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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'), /-ɛ̄/ (DWH /dawɛ̄/ '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 /-ɛ̄/, 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 /dawɛ̄/ (< */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/:: /ḇ/

(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 (*zrō^{aʿ}* and *ʾɛzrō^{aʿ}* '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/ > *miḡdál* '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/	(*ʾanī, ʾānōḵī*)	NḤNW	/naḥnū/	((*ʾa*)*náḥnū*)
2masc.	ʾT	/ʾattā/	(< */ʾantā/ *ʾat(tā)*)	—	/ʾattim/	(< */ʾantumū/ *ʾattɛm*)
2fem.	—	/ʾattī/	(< */ʾantī/ *ʾat*)	—	/ʾattinnā/	(<*/ʾantinnā/ *ʾatten(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 *ʾat*) 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/ (*-ḗhā*) '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 ʿāśīt̲ā* '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 *ʾay/ʾē* '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 *nɛ́pɛš* '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 */ʾat̲ar-/ '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/ > *kō̱t̲é̱b̲ɛ̱t̲* '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 ʾᵒnī 'fleet' and ʾᵒnīyā 'ship').

Some substantives occur with both genders (e.g. Biblical Hebrew *dɛ́rɛḵ* '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)	/kataːb-tī/ (*kāṯáḇtī*)	KTB-NW	/kataːb-nū/ (*kāṯáḇnū*)
2masc.	KTB-T(H)	/kataːb-tā/ (*kāṯáḇtā*)	KTB-TM	/katab-tim/ (*kṯaḇtɛm*)
2fem.	—	/kataːb-t(ī)/ (*kāṯaḇt*)	—	/katab-tín(nā)/ (*kṯaḇtɛn*)
3masc.	KTB	/katab/ (*kāṯaḇ*)	KTB-W	/katab-ū/ (*kāṯḇū*)
3fem.	—	/katab-āː/ (*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 /āː/ did not shift to /ōː/. 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 *yiḵṯoḇ*), 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/ (*ʾɛḵṯoḇ*)	N-KTB	/na-ktub/ (*niḵṯoḇ*)
2masc.	T-KTB	/ta-ktub/ (*tiḵṯoḇ*)	T-KTB-W	/ta-ktub-ū/ (*tiḵṯḇū*)
2fem.	—	/ta-ktub-ī/ (*tiḵṯḇī*)	—	/ta-ktúb-nā/ (*tiḵṯóḇnā*)
3masc.	Y-KTB	/ya-ktub/ (*yiḵṯoḇ*)	Y-KTB-W	/ya-ktub-ū/ (*yiḵṯḇū*)
3fem.	T-KTB	/ta-ktub/ (*tiḵṯoḇ*)	—	/ta-ktúb-nā/ (*tiḵṯóḇnā*)

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., LʾNRʾHʾTʿZQH /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 ṯištē* 'and

it used to drink from his cup' 2 Sam 12:3; *w-k̲en yaʿᵃśē* '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 (YŠMʿ ʾDNY /yišmaʿ ʾadōnī/ 'let my lord hear!' *KAI* 200:1) and take the negation ʾL /ʾal/ (ʾL TŠMʿ /ʾal tišmaʿ/ '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/ > *wayyik̲to͟b*), 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 *yarʿem* 'he thundered' in the archaic passage 2 Sam 22:14 has been replaced by *wayyarʿem* 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 (*wattik̲baḏ 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 ʿālēḵā rāʿā* 'I am on the point of bringing disaster on you!' 2 Sam 12:11). The latter is particularly common after the presentative /hinnē/. 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/; *yikkāṯeḇ*); 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 (*Pi*ʿ*el*), 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/ (*kitteḇ, qiddaš*); "imperfect," imperative, and infinitive construct /(ya-)kattib/ (*(y-)katteḇ*); infinitive absolute /kattōb/; participle /mukattab/ (*mkatteḇ*). 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 (*Hif*ʿ*il*) 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/ (*hiṯkatteḇ*); "imperfect" /yatkattib/ (*yiṯkatteḇ*); 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)/ (*ʾεl*) '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.

Bibliography

Bauer, Hans, and Pontus Leander. 1922. *Historische Grammatik der hebräischen Sprache des Alten Testamentes.* Halle/Saale: Niemeyer.

Bergsträsser, Gotthelf. 1918–1929. *Hebräische Grammatik.* 2 vols. Leipzig: Vogel.

