁρῶμεν ἐλθόντα 'we know/see that/how the Medes are coming' = *Accusativus cum Participio;* also *Nominativus cum Participio* when the subject of the participle and the finite verb is the same: ὁρῶμεν ἀδύνατοι ὄντες 'we see that we are powerless'); after verbs of emotion (e.g. χαίρω διαλεγόμενος ὑμῖν 'I am happy to talk to you'); after verbs that express the manner of being in a given state (e.g. τυγχάνεις παρών 'you happen to be present'); and after "phasal" verbs (e.g. ἄρχομαι/παύομαι λέγων 'I begin/stop speaking').

Even more common are *Participia coniuncta.* Such participles modify another concordant clause component, and various semantic shadings are possible; these are sometimes clarified by added particles (causal ἅτε/ὡς, concessive καίπερ, purpose ὡς + future participle, etc.; thus e.g. ἀκούσας ταῦτα ὁ Ἀστυάγης τοὺς Μήδους ὥπλισε 'after/because he had heard this, Astyages armed the Medes'). The "genitive absolute" is related, in which a construction of a noun/pronoun + participle in the genitive that is not otherwise anchored in the clause is used for adverbial expansion (τῶν Μήδων ἀποθανόντων οἱ Ἕλληνες ἔχαιρον 'after/when/because the Medes had died, the Greeks rejoiced'). Present participles convey simultaneity, aorist participles anteriority, and future participles posteriority with respect to the superordinate verb.

Like adjectives, participles can also modify a substantive (οἱ νῦν ὄντες ἄνθρωποι 'today's people', lit. 'the now being people'; also substantivized, e.g. ὁ ἄρχων 'the ruling = ruler'). Paraphrases of finite verbs using participles + εἰμί 'to be' or ἔχω 'to have' are still exceptional in the Classical period (except in the perfect: §3.5.5).

4.3. Clause structure

4.3.1. Concord, word order, coordination

Subject and predicate (including a predicate noun) agree, as far as possible, in person, number, case, and gender. The peculiar use of a finite verb in the singular with a subject in the neuter plural is very old (ταῦτα καλά ἐστιν 'this is beautiful'). In nominal clauses the copula εἰμί is often omitted, especially in impersonal expressions like αἰσχρόν (ἐστι) 'it is shameful'.

Within a clause the order of components is "free" in the sense that, say, neither the verb nor the subject always comes first. The following order of pragmatic constituents can be considered basic for Classical Greek: (1) Topic (= information that serves as an orientation framework), (2) Focus (= new information), (3) Verb (if distinct from (1) or (2)), (4) Other elements. Enclitics tend to occur in second position in the clause. However, because they often depend on the verb, the order Verb – Subject – Object becomes increasingly set during the Hellenistic period.

The concatenation of clause elements and entire clauses is only rarely asyndetic; more often one or several clause- and discourse-structuring particles are used (καί 'and', (μέν-)δέ '(on the one hand) but (on the other hand)', οὖν 'thus', τοίνυν 'therefore', δή 'accordingly', etc.).

4.3.2. Subordination

As subordinate clauses we find subject and object clauses that are required by a verb phrase, attributive clauses (relative clauses), and adverbial clauses as free complements. Among the former are assertive clauses following verbs of saying, perceiving, etc., which are usually introduced by ὅτι or ὡς 'that, how' (+ mood of an assertion or oblique optative: §4.2.3) (e.g. εἶπεν ὅτι ψεύδεται/ψεύσαιτο 'he said that he was lying'), clauses of desire following verbs of caring (with ὅπως (μή) + indicative future, or in the Classical period more rarely subjunctive; e.g. ἐπιμέλεσθαι 'to see to it that') and following verbs of fearing (e.g. φοβεῖσθαι μή/μὴ οὐ + subjunctive/oblique optative 'to fear that/lest'), and dependent interrogative clauses (+ mood of an independent question or oblique optative: e.g. ἠποροῦμεν ὅ τι ποιῶμεν/ποιοῖμεν 'we did not know what we should do').

