# Hebrew

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## 1. HISTORICAL AND CULTURAL CONTEXTS

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### 1.1 The position of Hebrew within the Semitic languages

Hebrew, the language of ancient Israel and Judah and their descendant Jewish communities, is a Northwest Semitic language. Northwest Semitic and Arabic constitute Central Semitic, which is a subgroup of West Semitic, one of the two primary divisions of the Semitic branch of the larger Afro-Asiatic family (Appendix 1, §§1–2). Within Northwest Semitic, Hebrew is classified as Canaanite as distinct from Aramaic. Other members of the Canaanite subgroup include the dialect of the city-state of Ugarit (cf. Ch. 2, §1) in the Late Bronze Age (*c*. 1550–1200 BC), and the languages of Israel's immediate neighbors in the Iron Age (*c*. 1200–586 BC), namely, Phoenician (Ch. 4) and the Transjordanian languages of Ammonite, Moabite, and Edomite (Ch. 5).

### 1.2 Stages in the development of Ancient Hebrew

Although linguistic features found in the limited surviving evidence for the Canaanite dialects of the Late Bronze Age anticipate some of the distinctive characteristics of Iron Age Hebrew, it is unlikely that Hebrew emerged as a discrete language before the end of the Late Bronze Age and the beginning of the Iron Age. Prosodic and linguistic studies suggest that the earliest poetry preserved in the Hebrew Bible may have been composed before the end of the second millennium BC, and this poetry represents the first identifiable phase of the language, which is called *Archaic* or *Archaic Biblical Hebrew* (before *c*. 1000 BC).

No extant inscription that can be identified specifically as Hebrew antedates the tenth century BC, and Hebrew inscriptions in significant numbers do not begin to appear before the early eighth century BC. Nevertheless, the Hebrew of the Iron Age inscriptions that do survive, especially those from Judah, is essentially the same as the Hebrew found in the biblical Primary History (Genesis–2 Kings) and the original portions of the books of the pre-exilic prophets. This form of Hebrew constitutes the classical phase of the language, which is known as *Classical* or *Biblical Hebrew* (BH) and corresponds to the speech of the kingdom of Judah from its formation to the Babylonian Exile (*c*. tenth–sixth centuries BC). The Hebrew of post-exilic Judah, which is represented by inscriptions of the Persian and Hellenistic periods and especially by the later biblical literature (*c*. sixth–second centuries BC), is called *Late Classical* or *Late Biblical Hebrew* (LBH). The Samaritan Pentateuch, which seems to have been independent of Jewish tradition by the late second century BC, is also an important witness to the Hebrew of this period.

The Hebrew of the early post-biblical period is represented by the Hebrew of the Dead Sea Scrolls and especially that of the Mishnah and other rabbinical literature. As noted below (§1.3), the literary documents from Qumran exhibit substantial continuity with Late Biblical Hebrew, while the few nonliterary documents stand much closer linguistically to Rabbinic Hebrew. From the viewpoint of the development of the language, there is a distinction between the Hebrew of the early rabbinical works – the Mishnah, the Tosefta and certain other, primarily halakhic compositions (*c.* first–third centuries AD) – and that of the later rabbinical works – the Jerusalem and Babylonian Talmuds and certain other, primarily haggadic compositions (fourth century AD and later). Viewed as a whole, this phase in the development of the language is called *Middle* or *Rabbinic Hebrew* (RH). Another important witness to Hebrew in late antiquity is the Hexapla, the six-column critical edition of the Old Testament compiled by the Church father Origen of Caesarea; in his second column (Secunda), Origen produced a Greek transliteration of the Hebrew text that reflects the pronunciation of the first half of the third century AD.

In this chapter, primary attention is given to the classical phase of Hebrew (BH), but important divergent or innovative features of the other ancient phases of Hebrew (LBH and RH) are noted. The subsequent phases of the language – *Medieval Hebrew* and *Modern* or *Israeli Hebrew* – fall outside the scope of the discussion.

## 1.3 The speech communities of Ancient Hebrew

In a general sense, the emergence of Hebrew as a discrete language corresponded to the emergence of Israel as a discrete polity in the central hill country of Palestine in the last centuries of the second millennium BC. By the tenth century BC, two Hebrew-speaking states had been established, Israel to the north in the Samarian hills and portions of central Transjordan and Galilee, and Judah to the south in the Judaean hills with its capital at Jerusalem. The modest corpus of surviving inscriptions from the northern kingdom is sufficient to show that its dialect displayed features that were significantly different from that of Judah, as it is known from a more generous inscriptional corpus and, indeed, from the Hebrew Bible itself.

The two Iron Age states survived until 722 BC in the case of Israel, when its capital, Samaria, fell to the Assyrians (precipitating the extinction of the northern dialect), and until 586 BC in the case of Judah, when Jerusalem was destroyed by the Babylonians. Despite these catastrophes, Hebrew endured as a spoken and literary language in Palestine throughout the second half of the first millennium BC. During this period the use of Aramaic increased steadily in the larger region, becoming the regnant language of both Samaria and Galilee, and, beginning in the third century BC, Greek was introduced to many of the major cities of Palestine. Nevertheless, Hebrew persisted, alongside Aramaic, as a spoken language in Judah (or Judaea) proper into the rabbinic period.

Although Biblical Hebrew, Late Biblical Hebrew and the Hebrew of the literary manuscripts from Qumran constitute a unilinearly evolving dialect, descended from the language of pre-exilic Judah, Rabbinic Hebrew exhibits features that set it apart from this development. Since most of the literature of Rabbinic Hebrew is highly technical in character, it was once supposed that it was a language spoken only by scholars or even an artificially confected language that was never spoken at all. But the discovery and linguistic analysis of the nonliterary or quasi-literary documents from Qumran – especially the Copper Scroll and the Halakhic Letter (MMT) – and of the Bar Kochba correspondence from the Wadi Murabba'at and the Nahal Hever show that Rabbinic Hebrew was a popularly spoken language in the early centuries of the Common Era. Although many of the features of Rabbinic

Hebrew that diverge from Biblical Hebrew can be traced to contemporary influences, such as the prevalence of Aramaic and Greek, many others seem to be dialectal survivals from a much earlier period, when an ancestral form of Rabbinic Hebrew existed alongside Biblical Hebrew. The beginning of the demise of Rabbinic Hebrew as a spoken language is probably to be traced to the Roman suppression of the Second Jewish Revolt in AD 135 and the accompanying depredations, including the deportation of many Jews and the flight of others into the Aramaic-speaking Galilee. Even under these conditions Hebrew continued to be heard in some circles, but the primary language of Jews in the Roman diaspora was Greek just as the primary language of the long-established Babylonian diaspora was Aramaic. In Palestine, too, Rabbinic Hebrew was eventually replaced by Aramaic as a spoken language and survived only as the scholarly language of the Galilean exile community.

## 2.  WRITING SYSTEMS

### 2.1  The Hebrew consonantal script

The earliest inscriptions unambiguously identifiable as Hebrew are written in a distinctive form of the consonantal writing system that served as the national script of both Israel and Judah in the Iron Age. This Hebrew script arose as a branch of the Phoenician, through which it was descended from the archaic consonantal script of the second millennium BC. The intermediary role of Phoenician is shown by the fact that the two scripts share a sign inventory that is fully representative of the consonantal phonology of Phoenician but insufficient to represent all the consonantal phonemes of Hebrew. In particular, only one sign corresponds to the Proto-Semitic phonemes /š/ and /ś/, a situation that is adequate for Phoenician, where the two consonants have merged (see Ch. 4, §3.1), but not for Hebrew, where they remain distinct (see §3.1 below).

   After the Babylonian destruction of Jerusalem in 586 BC, the Hebrew script fell into disuse. Hebrew came to be written primarily in the Aramaic script, which, like the Aramaic language, was widely used in both the Neo-Babylonian and Persian Empires. Like the Hebrew writing system, the Aramaic had arisen as an early branch of Phoenician, so that it provided the same consonantal inventory as the old Hebrew script, and its adoption for writing Hebrew was straightforward. It was out of the Aramaic script tradition that the standard biblical book hand, known as the "square script" or simply the Jewish script, eventually developed. This writing system is shown in Table 3.1.

### 2.2  Vowel representation

Whereas Phoenician orthography was purely consonantal, the earliest Hebrew inscriptions exhibit a rudimentary form of vowel representation, with certain letter signs (*wāw*, *yôd* and *hē'*) being assigned a secondary use as vowel markers. At first this use of *matres lectionis* ("mothers of reading") was confined to final long vowels, with *wāw* representing final *ū*, *yôd* representing final *ī*, and *hē'* representing final *ā*, *ē* or *ō*. Eventually, internal vowel letters began to be indicated on a sporadic basis, with *wāw* representing internal *ō* (contracted from \**aw*) or *ū*, and *yôd* representing internal *ē* (contracted from \**ay*) or *ī*. During the second half of the first millennium BC, *wāw* gradually replaced *hē'* as the marker of final *ō*.

   By the last century before the Common Era, the tendency to represent vowels *plene* (i.e., "fully" or with *matres*) reached its most elaborate development. Nevertheless, this development, though observable in the Samaritan Pentateuch and numerous biblical manuscripts

| | Letter name | Transcription | Phonetic value |
|---|---|---|---|
| **Table 3.1  The Hebrew alphabet** | | | |
| א | ʾā́lep | ʾ | [ʔ] |
| ב | bêt | b | [b], [v] |
| ג | gîmel | g | [g], [ɣ] or [ʁ] |
| ד | dā́let | d | [d], [ð] |
| ה | hē’ | h | [h] |
| ו | wāw | w | [w] |
| ז | záyin | z | [z] |
| ח | ḥêt | ḥ | *[ħ], [H] |
| ט | ṭêt | ṭ | *[t’], [t] |
| י | yôd | y | [y] |
| כ | kap | k | [k], [x] or [χ] |
| ל | lā́med | l | [l] |
| מ | mēm | m | [m] |
| נ | nûn | n | [n] |
| ס | sā́mek | s | [s] |
| ע | ʿáyin | ʿ | [ʕ] |
| פ | pēh | p | [p], [f] |
| צ | ṣādēh | ṣ | *[s’], [ts] or [tˢ] |
| ק | qôp | q | *[k’], [k] |
| ר | rēš | r | [r] |
| שׂ | śîn | ś | *[ɬ], [s] |
| שׁ | šîn | š | [ʃ] |
| ת | tāw | t | [t], [θ] |

from Qumran, is not reflected in the Hebrew Bible as transmitted in rabbinic tradition. In their efforts to standardize the sacred text, the rabbis elected a conservative tradition, giving authority to older manuscripts with "defective" spelling, so that the biblical books were preserved in an archaic orthography. In this way, rabbinic authority gave rise to the manuscript tradition that, in essential form, has survived into modern times. Although this tradition can safely be regarded as a faithful representation of the Hebrew language of the first millennium BC, the linguistic information it provides is accurate and complete only within the limits of the orthography of the Hebrew-Aramaic consonantal script.

## 2.3  Systems of biblical vowel notation

Because of its many ambiguities with regard to pronunciation, the biblical manuscript tradition was reinforced from an early date by an oral tradition that provided a guide to vocalization for use in liturgy and study. As Hebrew continued to develop regionally, the pronunciation traditions in the eastern (Babylonian) and western (Palestinian) Jewish communities began to diverge. By the second half of the first millennium AD these oral traditions had given rise to distinctive systems of "pointing" (*nîqûd*), graphic conventions for representing pronunciation fully by placing diacritics above or below the text. The Babylonian tradition was fixed by a superlinear system developed in the sixth century AD and refined in the eighth–ninth centuries. The original Palestinian system, which was developed in the

| Masoretic diacritical | Probable phonetic realization | Tiberian representation without *mater* | Tiberian representation with *mater* | Tiberian representation with final *mater* |
|---|---|---|---|---|
| *ḥîreq* | [i] | בִ, *bi* or *bī* | בִי, *bî* | |
| *ṣērê* | [e] | בֵ, *bē* | בֵי, *bê* | בֵה, *bēh* |
| *səgōl* | [ɛ] | בֶ, *be* | בֶי, *bê* | בֶה, *beh* |
| *pataḥ* | [a] | בַ, *ba* | | |
| *qāmeṣ* | [ɔ] | בָ, *bā* or *bo* | | בָה, *bâ* |
| *ḥōlem* | [o] | בֹ, *bō* | בוֹ, *bô* | בֹה, *bōh* |
| *qibbûṣ* | [u] | בֻ, *bu* or *bū* | | |
| *šûreq* | | | בוּ, *bû* | |

**Table 3.2   The Tiberian representation of the principal Hebrew vowels**

sixth–eighth centuries, was also superlinear. The extant documents using both of these systems provide important information about the development of Hebrew in late antiquity, although only a few manuscripts with Palestinian vocalization have survived. The older Palestinian system was superseded by a primarily infralinear and especially rigorous system developed in Tiberias, which enjoyed its most creative period between the late eighth and early tenth centuries AD. The Tiberian system of vowel notation is the only one that survives in active use, and it is regarded as authoritative in Jewish tradition, though a superlinear system developed for the Samaritan Pentateuch has a similar role in the Samaritan community. The Tiberian pointing is reinforced in its mission of safeguarding the integrity of the text by the Masora, a body of detailed annotations produced by scholars known as Masoretes (*baʿălê hammāsôret*, literally, "masters of the tradition"); the text of the Hebrew Bible, when equipped with this apparatus, is called the Masoretic Text.

## 2.4  Tiberian vowel signs and modern transliteration

The representation in the Masoretic Text of the vowels and their morphophonemic varieties (see §3.2.1) was accomplished by the introduction of the Tiberian diacriticals into a text that, as explained in §2.2 above, already contained a minimal indication of vowels in the form of the *matres lectionis*. The present system of vowel representation is thus composite, and it is necessary in transliteration to indicate, as far as possible, both the *matres* and the diacritical marks of the Masoretes. It is also desirable to indicate vowel quantity because of the important light it sheds on the character of the ancient language and its historical, pre-Tiberian development. Information about vowel quantity cannot be deduced on the sole basis of the Tiberian vowel signs, however, since their purpose was to indicate quality rather than quantity. Nor are the *matres* a fully reliable guide. There was, to be sure, a tendency in the text to mark the ancient long vowels with *matres*, but in the conservative orthography of the Bible this was not carried through consistently or systematically. When vowels are marked for length in transliteration, therefore, they represent an interpretation made on the basis of an analysis of word structure and stress in light of modern research into the pre-Tiberian history of the language.

   Table 3.2 lists the Tiberian spellings of the principal varieties of the seven vowels identified below in §3.2.1 together with their corresponding transliterations (for purposes of illustration the vowels are attached to the consonant *b*).

When using this type of transliteration it is important to keep its limitations and short-comings in mind. Though it has the merit of highlighting information about the length of vowels, it can be misleading in this regard, since it gives the impression, for example, that ṣērê, transliterated <ē>, is the lengthened form of səgōl, <e>, when in fact ṣēre is an altogether different, higher vowel than səgōl ([e] ~ [ɛ]). The chief purpose of the transliteration system is to permit the reader to reconstruct the Tiberian spelling, but here, too, there are a few imperfections and unavoidable ambiguities. For example, both ṣērê-yôd (ר..) and səgōl-yôd (ר..) are transliterated <ê> (in some systems the latter is rendered <e(y)> or <ê> to avoid the ambiguity), and final ṣērê-hē' (ה..) is transliterated <ēh> to distinguish it from ṣērê-yôd (ר..) even though the hē' is a *mater* (see §2.2), that is, non-consonantal (in some systems ṣērê-hē' is rendered <ê> like ṣērê- yôd and səgōl-yôd, eliminating the misrepresentation but compounding the ambiguity).

## 3.  PHONOLOGY

### 3.1  Consonants

Table 3.3 illustrates the consonantal phonemes of Hebrew. As shown, the consonantal system consists of seventeen obstruents, including nine oral stops and eight fricatives; and six sonorants, including four approximants (glides and liquids) and two nasals.

### 3.1.1   Obstruents

The set of stops comprises, in addition to the glottal stop /ʔ/, a symmetrical group of six consonants produced in two manners of phonation (voiced and voiceless), at three points of articulation (bilabial, alveolar and velar). This set is supplemented by two (dental and velar) ejective stops, the so-called "emphatics." In Tiberian Hebrew the six non-emphatic stop phonemes, /b/, /p/, /d/, /t/, /g/ and /k/, possess a complete set of conditioned spirantized allophones, [v], [f], [ð], [θ], [ɣ] or [ʁ], and [x] or [χ], conventionally transliterated as *b̲*, *p̄*, *d̲*, *ḡ* and *k̲*, the development of which is discussed below (see §3.3).

The fricative group includes three voiceless, nonemphatic sibilants, /s/, /š/, and the sound conventionally transcribed as *ś*. Though the three were originally distinct, they were later reduced to two when *ś* lost its primitive character as a lateral (i.e., /ɬ/), and merged with the other voiceless alveolar sibilant, /s/ (confusion of /s/ and *ś* is already present in Late Biblical Hebrew and becomes increasingly common at Qumran and in Rabbinic Hebrew). The sibilant inventory is completed by two other fricatives, voiced /z/ and emphatic /s'/ (conventionally written *ṣ*). All of these are alveolars except the post- or palato-alveolar /š/.

Biblical Hebrew has lost all three Proto-Semitic interdentals, *ð̣, *θ and *θ̣ as well as the emphatic lateral *ṣ́ or *ḏ̣ and the velar or uvular fricatives *ǵ and *ḥ (see §3.6.1), though the interdentals *ð and *θ ([ð] and [θ]) and the velars *ǵ and *ḥ ([ɣ] and [x]) have been "revived" in the form of the spirantized allophones of /d/, /t/, /g/ and /k/, as noted above.

The original pronunciation of the three Hebrew ejectives or emphatics, *ṭ*, *ṣ* and *q*, is unknown. Although the nature of the emphatics in Ethiopic and Arabic is itself debated, it is usually argued on the basis of these cognate languages that the Hebrew emphatics were originally glottalic, as in Ethiopic and (probably) Old South Arabic – thus [t'], [s'] and [k'], the presumed Proto-Semitic situation – but later became pharygealized ([tˤ], [sˤ] and [kˤ]) among Jews living in Arabic-speaking communities, and simplified to [t], [tṣ] or [tˢ]

| Table 3.3   The consonantal phonemes of Hebrew | | | | | | |
|---|---|---|---|---|---|---|
| **Manner of articulation** | | Place of articulation | | | | |
| | **Bilabial** | **Dental/ Alveolar** | **Palato- alveolar** | **Palatal** | **Velar** | **Pharyngeal** | **Glottal** |
| Stop | | | | | | | |
| *Voiceless* | p (פ) | t (ת) | | | k (כ) | | ʼ (/ʔ/, א) |
| *Voiced* | b (ב) | d (ד) | | | g (ג) | | |
| *Emphatic* | | ṭ (/tʼ/, ט) | | | q (/kʼ/, ק) | | |
| Fricative | | | | | | | |
| *Voiceless* | | s (ס) | š (שׁ) | | | ḥ(/ħ/, ח) | h (ה) |
| *Voiced* | | z (ז) | | | | ʻ (/ʕ/, ע) | |
| *Emphatic* | | ṣ (/sʼ/, צ) | | | | | |
| *Lateral* | | ś (/ɬ/, שׂ) | | | | | |
| Approximant | | | | | | | |
| *Glide* | w (ו) | | | y (י) | | | |
| *Rolled* | | r (ר) | | | | | |
| *Lateral* | | l (ל) | | | | | |
| Nasal | m (מ) | n (נ) | | | | | |

and [k] among European Jews. As shown by Tiberian tradition and confirmed by earlier Greek transcriptions, the emphatic stops, *ṭ* and *q*, did not share the secondary spirantized realization acquired by the six nonemphatic stops noted above.

