9 A concise historical morphology of Biblical Hebrew

We have considered the most important sound changes from Proto-Northwest-Semitic to Biblical Hebrew. This chapter reviews the consequences of these developments for the historical morphology of the inflected word classes of Biblical Hebrew: pronouns, nouns and adjectives, numerals, and verbs. The Proto-Northwest-Semitic reconstruction and the attested Biblical Hebrew reflex of most of these forms is given in chapter 2. This chapter, then, mainly focuses on how the Biblical Hebrew paradigms may be derived from their Proto-Northwest-Semitic reconstructions based on the sound laws arrived at in the previous chapters. Frequent reference is made to the chapters discussing individual sound changes.

9.1 Pronouns

The personal pronouns, both independent and suffixed, are discussed in detail in chapter 8.

The masculine near demonstrative pronoun *zɛ* derives from the old genitive *ḏī: word-final stressed *-ī > *-ē and word-final *-ē > *-ɛ̄. The associated nominative *ḏū regularly yields the rare relative pronoun *zu* and the accusative *ḏā developed to the common gender demonstrative *zo* due to the Canaanite Shift. The plural *ʾéllɛ* is difficult to reconstruct, with different Semitic languages showing irreconcilable forms. The Hebrew form seems to go back to *ʾillay: the unstressed diphthong contracted to *ē and then participated in the shift to *-ɛ in word-final position.

As the animate interrogative pronoun *mi* does not show the same shift as *ḏī > *zɛ*, it should not be reconstructed with word-final *-ī, but as *mīya. The inanimate interrogative pronoun *må* (normally *ma-* with gemination of the following consonant) goes back to *mah.

9.2 Nouns and adjectives

9.2.1 Roots with one or two radicals

Synchronically, *pɛ* ‘mouth’ has only one radical. Both the absolute state and the construct state *pi*, also used before suffixes, derive from *pī, originally the construct state genitive. This was generalized to the absolute state due to the isolated nature of the regular reflex of the absolute, *pVm. In the absolute state, stressed word-final *-ī shifted to *-ē and further to *-ɛ̄.

ben ‘son’, *šem* ‘name’, *šeṯ* ‘bottom’ and **meṯ* ‘man’ (only attested in the plural) should be reconstructed as biradical *qṭum nouns without a vowel between the first and second radical (Testen 1985). The loss of mimation and the case vowel in the singular was probably analogous to their deletion in all other nominals. In the unsuffixed singular, an epenthetic vowel *e was inserted to break up the consonant cluster. The lack of an original vowel can still be seen before suffixes and in the plural, as in *bni* ‘my son’, *šmo* ‘his name’, *mṯim* ‘men’; *ben* forms the irregular plural *bånim* < *banīma and *šem* has extended the singular stem to the plural, *šemoṯ*.

Nouns with a short vowel between their first and second radical undergo tonic and pretonic lengthening, e.g. *yadum > *yåḏ* ‘hand’, *yadayma > *yåḏáyim* ‘hands’. *śayum > *śɛ* ‘sheep’ shows triphthong contraction and the subsequent development of word-final *-ē > *-ɛ̄. No unambiguous *quṭum nouns are attested. The irregular nouns *ʾåḇ* ‘father’, *ʾåḥ* ‘brother’, and *ḥåm* ‘father-in-law’ extend their stem with *-i* in the construct state and before suffixes, originally a lengthened genitive case vowel. The plural *ʾaḥim* ‘brothers’ goes back to *ʾaḫ̆īma with a different stem than the singular; before *qǻ́mɛṣ* in the suffix, the *paṯaḥ* regularly assimilates to *sḡol*, as in *ʾaḥåw > ʾɛḥåw* ‘his brothers’.

Nouns with *ī and *ū retain their original vowel, while those with *ā change it to *ō > *o* due to the Canaanite Shift.