Among adverbial clauses are causal clauses (conjunctions include ὅτι, διότι 'because', ἐπεί, ἐπειδή 'since', neg. οὐ), consecutive clauses (ὥστε + indicative (neg. οὐ) for actual consequences, ὥστε + infinitive (neg. μή) for potential consequences), purpose clauses (ἵνα, ὅπως (μή) + subjunctive/oblique optative), conditional and concessive clauses, and temporal clauses.

Table 17. Classical Greek conditional clause types

	Protasis ('if . . .')	Apodosis ('then . . .')
Indefinite	εἰ + indicative	mood according to type of statement
Prospective	ἐάν + subjunctive	indicative future (or imperative) = future indicative present = general
Potential	εἰ + optative	(potential) optative + ἄν
Irrealis	εἰ + indicative imperfect/aorist	(counterfactual) indicative imperfect/aorist + ἄν

Among conditional clauses (conjunction εἰ 'if' or ἐάν, neg. μή) and the parallel concessive clauses (conjunction εἰ/ἐὰν καί 'although', καὶ εἰ/ἐάν 'even if') the types shown in Table 17 appear according to the degree of certainty involved. The prospective construction is also found in future or general temporal clauses (conjunctions e.g. ὅτε (ὁπότε) or ὅταν (ὁπόταν) 'when, whenever', ἐπεί/ἐπειδή or ἐπάν/ἐπειδάν 'when, after', ἕως (ἄν) 'until', ἀφ' οὗ 'since', ἐν ᾧ 'while'), as in ὅταν τις ἀποθάνῃ, πάντες λυποῦνται 'when someone dies, all are saddened'. Temporal clauses referring to the past, on the other hand, are in the indicative, or with repeated events in the iterative optative (ὁπότε τις ἀποθάνοι, πάντες ἐλυποῦντο 'whenever someone died, all were saddened'). The conjunction πρίν 'before' operates like the other temporal conjunctions after negative main clauses, but after positive ones it requires an infinitive construction (τοῦτο ἐγένετο πρὶν πάντας παρεῖναι 'this happened before all were there').

Similar to the adverbial clauses are relative clauses with conditional, causal, consecutive, or purpose (subordinate) meaning; thus, for example, conditional relative clauses too can have an indefinite, prospective, potential, or counterfactual function. However, purpose relative clauses require in the Classical period the indicative future, not, as later, the subjunctive of purpose clauses. Relative clauses without such nuances are construed like main clauses. The attraction of the relative pronoun to the case of its antecedent is quite common (e.g. σὺν τοῖς θησαυροῖς οἷς (instead of οὓς) ὁ πατὴρ κατέλιπε 'with the treasures that my father left behind'). Occasionally the antecedent itself is incorporated into the relative clause (e.g. τούτους ἐποίει ἄρχοντας ἧς κατεστρέφετο χώρας 'these he made rulers of the land that he conquered').

5. Word formation

Only a few particularly productive types of the many derivational patterns can be mentioned here. Deverbals include the *nomina agentis* in

-της, -του (alongside fem. -τρια/-τρίς: e.g. ποιητής/ποιήτρια 'poet(ess)' from ποιέω 'to make'), which replace older -τήρ/-τωρ; the *nomina actionis* in -σις, -σεως (also -(σ)μός), which are popular in periphrases like μάθησιν ποιεῖσθαι = μανθάνειν 'to learn'; and the *nomina rei actae* in -μα, -ματος (ποίημα 'poem'). Denominals include the abstracts in -ία/-εία (ἀδικία 'injustice' from ἄδικος, also deverbal beside verbs in -έω: ναυμαχία 'sea battle' next to ναυμαχέω); -(ό)της, -(ό)τητος fem. (μελανότης 'blackness' from μελαν-); -σύνη (δικαιοσύνη 'justice' from δίκαιος); and -ική (ῥητορική 'rhetoric' from ῥήτωρ 'orator'), the latter representing the substantivized feminine of one of the many denominal adjectives in -ικός. From the Classical period on, -ικός competes with the older but still productive relational suffix -ιος (-αιος, -ειος); and in the form -τικός (which originally belonged to nouns in -της), it is also used deverbally (διαλεκτικός from διαλέγομαι 'to converse').