Beyer, Klaus. 1969. *Althebräische Grammatik.* Göttingen: Vandenhoeck & Ruprecht.

Blau, Joshua. 2010. *Phonology and Morphology of Biblical Hebrew.* (Linguistic Studies in Ancient West Semitic 2.) Winona Lake, Ind.: Eisenbrauns.

Brockelmann, Carl. 1956. *Hebräische Syntax.* Neukirchen: Verlag der Buchhandlung des Erziehungsvereins.

Dobbs-Allsopp, F[rederick] W[illiam], Jimmy J. M. Roberts, Choon-Leong Seow, and Richard E. Whitaker. 2004. *Hebrew Inscriptions: Texts from the Biblical Period of the Monarchy with Concordance.* New Haven, Conn.: Yale University Press.

Donner, Herbert, and Wolfgang Röllig. 1966–2002. *Kanaanäische und aramäische Inschriften.* 3 vols. Wiesbaden: Harrassowitz.

Driver, S[amuel] R[olles]. 1892. *A Treatise on the Use of the Tenses in Hebrew and Some Other Syntactical Questions.* 3rd ed. London: Oxford University Press. Repr. Grand Rapids, Mich.: Eerdmans, 1998, with an extensive introduction by W. Randall Garr.

Fassberg, Steven E., and Avi Hurvitz (eds.). 2006. *Biblical Hebrew in its Northwest Semitic Setting.* Winona Lake, Ind.: Eisenbrauns.

Gesenius, Wilhelm (eds. Rudolf Meyer and Herbert Donner). 1987–2010. *Hebräisches und Aramäisches Handwörterbuch über das Alte Testament,* 18th ed. 6 vols. Berlin: Springer.

Gianto, Agustinus. 1996. "Variations in Biblical Hebrew." *Biblica* 77: 493–508.

Gogel, Sandra L. 1998. *A Grammar of Epigraphic Hebrew.* Atlanta, Ga.: Scholars Press.

Gzella, Holger. 2009. "Voice in Classical Hebrew against its Semitic Background." *Orientalia* 78: 292–325.

Gzella, Holger. 2011. "Probleme der Vermittlung von Tempus, Aspekt und Modalität im Hebräischen." *Kleine Untersuchungen zur Sprache des Alten Testaments und seiner Umwelt* 12–14: 7–39.

Gzella, Holger. In press. "Expansion of the Linguistic Context of the Hebrew Bible / Old Testament: Hebrew Among the Languages of the Ancient Near East." In: Magne Sæbø

(ed.), *Hebrew Bible / Old Testament: The History of its Interpretation,* vol. 3: *From Modernism to Post-Modernism: The Nineteenth and Twentieth Centuries.* Göttingen: Vandenhoeck & Ruprecht.

Hoftijzer, Jacob, and Karel Jongeling. 1995. *Dictionary of the North-West Semitic Inscriptions.* 2 vols. (Handbuch der Orientalistik I/21.) Leiden: Brill.

Jenni, Ernst. 1992–2000. *Die hebräischen Präpositionen.* 3 vols. Stuttgart: Kohlhammer.

Jenni, Ernst. 1997–2005. *Studien zur Sprachwelt des Alten Testaments.* 2 vols. Stuttgart: Kohlhammer.

Joüon, Paul, and Takamitsu Muraoka. 2006. *A Grammar of Biblical Hebrew.* Rome: Biblical Institute Press.

KAI = Donner and Röllig 1966–2002.

Khan, Geoffrey. 1996. "The Tiberian Pronunciation Tradition of Biblical Hebrew." *Zeitschrift für Althebraistik* 9: 1–23.

Renz, Johannes, and Wolfgang Röllig. 1995–2003. *Handbuch der althebräischen Epigraphik.* 3 vols. Darmstadt: Wissenschaftliche Buchgesellschaft.

Sáenz-Badillos, Angel. 1993. *A History of the Hebrew Language.* Cambridge: Cambridge University Press.

Schüle, Andreas. 2000. *Die Syntax der althebräischen Inschriften: Ein Beitrag zur historischen Grammatik des Hebräischen.* (Alter Orient und Altes Testament 270.) Münster: Ugarit-Verlag.

Waltke, Bruce K., and Michael O'Connor. 1990. *An Introduction to Biblical Hebrew Syntax.* Winona Lake, Ind.: Eisenbrauns.