Some feminine biradical nouns have incorporated a third radical in the plural. *dɛ́lɛṯ* ‘door’ was reanalyzed as a segolate, giving rise to the plural *dlåṯoṯ*; *ʾåmå* ‘maidservant’ has a third radical *h in the plural, *ʾămåhoṯ*. The feminine nouns *ʾåḥoṯ* ‘sister’ and *ḥåmoṯ* ‘mother-in-law’ were originally formed by adding the feminine suffix *-at- to their associated masculines; due to the pre-Proto-Semitic loss of their third radical, presumably *w, *-at- was lengthened to *-āt-, which became *-ōt- due to the Canaanite Shift. This parallels the lengthening of the

case vowels still seen in the masculine construct states *ʾăḥi* 'brother' and **ḥămi* 'father-in-law' (only attested before a suffix).

9.2.2 *qVṭl(at)um (segolates)

After the loss of the case endings, *qVṭlum nouns contained a word-final consonant cluster in the singular absolute state. In nouns from strong roots, this was resolved at a relatively late point in the history of Hebrew by the insertion of an epenthetic vowel, usually *ɛ, but *i after *y and usually *a after gutturals. If the third radical was *h*, *ḥ*, or ʿ, *ɛ regularly assimilated to *a, as in **ʾóreḥ > *ʾóraḥ* 'path' (Bauer & Leander 1922: 569). In a few words, a separate construct state like *ḥăḏar* 'room' (absolute *ḥéḏɛr* and *ḥéḏɛr*) is attested. With Steiner (1976), we may attribute this to early insertion of an epenthetic vowel before resonants; the further development of these forms, presumably to be reconstructed like *ḥadr > *ḥader, is then like that of construct states of *qaṭilum nouns, discussed below.

The plural forms of these segolates generally developed in the same way: in the absolute state, *qVṭalīma > *qṭålim*, with reduction of the first vowel and pretonic lengthening of the second one. *quṭlum nouns sometimes show an anomalous ɔ in the first syllable of the plural, as in *qɔḏåšim* 'holies', sg. *qóḏɛš*; this may be due to analogy with forms where a *ḥăṭepē qåmeṣ* was preserved, like *ḥŏḏåšim* 'months'. In the construct state and before heavy suffixes, *qVṭalay yielded *qəṭəlē. The first vowel developed to *i* or *a*, depending on the surrounding consonants and was frequently analogically influenced by the singular (see chapter 7); *quṭlum nouns analogically extended ɔ to the construct state plural. The second *šwå* was deleted, as it followed a light syllable.

In the singular, we find different developments of the vowel in the first syllable. *qaṭlum regularly developed to *qéṭɛl* in context, with assimilation of *a to the epenthetic *ɛ. The development of words like *ḏarʿum > *zárɛʿ > *zérɛʿ > *zéraʿ* 'seed' shows that this assimilation took place before that of the second *ɛ to *a before gutturals. In pause, *a was lengthened to *ā, which did not assimilate, resulting in pausal *qå̈ṭɛl*. Before suffixes, *a was largely preserved, but sometimes analogically replaced by *i due to influence from the *qiṭlum paradigm.

*qiṭlum regularly merged with *qaṭlum in the context form of the absolute state due to Philippi and Blau's Laws (see chapter 6). Thus, the regular Biblical Hebrew outcome of *qiṭlum is *qéṭɛl*, as in **ṯsidqum > *ṣéḏɛq* 'righteousness'. As Blau's Law postdated major pausal lengthening, the regular pausal form is also *qéṭɛl*. Before

suffixes, *i was regularly preserved. As *qaṭlum and *qiṭlum partly merged in *qaṭl > *qéṭɛl*, the two paradigms exerted a large amount of analogical influence on each other, resulting in forms like *malko* 'his king' for regular ***milko* < *milkahu, *qiḇro* 'his grave' for regular ***qaḇro* < *qabrahu, and pausal *rǻḡɛl* 'foot' for regular ***réḡɛl* < *riglum. *e < *i was also frequently restored in the absolute state of *qiṭlum nouns, based on analogies like *kaspó 'his silver' : *kásp 'silver' = *ʿegló 'his calf' : *ʿégl 'calf'. These analogically restored *qeṭl nouns then developed into *qéṭɛl*.