Further important adjectival suffixes are -ινος on adjectives of material, which in part replaces older -εος > -οῦς (e.g. ξύλινος 'wooden'); the poetic -εις, -εντος, which indicates abundance of something (ῥοδόεις 'rich in roses'); and -ώδης, -ώδους (ἀνδρώδης 'manly' from ἀνήρ 'man'); important substantival suffixes are -ίς, -ίδος (Hellenistically also -ισσα) for motionsfeminina (in place of the old **-ya:* §3.1.3), esp. in the suffix combination -τρίς (see above and cf. αὐλητρίς 'flute girl' from αὐλέω 'to play the flute'); denominal -της, -του in names of professions and -ίτης/-ιάτης in ethnonyms (ναύτης 'sailor' from ναῦς 'ship', Ἀβδηρίτης 'man from Abdera'); -ιον, -ίδιον, -άριον, -ύλλιον, and -ίσκος in diminutives (οἰκίδιον 'little house' from οἶκος); and the aforementioned -τήρ, which survives in names of tools (λαμπτήρ 'lamp, torch' from λάμπτω 'to shine'), and from which -τήριον especially in names of locations is derived (δεσμωτήριον 'prison'). Based on adjectives are adverbs in -ως (καλῶς 'beautifully').

An old verbal suffix **-y(e/o)-*, as originally added to stems in -ιδ-/-αδ-, constitutes the basis for the verbs in -ίζω/-άζω (< **-id-ye/o-, *-ad-ye/o-:* e.g. ἐλπίζω 'to hope' from ἐλπίς 'hope'). These suffixes can then appear on the most diverse noun stems and express all sorts of semantic relations: cf. δειπνίζω 'to host' (from δεῖπνον 'meal'), περσίζω 'to speak in Persian, to behave like a Persian', or ἀκοντίζω 'to throw a spear' (from ἄκων 'spear'). Substantives likewise underlie most vocalic verbs in -έω (κοσμέω 'to adorn' from κόσμος 'order, adornment'), -άω (τιμάω 'to honor' from τιμή 'honor'), -όω (δουλόω 'to enslave' from δοῦλος 'slave'), and -εύω (παιδεύω 'to educate' from παῖς 'child').

Finally, one may note the ease with which compounds are formed. Among them we find determinative compounds, in which the first component specifies a nominal second component (e.g. ἡμί-θεος 'demigod' from ἥμι(συς) 'half' and θεός 'god'); possessive compounds, which express a property that someone/something has (πολυ-άργυρος 'possessing

much silver' from πολύς 'much' and ἄργυρος 'silver'; also compounds like ἄδικος 'unjust', lit. 'possessing no justice (δίκη)'); and verbal governing compounds with a verbal first or second component that "governs" the other component (e.g. as object: φερέ-νικος or νικη-φόρος 'bringing victory' from νίκη 'victory' and φέρω 'to bring'). Verbs are derived from nominal compounds on the models already described (e.g. ψευδο-μάρτυς 'false witness' → ψευδο-μαρτυρέω 'to bear false witness'). True verbal compounds, meanwhile, are only formed from verb + (in Homeric Greek often still free-standing) preposition (= "preverb") (e.g. εἰσ-φέρω 'to carry in').