Hebrew distinguishes four "guttural" consonants: two pharyngeals, one voiced /ʕ/ (conventionally transcribed as ʻ) and one voiceless /ħ/ (*ḥ*), both of which are composite in origin (see §3.6.1), and two voiceless glottals, one stop /ʔ/ (ʼ) and one fricative /h/. As the language evolved, there was a tendency for these consonants to weaken and/or coalesce, a development with important secondary phonological consequences (see §3.3). While the glottals participated in this general pattern of weakening, they underwent, in addition, important changes of their own. In particular, the glottal stop, /ʔ/, was lost in syllable-final positions, a phenomenon that began very early and seems to have proceeded in stages (see §3.6.1) and in which the other glottal, /hʼ/, may have participated in part.

### 3.1.2   Sonorants

Hebrew has two nasals, bilabial /m/ and alveolar /n/, both voiced. The tendency in Rabbinic Hebrew for these two consonants to alternate when final (especially *-m > -n*) is already in evidence in Septuagint transliterations and Qumran manuscripts but lacking in Biblical Hebrew itself, unless *šallûm* is intended by the name *šallûn* in Nehemiah 3:15 (for the related question of the replacement of the plural ending *-îm* with *-în*, see §4.2.2). When immediately followed by a non-guttural consonant, /n/ undergoes regressive assimilation (*nC > CC*), unless it follows the preposition *lə-* or is the third consonant in the stem: for example, *zākántā*, "you have grown old" (1 Samuel 8:5).

Hebrew has four approximants, all voiced. Two of these, the bilabial and palatal semivowels /w/ and /y/, are glides. The other two are liquids; they include /r/, a rolled consonant, probably realized as either an alveolar [r] or uvular [ʀ] trill, and /l/, a lateral alveolar liquid.
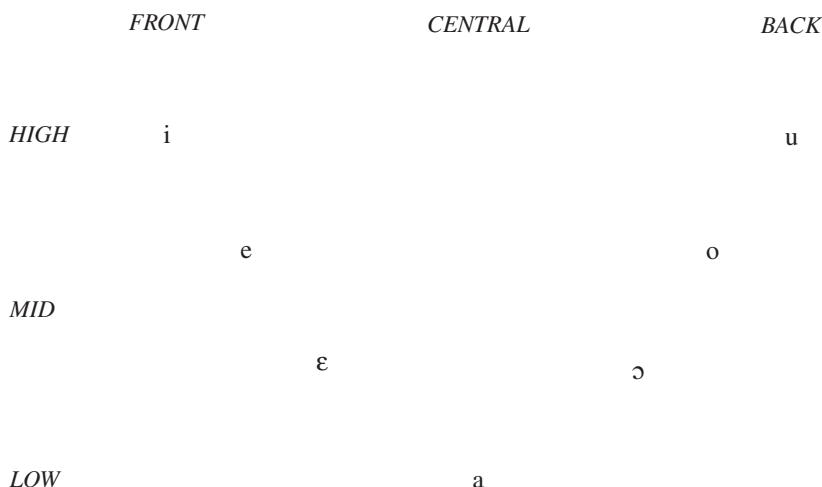
**Figure 3.1** The seven full vowels of Tiberian Hebrew

## 3.2 Vowels

### 3.2.1 The quality of the Tiberian vowels

As explained below (see §3.2.2), ancient Hebrew in its early development probably preserved the basic triad of Proto-Semitic vowels, *i, *a and *u, each of which could be long or short, and two "diphthongs" or vowel-glide sequences, *ay and *aw. The Tiberian system by which Biblical Hebrew is represented is much more complex, however, reflecting the medieval pronunciation that had evolved over the centuries from numerous phonological changes. There are Masoretic diacriticals for seven full vowels (*hîreq* [i], *ṣērê* [e], *səgōl* [ɛ], *pataḥ* [a], *qāmeṣ* [ɔ], *ḥōlem* [o] and *qibbûṣ/šûreq* [u]), and when vocal *šəwā* [ə] and the three other ultrashort or reduced vowels (the *ḥāṭēp* vowels) are added, the number of vowels rises to eleven. The approximate phonetic realization of the seven full vowels is illustrated in Figure 3.1, which presents Tiberian Hebrew as possessing a complete inventory of primary vowels.

### 3.2.2 The origin of the Tiberian vowels

As noted above (§3.2.1), Hebrew, in the early stages of its development, probably preserved the Proto-Semitic system of three vocalic phonemes, high front *ī and back *u and low central *a, which could occur either long or short, and two "diphthongs" or vowel-glide sequences, *ay and *aw (see Appendix 1, §§3.2.2 and 3.2.3). Though the phonological changes by which these sounds gave rise to the Tiberian system described above are numerous and often complex, constrained by the rules of syllabification and stress (see §§3.4 and 3.5 below), it is possible to describe the Masoretic vowels and diphthongs in relation to their ancient antecedents by taking historical and structural considerations into account.

#### 3.2.2.1 *The development of the originally long vowels*

The Proto-Semitic long vowels, *ī, *ū, and *ā, undergo no special development in Hebrew. Proto-Semitic *ā is realized as [o], but this is not an inner-Hebrew development but the result of a sound change (*ā → ō) that Hebrew inherited from Proto-Canaanite (see §3.6.2). Proto-Semitic *ī and *ū remain unchanged, and they are most often represented

orthographically in the the Masoretic Text with *plene* spellings, $\hat{\imath}$ ( ˙ .) and $\hat{u}$ (וּ), though this is by no means consistent (see §§2.2 and 2.4). In terms of their phonological behavior, the Hebrew vowels derived from the Proto-Semitic long vowels may be described as unchangeably long to distinguish them from reducible long vowels derived from originally short vowels (§3.2.2.2); they are not subject to reduction to *šĕwā* (ə), regardless of position.

### 3.2.2.2   *The development of the originally short vowels*

The development of the Hebrew short vowels is much more complex. Because of changes that occurred during the evolution of the language, an originally short vowel may be realized as long, short (not necessarily the same short vowel as the original) or reduced (*šăwā* or one of the *ḥāṭēp* vowels). The possible morphophonemic variants of each of the short vowels are shown in (1):

(1)   *Original*
      | *short vowel* | *Lengthened* | *Short* | *Reduced* |
      |---|---|---|---|
      | *i | ē | i, a, e | ə, ă, ĕ |
      | *u | ō | u, o | ə, ŏ |
      | *a | ā | a, i, e | ə, ă, ĕ |

The potential for an originally short vowel to lengthen or reduce is constrained by the type and position of the syllable in which it appears. To lengthen, it must be in an open syllable (CV) or an accented closed syllable (CV′C). To reduce, it must be in an unaccented open syllable (CV), since a closed syllable (CVC), like an open syllable containing an originally long vowel (CV:), is irreducible (for syllabification, see §3.4). In general, therefore, an originally short vowel tends to lengthen in a tonic syllable or in an open pretonic syllable, it tends to remain short in a closed unaccented syllable (though its quality may change), and it tends to reduce in an open propretonic syllable. In practice, however, the operation of these very general rules differs for nouns (including adjectives and verbal nouns) and finite verbs with pronominal suffixes, on the one hand, and finite verbs without pronominal suffixes, on the other. The rule of thumb for nouns and finite verbs with pronominal suffixes is that an originally short vowel reduces in a propretonic syllable if possible – that is, if a propretonic syllable is present and its vowel is reducible – while it lengthens in a pretonic syllable. The rule of thumb for finite verbs without pronominal suffixes is that an originally short vowel reduces in a pretonic syllable if possible, while it lengthens in a propretonic syllable. These rules, too, are generalizations, however, and a clearer picture emerges when the situation is reviewed for vowels in each of the three common syllabic stress positions: tonic, pretonic and propretonic.

Originally short vowels in *tonic* syllables are, in most circumstances, lengthened in both nouns and verbs. That is, the high vowels *i and *u are lowered to *ē* ([e]) and *ō* ([o]), and the low vowel *a is backed to *ā* ([ɔ]). With certain exceptions, this pattern holds for tonic syllables of all kinds in nouns and finite verbs with pronominal suffixes when the short vowel in question is *i or *u. When the vowel is *a, the pattern holds for open and singly closed (word-final) syllables but not for originally doubly closed syllables (-C₁C₁# or -C₁C₂#). Since lengthening took place prior to the simplification of final doubled consonants, the vowel *a before a final, originally doubled consonant (-CC#) remains: thus, *ʿamm → ʿam "people" (note, however, that *i and *u both lengthen before -CC#: *libb → lēb "heart"; *ʿuzz → ʿōz "strength"). Also, in an originally word-final doubly closed syllable (see §3.4), when the tone vowel has become penultimate because of the insertion of an anaptyctic vowel to resolve the consonant cluster (-C₁C₂# → -C₁VC₂#), an accented

short *a is not lengthened (except in pause; see §3.5), though it retains its stress and is raised to e ([a] → [ɛ]). This pertains especially to nouns of the type *CaCC – thus, *málk → mélek, "king" (pausal mā́lek). Note that with the high vowels there is no exception here (i.e., they usually lengthen in this situation), but sometimes, not consistently, before a word-final consonant cluster *í ([i]) → e ([ɛ]) instead of ē ([e]), especially in some nouns of the type *qitl: for example, *ṣídq → ṣédeq, "righteousness," in contrast to *sípr → sḗper, "book."

Similarly, the lengthening of *a does not take place in the tonic syllable as a result of the triphthongization of some diphthongs, as in *báyt → báyit (contrast *máwt → mā́wet), or the formation of the dual ending *-áym → -áyim. One other important exception where stressed *a is not lengthened is the verbal suffix of the first-person singular: -ánî "me" (but, again, pausal -ā́nî).

The pattern of lengthening of originally short vowels in tonic syllables also holds true for finite verbs without pronominal suffixes, but only for *í and *u – thus, *yittín → yittḗn "he gives"; *tiktúb → tiktṓb "she writes." Originally short *a remains short in these circumstances – yišmáʿ "he hears." Again, however, the situation is different when an originally word-final doubly closed syllable is involved. In these cases, the original short vowel is retained without lengthening in the tonic syllable after anaptyxis (*yírb → yíreb "may he become numerous"), though *a ([a]) is raised to e ([ɛ]) (*yárb → yéreb "may he make numerous").

Finally, mention should be made here of the vowel shift described by F. W. M. Philippi, according to which *í becomes a in originally closed accented syllables (*íCC# → áCC#) – in short, "Philíppi → Philáppi." Though this "law" seems to explain many Hebrew forms – such as (*bint →) *bitt → *batt (→ bat) "daughter"; (*ʿāmídt →) *ʿōmídt →*ʿōmádt (→*ʿōmédet) "standing" (fem. sg. active participle); *zāqíntī → zāqántî "I am old" – its application admits of a very large number of exceptions, and it is inoperative in some witnesses (e.g., the Hexaplaric) to the developing Hebrew tradition.

Originally short vowels in open *pretonic* syllables are, in general, lengthened in nouns and reduced in unsuffixed verbs. More specifically, in nouns and finite verbs with pronominal suffixes, *í and *u are lengthened pretonically if there is a reducible propretonic (*šākinīm → šəkēnīm "neighbors"). If the propretonic is lacking or irreducible, however, the behavior of pretonic *í and *u depends on the quality of the tonic vowel. If the tonic vowel is also high, pretonic *í and *u reduce to šəwā: for example, *gibūl → gəbûl "boundary"; *šōmirīm → šōmərîm "guards"; *yišmuríhū → yišmərḗhû "he guards him." If the tonic vowel is not high, pretonic *í and *u lengthen (*í → ē, *u → ō): thus, *libáb → lēbáb "heart"; *maṣṣibā → maṣṣēbâ "pillar." Pretonic *a always lengthens (*a → ā) in nouns and suffixed verbs, whether the propretonic is reducible (*dabarīm → dəbārîm "words") or not ((*kawkabīm →) *kōkabīm → kôkābîm "stars").

In contrast to the situation with nouns and suffixed verbs, the originally short vowels are usually reduced pretonically in finite verbs without pronominal suffixes – thus, for example, *yignubū → yignəbû "they steal"; *yittinū → yittənû "they give"; *yikbadū → yikbədû "they are heavy." An important exception is when the pretonic is the first syllable in a word; in such a case the vowel is lengthened: thus, *himítū → hēmî́tû "they killed."

Originally short vowels in *propretonic* syllables are, when possible, reduced in nouns and lengthened in unsuffixed verbs. The specific rule for nouns and finite verbs with pronominal suffixes is that an originally short vowel reduces propretonically if it is reducible, that is, if it appears in an originally open syllable. If the propretonic is irreducible, however, the pretonic reduces according to the rules (and exceptions) given above. In finite verbs without pronominal suffixes, an originally short vowel reduces when

possible in a pretonic syllable, as also explained above, and if this happens, *ʾi*, *ʾu*, or *ʾa* in the propretonic syllable lengthens: for example, *ʾnapalā → nāpəlâ* "she fell." If, however, the pretonic is not reducible (that is, if it is closed or contains an originally long vowel), the propretonic vowel reduces: *ʾyudabbir → yədabbēr* "he speaks."

To this point the discussion of the originally short vowels has been concerned primarily with their behavior in open syllables or closed accented syllables, both of which permit the lengthening or reduction of the vowel. In closed unaccented syllables, however, *ʾi*, *ʾu*, and *ʾa* remained short despite occasional changes of vowel quality. This is true whether they appear in originally closed pretonic or propretonic syllables, and it applies to both nouns and verbs. Examples of the former (pretonic) include the nouns *ʾšibṭuh → šibṭô* "his tribe"; *ʾkulluh → kullô* "all of it" (cf. *ʾḥudšah → ḥodšāh* "her new moon"); and *ʾgapnī → gapnî* "my vine"; and the verbs *ʾyimṣaʾ → yimṣā* "he finds"; *ʾyuggad → yuggad* "it is reported"; and *ʾyašbît → yašbît* "he causes to cease." Examples of the latter (propretonic) include the noun *ʾmilḥamāt → milḥāmôt* "wars" and the verb *ʾyišmurū → yišmərû* "they watch."

While the *quantity* of an originally short vowel remains the same in a closed unaccented syllable, however, its *quality* may be altered. Although a number of situations in which this occurs could be listed, the attenuation of *ʾa* to *i* in the sequence *ʾCaC₁C₂āC → CiC₁C₂āC* (where C₁ is not a guttural) is especially noteworthy. This phenomenon, commonly known as "*qatqat → qitqat* dissimilation," operates in *m*- prefix nouns, such as *ʾmadbár → midbár* "wilderness" and *ʾmalḥāmá́ → milḥāmâ* "battle" (see §4.2.5.4), and especially (with short *a* in the second syllable) in construct forms, such as *ʾṣadqatʹ → ṣidqatʹ* "righteousness (of)" and *ʾmazbaḥʹ → mizbaḥʹ* "altar (of)." The historical distribution of *m*-prefix nouns with the form *miqtal* suggests that *qatqat → qitqat* dissimilation took place at a relatively late date, since forms like *midbār* are found only in Tiberian Hebrew, in contrast to Hexaplaric and Babylonian *madbār*. On the other hand, verbal forms like *yiqtal* (<*ʾyaqtal*) – for example, *ʾyalmad → yilmad* "he learns" – and *niqtal* (<*ʾnaqtal*), the *Nipʿal* perfect, developed much earlier, as shown not only by their attestation in all traditions of Hebrew vocalization but also by the presence of *ʾyiqtal* in cognate languages like Aramaic and Ugaritic. This suggests that the various forms that are often explained by appeal to *qatqat → qitqat* dissimilation are not in fact the result of a single phenomenon (for *ʾyiqtal* and the so-called Barth–Ginsberg Law, see §3.6.2).

### 3.2.2.3  The development of "diphthongs"

As noted above (see §3.2.2), it is customary to state that Proto-Semitic possessed two diphthongs, *ʾaw* and *ʾay*, both of which were preserved, with modifications, in Hebrew. But since Proto-Semitic did not permit sequences of two (or more) vowels within a syllable (see Appendix 1, §3.2.3), the glides or semivowels, *ʾw* and *ʾy*, must be interpreted as consonants, and the two sequences (both [a + glide]) cannot be classified as true diphthongs. This sheds light on their realization in Tiberian Hebrew. When either of the "diphthongs" occurs in an accented syllable, CáwC or CáyC, it is "triphthongized," or disyllabically resolved, before a final consonant by the insertion of an anaptyctic vowel, *e* in the case of *áw* (CáwC → CáweC) and *i* in the case of *áy* (CáyC → CáyiC) – thus, *ʾmáwt → mắwet* "death," and *ʾbáyt → báyit* "house." In other words, the syllable containing the diphthong behaves like other syllables with final consonant clusters (see §3.4). Note, however, that when stressed *ʾáy* occurs immediately before a syllable with the form Cā, it dissimilates to [ɛ], spelled *səgōl-yôd* (ׂ֖.ׇ) in the Masoretic Text – thus *ʾ-áyCā → -éCā*, as in *ʾḥuqqáykā →ʾḥuqqêʹkā* "your statutes." In an unstressed syllable either diphthong is "monophthongized" or contracted: *ʾaw → ô* or *ʾay → ê* – thus, *ʾmawtố → môtố* "his death," and *ʾbaytố → bêtốʹ* "his house." The vowels

thus contracted merged phonetically with other long *ō*- and *ē*- vowels, regardless of their historical origin, including *ō* < \**ā* (see §3.6.2) and *ō* < \**u* and *ē* < \**i* (see §3.2.2.2 and [1]; for the behavior of diphthongs in the dialects of Iron Age Hebrew, see §3.6.2).

## 3.3 Allophonic and morphophonemic variants

### 3.3.1 Fricative allophones

At some point in the development of Tiberian Hebrew the six nonemphatic stops, /b/, /p/, /d/, /t/, /g/ and /k/, acquired a second, continuant realization, giving rise to six fricative allophones, [v], [f], [ð], [θ], [ɣ] or [ʁ], and [x] or [χ], conventionally transliterated as *b̲*, *p̲*, *d̲*, *t̲*, *g̲* and *k̲*. These forms arose as subphonemic or phonetic variants, originally restricted to nongeminated consonants in postvocalic positions. This development, which was shared by and probably influenced by Aramaic, is widely assumed to have taken place in the second half of the first century BC, but its precise chronology is unknown. The fricative allophones are fully represented in the Tiberian Masora, and there is evidence for their presence in the time of Rabbinic Hebrew, but their existence before the Common Era is not unambiguously documented.

### 3.3.2 Gutturals

The so-called gutturals (pharyngeals and glottals or laryngeals) underwent a pattern of progressive but dialectically heterogeneous weakening that resulted in a special set of rules in Tiberian grammar governing these consonants, /ʕ/ (ʻ), /ħ/ (*ḥ*), /ʔ/ (ʼ), /h/, and the vowels in their environment. Though these rules are extensive and complex, three basic stipulations may be mentioned here. First, a guttural cannot be doubled (a rule that also applies to the liquid /r/), so that a doubled guttural was simplified (\*GG → G), either with lengthening of the vowel in the newly opened preceding syllable (compensatory lengthening) – as in \**yiˮakil* → *yēʼākēl* "it is eaten"; \**barrik* → *bārēk* "to bless" – or without this lengthening (so-called virtual doubling) – \**biˮir* → *biʻēr* "he burned"; \**yuraḥḥim* → *yəraḥēm* "he has compassion."

Second, a guttural cannot be followed by a simple *šəwā* ([ə]), requiring instead a "compound *šəwā*," a reduced or ultrashort variant of one of the short vowels (the *ḥāṭēp* vowels, *ĕ*, *ŏ*, and *ă*), as an auxiliary – thus, *ʼĕlōhîm* "god," *ʼohŏlî* "my tent" and *ḥălôm* "dream."