Weak roots

In an early change, syllable-final *ʾ was lost, with compensatory lengthening of the preceding vowel. In *qiṭlum and *quṭlum nouns, this regularly resulted in *qeṭ* and *qoṭ*, respectively, but where the *ʾ was maintained in spelling, it was usually secondarily reintroduced, yielding such artificial forms as *bʾer* < *biʾrum 'well', *mʾoḏ* < *muʾdam 'much'. The *ā that resulted from this loss changed to *ō due to the Canaanite Shift, as in *raʾsum > *rāsum > *roš* 'head'. In the plural, intervocalic *ʾ was lost with contraction of the surrounding vowels; *raʾasīma > *råšim* 'heads' shows that this development postdated the Canaanite Shift.

*qaṭlum nouns with *y as their second radical insert *i* instead of ɛ in the absolute singular, as in *báyiṯ* 'house'. In other forms of the singular, *ay is contracted to *ē > *e*. In *qiṭlum nouns (and II-y *quṭlum nouns, if they existed), *iy (and *uy) was contracted to *ī > *i*, as in *ʿiyrum > *ʿir* 'city'. Different plural formations are attested: the normal segolate plural with a-insertion can undergo triphthong contraction, as in *ʿiyarīma > *ʿårim* 'cities'; the consonantal *y can be analogically restored, as in *ʿăyårim* 'wild asses' (sg. *ʿáyir*); or the stem of the singular can be extended to the plural, as in *zeṯim* 'olive trees' (sg. *záyiṯ*). *báyiṯ* 'house' has the irregular plural *båttim* (cf. Aramaic *bāttīn*). Together with the precative particle *ʾånnå*, this is the only word in which *å* (normally reflecting *ā) occurs in a closed, unstressed syllable. In both cases, *å* is followed by a geminate; we may assume that, like Classical Arabic, Hebrew did not shorten long vowels in this position, contrary to their behaviour in other closed syllables. The *ā cannot be Proto-Northwest-Semitic, as long vowels in word-internal closed syllables cannot be reconstructed back that far. Rather, it may result from contraction of a triphthong, leading us to reconstruct *båttim* as *bayattīma. This is similar to the regular a-insertion found in the plural of segolates (cf. the singular *baytum), differing

only in the gemination of the third radical. This so-called pretonic gemination is also found in other words, e.g. *mɛrḥaqqim* < *mVrḥaqqīma 'distances' besides the singular *mɛrḥåq* < *mVrḥaqum, and has not yet been convincingly explained; given the existence of this phenomenon and its regular outcome as *båttim*, though, the reconstruction of *bayattīma seems certain.

Only a few *qaṭlum nouns with *w as their second radical maintain it, inserting ɛ and assimilating their *a > *å*, as in *mǻwɛ̱t*; in most cases, *aw is contracted to *ō > *o*, as in *yawmum > *yom* 'day' (see chapter 5). *quṭlum (and II-w *qiṭlum) nouns contract *uw > *ū > *u*, as in *suwqum > *šuq* 'market'. Plurals can be analogically restored, like *šwåqim* 'markets', or based on the singular stem, like *ṣomo̱t* 'fasts' (sg. *ṣom*); *yåmim* 'days' < *yamīma is derived from a different stem than the singular.

Two *qiṭlum nouns with *n as their second radical, *bintum and *gintum (< *gimtum), have undergone Philippi's Law and subsequent n-assimilation, resulting in *ba̱t* 'daughter' and *ga̱t* 'winepress', respectively. The *n is preserved in the irregular plural *banātum > *bånoṯ*.