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West Semitic and Greek letterforms

The following table shows the most important West Semitic and Greek letterforms:

1, Ugaritic; *2,* Proto-Canaanite (Serabit el-Khadem); *3,* early Phoenician (Ahiram); *4,* Old Hebrew (Gezer calendar); *5,* Old Hebrew (Lachish letters); *6,* Moabite (Mosha stela); *7,* modern Samaritan; *8,* Old Aramaic (Bar Rakib stela); *9,* Elephantine papyri; *10,* Qumran (Isaiah Scroll); *11,* modern Hebrew type; *12–13,* reconstructed West Semitic letter names and translations (after Gordon J. Hamilton, *The Origins of the West Semitic Alphabet in Egyptian Scripts* (Washington, D.C.: Catholic Biblical Association, 2006), except *ṭēt,* suggested by W. F. Albright [Manfred Krebernik, "Buchstabennamen, Lautwerte und Alphabetgeschichte," in Robert Rollinger, Andreas Luther, and Josef Wiesehöfer (eds.), *Getrennte Wege? Kommunikation, Raum und Wahrnehmung in der Alten Welt,* 108–75 (Frankfurt: Verlag Antike, 2007), at p. 153 n. 145]); *14,* archaic Greek (8th c. BCE); *15,* Codex Sinaiticus (350 CE); *16,* modern Greek type (majuscule and minuscule); *17,* Greek names; *18,* Old South Arabian (in artificial cognate order); *19,* same in South Semitic order; *20,* Modern Ethiopic forms and order (for comparison). N.B. These forms are not to be used for paleographic comparison; they represent font designers' idealizations.

Col. 1, font Code2001 by James Kass; cols. 2–10, fonts by Yoram Gnat http://culmus.sourceforge.net/ancient/index.html; cols. 14–15, fonts by Kris J. Udd http://www.bibleplaces.com/greek_fonts.htm; cols. 18–19, font UT South Arabian Sans [source unknown].