Third, when final, a guttural, other than /ʔ/ (ʼ), requires anaptyxis of *a* ("furtive *pataḥ*") following a vowel other than *a* or *ā*: for example, \**rūḥ* → *rûaḥ* "wind"; \**hišmīʻ* → *hišmîaʻ* "he caused to hear."

While it is difficult to date this pattern of weakening, and its progress is unlikely to have been uniform, it seems to have been well advanced by the time of the Samaritan Pentateuch and the Qumran literature, since occasional confusion of gutturals is found in both, and Qumran orthography exhibits conspicuous irregularities when the gutturals are involved, especially in nonformal manuscripts (i.e., those in which the scribes were not careful to reproduce the spelling practices of the biblical literature). On the other hand, it is clear that this development was primarily a matter of the weakening and coalescence of the gutturals rather than their disappearance, as shown by the mixed evidence of the Hexaplaric transcriptions. That the gutturals, in some configuration, were still a feature of Jewish speech *c.* AD 400 is shown by Jerome's remark that the Jews ridiculed the Christians for their inability to pronounce them. It seems clear, then, that the gutturals were preserved in some communities and lost in others, most probably where Greek influence was strongest. Thus the Talmud (*Megillah* 24b) refers to a lack of distinction (coalescence) among the gutturals

in the speech of certain Galilean villages, but not others (on the quiescence of /ʔ/, which, though it played a part in the general phenomenon of guttural weakening, was of much earlier origin, see §3.6.1).

### 3.3.3   Vowel variation

For the development of vowel morphophonemic variation in Tiberian Hebrew, see §§3.2.2.1–3.2.2.2.

## 3.4  Syllable structure and phonotactic constraints

A Hebrew syllable must begin with a consonant. There is a single but important exception to this rule in Tiberian grammar, according to which the conjunction *wə-* "and" becomes *û-* before a syllable beginning with a consonant (not *y-*) plus *šəwā* – as in *ûd(ə)bārîm* "and words" – or a syllable beginning with a labial – such as *ûmélek* "and a king" (the Babylonian vocalization tradition also reflects the former situation, but not the latter, preserving the equivalent of *wə-* before a labial followed by a full vowel).

A syllable may contain only one vowel sound. The Hebrew diphthongs do not constitute an exception to this rule, since, as noted above (§3.2.2.3), they are not true diphthongs but vowel–glide combinations, and since, in any case, they are always either monophthongized to single vowel sounds – as in *\*baytuh → bêtô* "his house" – or triphthongized to vowel–glide–vowel combinations, thus forming parts of two distinct syllables – *\*bayt → báyit* "house."

A syllable may be open or closed. A syllable ending with a vowel (long, short, or reduced) is described as open, while a syllable ending with a consonant is described as closed. Occasionally a syllable ends in two consonants, and in this case it is called doubly closed: for example, *kātábt* "you (fem. sg.) wrote." Doubly closed syllables occur only at the ends of words, having arisen when a final vowel was lost (*kātábt < \*katabtī*). Such consonantal clusters were not permitted by the phonotactic rules of Proto-Semitic (see Appendix 1, §3.2.3), and Hebrew grammar exhibits a tendency to avoid them. When they do occur, the preceding vowel may be short (*wayyišb* "and he captured"; *wayyašq* "and he watered") or, with [i] lowered to [e] under the stress, long (*wayyēbk* "and he wept"; *wayyēšt* "and he drank"); but the medieval grammarians disagreed whether the final *šəwā* in such words was silent or vocal, and the Masoretes most often eliminated the problem by inserting an anaptyctic vowel, usually *səgōl* (*\*wayyipn → wayyípen* "and he turned"; *\*yibn → yíben* "let him build"), but *pataḥ* before or after gutturals (*\*wayyiḥr → wayyíḥar* "and he was angry") and *ḥîreq* after *y* (*\*ʿayn → ʿáyin* "eye"). "Segholation," as this phenomenon is sometimes called, is most characteristic of nouns of the common type *\*CVCC* ("segholates"; see §4.2.5.2) – *\*ʾarṣ → ʾéreṣ* "earth"; *\*ʿizr → ʿézer* "help"; *\*buqr → bṓqer"* "morning"; and with gutturals, *\*naḥl → náḥal* "wadi" and so forth. Though anaptyxis in segholates is reflected in both the Babylonian and Tiberian traditions, its absence in the Hexaplaric materials suggests that it was a late phenomenon.

A syllable may be accented or unaccented (see §3.5). An accented syllable may be open or closed and contain a long or short vowel (CV(:), CV(:)C), though an accented syllable may not contain a reduced vowel. With rare exceptions, an unaccented syllable containing a long vowel will be open, while an unaccented syllable containing a short vowel is always closed (for the specific distribution of vowels in various types of syllables, which depends on rules of syllable formation deriving from the historical development of the language, see §3.2.2.2). In the Masoretic Text, when a closed unaccented syllable occurs in the middle of a word, the end of the syllable is indicated by the *šəwā* sign (ְ). The Masoretic diacritical for this syllable-dividing silent *šəwā* (*šəwā quiescens*) is the same as for the vocal *šəwā* (*šəwā*

*mobile*). In most cases, this will cause no difficulty for the reader since a consonant following an unaccented short vowel must be syllable final, so that it must close the syllable and the *šəwā* standing under it must be silent. Ambiguity arises only when the diacritical is *qāmeṣ*, which can indicate either long *ā* or short *o*. To resolve the ambiguity the Masoretes usually inserted the accent called *meteg*, a small perpendicular line (₁), to the left of the *qāmeṣ* in an accented syllable, indicating that the *qāmeṣ* should be read as *ā* and thus that the following *šəwā* was vocal. In the absence of the *meteg*, the syllable should be read as unaccented and closed. Contrast *ʾākəlâ* (אָכְלָה) "she ate" and *ʾoklâ* (אָכְלָה) "food."

According to the phonotactic rules of Tiberian grammar, only a consonant or a *full* vowel could constitute the coda of a syllable. In Masoretic sources, therefore, a consonant followed by a reduced vowel (simple or compound *šəwā*) was not regarded as an independent syllable. Thus, contrary to the guidelines given above, a word like *məlākîm* "kings" would be analyzed as containing two syllables – *məlā-kîm* – rather than three – *mə-lā-kîm*. This rule explains, among other things, why the Masoretes chose the same sign (.) to represent both vocal and silent *šəwā*. Since most reduced vowels developed from vowels that were previously full, however, the medieval rule has the disadvantage of obscuring the historical development of the language, and it is not followed as a convention of syllabification by most modern grammarians.

Tiberian Hebrew does not tolerate two successive open syllables with the vowel /ə/. When such a sequence is produced in inflection or from a combination of morphemes, such as the prefixation of a preposition or suffixation of a pronoun to a noun, the phenomenon commonly called "the rule of *šəwā*" occurs. The sequence is simplified to a single closed syllable containing the vowel /i/ (*CəCə → CiC) – thus, *dəbərê´ → dibrê´* "words (of)," *bədəbārîm → bidbārîm* "with words," and *dəbərêhem → dibrêhem* "their words."

## 3.5 Stress

In Hebrew the principal tone is usually, but not always, on the ultima – thus, *dābā́r* "word," *dəbārî́m* "words." This situation is the result of a shift of stress to the ultima that took place in two phases early in the history (or prehistory) of the language. The original position of the stress in Proto-Hebrew is disputed. It seems clear, though, that it shifted to the ultima in two stages. The first shift affected all words except finite verbs without pronominal suffixes, and the second shift occurred in these verbs. This two-stage development gave rise to several distinctive features of Hebrew grammar, including some of the phonological features already noted, such as the tendency of vowels in open pretonic syllables to lengthen in nouns but reduce in unsuffixed verbs (see §3.2.2.2), as well as important morphological features to be noted, such as stem allomorphism for many noun-types (§4.2.6). Both of these shifts are reflected in the Hexaplaric, Babylonian, and Tiberian traditions of vocalization, and, in fact, they are likely to have been very early. In all likelihood the first, major shift closely followed the loss of final short vowels, which was shared by most of the Northwest Semitic languages, so that it was probably pre-Hebrew. Note in this regard that ultimate stress is also characteristic of Aramaic, as indicated, for example, by the Masoretic accentuation of Biblical Aramaic, and Phoenician, as can be inferred from vowel changes in the ultima that are likely to have been caused by stress.

Despite the preference for stress on the ultima, the penult receives the tone in a number of situations. For example, segholate nouns, as already noted, are characteristically paroxytonic – as in ʿ*émeq* "valley" – and the ultimate stress of the imperfects of certain types of verbs retreats in the production of jussives and the so-called "converted" or *wāw*-consecutive imperfects – *yigléh* "he will uncover" ∼ *yígel* "let him uncover" ∼ *wayyígel*

"and he uncovered." Also, a number of word-ending elements are for historical or structural reasons toneless. These include several verbal sufformatives (e.g., *ḥāšábtā* "you thought"), several nominal and verbal pronominal suffixes (*šāmərḗnî* "protect me"), and the so-called locative -*h* (*báytāh* "to the house, homeward"; *ʾárṣāh* "to the earth").

Both stress and consequent vowel quantity can be significantly affected by the so-called pause, a term for the increased stress placed on the tonic syllable of a word in the Hebrew Bible marked by one of the major accent diacritics, usually at the end of a verse or half-verse. In cases of the type just described, for example, where the stress of some imperfect verbs retreats from the ultima to the penult in the formation of converted imperfects, the tone returns under the pause to the ultima, which is lengthened accordingly – thus, *tāmû́t* "she will die" ∼ *wattā́mot* "and she died" ∼ *wattāmốt* "and she died." Similarly, the tone may be restored under the pause to a vowel that lost its stress and was reduced to *šəwā* in the process of syllable formation according to one of the rules described above in §3.2.2.2, with the result that the original quality of the vowel returns and, if short, lengthens under the tone: thus, *\*yittinū → yittĕnû → yittḗnû* "they give." In general, short vowels tend to lengthen under the pause (*\*qātáltā → qātā́ltā*), and often their newly lengthened status gives a clue to the pre-Masoretic quality of the underlying vowel, as in the case just cited of *yittḗnû* (*ē < \*i*) and especially of segholate nouns, where, for example, an original *\*/a/* realized as [ɛ] may be restored and lengthened under the pause (*\*gabr → géber → gā́ber* "man").

Numerous minimal pairs can be cited to show that stress is phonemic in Hebrew: for example, *bā́ʾâ* [ˈbɔʔɔ] "she came" ∼ *bāʾâ* [bɔˈʔɔ] "coming" (feminine singular active participle); *bānʾû* "they built" ∼ *bā́nû* "in us."

## 3.6 Diachronic phonological developments in relation to Proto-Northwest Semitic and Proto-Semitic

### 3.6.1 Consonants

Of the twenty-three consonantal phonemes represented in Table 3.3, eighteen preserve Proto-Semitic consonants unaltered, and five – all fricatives – are the result of unconditioned mergers of two or three Proto-Semitic phonemes. These five include:

1. *z* (/z/), which arose from the merging of the voiced dental *\*z* (/z/) and the voiced interdental *\*ð* (or *\*ḏ*) (/ð/) – compare *zāʿaq* (< *\*zaʿaq* < *\*zaʿaqa*) "he cried" to *zāhāb* (< *\*zahab* < *\*ðahab-*) "gold."
2. *ḥ* (/ħ/) from the voiceless pharyngeal *\*ḥ* (/ħ/) and the voiceless velar *\*ḫ* (/x/) – compare *ḥēn* (< *\*ḥínn* < *\*ḥinn-*) "favor" to *ḥārēš* (< *\*ḥariš* < *\*ḫariš-*) "he is silent."
3. ʿ (/ʕ/) from the voiced pharyngeal *\*ʿ* (/ʕ/) and the voiced velar *\*ġ* (/ɣ/) – compare ʿáyin (< *\*ʿáyn* < *\*ʿayn-*) "eye" to ʿalmâ (< *\*ʿalmā* < *\*ġalmat-*) "young woman."
4. *ṣ* (/sʼ/) from the emphatic dental *\*ṣ* (/sʼ/), the emphatic interdental *\*θ* (/θʼ/) and the emphatic lateral *\*ṣ́* (or *\*ṣ̌*) (/ɬʼ/) – compare *ṣédeq* (< *\*ṣídq* < *\*ṣidq-*) "righteousness," to *ṣēl* (< *\*ṣíll* < *\*θill-*) "shadow," and *ṣémer* (< *\*ṣámr* < *\*ṣ̌amr-*) "wool."
5. *š* (/š/) from the voiceless palatal *\*š* (/š/) and the voiceless interdental *\*θ* (or *\*ṯ*) (/θ/) – compare *šēm* (< *\*ším* < *\*šim-*) "name" and *šōp̄ēṭ* (< *\*šōpiṭ-* < *\*θāpiṭ-*) "judge."

Proto-Semitic possessed a triad of dental/alveolar affricates: voiced *\*dᶻ*, voiceless *\*tˢ* and ejective *\*tˢ*'; see Appendix 1, §3.2.1.1. At an early date, these were deaffricated and merged with phonemes ancestral to the dental fricative triad in Hebrew – *\*dᶻ* with *\*z*, *\*tˢ* with *\*s*, and *\*tˢ*' with *\*ð* – so that it is not necessary to take them into account in a description of the Hebrew phonological system.

As noted in §3.3.2, *' (/ʔ/) participated in the general pattern of weakening that affected the other gutturals. In addition, however, it exhibits certain special characteristics suggesting that it lost consonantal force in certain conditions at a very early date. Though stable in initial positions, *' is lost frequently in syllable-closing positions, and always at the end of words. Quiescence of *' is attested for nouns of the type *Ca'C- in Canaanite dialects as early as the fourteenth-century BC Amarna documents, as shown by the cuneiform spellings *ru-šu-nu*=*rōšunu* (< *rāšunu* < *ra'šunu*) "our head" (EA 264:18), and *ṣu-ú-nu*=*ṣōnu* (< *ṣānu* < *ṣa'nu*) "flock" (EA 263:12). These glosses show that, at least in some Canaanite dialects, syllable-final *' was lost prior to the Canaanite Shift (*ā → ō; see §3.6.2), and the participation of Hebrew in this development is demonstrated by the noun forms *rō(')ś* "head," and *ṣō(')n* "flock," in which the long vowels show that the /ʔ/, though preserved orthographically, has quiesced. When *' is lost in the related Hebrew sequences *Ci'C- and *Cu'C-, *i and *u are lengthened (lowered) to *ē* and *ō*, as in *(lā)śē(')t* (< *śi't*) "to carry" and *bō(')r* (< *bu'r*) "pit." When syllable-final *' is lost in Hebrew verbs in which the third root consonant is ' (III-'), a preceding *a* is lengthened to *ā*, but it does not shift to *ō*, showing that in this environment *' quiesced after the Canaanite Shift was completed: thus, *māṣā(')* (< *māṣa'*) "he found"; *nāśá́(')tā* (< *nāśá'tā*) "you carried." In the same situation, a preceding *i* is, again, lengthened to *ē* – as in *yārḗ(')tî* (< *yārî'tî*) "I was afraid." Though, in most cases, quiescent *' is preserved orthographically in Tiberian Hebrew, it is sometimes omitted altogether, as in *māṣátî* for *māṣá́(')tî* "I found" in Numbers 11:11. In other cases, the consonantal force of *' has been restored by Masoretic hypercorrection, leading to grammatically artificial vocalizations, such as *zəʾēb* for *zē(')b* (< *zi'b*) "wolf."

### 3.6.2 Vowels

As noted in §3.2.2.1, Proto-Semitic *ā is realized in Hebrew as /o:/ as the result of an unconditioned sound change (*ā → ō) shared by the Canaanite languages. The *Canaanite Shift*, as it is called, is attested in Amarna glosses, such as those cited in §3.6.1 as well as *sú-ki-ni* for *sōkini* (cf. Hebrew *sōkēn* "steward"), glossing Akkadian *rābiṣi* "inspector" (genitive), in EA 256:9 (cf. EA 362:69).

As noted in §3.2.2.3, the Hebrew diphthongs, *aw and *ay, are preserved and triphthongized under the tone but contracted in unaccented positions – thus, *yáyin* (< *yayn*) "wine," but *têmān* (< *taymā́n*) "Teman, Southland." Epigraphic evidence, however, shows that the diphthongs behaved differently in the northern and southern dialects of Hebrew. In Israelite or Northern Hebrew, *aw and *ay contracted in all positions (i.e., stressed or unstressed) – thus, *yn* (*yēn* ∼ Biblical Hebrew *yáyin*) "wine"; *tmn* (*tēmān* ∼ Biblical Hebrew *têmān*) "Teman, Southland" – while in Judahite or Southern Hebrew, *aw and *ay were preserved in all positions – *yyn* (*yayn* ∼ Biblical Hebrew *yáyin*) "wine"; *tymn* (*taymān* ∼ Biblical Hebrew *têmān*) "Teman, Southland." It is clear that, as expected, the biblical pattern developed from that of the southern dialect of Jerusalem, in which diphthongs began to contract in unstressed positions during the last half of the first millennium BC.

As pointed out in §3.2.2.2, in the discussion of the phenomenon known as *qatqat* → *qitqat dissimilation*, which was generalized relatively late in the development of Hebrew, a change with this pattern (change of *a to *i in a closed unaccented syllable) occurred in prefixed verbal forms at an early date (*yaqtal* → *yiqtal*). When final short vowels were lost in Proto-Hebrew, and the stress shifted to the ultima, the prefix vowels of singular and first-person plural verbs were most often left in closed, unaccented syllables – that is, *yáqtulu* → *yáqtul* → *yaqtúl*. Whereas in Proto-Semitic the (indicative) verbal prefixes contained an *a*-vowel regardless of which of the three theme-vowels (*a, i, u*) the verb had – thus,

*yaqtal-*, *yaqtil-*, *yaqtul-* – in Proto-Hebrew, and Northwest Semitic generally, the prefix-vowel of the *yaqtal*-type changed from *a* to *i*. This phenomenon was first described by Jacob Barth, and it was confirmed by H. L. Ginsberg, who showed that it was "fully operational" for Ugaritic. Thus according to the *Barth–Ginsberg Law*, as it is now commonly called, the prefix of *yqtl* in the simple active conjugation is vocalized with *i* when the thematic vowel is *a*; otherwise it is vocalized with *a* – thus *yiqtal*, but *yaqtul* and *yaqtil*. This is illustrated by Hebrew forms like *\*yakbad → yikbad* "he is heavy," *\*yašlaḥ →* y*išlaḥ* "he sends" and so forth. In Hebrew, however, the *\*yi-* prefix is not limited to verbs with *a* as theme vowel, as shown by forms like *yišpōṭ* (<*\*yišpuṭ* < *\*yašpuṭ*) "he judges." In contrast to *\*yaqtal →* *yiqtal*, this change (*\*yaqtul →\*yiqtul* (→ *yiqtōl*)) was not inherited from Proto-Northwest Semitic, as shown by syllabically written Ugaritic forms like *ia-aš-pu-ṭú-* for *\*yašpuṭu*, corresponding to consonantal *yṯpṭ* (*\*yaθpuṭu*) "he judges." In Hebrew, then, the form should probably be explained by simple pattern-leveling. That is, at an early stage the prefix vowel was *i* only in verbs with the stem-vowel *a*, as in Ugaritic. Subsequently, however, the *yi*-prefix was leveled through for other Hebrew verbs, namely, those with the stem-vowels *i* and *u*.

## 4.  MORPHOLOGY

### 4.1  Morphological-type and word structure

Hebrew, like the other members of the Semitic family, is a fusional language. The meaning of a word is derived by inflection of a simple stem, commonly called the *root* on the basis of medieval usage – *šōreš* "root," rendered into Latin as *radix*, hence *litterae radicales* "root letters" or "radicals," as the individual consonants of the root (√) are still commonly called. As a rule, Hebrew words, whether verbs or nouns, are based on roots consisting of (usually) three radicals with a fixed sequence, which are inflected by affixes and/or some variation of additional morphological features, such as gemination and especially vowel patterning (*vowel gradation* or *ablaut*). The most important of these inflectional patterns are described below in subsequent sections.