*qVṭlum nominals from geminate roots did not undergo segolization, probably because the two adjacent identical radicals were realized as a single, long consonant. As they also did not participate in tonic lengthening or Philippi's Law, their original vocalism is largely preserved. *qaṭṭum yields *qaṭ* (and, in some prosodic contexts, *qåṭ*, see section 4.3.4), *qiṭṭum yields *qeṭ*, and *quṭṭum yields *qoṭ*. The singular stem has been generalized to the plural in most cases; alternatively, the originally inserted *a may have been deleted due to a haplological sound change that also affects geminate roots in other forms, as in *ʿamamīma > *ʿammīma > ʿ*ammim* 'peoples' (sg. ʿ*am*/ʿ*åm*). Plurals with analogically restored a-insertion like *ʿamamīma > ʿ*ămåmim* also occur. Although Proto-Semitic did not originally have any *qVṭlum adjectives (Fox 2003: 107), the sound change mentioned above also deleted the second vowel in *qaṭVlum adjectives from geminate roots, resulting in *qaṭ*/*qåṭ* adjectives like *tåm* 'perfect' and *raʿ*/*råʿ* 'bad'.

In *qaṭlum nouns with *y as their third radical, this was vocalized to *i in word-final position. In context, the stress shifted forward to this vowel and the preceding vowel was reduced, as in *gadyum > *gḏi* 'kid'. *qaṭlum nouns partially assimilated *a to *ɛ due to the following *y; this vowel was preserved in pause, as in *gɛ́ḏi*. Similar changes affeced *qaṭlum nouns with *w as their third radical: *a assimilated to *å* and *w was vocalized to *u, but the stress did not shift, resulting in

words like ʾǻḥu ‘Nile reeds’. The plural regularly underwent triphthong contraction, as in *kilayīma > *kelim* ‘vessels’, but *y was usually restored, as in *gḏåyim* ‘kids’.

With a feminine suffix

The development of *qVṭlatum nouns is largely similar to that of their masculine counterparts, with the important difference that the second and third radical were not separated by an epenthetic vowel. *qaṭlatum was regularly attenuated to *qiṭlå* (see chapter 7), but *a* was often restored through analogy with the masculine. In the feminine, too, the stem was replaced by *qVṭal- in the plural. In the absolute state, this resulted in *qṭåloṯ*, while we find *qiṭloṯ* or *qaṭloṯ* in the construct and before suffixes.

9.2.3 *qV̆ṭV̆l((a)t)um

In the singular absolute state, *qV̆ṭalum nominals undergo both tonic and pretonic lengthening, as in *dabarum > *dåḇår* ‘word’, *śiʿarum > *śeʿår* ‘hair’; no clear *quṭalum nominals are attested (Fox 2003: 221). The construct state is regularly *qṭal*. Plural forms, deriving from *qV̆ṭalīma (absolute) and *qV̆ṭalay (construct), develop like the formally identical plurals of *qVṭlum nouns (see above).

*qaṭilum regularly yields *qåṭel* in the absolute state. In the construct state, many forms underwent Blau’s Law (see chapter 6), developing like *ḏaqinu > *zaqen > *zəqɛn > *zqan* ‘old (m.sg.)’. In other cases, *e* was analogically extended to the construct state. Before suffixes and in the absolute plural, *i was originally deleted before non-low vowels, but it was analogically restored and subsequently underwent pretonic lengthening as in *ḏaqinīma > *zqenim* ‘old (m.pl.)’ (see chapter 4). The construct plural, *qaṭilay, behaves like *qaṭalay, discussed above.

*qaṭulum nominals developed similar to *qaṭilum forms, the main difference being the different outcome of tonic and pretonic lengthening (as in *ʿamuqum > ʿåmoq* ‘deep (m.sg.), *ʿamuqīma > ʿămuqqim* ‘idem (m.pl.)’) and the non-operation of Blau’s Law in the construct singular. *u does shift to *a* in the construct state before word-final gutturals, leading to pairs like absolute *gåḇoăh* besides construct *gḇah* ‘high (m.sg.)’.