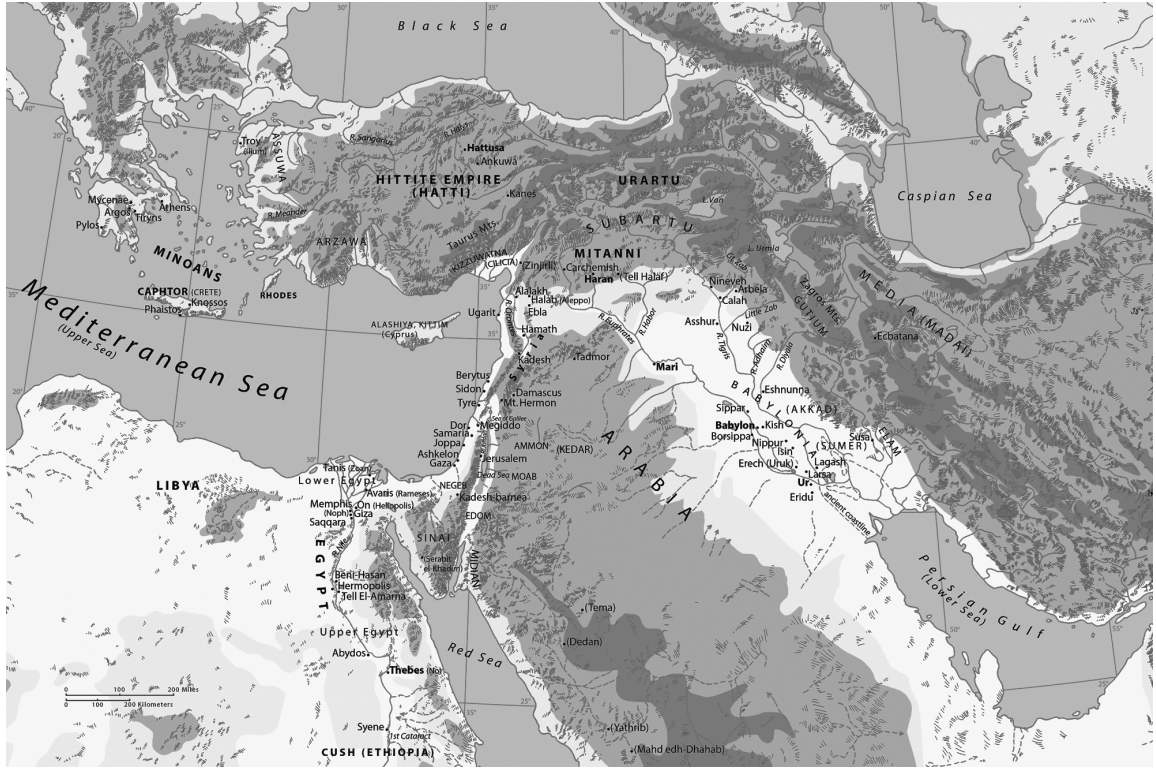
Table compiled by Peter T. Daniels

Ugaritic	Phoenician/Old Hebrew (2)	Aramaic (11)	letter names (12)	(13)	Greek (16)	(17)	OSA (18)	(19)	Ethiopic	(20)
ả	ʾ	א	*ʾalp	‘ox’	Α α	Ἄλφα	ʾ	*h*	*ha*	ሀ
b	*b*	ב	**bēt*	‘house’	Β β	Βῆτα	*b*	*l*	*la*	ለ
g	*g*	ג	**gaml*	‘throwstick’	Γ γ	Γάμμα	*g*	*ḥ*	*ḥa*	ሐ
ḫ	–						*ḫ*	*m*	*ma*	መ
d	*d*	ד	**dalt*	‘door’	Δ δ	Δέλτα	*d*	*q*	*śa*	ሠ
h	*h*	ה	**hiʾ*	‘lo!’	Ε ε	Εἶ, Ἒ ψιλόν	*h*	*w*	*ra*	ረ
w	*w*	ו	**waw*	‘mace’[a]	(Ϝ ϝ)	Ϝαῦ	*w*	s_1	*sa*	ሰ
z	*z*	ז	**zayn*	‘weapon’	Ζ ζ	Ζῆτα	*z*	*r*	*qa*	ቀ
ḥ	*ḥ*	ח	**ḥēt*	‘fence’	Η η	Ἦτα	*ḥ*	*b*	*ba*	በ
ṭ	*ṭ*	ט	**ṭēt*	‘spindle’?[b]	Θ θ	Θῆτα	*ṭ*	*t*	*ta*	ተ
y	*y*	י	**yōd*	‘hand’	Ι ι	Ἰῶτα	*y*	s_3	*ḫa*	ኀ
k	*k*	ך כ	**kapp*	‘palm of hand’	Κ κ	Κάππα	*k*	*k*	*na*	ነ
š	–						s_2	*n*	*ʾa*	አ
l	*l*	ל	**lamd*	‘coil of rope’[c]	Λ λ	Λά(μ)βδα	*l*	*ḫ*	*ka*	ከ
m	*m*	ם מ	**mēm*	‘water’	Μ μ	Μῦ	*m*	s_2	*wa*	ወ
ḏ	–						*ḏ*	*p*	*ʿa*	ዐ

a. Or: ‘peg’. b. Other suggestions include ‘scroll’ and ‘tube'. c. Or: ‘oxgoad’.