Hebrew roots are predominantly triradical. Some evidence of originally biradical forms seems to survive, as in the case of certain verbs with *y* as first radical (I-*y*), which were originally *\*I-w*, a group having root allomorphs √wCC and √CC in Proto-Semitic and Afro-Asiatic (see Appendix 1, §3.3.1). As explained below in §4.5.4.2, this accounts for Hebrew forms like *šēb* (<*\*šíb*) "sit!" the masculine singular imperative of √*yšb* (< *\*√wšb < \*√[w]θb*). Other Hebrew stem-types are sometimes interpreted as artificially triradical, altered from original biradicals, such as the so-called geminate roots (i.e., those with identical second and third radicals). At the same time, roots containing a glide as one of the stem consonants are often regarded as essentially biradical; these include not only the *\*I-w* and (less often) *\*I-y* roots, but also the so-called hollow or middle-weak roots (II-*w* and II-*y*) and the final-weak roots (III-*w* and III-*y*). Nevertheless, these "weak" types can also be explained as originally triradical, having developed from the partial or complete loss of one of the stem consonants by some process such as the elision of a glide in an intervocalic position. In short, the degree of biradicalism that is operative in Hebrew remains a debated point. What can be stated confidently is that, whatever the degree of biradicalism in its antecedent stages, Hebrew has been strongly conformed to a predominant triradical pattern.

Most of the small number of ostensible quadriradicals in Hebrew can be explained as products of augmentation or reduplication – for example, *garzen* "ax" (from √*grz* "cut");

*galgal* "wheel" (from √*gll* "roll") – and the same is true of the even rarer quinqueradicals – *səḥarḥar* "it palpitates" (from √*sḥr* "move around") – when they are not in fact loanwords.

## 4.2 Noun morphology

Hebrew nouns have two genders, masculine and feminine; three numbers, singular, dual, and plural; and two states, free or absolute and bound or construct. Hebrew nouns are not marked inflectionally for case (see §4.2.3). In general, Hebrew adjectives (including verbal adjectives) are inflected like nouns.

The basic nominal paradigm is given in (2), using the nouns *yôm* "day" and *šānâ* "year" as examples. Note that the plural *yāmîm* "days" is formed from a different root from that of the singular and dual, and that *šānôt* "years" has a more common alternative form – *šānîm*; these peculiarities do not obscure the inflection.

(2)

|          |          | Masculine | Feminine |
|----------|----------|-----------|----------|
| *Singular* | *Absolute* | yôm | šānâ |
|          | *Construct* | yôm′ | šənat′ |
| *Dual*   | *Absolute* | yômáyim | šənātáyim |
|          | *Construct* | yômê′ | šənātê′ |
| *Plural* | *Absolute* | yāmîm | šānôt |
|          | *Construct* | yəmê′ | šənôt′ |

### 4.2.1 Gender

As a rule, if the referent of a noun is naturally masculine, the noun will be masculine (*par* "bull") and if the referent is naturally feminine, the noun will be feminine (*pārâ* "heifer"). Nouns designating things without natural gender, such as inanimate objects or abstract ideas, may be either masculine or feminine – thus, *géšem* "rain" (masculine), and *gibʿâ* "hill" (feminine).

Though there are numerous exceptions, masculine nouns are, as a general rule, unmarked, while feminine nouns are marked. The feminine is marked by one of two endings, *-â* (bound form *-at*) and *-t*. Although these two endings seem to have existed from an early stage in the language as unconditioned morphemic alternants, there are certain environments in which one or the other is preferred. Thus, feminine noun stems ending in a consonant cluster or a consonant preceded by a long vowel (-CC- or -V:C-) are marked by *-â* – as in *ʾiššâ* "woman" and *ʿēṣâ* "counsel" – while *-t* follows forms ending with a vowel – *miṣrît* "Egyptian" – and, very characteristically, is preferred on active participles, often leading to a "segholated" (cf. §3.4) ending – thus *\*yāšibt* → *yōšébet* "sitting" (the *-t* ending is used much more widely in Rabbinic Hebrew than in Biblical Hebrew). There are also many unmarked feminine nouns, including some with naturally feminine meaning, such as *ʾēm* "mother," and others designating inanimate objects, such as *ʾében* "stone" and *ʿîr* "city."

### 4.2.2 Number

Plural nouns and adjectives in the unbound state are most often marked by the endings *-îm* and *-ôt* (for nouns in the bound state, see §4.2.4). The great majority of the former are masculine and the latter feminine, as suggested by (2). There are, however, numerous masculine nouns with the *-ôt* plural ending – thus, *ʾāb* "father," *ʾābôt* "fathers," and *māqôm* "place," *məqōmôt* "places" – and a few that have both *-îm* and *-ôt* – for example, *nāhār* "river,"

*nəhārîm* and (more often) *nəhārôt* "rivers." Similarly, several feminine nouns, whether or not they are marked as feminine in the singular (see §4.2.1) and whether or not they have natural feminine referents, take the *-îm* plural ending. Examples of marked feminine singular nouns with *-îm* plural endings include the natural feminine *'iššâ* "woman," *nāšîm* "women," but also *ḥiṭṭâ, ḥiṭṭîm* "wheat" (see also [2] above for *šānâ*, which usually forms its plural as *šānîm* but frequently as *šānôt*). Examples of unmarked feminine singular nouns with *-îm* plural endings include the natural feminine *rāḥēl* "ewe," *rəḥēlîm* "ewes," but also *'îr* "city," *'ārîm* "cities." Examples of unmarked feminine singular nouns with *-ôt* plural endings include the natural feminine *'ēm* "mother," *'immôt* "mothers," but also *'éreṣ* "land," *'ărāṣôt* "lands." Certain unmarked nouns that are construed sometimes as masculine and sometimes as feminine may have both plural endings – thus *'āb* "cloud" (usually masculine, but feminine in 1 Kings 18:44), *'ābîm* and *'ābôt* "clouds."

In Late Biblical Hebrew the plural ending *-în* alternates with *-îm* (cf. *yāmîn* "days," in Daniel 12:13), and in Rabbinic Hebrew *-în* is increasingly preferred. Though this development may have been influenced by Aramaic, it probably had its origin in dialect variation within Hebrew, since its distribution in the Bible is not exclusively confined to the latest literature and, in fact, occurs once in the most archaic poetry (*middîn* "carpets," in Judges 5:10). Its ultimate explanation is the existence in Proto-Northwest Semitic of *-m* and *-n* allomorphs of the Proto-Semitic plural/dual boundness marker *-n* (see §4.2.4).

Although the dual is used in some Semitic languages, such as Ugaritic and Arabic, to refer to two of anything, its use in Biblical Hebrew is largely confined to natural pairs, such as *'oznáyim* "ears," or *na'ăláyim* "sandals," or to numerals (*šənáyim* "two") and double units of measurements of time or quantity: for example, *šəbû'áyim* "two (successive) weeks, a fortnight"; *'ammātáyim* "two cubits." Probably as the result of a dialectal survival, the original broader use of the dual returns in Rabbinic Hebrew, where it can denote a pair of anything.

With unmarked nouns, the unbound dual ending, *-áyim*, is added directly to the base of the singular – thus, *ragláyim* ((*régel* < ) *\*ragl-* + *-áyim*) "feet" (masculine); and *yādáyim* ((*yād* < ) *\*yad* + *-áyim*) "hands" (feminine). With nouns marked as feminine, the ending is added to the singular base following one of the two types of marker (see §4.2.1), as follows. Nouns ending in *-â* (bound form *-at*) follow the pattern of *śāpâ* (bound form *śəpat*) "lip," *śəpātáyim* "lips." Nouns ending in *-t* follow the pattern of *nəḥṓšet* (bound form *nəḥṓšet* < *\*nuḥušt*) "bronze," *nəḥuštáyim* "bronze fetters," unless assimilated to the preceding pattern, as evidently in the case of *délet* (< *\*dalt*, but bound form *dəlat'*) "door," *dəlātáyim* "(double) doors."

Adjectives follow more restricted rules with regard to number. The kind of variety displayed by nouns in forming *-îm* and *-ôt* plural, as described above, is lacking in adjectives (including participles), the masculine plurals of which are consistently marked by *-îm* and feminine plurals by *-ôt*. Also, dual endings do not occur with adjectives.

## 4.2.3   Case

In Proto-Northwest Semitic, the three short vowels were used to indicate case in singular nouns – *\*-u* for nominative, *\*-i* for genitive, and *\*-a* for accusative – and, following *\*-āt-*, in feminine plural nouns – *\*-ātu* for nominative and *\*-āti* for oblique. The loss of final short vowels and the leveling of the *\*-īm* ending on masculine plurals (see §4.2.2) left Hebrew nouns with no inflectional indication of case, except perhaps the bound–unbound opposition in genitive constructions. As a result, the case of nouns may be identified only from syntactical criteria.

### 4.2.4   State

In Biblical Hebrew, as in other Semitic languages that have lost the Proto-Semitic system of case endings, the chief way to express a genitive relationship is the so-called construct chain (on the role of the construct chain in the determination of substantives, see §5.4). A construct chain consists of the juxtaposition of two or (rarely) more nouns in a sequence such as *dəbar hammélek* "the word of the king." In this example, *hammélek* "the king" is free in form like other nouns not forming parts of construct chains. It derives a genitive force, however, from its relationship to the preceding bound form *dəbar'*. In traditional terminology, *dəbar'*, the *nomen regens*, is said to "govern" *hammélek*, the *nomen rectum*.

The two parts of a construct chain are closely associated accentually, with the principal stress moving ahead to the *nomen rectum*, which therefore remains morphologically unchanged and in what is called the *absolute state*. The *nomen regens*, however, becomes proclitic and often undergoes changes (especially including vowel shortening or reduction) in consequence of the loss of stress, so that it is said to be in the *construct state* – compare *dābār* "word" (absolute state) to *dəbar'* (construct state). The changes that affect singular nouns in the construct state include vowel reduction in newly unstressed syllables ($\bar{a} \rightarrow ə$ and $\bar{e} \rightarrow ə$) and the shift of $\bar{a}$ to $a$ in final closed syllables (both illustrated, again, by the contrast *dābār* ∼ *dəbar'*). Nouns ending in a final stressed *səgôl* (-*eh* = ה..) become final *ṣērê* (-*ēh* = ה..) in construct: for example, *maḥăneh* "camp" (absolute) ∼ *maḥănēh'* (construct).

As noted in §4.2.2, plural nouns in the absolute state normally end in -*ôt* (usually feminine) or -*îm* or, in Rabbinic Hebrew, -*în* (usually masculine). The -*îm* and -*în* endings are survivals of a Proto-Semitic boundness marker for plural and dual nouns, *-n(a)*. That is, free or unbound Proto-Semitic nouns ended in *-m following short vowels and *-n(a) following long vowels and diphthongs, so that nouns lacking these endings were "marked" as bound or construct (see Appendix 1, §3.3.2.1). In the evolution of the descendant languages the two endings were leveled and otherwise simplified. In the Northwest Semitic group the short-vowel ending, *-m, disappeared, so that the bound–unbound contrast was lost in singular and feminine plural nouns until the later sound changes already described developed as the result of the proclisis of bound forms. On the other hand, the long-vowel ending, *-n(a), survived as a marker of the absolute plural and dual. Original *-n(a) was realized, however, as -*n in some Northwest Semitic languages (Aramaic, Moabite, the Deir ʿAlla dialect, and Rabbinic Hebrew) and as -*m in others (Ugaritic, Phoenician, Ammonite, and Biblical Hebrew).

The bound or construct endings of plural nouns are -*ê* (·..) corresponding to -*îm* in the absolute state, and -*ôt* corresponding to -*ôt* in the absolute. When pronominal suffixes are added to plurals ending in -*ôt*, the plural bound-form ending -*ê*- (<*-ay*-) is interposed – thus, *miṣwôtê'kā* "your commandments." Not all of these forms can be readily explained in relation to the antecedent forms reconstructed for Proto-Northwest Semitic.

The Proto-Northwest Semitic forms of the unmarked, usually masculine, unbound plural were *-*ūn* in the nominative and *-*īn* in the oblique, corresponding to *-*u nominative, *-*a accusative, and *-*i genitive in the singular (see §4.2.3). When the loss of final short vowels caused the case system to collapse in the singular, the endings were leveled in the plural as well, and the oblique form, *-*īn*, was generalized (as -*īn* or -*īm*, as explained above). At this point, the corresponding bound form in the plural must have been *-*ī*, but for unknown reasons this form was abandoned in favor of the corresponding dual form, *-*ay* ($\rightarrow$ -*ê*; see below).

The Proto-Northwest Semitic forms of the marked, usually feminine, unbound plural were *-*ātu* in the nominative and *-*āti* in the oblique. With the loss of final short vowels these fell together as *-*āt*, the expected antecedent form of -*ôt*. It is unknown, however, why

the newly formed masculine plural bound form *-ê-* (<*-ay-*) came to be inserted before suffixes added to these nouns.

For dual nouns the construct ending is *-ê* (˙..), originally *\*-ay*, corresponding to *-áyim* in the absolute state. In unmarked nouns *-ê* is added directly to the end of the base – thus *raglê′* "feet" (masculine), and *yədê′* "hands" (feminine). With nouns marked as feminine, the endings are added following the marker, as explained in connection with the dual absolute endings in §4.2.2 above – as in *śiptê′* "lips."

In Rabbinic Hebrew, though the construct chain is still used frequently to express the genitive, it is increasingly replaced by a construction in which nouns are joined by the genitive particle *šel*, which arose from a combination of the relative particle *še-* (see §4.3.3) and the proclitic preposition *lə-* "belonging to, of" – thus, *haddābār šellamélek* or, more commonly, *haddābār šel hammélek* "the word of the king." The *nomen regens* in such a construction is not in the construct state, and it may have an anticipatory pronominal suffix – thus already in Late Biblical Hebrew, *hinnēh miṭṭātô šellislōmōh* "There is the couch of Solomon" (Song of Songs 3:7).

### 4.2.5   Noun formation

The various Hebrew noun- and adjective-types are derived from the application of several kinds of operations to verbal roots, including vowel patterning, root consonant gemination and affixation. Though several noun-types have general or specific semantic associations, there are many others for which such associations cannot be identified. The following tabulation provides a selection of some of the most important noun-types. In arrangement it proceeds from the simpler to the more complex forms, and the paradigm root used is √*qtl* (√*ql* for biradical types). Except where indicated, the examples come from Biblical Hebrew.

#### 4.2.5.1   Biradical types

The pattern CV:C (<*CVC) includes a number of common nouns of the types *qāl* (<*\*qal*) – thus, *dām* "blood"; *dāg* "fish." The associated feminine forms are *qālâ* (<*\*qalat*; e.g., *bāmâ* "high place," *šānâ* "year") and *qélet* (<*\*qalt*; e.g., *qéšet* "bow"; cf. Northern Hebrew *št* = *\*šatt* (<*\*šant*) "year"). The active participle of roots II-*w/y* is formed from this pattern – thus, *bā'* and (feminine) *bā'â* "coming"; *śām* and (feminine) *śāmâ* "placing." Two members of this group, *'āb* "father" and *'āḥ* "brother" (plural *'aḥim* < *\* 'aḥḥīm*), have their construct form in *-î* (*'ăbî*), suggesting that these words had (anomalously) long singular case vowels in Proto-Semitic, the vowel of the genitive (*\*-ī*) having been leveled through the paradigm after the collapse of the case system. The CV:C pattern also includes nouns of the type *qēl* (<*\*qil*): thus, *'ēl* "god," *'ēṣ* "tree." Again there are two associated feminine forms, namely, *qēlâ* (<*\*qilat*; e.g., *bēṣâ* "egg," *mē'â* "hundred") and *qélet* (<*\*qilt*), which forms the infinitive construct of roots *I-*w* and some roots I-*n*: for example, *šébet* (√*yšb* < √*\*wθb*) "to sit"; *réšet* (< √*yrš* < √*\*wrθ*) "to take possession of"; *géšet* (√*ngš*) "to approach." Though *qēl* is the absolute, presuffixal, and construct form for most members of this group, the common nouns *šēm* "name" and *bēn* "son" have the presuffixal forms *šəm-* and *bən-* and (sometimes) the construct forms *ben-* and *šem-* (the latter is rare). Another common noun, *bat* "daughter," belongs to this pattern (*\*qilt*): *\*bint* → *\*bitt* → *\*batt* (by Philippi's Law, see §3.2.2.2) → *bat*.

Nouns of similar form but deriving from a biradical type containing an originally *long* vowel, CV:C (< *\*CV:C*), include the patterns *qôl* (< *\*qōl* < *\*qāl*; e.g., *qôl* "voice," *ḥôl* "sand"); *qîl* (< *\*qīl*; e.g., *šîr* "song," *qîr* "wall"); and *qûl* (< *\*qūl*; e.g., *sûs* "horse," *rûaḥ* "wind"). From *qîlâ*, the feminine corresponding to *qîl*, come the nouns *bînâ* "understanding" and *qînâ* "dirge." The infinitive construct of roots II-*w* is formed from the *qûl* pattern – thus, *qûm*

"to arise" – and that of roots II-*y* is formed from the *qîl* pattern – thus, *dîn* "to judge," *rîb* "to contend."

### 4.2.5.2   Triradical types without a doubled radical

The pattern CVCeC (< *CVCC) constitutes an important group of nouns (the "segholates," see §§3.4–3.5), which, when derived from sound roots, take the forms *qétel* (< *qatl* or *qitl*), *qétel* (< *qitl*) and *qótel* (< *qutl*). A distinctive feature of the segholates, including their feminine forms (*CVCCat), is the formation of the plural from the base *CVCaC (feminine *CVCaCat); i.e., with -*a*- interposed between the second and third radicals. A large number of common nouns belong to the group *qétel* (< *qatl*): *mélek* "king," *késep* "silver," *’éreṣ* "earth," *gépen* "vine," *kéleb* "dog," *‘ébed* "slave," and so forth. Almost as large is the group *qitl*, including *qétel* (< *qitl*; e.g., *séper* "book," *šébeṭ* "rod") – and *qétel* (< *qitl*; e.g., *ṣédeq* "righteousness," *qéreb* "midst"). The corresponding feminine is *qitlâ* (< *qitlat*): for example, *šiphâ* "maidservant," *gib‘â* "hill," *yir’â* "fear," but also *ḥerpâ* "reproach," *‘erwâ* "nakedness." When based on an active verbal root, *qitl(at)* nouns frequently have a passive sense – thus, *šéma‘* "report" (something heard) from √*šm‘* "hear"; *zéker* "memory" (something remembered); *zéba* "sacrifice" (something sacrificed); compare *‘émeq* "valley" (something deep), from the stative verb √*‘mq* "be deep." (Note: the presence of two types, *qétel* and *qétel*, from *qitl*, and the convergence of *qétel* < *qitl* with *qétel* < *qatl* present problems in interpreting the Tiberian tradition, and when the evidence of the Babylonian [e.g., *málak* ∼ Tiberian *mélek* and *qárab* ∼ Tiberian *qéreb*] and Hexaplaric traditions is added, a number of ambiguities involving nouns of the type *qatl* and *qitl* emerge.) The third group of segholates, *qótel* (< *qutl*), also includes some common nouns: for example, *bóqer* "morning," *ḥódeš* "month," *šóreš* "root," *’óraḥ* "path." Nouns of this group are frequently abstract (e.g., *qódeš* "holiness"), especially when derived from stative roots – thus, *róḥab* "width," *góbah* "height," *ḥóšek* "darkness."