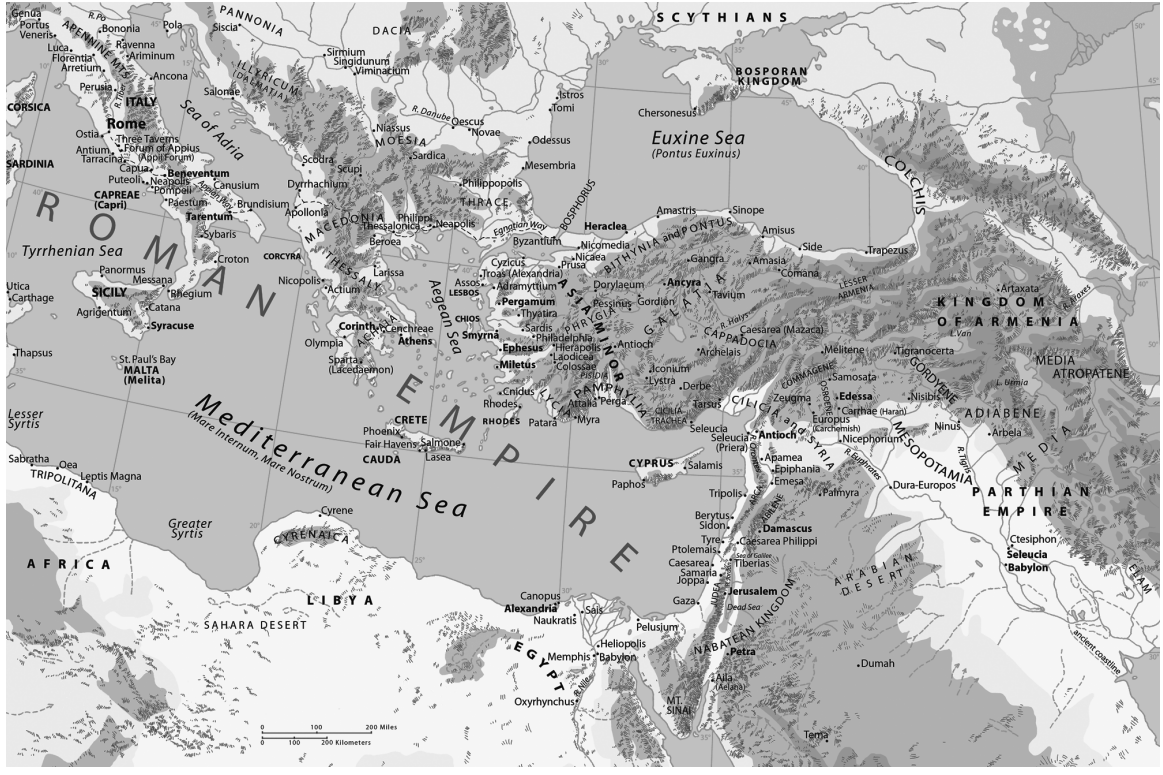
Ugaritic		Phoenician/Old Hebrew						Aramaic				letter names		Greek				OSA		Ethiopic	
1		*2*		*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*	
n		*n*											**nūn*	‘fish’			N	Nῦ	*n*		*za*	
ẓ		–																	*ẓ*		*ya*	
s		*s*											**samk*	‘pillar’[d]			Ξ	ξ Ξεῖ (Ξῖ)	*s*$_1$		*ḍ*	
‘		‘											**ʿayn*	‘eye’			O	ο Οὖ, Ὄ μικρόν	‘		*g*	
p		*p*											**pi*	‘edge’[e]			Π	π Πεῖ (Πῖ)	*p*		*d*	
ṣ		*ṣ*											**ṣadē*	‘papyrus’[f]			(ϡ)	Σάν	*ṣ*		*ġ*	
q		*q*											**qop*	‘monkey’?[g]			(Ϙ ϙ)	Ϙόππα	*q*		*ṭ*	
r		*r*											**ri*ʾ*š*	‘head’			P	ρ Ῥῶ	*r*		*ḍa*	
ṯ		*š*											**šin*	‘bow’[h]			Σ	σ Σίγμα	*ṯ*		*ḏ*	
ġ		–																	*ġ*		*y*	
t		*t*											**taw*	‘mark’			T	τ Ταῦ	*t*		*ṯ*	
i																	Υ	υ ῾Υ, ῾Υ ψιλόν	*ḍ*		*ṣ*	
u																	Φ	φ Φεῖ (Φῖ)	*s*$_3$		*ẓ*	
s																	Χ	χ Χεῖ (Χῖ)				
																	Ψ	ψ Ψεῖ (Ψῖ)				
																	Ω	ω Ὦ μέγα				

d. Or: ‘fish’. e. Or: ‘mouth’. f. Or: ‘cricket’. g. Or: ‘basket’. h. Or:‘tooth’.



Map 1 Ancient Near East

Source: Map from Hans-Josef Klauck et al., eds., *Encyclopedia of the Bible and Its Reception* (Berlin/New York: De Gruyter, 2009).



Map 2 Greco-Roman Period

Source: Map from Hans-Josef Klauck et al., eds., *Encyclopedia of the Bible and Its Reception* (Berlin/New York: De Gruyter, 2009).

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