Another large, important group is represented by the pattern CV:CV:C (< *CVCVC). This pattern is especially characteristic of adjectives, but it produces many common nouns as well. The group *qātāl* (< *qatal*) includes a number of primary nouns having the form *qātāl* – such as *zāhāb* "gold," *nāhār* "river" – but some of the nouns in this group are clearly collectives, such as *qāhāl* "assembly" and *bāqār* "cattle," and it is possible to interpret many of the others in this way, including *‘āpār* "dust," *‘ānān* "cloud," *māṭār* "rain," and possibly *’ādām* "man, person, humanity"; it has been suggested that some of these derive from a Proto-Semitic *qatal* plural morpheme. The same type (*qātāl*) is especially productive of abstract nouns derived from verbs, which may be active (e.g., *ḥāmās* "distortion," *nāqām* "vengeance") or stative (e.g., *’āšām* "guilt," *śābā* "satiety," *rā‘āb* "hunger," *ṣāmā’* "thirst"). The corresponding feminine form is *qətālâ* (< *qatalat*) – for example, *’ădāmâ* "soil" – which, like *qātāl*, is characteristic of abstract nouns, such as *ṣədāqâ* "righteousness" and *bərākâ* "blessing." Finally, and most typically, the group *qātāl* (< *qatal*) contains numerous adjectives from stative roots, such as *ḥādāš* "new," *rāšā‘* "evil," *ḥāzāq* "strong," *lābān* "white," *šāpāl* "low," and so forth. This is also true of the groups *qātēl* (< *qatil*) – such as *zāqēn* "old," *śāmēaḥ* "joyous," *ṭāmē’* "unclean" – and *qātôl* (< *qatul*): thus, *gādôl* "big," *‘āmōq* "deep," *mātôq* "sweet," *ṭāhôr* "clean," *qārôb* "near," *rāḥôq* "distant."

The pattern CV:CV:C (< *CVCV:C) is especially productive of adjectives, many of which are substantivized as nouns. The type *qātôl* (< *qatāl*), however, is primarily nominal. Though it includes a few primary nouns – such as *šālôš* "three," *’ātôn* "jenny" – it specializes as the form of the infinitive absolute of the simple verbal stem (Qal) – thus, *kātôb* "to write." Other well-known nouns with this form, such as *šālôm* "peace" and *kābôd* "glory," are like the infinitive in expressing the abstract idea of the verb. The type *qātîl* (< *qatīl*), though

it includes few primary substantives, frequently forms adjectives from verbs, whether from stative roots (*ḥāsîd* "pious," *ṣāʿîr* "little") or active roots. Adjectives formed in this way from active roots tend to be passive in meaning and may be substantivized, such as *ʾāsîr* "bound," substantivized as "prisoner," and *śākîr* "hired," substantivized as "hireling." Many of these adjectives, when substantivized as passive, function as nouns of office – thus, *nāgîd* "prince" (i.e., "designee"); *māšîaḥ* "messiah" ("anointed one"); *nāśîʾ* "chief" ("one who is lifted up"); *pāqîd* "commissioner" ("one who is appointed"). The type *qātûl* (< *\*qatūl*), though again it includes few primary nouns, is a common adjectival pattern from stative roots – thus, *ʿārûm* "clever," *ʿāṣûm* "strong." Most importantly, *qātûl* is generalized as the passive participle for active roots of the simple verbal stem (Qal) – thus, *kātûb* "written"; *pātûaḥ* "open."

The particular importance of the pattern CōCVC (< *\*CāCVC*) is the role of the type *qōtēl* (< *\*qātil*), feminine *qōtəlâ* (< *\*qātilat*) and *qōtélet* (< *\*qātilt*), in forming the active participle of the simple verbal stem (Qal): for example, *yôrēd, yōrədâ, yōrédet* "going down." These are often substantivized – thus, *kōhēn* "priest," *sōpēr* "scribe," *yôʿēṣ* "counsellor," *gōʾēl* "kinsman," *ḥōtēn* "father-in-law," *yôlēdâ* "woman in labor" (with retention of *ē* in the substantive).

### 4.2.5.3    Triradical types with doubling of the second radical

The pattern CVCCV:C (< *\*CVCCVC*) includes mostly adjectives, many of which may be substantivized. The type *qattāl* (< *\*qattal*) is an adjectival pattern that usually denotes habitual action – thus, *qannāʾ* "jealous," *ḥaṭṭāʾ* "sinful," *naggāḥ* "accustomed to gore" (of the ox in Exodus 21:29 and 36), and *ʿawwāl* "unjust," substantivized as "unjust person." When substantivized, this form is especially characteristic of nouns of occupation – thus *dayyān* "judge," *ṭabbāḥ* "cook," *gannāb* "thief," *ḥārāš* (< *\*ḥarrāš*) "craftsman" (Rabbinic Hebrew adds to this category a number of examples not found in Biblical Hebrew: e.g., *baqqār* "cattle rancher," *hārāg* (< *\*harrāg*) "murderer," *gammāl* "camel driver"). The type *qittēl* (< *\*qattil* by a pre-Hebrew sound change) belongs to a number of adjectives denoting physical conditions: thus, *ʿiwwēr* "blind," *ḥērēš* (< *\*ḥirrēš*) "deaf," *gibbēaḥ* "bald," *ʾiṭṭēr* "disabled" (of the right hand → "left-handed" in Rabbinic Hebrew).

### 4.2.5.4    Types with derivational affixes

Nouns with preformative mV- constitute a large group with a wide variety of meaning. Two of the most important types, *\*maqtal* and *\*miqtal*, have fallen together by *qatqat* → *qitqat* dissimilation (see §3.2.2.2) as *miqtāl*, with its feminine forms *miqtālâ* and *miqtélet*. Examples include *midbār* "pasture land," *mišpāṭ* "judgment," *mišpāḥâ* "clan," and *milḥāmâ* "battle." In phonological situations involving a guttural, liquid, or nasal as the first root consonant, however, initial *ma-* may occur in nouns of either original type (*\*maqtal* or *\*miqtal*) – thus, *maʾăkāl* "food," *maʿărāb* "west," *malʾāk* "messenger," *mamlākâ* "kingdom," *mattān* (< *\*mantan*) "gift," *maśśāʾ* (< *\*manśaʾ*) "burden, oracle."

Among sufformatives may be mentioned (i) *-ôn* (< *\*-ān*), which forms a number of substantives, especially from roots III-*w/y* – for example, *ḥāzôn* "vision," *gāʾôn* "pride," *hāmôn* "sound" – as well as adjectivals, such as *ʾaḥărôn* "behind, latter," and *ḥîṣôn* "outer"; (ii) *-ût* (< *\*-ūt*), which forms abstracts from concrete nouns – *malkût* "kingdom" (from *\*malk* "king"), *ʾalmānût* "widowhood" (cf. *\*alman(at)* "widow"), *yaldût* "youth" (from *\*yald* "child"), and (iii) *-î* (< *\*-īy*), a common affix for forming adjectives from nouns, which is used especially to generate ordinals – such as *šəlîšî* "third" – and gentilics, which may be substantivized – thus, *raglî* "on foot," substantivized as "footman, foot-soldier" (from *\*ragl* "foot"), *yəhûdî* "of Judah, Jewish," substantivized as "Judahite, Jew."

### 4.2.6   Stem allomorphism

The early shift of stress to the final syllable (see §3.5) and the subsequent vowel changes that resulted in the course of inflection and suffixation (see §3.2.2.2) led to a wide variety in stem-form in many Hebrew nouns and adjectives. This stem allomorphism is among the most distinctive characteristics of the language in its later development. Note, for example, the variety of nominal stems found in the inflection of *dābār* "word": unbound singular stem *dābār*; bound singular stem (with forward shift of stress) *dəbar′*; presuffixal singular stem *dəbār-* (light suffixes; see §4.3.1) or *dəbar-* (heavy suffixes); unbound plural stem (with forward shift of stress) *dəbār-*; bound plural stem *dibrê′*; presuffixal plural stem *dəbār-* or *dibrê-* (see §4.3.1).

## 4.3   Pronominal morphology

Hebrew has personal, demonstrative, relative, interrogative, and indefinite pronouns. There is no separate reflexive or resumptive pronoun, though the oblique cases of the pronominal suffixes may be used reflexively or resumptively (retrospectively) – the latter very commonly in relative clauses.

### 4.3.1   Personal pronouns

Hebrew personal pronouns occur in two forms, independent and enclitic (the pronominal suffixes). Both types are inflected for number, person, and gender. There are complete paradigms of singular and plural forms, but the Proto-Semitic dual forms, which may be reconstructed for the oblique cases at least (see Appendix 1, §3.3.3), have been generally lost (but see below). First-person personal pronouns have common gender, while second- and third-person personal pronouns have distinct masculine and feminine forms.

The standard forms of the independent personal pronouns, which serve as the nominative case (i.e., as subject or predicate nominative), are as follows.

(3)

| Person | Gender | Singular | Plural |
|--------|--------|----------|--------|
| *First* | *Common* | ʾānōkî, ʾănî | ʾănáḥnû |
| *Second* | *Masculine* | ʾattâ | ʾattem |
| | *Feminine* | ʾatt | ʾatten, ʾatténnâ |
| *Third* | *Masculine* | hûʾ | hḗm, hḗmmâ |
| | *Feminine* | hîʾ | hḗnnâ |

Although *ʾānōkî* and *ʾănî* are both widely used in Biblical Hebrew, the former is more common in earlier biblical literature, while the latter is predominant in the later literature, especially Late Biblical Hebrew, and survives alone in Rabbinic Hebrew. In Biblical Hebrew *ʾănáḥnû* has a rare variant, *náḥnû*; in Rabbinic Hebrew (and already in Jeremiah 42:6 and at Qumran) both are replaced by *ʾānû*. The second-person singular forms exhibit some variety. Thus *ʾattâ* (masculine) is sometimes spelled *ʾt* in Late Biblical Hebrew (vocalized as *ʾatt* or *ʾattā*) and Qumran, while in Rabbinic Hebrew and the Hexapla the two forms alternate; *ʾatt* (feminine) is spelled *ʾty* occasionally in Biblical Hebrew (always vocalized as *\*att*) and regularly in the Samaritan Pentateuch. Both *ʾt* (masculine) and *ʾty* (feminine) are likely to have arisen under Aramaic influence, though dialectal intrusion cannot be ruled out for the earlier examples, especially in the case of *ʾty*, which indicates the typologically earlier pronunciation *\*ʾattî*. As with certain verb forms (see §4.5.4.1), the masculine and feminine forms of the personal pronouns show a tendency to merge in Rabbinic Hebrew, so that

*'attem* and *'atten*, on the one hand, and *hēm* and *hēn* (which has replaced Biblical Hebrew *hḗnnâ*), on the other, alternate in both the masculine and feminine.

The pronominal suffixes of the noun serve as the genitive of the personal pronoun when attached to substantives or prepositions (the latter corresponding most often to the dative or ablative in Indo-European and other languages), and the accusative when attached to verbs and certain particles:

(4)   The pronominal suffixes on singular nouns

|  |  | Number | |
| --- | --- | --- | --- |
| *Person* | *Gender* | *Singular* | *Plural* |
| *First* | *Common* | -î | -énû |
| *Second* | *Masculine* | -ĕkā | -kem |
|  | *Feminine* | -ēk, -ékî | -ken |
| *Third* | *Masculine* | -ô, -éhû | -ām |
|  | *Feminine* | -āh, -'êhā (הָ ֶ-) | -ān |

As noted, these suffixes are genitive. They are inflected for singular and plural number. In Biblical Hebrew, however, there seem to be isolated survivals of the Proto-Semitic dual pronouns, as preserved, for example in Ugaritic (Ch. 2, §4.3.1.2) and Arabic. These occur in passages where apparently masculine plural pronominal suffixes of the second or third person have feminine pairs as antecedents, such as 2 Samuel 6:7, 10, and 12, where *-hem* and other ostensibly masculine suffixes occur in place of *-hen*, and so forth, referring to the feminine antecedent *pārôt* "(a yoked pair of) cows"; to *-hem* compare the corresponding dual pronouns in Ugaritic, *-hm*, and Arabic, *-humā*.

The (genitive) pronominal suffixes for dual and plural nouns are presented in (5):

(5)   The pronominal suffixes on plural nouns

|  |  | Number | |
| --- | --- | --- | --- |
| *Person* | *Gender* | *Singular* | *Plural* |
| *First* | *Common* | -ay | -énû |
| *Second* | *Masculine* | -'êkā (ךָ ֶי-) | -êkem |
|  | *Feminine* | -áyik | -êken |
| *Third* | *Masculine* | -āyw | -êhem |
|  | *Feminine* | -'êhā (הָ ֶי-) | -êhen |

These suffixes are added to the noun stem, followed by the plural construct ending *-ê* ( < *-ay*), originally the dual stem (see §4.2.4). This applies both to masculine (*dəbāráyik* "your (fem. sg.) words") and feminine (*ḥômôtáyik* "your (fem. sg.) walls") nouns.

In archaic and poetic contexts, the third-person masculine plural suffix has the variant *-ā́mô* on singular nouns and *-ḗmô* on plural nouns. There is also evidence of variant traditions in the pronunciation of the second-person masculine singular pronominal suffix. Although this suffix is consistently vocalized *-ékā* on both singular and plural nouns in Tiberian Hebrew, it is usually spelled with final *-k* (i.e., ךָ- not כה-), and the Hexaplaric form is consistently *-akh* (-αχ); taken together, these things point to a non-Masoretic pronunciation *-āk*, which corresponds to the Rabbinic Hebrew form. On the other hand, the antiquity of the Tiberian vocalization is confirmed by the heavy predominance of the spelling כה- at Qumran.

When one of the genitive suffixes is added to a noun, the stress in the resulting word usually shifts to the suffix, causing an alteration in the form of the noun stem as the result of vowel

reduction in accordance with the rules summarized in §3.2.2.2. It follows that the form of the noun stem before suffixes is often similar or identical to the form of the noun stem in the construct state, which is typically altered by the same kind of shift of stress and consequent vowel reduction (see §4.2.4). Thus for the noun *dābār* "word," the corresponding forms are construct singular *dəbar′* "word (of)"; suffixed singular *dəbarkem* "your (masc. pl.) word"; construct plural *dibrê′* "words (of)"; and suffixed plural *dibrêkem* "your (masc. pl.) words."

In the suffixal forms of singular noun stems, variation may occur before the so-called *heavy* and *light* suffixes. The heavy suffixes are those beginning with a consonant, namely, *-kem* and *-ken*. In the case of the light suffixes, the noun ends with an open syllable, causing the stem-vowel to lengthen (cf. §3.4) – thus, *dəbarkem* "your (masc. pl.) word," but *dəbārĕkā* "your (masc. sg.) word"; *ḥômatkem* "your (masc. pl.) wall," but *ḥômātĕkā* "your (masc. sg.) wall."

In the suffixal forms of plural noun stems, the double reduction leading to *dibrê-*, the form required by the "rule of *šəwā*" (see §3.4), occurs only with the second- and third-personal plural suffixes (i.e., those which are bisyllabic and accented on the final syllable).

Although the suffixal forms of most noun stems are produced by these rules, there are numerous other variations, many predictable on historical grounds – such as, '*ōz* (< *\*'uzz-*) "strength," suffixed form '*uzzəkem* "your strength" – others simply irregular – for example, *yād* (< *\*yad-*), heavy suffixed form *yedkem* "your hand." A few noun stems are unchanged by suffixation – thus, *sûs* "horse," suffixed form *sûsām*; *sûsîm* "horses," suffixed form *sûséhem*.

The attested forms of the pronominal suffixes when attached to the perfect verb are presented in (6):

(6)  The pronominal suffixes on perfect verbs

|        |           | Number |        |
|--------|-----------|--------|--------|
| *Person* | *Gender*  | *Singular* | *Plural* |
| *First*  | *Common*    | -ánî       | -ắnû    |
| *Second* | *Masculine* | -əkā, -ĕkā | -kem    |
|          | *Feminine*  | -ēk        | —       |
| *Third*  | *Masculine* | -ô, -ắhû   | -ām     |
|          | *Feminine*  | -āh        | -ān     |

As noted, these are object suffixes. The forms shown are those used when the suffix is stressed and follows a verbal stem ending in a consonant, such as *šəlāḥánî* "he sent me." The forms are slightly different when the suffix is unstressed and/or when following a stem ending in a vowel – thus, *šəlāḥátnî* "she sent me," *šəlaḥtĭnî* "you (fem. sg.) sent me."

The attested forms of the (accusative) pronominal suffixes when attached to the imperfect verb are presented below.

(7)  The pronominal suffixes on imperfect verbs

|        |           | Number |        |
|--------|-----------|--------|--------|
| *Person* | *Gender*  | *Singular* | *Plural* |
| *First*  | *Common*    | -ḗnî, énnî | -ḗnû, -énnû |
| *Second* | *Masculine* | -əkā, -ékkā | -kem    |
|          | *Feminine*  | -ḗk        | —       |
| *Third*  | *Masculine* | -ḗhû, énnû | -ēm     |
|          | *Feminine*  | -ḗhā, -énnâ | -ēn     |

In the case of the imperfect, the object pronouns follow -*ḗ*- or -*én*-, which is suffixed to the verbal stem. The forms with -*nn*- suggest a derivation from the Proto-Northwest Semitic energic (see §4.5.2).

### 4.3.2   Demonstrative pronouns

In Hebrew the demonstrative pronouns are inflected for gender and number. The common forms of the near ("this, these") and far ("that, those") demonstratives are listed in (8):

| (8) | | | *Singular* | *Plural* |
|---|---|---|---|---|
| | *Near demonstrative* | *Masculine* | zeh | ʼélleh |
| | | *Feminine* | zō(ʼ)t | ʼélleh |
| | *Far demonstrative* | *Masculine* | hû ʼ | hēm |
| | | *Feminine* | hî ʼ | hénnâ |

Note that the far demonstratives are identical to the independent personal pronouns of the third person. The masculine and feminine singular far demonstratives showed an early tendency to merge, so that the feminine form is spelled *hw ʼ* throughout the Pentateuch, though it is consistently vocalized *hî ʼ* by the Masoretes. The forms *zōh* and *zô* appear in Biblical Hebrew as rare variants of *zō(ʼ)t*, and *zô* became the regnant form in Rabbinic Hebrew. The longer forms *hallaz* ("this," common), *hallázeh* ("this," masculine), and *hallēzû* ("this," feminine), which occur in Biblical Hebrew as rare synonyms of *zeh* and *zō(ʼ)t*, constitute in Rabbinic Hebrew a full alternate paradigm of the near demonstrative, to which *hallálû* ("these," common) provides the plural.

 The demonstratives are used as both pronouns and adjectives, and, as adjectives, they are subject to the same rules of gender agreement and definiteness as other adjectives – compare *zeh hāʼîš* "this is the man," to *hāʼîš hazzeh* "this man" (on the article see §4.4).

### 4.3.3   Relative pronouns

The common relative pronoun in Biblical Hebrew is *ʼăšer*, which is indeclinable. Less often, in Archaic Hebrew and especially in Late Biblical Hebrew, the proclitic form *še*- (with gemination of the following consonant if possible) is found instead. In Rabbinic Hebrew this form replaces *ʼăšer* almost entirely. Occasionally, and almost exclusively in poetry, *zeh* and *zû* are used as relatives (Psalm 74:2; Isaiah 42:24), recalling their derivation from the old relative-determinative pronoun *\*ð*- (see Appendix 1, §3.3.4).

 These forms are of disparate origin. Voiceless and voiced relative particles, *\*θ*- and *\*ð*-, must be posited for Proto-Northwest Semitic. The former (*\*θ*-) is the base of the Hebrew relative *še*-, as well as Standard Phoenician and Ammonite *ʼš*- and Phoenician-Punic *š*- (see Ch. 4, §4.3.5). The latter (*\*ð*-), as noted, underlies the relative use of Hebrew *z*-. Hebrew *ʼăšer* and Moabite *ʼšr* are thought to have arisen from a form of the substantive *\*ʼaθr*- "place."

 It is probable that the variation in Hebrew between *ʼăšer* and *še*- was originally dialectal, the former, shared by Moabite, having been the southern (Judahite or at least Jerusalemite) form, and the latter, which has cognates in Phoenician and Ammonite, having been the northern (Israelite) form.

### 4.3.4   Interrogative and indefinite pronouns

The interrogative pronouns are *mî* "who?" and *mah* "what?" Neither is inflected for gender or number. In comparison to Common Semitic *\*man* "who," Hebrew *mî* is an innovation

(*mi:y-) shared with Ugaritic (my), Old Canaanite (cf. mi-ya in EA 85:63; 94:12 and 116:67), Phoenician (my), and probably Ammonite (m-). The first consonant of the word following mah is doubled when possible (otherwise the vocalization of mah may be affected). This suggests that although the -h in the Tiberian spelling of mah (מָה) is a mater (see §2.2), the primitive form may have been *mah (with consonantal -h), especially in light of Ugaritic mh "what?" (see Ch. 2, §4.3.4.1).

Both mî and mah are used as indefinite pronouns in the sense of "whoever" and "whatever": for example, mî yārē' wəḥārēd yāšōb "whoever is fearful and trembling, let him turn back" (Judges 7:3). When mî and mah are used as indefinites in Rabbinic Hebrew they are usually augmented by the relative še- (see §4.3.3) and preceded by the proclitic substantive kol' – thus, kol-mî še- "whoever," and kol-mah še- "whatever."

The Proto-Semitic interrogative *'ayy- (see Appendix 1, §3.3.4), from which a group of Hebrew interrogative adverbs is derived ('ayy- + pronominal suffix "where?"; 'ayyēh "where?"; 'êk "how?" etc.), was combined with the near demonstratives in Rabbinic Hebrew to produce another series of interrogative pronouns/adjectives: 'êzeh, 'êzehû "who? which?" (masculine singular); 'êzô, 'êzōhî "who? which?" (fem. sg.); 'êlû "who? which? (common pl.) – compare 'ê-zeh "which?" already in Ecclesiastes 2:3 and 11:6.

## 4.4  The article

The Hebrew definite article is prefixed directly to the noun it determines (on determination of substantives, see §5.4). The usual form of the article is ha- with gemination of the following consonant: for example, hammélek "the king." When gemination is not possible, as in the case of nouns with initial guttural consonants or r (see §3.3.2), and in certain other circumstances, there is alternation of the length or quality of the vowel of the article itself. Like other Semitic languages, Hebrew lacks an indefinite article.

## 4.5  Verbal morphology

Finite Hebrew verbs have two indicative forms, which contrast aspectually as perfective and imperfective (for the Proto-Northwest Semitic origins of the Hebrew indicatives, see §4.5.1). Both forms have three persons, two genders and two numbers (singular and plural). The perfect is inflected by the modification of a verbal stem through the addition of suffixes indicating person, gender, and number – thus, stem + suffix. The imperfect is inflected by modification of a related verbal stem through the addition of (i) prefixes indicating person and sometimes gender and (ii) suffixes indicating number and sometimes gender – thus, prefix + stem + suffix. The perfect stem for transitive-active verbs of the simple conjugation (Qal) is *qātal, while the imperfect stem is *qtōl; both of these change slightly when inflected (for the inflections, see §§4.5.4.1–2).

Like other Semitic languages, Hebrew verbs have a number of different stem patterns with a diversity of contrasting forms that signify semantic variations in relation to the basic meaning of the verbal root. These patterns (see §4.5.5) are conventionally called conjugations, and, more specifically, derived conjugations, since they are produced by the application of certain morphological and phonological changes to the simple stem, traditionally known as Qal (qal "light, easy, simple") in Hebrew. Note that the term "conjugations" is retained here because of its conventional use in modern grammars, despite the lack of correspondence of the Hebrew verbal stems to the conjugations of the languages – principally Latin – from which the term derives; the term binyānîm "structures," used by the medieval grammarians is more descriptive.

In addition to the indicatives, Hebrew has certain modal verb forms, including a command imperative as well as a cohortative and a jussive, both of which are primarily volitional in force (see §4.5.2). There are also a number of nonfinite verbal forms (see §4.5.3).

### 4.5.1   The aspects of the indicative verb

The perfect verb is *punctual* in aspect, while the imperfect is *durative*. In most cases, the perfect expresses a completed action, so that it may be translated with a verb in the simple past tense – thus, *kātábtî* "I wrote." With verbs denoting dispositions or perceptions acquired in the past but still held or felt, a present-tense translation may be required – thus, *yādá'tî* "I know" (i.e, "I have come to know"); *bāṭáḥtî* "I trust" ("I have come to trust"). With stative verbs, the best translation may employ a predicate adjective – thus, *zāqántî* "I am old" ("I have grown old, aged"). The so-called *performative* perfect, employed in indirect speech and especially when the speaker is someone with authority, is used to indicate that the action expressed in the verb is accomplished by the very fact of its utterance – thus, *'āmártî* "I say" ("proclaim, declare"). By contrast, the imperfect expresses an action that is incomplete and ongoing or still to be accomplished in the future, so that it may be translated with a verb in the present or future tense – thus, *'ektōb* might be rendered "I write," "I will write," or "I keep writing" (habitually or repeatedly). In Rabbinic Hebrew the aspectual character of the verbal system has weakened substantially, moving in the direction of a true tense system, with the perfect becoming predominantly a past-tense form and the imperfect taking on a modal character, while the principal burden of expressing the present and future tenses is assumed by the participle.

A verbal feature that is especially distinctive of Biblical Hebrew (though attested in early inscriptions in other Northwest Semitic languages) is the existence of the *converted* imperfect and perfect, which form the basic fabric of the narrative sequences in Biblical Hebrew (see §5.2.1). In these sequences converted imperfects, which are marked by a distinctive form of the conjunction (*wa-* + junctural doubling), have the punctual translational value of the perfect: thus, *watt'ṓ'mer śāray 'el-'ābrām . . . wayyišma' 'ābram ləqôl śārá́y wattiqaḥ śāray . . .* "and Sarai said to Abram . . . and Abram listened to the voice of Sarai, and Sarai took . . . " (Genesis 16:1–3). Converted perfects, which are also joined to the conjunction (in this case with its ordinary forms), have the durative translation value of the imperfect: for example, *wə'ālâ hā'îš* "and the man used to go up" (1 Samuel 1:3).

The converted imperfect exhibits a tendency, shared by the jussive (see §§3.5 and 4.5.2), to retract the tone from the final syllable of the verb (except in first-person forms), resulting in a shortening or collapse of the end of the word in certain forms found among the weak verbs (see §4.5.4.2) and the derived conjugations (see §4.5.5) – thus, indicative *yāqûm* "he arises"; jussive *yā́qōm* "let him arise"; converted imperfect *wayyā́qom* "and he arose." There is a tendency in the converted perfect, operative in first- and second-person singular forms, to shift the tone forward to the ultima (without a corresponding change in vocalization) – thus, perfect *kātábtā* "you wrote," converted perfect *wəkātabtá* "and you will write."

The origin of the converted verb forms can be explained with reference to distinctive developments that took place in early Hebrew in relationship to its antecedents. The indicative verbal system of Proto-Northwest Semitic had three forms: (i) *\*qatala*, a perfective, which expressed completed actions, usually in the past, but which (like its descendant, Hebrew *qātal*) also had a number of present-future uses; (ii) *\*yaqtulu*, an imperfective, which was used for habitual or durative actions but also served to express the present and

future "tenses"; and (iii) *yaqtul*, a perfective, which functioned both as a jussive and as a preterite, in other words, to express simple past actions (a past "tense"). With the loss of final short vowels, *yaqtulu* and the two types of *yaqtul* fell together as *yaqtul*, the antecedent of Hebrew *yiqtōl* (see §3.6.2). This form became the ordinary Hebrew imperfect, retaining the present-future force of *yaqtulu*, but the jussive force of *yaqtul* was also preserved in *yiqtōl*. The preterite force was lost, however, except in certain restricted environments, most characteristically the converted imperfect *wayyiqtōl*. In most other situations the preterite role of *yaqtul* was appropriated by the perfect, *qātal* (< *qatal* < *qatala*). The converted perfect may have arisen by analogy with the converted imperfect, but it is unlikely that this would have happened were it not for the other present-future uses that *qātal* inherited from *qatala*.

Among the most important differences between Biblical Hebrew and Rabbinic Hebrew is the loss of the system of converted imperfects and perfects, completing a trend already observable in Late Biblical Hebrew.

### 4.5.2 Command forms (the imperative and cohortative/jussive system)

In addition to the two indicatives, Hebrew has three principal modal forms, which are based on the imperfect and, when taken together, constitute a loose system expressing command and volition. The Hebrew imperative, which exists in the second person only, is formed by distinctive suffixes indicating gender and number attached to the imperfect stem without its prefixes. The imperative expresses direct command.

Both the cohortative and jussive express volition and resolve, though the jussive can also be described as an indirect command form, and, in combination with the adverbial particle 'al ('al + jussive), it serves as the negative imperative. The cohortative (first person) and jussive (second and especially third person) are formed from the imperfect stem by the addition of distinctive prefixes expressing person and sometimes gender, and suffixes expressing number and sometimes gender. As noted above (§§3.5 and §4.5.1) there is a tendency in the jussive, observable in certain forms found among the weak verbs (see §4.5.4.2) and the derived conjugations (see §4.5.5), to retract the tone from the final syllable of the verb, resulting in a shortening or collapse of the end of the word in comparison to the indicative. The jussive-imperative-cohortative system for the simple stem (Qal) of the strong verbs is shown in (9) (the second-person jussive is not included).

(9)

| Form | Gender | *Number* | |
|------|--------|----------|---|
| | | *Singular* | *Plural* |
| *Jussive* | *Masculine* | yiktōb "let him write" | yiktəbû "let them write" |
| | *Feminine* | tiktōb "let her write" | tiktóbnâ "let them write" |
| *Imperative* | *Masculine* | kətōb "write" | kitbû "write" |
| | *Feminine* | kitbî "write" | kətóbnâ "write" |
| *Cohortative* | *Common* | 'ektəbâ "let me write" | niktəbâ "let us write" |

In terms of their historical origin, the jussive and imperative are descended directly from the jussive and imperative of Proto-Northwest Semitic – thus, jussive *yiqtōl* < *yaqtul* and imperative *qətōl* < *qutul* (the development of the former is described in §4.5.1). The cohortative is a partial survival of a volitional subjunctive: 'eqtəlâ < *'aqtula*. Proto-Northwest Semitic also had an energic with the form *yaqtulanna*, similar in force to the subjunctive and thus to the Hebrew jussive and cohortative. Relics of this form may survive in (i) the

so-called *nûn energicum*, a tone-bearing syllable with the form *-én-* (raised under stress from *\*-án-*, which is sometimes preserved before the first-person singular suffix) that may be inserted before the pronominal suffixes of the imperfect (e.g., *wə'ešmərénnâ* "and I will keep it," Psalm 119:34) and (ii) the *-nā'* particle often used to strengthen cohortatives, jussives with optative force, and imperatives, especially in the rhetoric of courteous speech (e.g., *tədabbēr-nā' šipḥātəkā 'el-'ădōnî hammélek* "Let your maidservant speak to my lord the king," 2 Samuel 14:12).

In Rabbinic Hebrew the special lengthened cohortative forms and shortened jussive forms disappear almost entirely (expanding a tendency already observable in the Samaritan Pentateuch), and the feminine plural imperative *kətóbnâ* is lost, leaving *kitbû* as the common form. In general, the use of the imperative is much more restricted than in Biblical Hebrew.

### 4.5.3  Verbal nouns

Hebrew has two participles, active and passive. As noted in §4.2.5.2, the active participle of the simple verbal stem (Qal) has the form *qôtēl* (<*\*qātil*), feminine *qōtəlâ* (<*\*qātilat*) and *qōtélet* (<*\*qātilt*) – thus, *kōtēb* (etc.) "writing." The Qal passive participle is formed from active verbal roots using the form *qātûl* (<*\*qatūl*) – thus, *kātûb* "written."

As in certain other Semitic languages, such as Akkadian and Ugaritic, Hebrew forms an infinitive of the simple stem – the G-stem (*Grundstamm*) or Hebrew Qal – from the nominal pattern *\*qatāl*. By normal phonological developments this infinitive, which is known as the *infinitive absolute*, has the form *qātôl* in Hebrew. In contrast to the situation in Akkadian (though in common with Ugaritic) the Hebrew reflex of this infinitive is not inflected, and it surrenders the ordinary infinitive functions to a second infinitive, known as the *infinitive construct*, which has the form *qətôl* (though the Qal infinitive construct has the form of the construct state of the Qal infinitive absolute (*qətôl* ∼ *qātôl*), it does not function as its construct, and the terminology should not lead to confusion with the construct and absolute states of ordinary nouns). Thus, the infinitive construct is the true Hebrew infinitive, while the infinitive absolute is primarily adverbial in function, serving most characteristically to emphasize the verbal idea of the finite verb that it immediately precedes or follows: for example, *dārōš dāraš mōšeh* "Moses sought diligently" (Leviticus 10:16). Otherwise, the infinitive absolute is used to suggest the verbal idea in a general way, even occasionally serving as an uninflected substitute for a finite verb, in which case it derives its "inflection" from that of preceding verbs in a sequence: thus, *ûmāṣá'tā 'et-ləbābô ne'ĕmān ləpānêkā wəkārôt 'immô habbərît* "and you found his heart faithful before you and cut a covenant with him" (Nehemiah 9:8).

In Rabbinic Hebrew, the infinitive absolute is lost entirely, and the infinitive construct occurs almost exclusively with prefixed *lə-*.

### 4.5.4  Verb inflection

#### 4.5.4.1  *The sound verb*

The perfect and imperfect verbs of the simple stem (Qal) formed from sound roots are conjugated as shown in (10) and (11). Variations in these paradigms occur when one of the root consonants is a guttural, in accordance with the special phonological rules that obtain in the environment of gutturals (see §3.3.2):

(10) The Qal perfect verb

| | | Number | |
|---|---|---|---|
| *Person* | *Gender* | *Singular* | *Plural* |
| *Third* | *Masculine* | kātab "he wrote" | kātəbû "they wrote" |
| | *Feminine* | kātəbâ "she wrote" | kātəbû "they wrote" |
| *Second* | *Masculine* | kātábtā "you wrote" | kətabtem "you wrote" |
| | *Feminine* | kātabt "you wrote" | kətabten "you wrote" |
| *First* | *Common* | kātábtî "I wrote" | kātábnû "we wrote" |

(11) The Qal imperfect verb

| | | Number | |
|---|---|---|---|
| *Person* | *Gender* | *Singular* | *Plural* |
| *Third* | *Masculine* | yiktōb "he writes" | yiktəbû "they write" |
| | *Feminine* | tiktōb "she writes" | tiktóbnâ "they write" |
| *Second* | *Masculine* | tiktōb "you write" | tiktəbû "you write" |
| | *Feminine* | tiktəbî "you write" | tiktóbnâ "you write" |
| *First* | *Common* | 'ektōb "I write" | niktōb "we write" |

Though it is always vocalized in the Masoretic Text as shown above, the ending of the second-person masculine singular perfect is most often written without a final *hē'* in the Masoretic Text and Rabbinic Hebrew – thus, *ktbt* rather than *ktbth* (the usual Qumran form) – indicating a pronunciation *\*katabt*, which is also the more common form in the Hexapla (cf. the situation with the corresponding personal pronoun, §4.3.1). The second-person feminine singular perfect, though always vocalized as shown, is sometimes spelled with final *yôd*, indicating a pronunciation *\*katábtî* (cf., again, the corresponding personal pronoun, §4.3.1). In Rabbinic Hebrew, as part of the general tendency for final *-n* to replace final *-m* (see §3.1.2 and §4.2.2), the gender distinction in the second-person plural perfect is obscured, with *kətabten* becoming the common form. In Late Biblical Hebrew and Rabbinic Hebrew, the third- and second-person feminine imperfect forms coalesce with the corresponding masculine forms, *yiqtəlû* and *tiktəbû*, and the older form, *tiqtólnâ*, is lost.

The paradigm verb used here (*kātab* "write") belongs to the *a* ∼ *u* vowel class, meaning that in its antecedent form the theme-vowel for the perfect was *\*a* (*\*kataba → kātab*) and the theme-vowel for the imperfect was *\*u* (*\*yaktub- → yiktōb*). As in other Semitic languages, however, Hebrew verbs are distributed among several vowel classes, which correspond generally to their semantic character. The principal theme-vowel patterns in Hebrew are listed in Table 3.4 (the paradigm verbs used are *kātab* "write," *nātan* "give," *šākab* "lie down," *qārab* "draw near," *zāqēn* "grow old," and *qāṭōn* "be small").

### 4.5.4.2 The weak verbs

The inflection of the Hebrew verb is modified under certain conditions: (i) when the second and third root consonants are identical ("geminate" verbs); (ii) when the initial root consonant is *n-* (I-*n*); (iii) when one of the root consonants is a guttural (I-, II-, or III-G); or (iv) when one of the original root consonants was a glide, *\*w* or *\*y* (*\*I-, *\*II- or *\*III-w; I-, *\*II- or *\*III-y). The following synopsis enumerates the most important changes that occur during the inflection of these *weak verbs*, as they are customarily called.

The distinctive feature of the perfect of geminate verbs is the interposition of *-ō-* before verbal suffixes beginning with a consonant – thus, *sābəbâ* "she went around," but *sabbṓtā* "you went around." This feature is Proto-Semitic in origin. Though the imperfect displays

| Table 3.4 | The vowel classes of Hebrew verbs | | | |
|---|---|---|---|---|
| Theme vowels | Aspect | Hebrew form | Antecedent form | Description |
| *a, u* | PERFECT | *kātab* | *\*kataba* | A large class of primarily active-transitive |
| | IMPERFECT | *yiktōb* | *\*yaktub-* | verbs. III-guttural tended to become (*a, a*[1]). |
| *a, i* | PERFECT | *nātan* | *\*natana* | A large class with no semantic restrictions, |
| | IMPERFECT | *yittēn* | *\*yantin-* | but lost in Hebrew except for a few verbs. |
| *a, a*[1] | PERFECT | *šākab* | *\*šakaba* | An active-intransitive class, which falls |
| | IMPERFECT | *yiškab* | *\*yiškab-* | together formally with the stative (*a, a* ) class. |
| *a, a*[2] | PERFECT | *qārab* | *\*qaraba* | A small stative class, enlarged by original |
| | IMPERFECT | *yiqrab* | *\*yiqrab-* | (*i, a*) and (*u, a*) verbs with guttural roots. |
| *i, a* | PERFECT | *zāqēn* | *\*zaqina* | A large, primarily stative-intransitive class. |
| | IMPERFECT | *yizqan* | *\*yizqan-* | Many II- and III-gutturals became (*a, a*). |
| *u, a* | PERFECT | *qāṭōn* | *\*qaṭuna* | A small stative class, originally *\*(u, u)*, but |
| | IMPERFECT | *yiqṭan* | *\*yiqṭan-* | transformed by resistance to stative *\*yaqtul*. |

wide variation, the basic forms are predictable from normal phonological changes – thus, *yāsōb* (<*\*yasubbu*) "he goes around."

I-*n* verbs are inflected normally in the perfect and in the imperfect indicative, except that in the latter case the expected assimilation of *n-* to the second radical occurs – thus, *yiddōr* (<*\*yaddur* < *\*yandur-*) "he vows" (*a, u*); *yittēn* (<*\*yittin* < *\*yantin-*) "he gives" (*a, i*); and *yiggaš* (<*\*yiggaš* < *\*yangaš-*) "he draws near" (*a, a*). In the (*a, a*) type, the imperative is usually shortened (*gaš*), and the "normal" form of the infinitive construct alternates with a short form with -*t* (*géšet*; see §4.2.5.1). The imperative and infinitive construct corresponding to *yittēn* are *tēn* and *tēt*. Perhaps because it is the antonym of *nātan* "give," the common verb *lāqaḥ* "take" has come to be inflected as if it were I-*n* in its imperfect and related forms – thus, *yiqqaḥ* (imperfect), *qaḥ* (imperative) and *qáḥat* (infinitive construct).

The perfect of I-G verbs presents no special problems, with the *ḥāṭēp*-vowel *ă* replacing simple *šəwā* (*ə*) as necessary (see §3.3.2) – thus, *ʿămadtem* "you stood." The imperfect appears in two forms according to the vowel classes of the verbal stems – thus, *yaʿămōd* "he stands" (*a, u*) and *yeḥĕzaq* "he is strong" (*a, a*). As noted in §3.6.2, the change of the imperfect prefix *\*ya-* → *yi-* took place first in verbs with *a* as the imperfect theme-vowel (*\*yaqtal* → *yiqtal*) and was subsequently extended to the other verbs. These two I-G forms reflect the intermediate stage – thus, *yaʿămōd* < *\*yaʿmud*, but *yeḥĕzaq* < *\*yiḥzaq* < *\*yaḥzaq*. Many I-ʾ verbs generally follow the pattern of other I-G verbs, but with *ĕ* in imperfect prefixes for (*a, u*) as well as (*a, a*) stems – as in *yeʾĕsōp* "he gathers." In some I-ʾ verbs, however, the /ʔ/ quiesced at an early date in postvocalic positions, leading to the lengthening of the prefix-vowel and the development of forms like *yō(ʾ)mar* "he says."

Despite a few peculiarities, verbs II-G and III-G present no major divergences from the strong verb paradigm. In III-ʾ verbs the quiescence of word- or syllable-final /ʔ/ has led to the lengthening of the preceding *a* to *ā* (but not *ō*, as explained in §3.6.1) in perfect forms like *bārā(ʾ)* "he created" and *bārá(ʾ)tî* "I created." Similarly in III-ʾ imperfects, the stem vowel, which is *a* as usual in gutturals, is lengthened after the loss of /ʔ/ – thus, *yibrā(ʾ)* "he creates."

Most verbs I-*y* were originally *\*I-w*. As noted in §4.1, some of these, such as √*yšb* "sit" (*a, i*), have very ancient root allomorphs, with and without *w-* – thus, √*\*wθb* and √*\*θb*, leading

to a mixture of forms like perfect *yāšab* (<*waθaba*) "he sat," imperfect *yēšēb* (<*yiθib-*) "he sits," and imperative *šēb* (<*θib*) "sit." In general, however, I-*y* verbs are regular in their inflection. As in I-*n* verbs of the (*a*, *a*) type, there is usually shortening of the imperative – thus, *rēd* "go down"; *ṣē'* "go forth"; *dā'* "know" – and the infinitive construct, which is augmented with -*t* – thus, *rédet* "to go down"; *ṣē(')t* "to go forth"; *dá'at* "to know" (see §4.2.5.1).

When inflected, verbs II-*w/y*, the so-called hollow roots, behave as if biradical. In the perfect the inflectional endings are added to a biconsonantal stem – thus, *qām* "he arose," *qā́mâ* "she arose," *qámtā* "you arose," and so forth. In the imperfect, the distinction between verbs II-*w* and II-*y* becomes evident – thus, *yāqûm* "he arises," but *yāśîm* "he places." The jussive forms of these verbs are distinctive – *yāqōm* and *yāśēm* – and the converted imperfect employs the same forms, with retraction of the stress – *wayyā́qom* and *wayyā́śem*. The imperfect–jussive contrast is probably a survival of the Proto-Northwest Semitic situation (see §4.3.1 and §4.3.2), later vowel length being determined by whether the syllable was open or closed – thus, imperfect *\*yaqūmu → yāqûm*, but jussive *\*yaqum → yāqōm*. In later periods the hollow verbs tend to assimilate to triradical patterning, giving rise to forms like Late Biblical Hebrew Pi'el *qiyyam* "it established" (Esther 9:32) and Rabbinic Hebrew Pi'el *qiyyêm*.

III-*w/y* verbs are inflected according to a single paradigm regardless of the original final consonant (*\*w* or *\*y*) or vowel class. Thus, for example, the III-*y* (*a*, *i*) verb *bānâ* "build" – *bānâ* (<*\*banaya*) "he built," and *yibneh* (<*\*yabniyu*) "he builds" – has the same Hebrew forms as the III-*w* (*i*, *a*) verb *ḥāyâ* "live" – *ḥāyâ* (<*\*ḥayiwa*) "he lived," and *yiḥyeh* (<*\*yiḥyawu*) "he lives." The jussive (and converted imperfect) form is apocopated with retracted stress and (variable) anaptyxis – thus, *yíben* (<*\*yibn* < *\*yabni* < *\*yabniy*) "let him build"; and *tíreṣ* (<*\*tirṣ* < *\*tirṣa* < *\*tarḍaw*) "let her be pleased"; but *yēbk* (<*\*yibk* < *\*yabki* < *\*yabkiy*) "let him weep"; and *yēšt* (<*\*yišt* < *\*yišta* < *\*yištay*) "let him drink."

## 4.5.5 The derived conjugations

As noted in §4.5, there are several stem patterns, known as "derived conjugations" or *binyānîm*, by which semantic variety is derived from verbal roots. The most common *binyānim*, which are traditionally named for the corresponding third-person masculine singular perfect form of the verbal root √*p'l*, are called Nip'al, Pi'el, Pu'al, Hip'il, Hop'al and Hitpa'el. Few, if any, Hebrew verbs are attested in all of these forms. In addition to these six, there is a special set used for II-*w/y* verbs, and a small additional group that occur relatively seldom. A synopsis of the forms of the derived conjugations in relation to the Qal verb is given in (12):

(12) Synopsis of the basic conjugations

|  | Perfect | Imperfect | Imperative | Infinitive absolute | Infinitive construct | Participle |
|---|---|---|---|---|---|---|
| *Qal* | qātal | yiqtōl | qətōl | qātôl | qətōl | qōtēl |
| *Nip'al* | niqtal | yiqqātēl | hiqqātēl | niqtōl | hiqqātēl | niqtāl |
| *Pi'el* | qittēl | yəqattēl | qattēl | qattōl | qattēl | məqattēl |
| *Pu'al* | quttal | yəquttal | — | quttōl | — | məquttāl |
| *Hip'il* | hiqtîl | yaqtîl | haqtēl | haqtēl | haqtîl | maqtîl |
| *Hop'al* | hoqtal | yoqtal | — | hoqtēl | — | moqtāl |
| *Hitpa'el* | hitqattēl | yitqattēl | hitqattēl | hitqattēl | hitqattēl | mitqattēl |

### 4.5.5.1  Nipʿal

The Nipʿal is formed by the prefixation of *n-* to the verbal stem – thus perfect *niqtal* (<*\*naqtala*) and imperfect *yiqqātēl* (<*\*yanqatil-*). In addition to *niqtôl* (see [12]), which in light of the comparative Semitic evidence is probably the original form of the infinitive absolute, two other forms occur, *hiqqātôl*, the *ō* of which may have arisen by analogy with Piʿel *qattōl*, and *hiqqātēl*, which is identical to the form of the infinitive construct.

The meaning of the *Nipʿal* is mediopassive. In origin it may have served to give intransitive-stative force to transitive-active verbs in Qal, to which it remains close inflectionally, and this early meaning is preserved in its frequently fientic character – as in Qal *rāʾâ* "he saw" ∼ Nipʿal *nirʾâ* "he appeared" (i.e., "he became visible"). With the loss or obscuration of the Qal passive, however, the Nipʿal absorbed the role of the primary passive correspondent of Qal – thus, Qal *ʾāsar* "he bound, imprisoned" ∼ Nipʿal (imperfect) *yēʾāsēr* "he will be bound, imprisoned" (Genesis 42:19). With other transitive Qal verbs, the voice of the corresponding Nipʿal may be middle rather than passive: for example, Qal *ʾāsap* "he gathered" (transitive) ∼ Nipʿal (plural) *neʾĕspû* "they gathered"; compare *ûpəlištîm neʾĕspû ləhillāḥēm ʿim-yiśrāʾēl* "And the Philistines gathered to fight with Israel" (1 Samuel 13:5). Finally, the Nipʿal sometimes has reflexive force – thus, Qal *mākar* "he sold" ∼ Nipʿal *nimkar* "he sold himself."

### 4.5.5.2  Piʿel

The Piʿel is formed by doubling of the second radical – *qittēl* (< *\*qattila* or *\*qattala*), *yəqattēl* (<*\*yuqattil-*). Predictable phonological changes occur when the second radical cannot be doubled because it is a guttural (see §3.3.2), and there is a special conjugational system for verbs II-*w/y* (see §4.5.5.7).

The basic and original meaning of the Piʿel is factitive (transitivizing), as applied to verbs that are intransitive or stative in the Qal – thus, Qal *ḥāzaq* "be strong" ∼ Piʿel *ḥizzaq* "strengthen, fortify." With active-transitive verbs, the Piʿel may pluralize the Qal meaning, so that the effect is intensive or iterative – thus, Qal *nātaq* "tear away, pull off" ∼ Piʿel *nittēq* "tear apart, rip out"; Qal *šābar* "break" ∼ Piʿel *šibbar* "shatter." For many verbs that occur in both Qal and Piʿel, however, the difference in meaning is subtle or unclear, though the lexicons tend to try to specify an intensifying nuance for the Piʿel. With certain active-transitive verbs, the Piʿel seems to be the causative of the Qal: for example, Qal *lāmad* "learn" ∼ Piʿel *limmad* "cause to learn, teach." This is the role of the Hipʿil with active-transitive verbs, however, and most such Piʿels may in fact be denominative. In any case, the Piʿel is especially productive of denominatives: thus, *qinnēʾ* "be jealous" (from *qinʾâ* "jealousy"); *ʿippēr* "cast dust on" (from *ʿāpār* "dust").

### 4.5.5.3  Puʿal

The Puʿal, like the Piʿel, is formed by doubling of the second radical, but it is distinguished from the Piʿel by its *u-a* vowel patterning, which persists throughout the paradigm – thus, *quttal* (<*\*quttala*), *yəquttal* (< *\*yuquttal-*), and so forth. When the second radical cannot be doubled, the changes that occur are the same as those for the Piʿel (see §4.5.5.2).

The Puʿal functions as the passive of the Piʿel. It is used relatively infrequently except in its participial form, which serves as the passive participle of the Piʿel: for example, Piʿel infinitive construct *qaddēš* "to consecrate" ∼ Puʿal participle *məquddāš* "consecrated." In Rabbinic Hebrew the Puʿal survives only as a participle.

### 4.5.5.4  Hitpaʿel

The Hitpaʿel is distinguished by prefixed *t-* and, like the Piʿel and Puʿal, the doubling of the second radical. In contrast to the other conjugations, however, the Hitpaʿel seems to follow the pattern of the imperfect in the inflection of the perfect, imperative, and infinitives. In these same forms the preformative takes the shape *hit-*, the *hi-* possibly having arisen under the influence of the Hipʿil. When the first root consonant is one of the dental stops (see §3.1.1), the prefixed *t-* is assimilated – as in *yiṭṭāmēʾ* (< *yiṯṭāmēʾ*) "he defiles himself." When the first root consonant is a sibilant (see §3.1.1), the *t-* metathesizes with it for the sake of euphony – *yištakkǝḥû* (< *yitšakkǝḥû*) "they were forgotten" (Ecclesiastes 8:10). When the second radical cannot be doubled, the changes that occur are the same as those for the Piʿel (see §4.5.5.2).

The Hitpaʿel is intransitive in meaning. Most characteristically, it gives reflexive (or reciprocal) force to an active form of same verb – thus, Piʿel *qiddēš* "consecrate" ∼ Hitpaʿel *hitqaddēš* "sanctify oneself." In addition, it is often iterative – as in Qal *hālak* "walk" ∼ Hitpaʿel *hithallēk* "walk back and forth" – and sometimes denominative – *hitnabbēʾ* "prophesy" (from *nābîʾ* "prophet").

Though the Hitpaʿel is morphologically related to the Piʿel and Puʿal by the common feature of the doubled second radical, the active verbs to which it corresponds are not always Piʿel but may be Qal or Hipʿil as well. This points to the likely historical background of the Hitpaʿel as a composite conjugation produced by the merger of the prefixed *t*-forms of verbal roots of the simple, factitive, and causative stems. Remnants of an original *t*-form of the simple stem are recognizable in a few Hitpaʿels that lack doubling of the second radical: for example, *hitpāqǝdû* "they mustered" (Judges 20:17)

In Rabbinic Hebrew the Hitpaʿel was largely replaced, at least in the perfect, by the Nitpaʿel (properly Nitpaʿal), a new conjugation created by fusion of the Hitpaʿel with the Nipʿal, which could also have reflexive meaning (see §4.5.5.1).

### 4.5.5.5  Hipʿil

The formal marker of the Hipʿil, found on the perfect, imperative, and infinitives, is prefixed *h-*. The long stem-vowel *-î-* is characteristic of both the perfect and imperfect, but the jussive has the expected *-ē-* (*yaqtēl* < *yaqtil* < *yuhaqtil*), and the *-î-* must have arisen by analogy with the Hipʿil of verbs II-*w/y* – compare jussive *yāsēr* (< *yasir* < *yuhasir*) "let him remove," to imperfect *yāsîr* (< *yasīr* < *yuhasīr*-) "he removes."

In general the Hipʿil serves as the causative of the Qal. With intransitive or stative verbs it is singly causative: for example, Qal *lābēš* "be dressed" ∼ Hipʿil *hilbîš* "cause to be dressed, clothe." This is especially characteristic of verbs of motion – Qal *hālak* "go, walk" ∼ Hipʿil *hôlîk* "bring, lead." When the Qal is transitive, the Hipʿil may be doubly causative: for example, Qal *yādaʿ* "know" ∼ Hipʿil *hôdîaʿ* "cause (someone) to know (something)" (cf. *wǝnôdîʿâ ʾetkem dābār* "and we will apprise you of something" [1 Samuel 14:12]); Qal *rāʾâ* "see" ∼ Hipʿil *herʾâ* "cause (someone) to see (something)" (cf. *wayyarʾēm ʾet-mǝbôʾ hāʿîr* "and they showed them the entrance to the city" [Judges 1:25]). Sometimes, especially when the Qal is stative, the Hipʿil may be fientic or otherwise intransitive, even in verbs that also have causative Hipʿils: Qal *ʾārēk* "be long" ∼ Hipʿil *heʾěrîk* "become long," but also "make long, prolong." Many of these Hipʿils are inchoative or inceptive – such as Qal *bāʾaš* "stink"; Hipʿil *hibʾîš* "begin to stink, become stinking," but also "cause to stink." Like the Piʿel, though less characteristically so, the Hipʿil may form denominatives: for example, *heʾězîn* "listen" (from *ʾốzen* "ear").

### 4.5.5.6  *Hopʿal*

Like the Hipʿil, its active counterpart, the Hopʿal is characterized by *h-* prefixed to the perfect. In contrast to the *hi-* preformative of the Hipʿil, however, the Hopʿal has the variants *ho-* and *hu-*; in Rabbinic Hebrew the option has been resolved in favor of the latter (often written plene, i.e., הו-), probably by analogy with the Puʿal (Piʿel : Puʿal :: Hipʿil : Hupʿal).

Semantically, the Hopʿal is the passive of the Hipʿil – thus, Hipʿil *hišlîk* "he threw" ∼ Hopʿal *hošlak* "he was thrown."

### 4.5.5.7  *Polel, Polal, and Hitpolel*

Because most "hollow" verbs (II-*w/y*) are inflected as if they were biconsonantal (see §4.5.4.2 and note exceptions in Rabbinic Hebrew), they do not accept doubling of the second radical, the chief marker of the factitive conjugation group, Piʿel, Puʿal, and Hitpaʿel. In hollow verbs like √*qwm* "rise up," therefore, the functions of these conjugations are taken over by a group consisting of the Polel (active), Polal (passive), and Hitpolel (reflexive) conjugations. These are characterized formally by reduplication of the final stem consonant and *ō* in the first stem syllable – thus, Polel perfect *qômêm* "he raised up," and imperfect *yəqômēm* "he raises up"; Polal *qômam* "he was raised up," and *yəqômam* "he is raised up"; and Hitpolel *hitqômēm* "he raised himself up," and *yitqômēm* "he raises himself up." Geminates (§4.5.4.2) employ these forms on occasion, too, even in verbs for which the Piʿel group is also attested: for example, Piʿel imperfect *yəḥannēn qôlô* "he speaks favorably" (i.e., "makes his voice favorable"; Proverbs 26:25) ∼ Polel imperfect *yəḥōnēnû* "they will treat favorably" (Psalm 105:15).

### 4.5.5.8  *Other conjugations*

There are several other *binyānîm*, some very sparsely attested. Some of the more important and better understood are listed here.

The series Poʿel (active), Poʿal (passive), and Hitpoʿel (reflexive) is similar to the Polel group (see §4.5.5.7), except that it forms verbs from sound roots – thus, Hitpoʿel *yitgōʿăšû máyim* "the waters surge" (√*gʿš* "shake") in Jeremiah 46:8, a duplicate of the preceding line with Hitpaʿel *yitgāʿăšû* "[its waters] surge"; also, *šōrēš* "he took root" (Isaiah 40:24), a Poʿel denominative from *šṓreš* "root" (contrast the meaning of the Piʿel denominative *wəšēreškā* "and he will uproot you," Psalm 52:7).

The series Pilpel (active), Polpal (passive), and Hitpalpel (reflexive) is characterized by reduplication of the two strong consonants of geminate and "hollow" verbs (II-*w/y*). Like the Polel and Poʿel groups, they correspond in meaning to the factitive (Piʿel) group – thus, *gilgēl* "roll" (√*gll* "roll"); *kilkēl* "maintain" (√*kwl* "hold").

The Paʿlal (active) and Puʿlal (passive) are quadriliterals formed by the reduplication of the third radical. Their meaning in either voice is stative – thus, *šaʾănan* "he has been at ease" (Jeremiah 48:11); *ʾumlal* "it is withered" (Joel 1:10).

## 4.6  Numerals

The Hebrew cardinals 1–10 are listed in (13).

| (13) | | *Modifying a masculine noun* | | *Modifying a feminine noun* | |
|---|---|---|---|---|---|
| | | *Absolute* | *Construct* | *Absolute* | *Construct* |
| | 1 | ʾeḥad | ʾaḥad | ʾaḥat | ʾaḥat |
| | 2 | šənáyim | šənê | štáyim | štê |
| | 3 | šəlōšâ | šəlṓšet | šālōš | šəlōš |
| | 4 | ʾarbāʿâ | ʾarbáʿat | ʾarbaʿ | ʾarbaʿ |
| | 5 | ḥămiššâ | ḥămḗšet | ḥāmēš | ḥămēš |
| | 6 | šiššâ | šḗšet | šēš | šēš |
| | 7 | šibʿâ | šibʿat | šébaʿ | šəbaʿ |
| | 8 | šəmōnâ | šəmōnat | šəmōneh | šəmōneh |
| | 9 | tišʿâ | tišʿat | tḗšaʿ | təšaʿ |
| | 10 | ʿăśārâ | ʿăśéret | ʿéśer | ʿéśer |

The cardinals may be associated with the nouns they modify in one of two ways: (i) appositionally, using the absolute form; or (ii) genitivally, using the construct form. The first two cardinals agree with the modified noun (the counted item) in gender. In the case of the cardinals 3–10, however, the form that is usually feminine elsewhere – that is, the form marked with *-â* (bound form *-at*) or *-t* (see §4.2.1) – modifies masculine nouns, while the unmarked form modifies feminine nouns, a peculiarity shared with most other Semitic languages (cf. Ch. 6, §3.3.7). The ʾteens are formed by placing the unit, which follows the gender rules stated above, before the word for ten (with special forms): for example, *šəlōšâ ʿāśār pārîm* "thirteen bulls" (Numbers 29:14).

The cardinal 20 is expressed by the plural of 10 (*ʿeśrîm*), and the other tens by the corresponding plurals of the units – thus, *šəlōšîm* "30," *ʾarbāʿîm* "40," *ḥămiššîm* "50," *šiššîm* "60," *šibʿîm* "70," *šəmōnîm* "80," and *tišʿîm* "90." Note that the tens are not inflected for gender and occur only in the absolute state. The numbers 21 to 99 are formed by placing the unit, which follows the gender rules stated above, before or after the ten – thus, *šəlōšâ wəʿeśrîm ʾîš* or *ʿeśrîm ûš(ə)lōšâ ʾîš* "23 men." The higher numbers include the following substantives: *mēʾâ* (bound form *mēʾat*) "(one) hundred"; *māʾtáyim* "200"; *šəlōš mēʾôt* "300"; *ʾélep* "(one) thousand"; *rəbābâ* "10,000."

The ordinal "first" is expressed by the adjective *rīʾšôn* (fem. *rīʾšōnâ*). The ordinals from "second" to "tenth" are formed by adding the sufformatives *-î* (masc.) and *-ît* (fem.) to the cardinal (cf. §4.2.5.4), following the general pattern *\*qəṭîlî* – thus, *šēnî* "second," *šəlîšî* "third," *rəbîʿî* "fourth" (without the prothetic *ʾa-* of *ʾarbaʿ*, "4"), *ḥămîšî* "fifth," *šiššî* "sixth," *šəbîʿî* "seventh," *šəmînî* "eighth," *təšîʿî* "ninth" and *ʿăśîrî* "tenth."

## 5. SYNTAX

## 5.1 Word order

The usual word order in the Hebrew verbal clause is Verb–Subject–Object (VSO) followed by prepositional phrases or other adverbial elements – thus:

(14) wayiṭṭaʿ       yhwh      ʾĕlōhîm    gan-bəʿéden
     and-he planted  Yahweh    God        garden-in-Eden
     "And Yahweh-God planted a garden in Eden" (Genesis 2:8)

Although this generalization applies to subordinate as well as independent verbal clauses, exceptions are quite common, especially when some kind of emphasis is placed on the subject (→ SVO), for example,

(15)  hannāḫāš      hiššî'ánî
      the-serpent   deceived-me
      "The serpent deceived me" (Genesis 3:13)

or on the object (→ OVS or VOS), as in:

(16)  'et-qōləkā           šāmá'tî   baggắn,
      DIR. OBJ.-voice-your  I heard   in-the-garden
      "I heard your voice in the garden" (Genesis 3:10)

As the preceding example shows, a pronominal subject, since it is inherent in the verb, is not usually expressed, except, again, for emphasis:

(17)  hî'   nātənâ-lî     min-hā'ēṣ
      she   she gave-me   from-the-tree
      "She gave me [fruit] from the tree" (Genesis 3:12)

As a rule, finite, indicative verbs are negated by *lō'*, while modal (cohortative or jussive) verbs are negated by *'al*. Regularly in prose and sometimes in poetry, the direct object is marked by the accusative particle *'ēt* (most often proclitic *'et-*), which precedes the accusative word or pronominal suffix (with the form *'ôtî*, etc., but *'etkem* and *'ethen*). An indirect object, marked by the preposition *lə-*, normally follows the direct object, though this order is usually reversed when the indirect object is a pronoun and the object a noun.

   In verbless clauses, in which the subject is nominal (a noun or pronoun) and the predicate is nominal, adjectival, or adverbial, the order, as a general rule, is subject–predicate in clauses identifying the subject (18A) but predicate–subject in clauses classifying the subject (18B):

(18)  A.  šēm-          hannāhār   haššēnî   gîhôn
          the name of   the river  second    Gihon
          "The name of the second river was Gihon" (Genesis 2:13)
      B.  'ărûrâ    hā'ădāmâ   ba'ăbûrékā
          cursed    the soil   because of you
          "The soil is cursed because of you" (Genesis 3:17)

These rules operate fairly consistently in independent verbless clauses, whether they are declarative or interrogative, but less predictably if the clause is volitional; the word order of subordinate verbless clauses is not as consistent. The far demonstrative or third-person personal pronouns (see §4.3.2) are often used pleonastically to coordinate the two parts of a verbless clause – thus:

(19)  hannāhār    hārəbî'î   hû'      pərắt
      the river   fourth     COPULA   Euphrates
      "The [name of the] fourth river was Euphrates" (Genesis 2:14)

## 5.2  Coordination and subordination

Like other Semitic languages, Hebrew exhibits a strong preference for paratactic constructions (coordination) over hypotactic constructions (subordination). Thus, in Hebrew prose narrative the great majority of clauses are joined with the conjunction *wə-*. This is true of coordinate clauses whether the relationship between the clauses being coordinated is one of conjunction or disjunction. Though subordinating conjunctions do exist, *wə-* is most often used even in the case of subordinate clauses, with subordination being signaled by word order and clause formation.

### 5.2.1  Conjunctive clauses

Conjunctive clauses describing sequential events most often employ the distinctive Hebrew narrative sequences, which are made up of clauses containing the so-called converted imperfect and perfect verbal forms (see §4.5.1). The converted imperfect, which is used for past narration, occurs in a sequence that typically begins with a clause containing a perfect verb followed by from one to several clauses introduced by converted imperfects, each of which requires a perfective (usually punctual) translation, as in:

(20)  wəhannāḥāš       hāyâ    ‘ārûm    mikkōl      ḥayyat          haśśādeh . . .
      and the serpent   was     shrewd   more than any  living thing of  the field
         wayyṓ’mer   el-  hā’iššâ . . .    wattṓ’mer    hā’iššâ        el-  hannāḥāš . . .
         and it said   to    the woman      and said    the woman   to    the serpent
      "Now the serpent was shrewder than any of the other wild animals . . . and it said
         to the woman . . . and the woman said to the serpent . . . " (Genesis 3:1–2)

The converted perfect, which is used for present-future narration, operates in a reciprocal manner. It occurs in a sequence typically beginning with a clause containing an imperfect verb followed by from one to several clauses introduced by converted perfects, each of which requires an imperfective (present, future, or habitual-iterative) translation, for example:

(21)  ‘al-kēn   ya‘ăzob-  ’îš    ’et-’ābîw  wə’et-’immô   wədābaq   bə’ištô
      therefore abandons a man  his father  and his mother and unites  with his wife
         wəhāyû              ləbāśār    ’eḥād
         and they become   flesh        one
      "Therefore a man abandons his father and mother and unites with his wife, and
         they become one flesh" (Genesis 2:24)

In sequences belonging to either of these categories, the introductory verbal clause may be replaced by any of a variety of other clause types or, owing to the ubiquity of such sequences, it may be omitted altogether.

### 5.2.2  Disjunctive clauses

Disjunctive clauses are also coordinated most often with *wə-*, but they differ from conjunctive clauses in that they begin with a nonverbal element. These include (i) simple negative clauses, which typically begin with *lō’*,

(22)  wayyihyû šənêhem ‘ărûmîm . . . wəlō’ yitbōšā́šû
      "And the two of them were naked . . . but they were not ashamed" (Genesis 2:25)

(ii) contrastive clauses,

(23)  mikkōl   ‘ēṣ-   haggān      ’ākōl tō’kḗl  ûmē‘ēṣ                haddá‘at
      from any  tree of  the garden  you may eat  but from the tree of  the knowledge of
         ṭôb   wārā‘    lō’ tō’kal        mimménnû
         good  and evil  you may not eat  from it
      "From any of the trees of the garden you may eat, but from the tree of the
         knowledge of good and evil you may not eat!" (Genesis 2:16–17)

as well as various kinds of (iii) explanatory and circumstantial clauses, which may be nominal or verbal. Note, for example, the three circumstantial clauses embedded in the following narrative sequence:

(24) bəyôm          ʿăśôt          yhwh ʾĕlōhîm" ʾereṣ wəšāmáyim wəkōl   śíaḥ
      on the day of  making Yahweh-God's  earth and sky         and any  shrub of
         haśśādeh  ṭerem  yihyeh bāʾāreṣ          wəkol- ʿēśeb
         the field   not yet  was    on the earth  and any  herb of
         haśśādeh  ṭerem  yiṣmáḥ . . .     wəʾādām   ʾáyin          laʿăbōd
         the field   not yet  had sprouted  and a man  there was not  to till
      ʾet-hāʾădāmâ . . .  wayyíṣer       yhwh ʾĕlōhîm  ʾet-hāʾādām
         the soil              and formed  Yahweh-God  man
      "When Yahweh-God made the earth and the sky, no wild shrub was yet on the
         earth, and no wild herb had yet sprouted . . . and there was no man to till the
         soil . . . and Yahweh-God formed man" (Genesis 2:4–7)

## 5.2.3   Subordinate clauses

Although clause subordination may also be expressed by word order and clause formation
in clauses joined with *wə-*, there are, as noted, special subordinating conjunctions as well as
a number of special constructions indicating subordination. Three of the most important
types of subordinate clauses are discussed below.

### 5.2.3.1   *Conditional clauses*

Conditional clauses may begin with the conjunction *ʾim*, *hēn* or *kî*:

(25) kî        taʿăbōd ʾet-hāʾădāmâ lōʾ-tōsēp      tēt- kōḥāh      lák
      though  you till  the soil         it will not again  yield  its strength  to you
      "Though you till the soil, it will not yield its strength to you again" (Genesis 4:12)

When conditional clauses lack one of the subordinating conjunctions and are joined to the
preceding clauses by *wə-*, they are often susceptible to either conditional or nonconditional
translation, as in the following:

(26) wĕhāyâ kol-mōṣĕʾî yahargēnî
      "If anyone finds me, he will kill me"
      or
      "And whoever finds me will kill me" (Genesis 4:14)

### 5.2.3.2   *Temporal clauses*

Though temporal clauses often stand in simple coordination after the clause they modify –

(27) wayyíqeṣ   nōaḥ miyyênô        wayyḗdaʿ     ʾēt ʾăšer- ʿāśâ-lô
      and awoke  Noah from his wine  and he realized  that which  had done to him
         bənô    haqqāṭān
         his son  young
      "When Noah awoke from his wine, he realized what his youngest son had done
         to him" (Genesis 9:24)

they are very frequently placed before the modified clause and introduced by a converted
form of the verb "to be":

**(28)** wəhāyâ kî-          yir'û    'ōtāk hammiṣrîm   wə'āmərû        'ištô
and it will be that will see you   the Egyptians and they will say his wife
  zō't
  this
"When the Egyptians see you, they will say, this is his wife" (Genesis 12:12)

This construction is also used routinely for temporal phrases, such as the following:

**(29)** wayhî      miqqēṣ       'arbā'îm yôm wayyiptaḥ   nōaḥ 'et-ḥallôn
and it was at the end of forty      days and opened  Noah  the window of
  hattēbâh
  the ark
"At the end of forty days Noah opened the window of the ark" (Genesis 8:6)

*5.2.3.3   Relative clauses*

Relative clauses, which are usually introduced by *'ăšer* (see §4.3.3), follow and further define nouns or their equivalent:

**(30)** hā'áreṣ   'ăšer    'ar'ékā
the-land   which  I will show-you
"The land that I will show you" (Genesis 12:1)

They may contain resumptive (retrospective) pronominal or adverbial elements. Although *'ăšer* itself is indeclinable, the resumptive pronouns in a relative clause are declined in agreement with the noun modified by the clause:

**(31)** A. wə'ēṣ    'ōśeh    pərî 'ăšer  zar'ô-     bô
and trees  making  fruit which  their seed  in it
"And trees making fruit in which is their seed" (Genesis 1:13)
   B. ûmin-habbəhēmâ 'ăšer lō' ṭəhōrâ hî'
"And from the animal which is not pure" (Genesis 7:2)

Resumptive adverbials include especially *šām* "there," and related forms:

**(32)** hā'ădāmâ 'ăšer    luqqaḥ        miššām
the soil    which  he was taken  from there
"The soil from which he was taken" (Genesis 3:23)

The so-called *independent* relative clauses are not true relatives. Rather than further define a governing substantive, they serve as one of the elements in a larger clause, as in the following.

**(33)** wayiššá'er    'ak- nōaḥ wa'ăšer        'ittô       battēbâ
and was left  only  Noah  and those who  with him  on the ark
"Only Noah and those that were with him in the ark were left" (Genesis 7:23)

## 5.3  Agreement

In general, a predicate agrees with its subject in gender and number, and if the predicate is a verb, it agrees with its subject in gender, number, and person. There are, however, numerous exceptions to this general pattern. A collective subject, for example, is often construed with a plural verb. When the subject is a construct chain (see §4.2.4), the predicate may agree in number and gender with the *nomen rectum* rather than the *nomen regens*, which is properly the subject.

A verb preceding a compound subject, though often plural, may be singular, agreeing with the first member in the series:

**(34)**  wayyitḥabbēʾ          hā̄ʾādām  wəʾištô
      and he hid himself  the man    and his wife
      "And the man and his wife hid themselves" (Genesis 3:8)

Perhaps in extension of the last category, a verb in the initial position is sometimes masculine singular regardless of the gender and number of the subject, so that the masculine singular performs, in effect, as an uninflected verbal form, as in the following:

**(35)**  yəhî                      məʾōrōt
      let there be-MASC. SG.  luminaries-FEM. PL.
      "Let there be luminaries" (Genesis 1:14)

Since there are no dual forms of verbs (see §4.5), adjectives (see §4.2.2), and pronouns (at least in the active language, see §4.3.1), dual subjects are construed with plural predicates.

## 5.4  Determination

Hebrew substantives are either definite or indefinite. Certain substantives, including proper nouns and most pronouns, are intrinsically definite. Common nouns are determined (become definite) when prefixed by the definite article (see §4.4) or when followed by a pronominal suffix or another definite noun in a genitive construction (i.e., when in construct state before another definite noun; see §4.2.4). According to the grammatical rules of Biblical Hebrew, a noun can be determined in only one of these ways, so that a proper noun cannot stand as the *nomen regens* in a construct chain, and neither a proper noun nor a noun in the construct state can have an article or a pronominal suffix. Although these rules apply generally to Northwest Semitic as a whole, they are by no means universal – the restrictions are much less severe in Ugaritic, for example. Iron Age inscriptional Hebrew provides clear exceptions, such as *yhwh šmrn* "Yahweh of Samaria," at Kuntillet ʿAjrud, and several possible or certain exceptions are found in Biblical Hebrew itself: for example, *maḥăsî ʿōz* "my refuge of strength" (Psalm 71:7).

## 6.  LEXICON

The core vocabulary of ancient Hebrew is an inventory of words shared with other Iron Age Canaanite languages – Phoenician, Ammonite, Moabite, and Edomite. Many are common Semitic, and most are common Northwest Semitic, though several characteristic entries in the lexicon represent preferences in Hebrew that were distinct from their Aramaic equivalents. Verbal examples include Hebrew √ʿly versus Aramaic √slq "ascend"; Hebrew √yṣʾ versus Aramaic √npq "go out"; Hebrew √bwʾ versus Aramaic √ʿll "enter"; Hebrew √ʿzb versus Aramaic √šbq "leave"; and Hebrew √dbr versus Aramaic √mll "speak"; among many others. In most of these cases, the Hebrew preference seems to have been shared by the other members of the Canaanite family, though the evidence for the lexicons of these languages, especially those spoken in Transjordan, is scant. Within the Canaanite group itself, there are also examples of lexical specialization, which, taken together, suggest an isogloss between North and South Canaanite – thus Hebrew √hyy versus Ugaritic-Phoenician √kwn "to be" (narrowed to "be firm" in Hebrew); Hebrew *zāhāb* versus Ugaritic-Phoenician *ḥrṣ* "gold" (rare in Hebrew); Hebrew √ʿśy versus Phoenician √pʿl "do, make" (relatively rare and chiefly

poetic in Biblical Hebrew; Moabite also prefers √ʿśy, though Ammonite seems allied with Aramaic √ʿbd). Note also the retention in South Canaanite (Hebrew, including the Northern or Israelite dialect, and Ammonite) of √ntn "give" (cf. Amorite *ntn and Akkadian nadānu) versus the North Canaanite (Ugaritic and Phoenician) innovation √ytn.

Throughout the history of ancient Hebrew there was a profound penetration of Aramaic vocabulary into the lexicon, a phenomenon that began to gain momentum in the period of Late Biblical Hebrew and steadily increased as Hebrew continued to be studied and spoken while Aramaic became the language of everyday discourse. The result is that, from an early date, there is a substantial Aramaic component to the Hebrew lexicon.

Less far-reaching but still significant is the number of loanwords that entered Hebrew from the speech of the peoples who dominated or controlled Judah (or Judaea) in antiquity. Biblical Hebrew contains a number of words derived from the languages of the major international powers of the Iron Age. There is a scattering of Egyptian words, such as šēš "linen" (Egyptian šś < *śśr "linen") and ṭabbáʿat "sealing ring" (Egyptian ḏbʿwt "signet, seal"). A number of words reflect Judah's experience as a tributary of the Assyrian Empire. These include not only names of imperial institutions and officials, as found in the list in 2 Kings 18:17 – tartān (Neo-Assyrian turtānu "viceroy"), rab-sārîs (Neo-Assyrian rab ša rēši "chief eunuch") and rab-šaqēh (Neo-Assyrian rab šaqê "chief butler"), but also words that became part of the general Hebrew vocabulary, such as šōṭēr "official, magistrate" (originally "scribe, registrar"?) from the Akkadian verb šaṭāru "write."

In Late Biblical Hebrew many more Akkadian words entered the Hebrew lexicon from the Neo-Babylonian administration: for example, ʾiggéret "letter" (Neo-Babylonian egirtu), mékes "tax" (Neo-Babylonian miksu), middâ "tribute" (Neo-Babylonian mandattu), and *ségen "prefect" (Neo-Babylonian šaknu "provincial governor"). Other words were introduced from the bureaucracy of the Persian Empire: for example, ʾăḥašdarpān "satrap" (Old Persian ḫšaçapāvan; cf. Neo-Babylonian aḫšadrapannu), dāt "edict, law" (Old Persian dāta), and pardēs "park" (Old Persian; cf. Avestan pairi-daēza "enclosure").

With the spread of Hellenization after Alexander's conquest in the fourth century BC, Greek words began to appear in the Hebrew lexicon. Though at first the impact of Greek was felt primarily in the technical terminology of government, law, and commerce – hipparkəyâ "provincial government" (ἐπαρχία), bûlê "(city) council" (βουλή "council, senate"), sanhedrîn "Sanhedrin" (συνέδριον "council, congress") – it expanded into the general Hebrew vernacular as Rabbinic Hebrew evolved – thus, qāmîn "furnace" (κάμινος), pîlôn "gateway" (πυλών), zûg "pair" (ζεῦγος "yoke, pair"; cf. the denominative verb ziwwēg, "join"), and so forth. Under Roman administration, Hebrew-speaking Jews also adopted numerous Latin words, including especially, but not exclusively, military terms: for example, qaṣṭrâ "camp" (castra), ligyôn "legion" (legiō), mônîtâ "coinage" (monēta), and so forth.

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