*quṭulum nouns are rare; the few possible cases like *ḥulumum > *ḥălom* ‘dream’ have completely merged with the *qiṭālum paradigm (Fox 2003: 205).

Besides the regular construct forms given above, a number of *qV̆ṭV̆lum nominals form constructs from another stem, *qV̆ṭlum, e.g. absolute *kå̱be̱d* besides construct *ké̱bɛ̱d* (and regular *kḇad̲*) 'heavy (m.sg.)', absolute *ṣelåʿ* besides construct *ṣélaʿ* 'rib'. The vowel in the first syllable is always identical in both forms, suggesting that this alternation is the result of syncope of the second vowel in the construct state, a development which is also reflected outside of Northwest Semitic and which must therefore be early (Steiner 2012).

Weak roots

If the second radical was *w or *y, *qV̆ṭV̆lum nominals underwent triphthong contraction, resulting in *qål* if the second vowel was *a (as in *ʿayabum > *ʿå̱b* 'cloud'), *qel* if it was *i (as in *gawirum > *ger* 'sojourner'), and *qol* if it was *u (as in *bawuṯīma > *bošim* 'ashamed (m.pl.)'; see chapter 5). As this contraction resulted in a long vowel, the stem remains unchanged in all forms of the paradigm.

In *qV̆ṭV̆lum nominals from geminate roots, the vowel in the second syllable was deleted in a Proto-Semitic sound change, merging these words with the *qVṭlum paradigm.

*qV̆ṭV̆lum nominals with *w or *y as their third radical, e.g. *śadayum > *śå̱d̲ɛ* 'field', underwent triphthong contraction. As this was preceded by the dissimilation of unvoiced *u to *i next to bilabial consonants (discussed in chapter 3), this resulted in a paradigm with forms like *śadém in both the nominative (< *śadayum) and the genitive (< *śadayim) and *śadám in the accusative; the nominative–genitive form was generalized throughout the whole paradigm. Mimation was deleted by analogy with the great majority of nouns and adjectives which had lost it due to sound change and pretonic lengthening resulted in the attested forms like *śå̱d̲ɛ*, with the regular change of word-final *-ē > *-ɛ̄; in the (proclitic) construct state, this change did not take place, resulting in forms like *śd̲e*. In the plural, where the second syllable was followed by a long vowel, contraction yielded forms where the second radical was immediately followed by the plural ending, as in *śå̱d̲o̱ṯ* 'fields'.

With a feminine suffix

Tonic and pretonic lengthening operated on *qV̆ṭalatum, *qV̆ṭilatum, and *qV̆ṭulatum nominals, which are reflected in Biblical Hebrew as *qṭå̱lå*, *qṭelå*, and *qṭullå*, respectively. In the construct state, *qV̆ṭV̆latu generally developed to *qəṭəlat >

qiṭlaṯ. The absolute plural forms *qṭåloṯ*, *qṭeloṯ*, and *qṭulloṯ*, as well as the construct plural *qiṭloṯ*, are explained in the same way.

Only few *qV̆ṭV̆ltum nominals are attested, if any. Notably, the possible examples (like *gḏɛ́rɛṯ* 'stone wall', if from *gadirtum) do not show pretonic lengthening of the vowel in the first syllable. It seems likely that the *-t- form of the feminine suffix was originally associated with non-absolute forms of the noun. These forms would then be secondary, only extended to the absolute state after the operation of pretonic lengthening. This would also explain the non-operation of Philippi's Law in *ʾɛ̆mɛṯ* 'truth', if this stem derives from the non-absolute form *ʾamint- associated with a hypothetical absolute state *ʾaminatum.

9.2.4 *qV̆ṭV̄l((a)t)um

The development of *qaṭV̄lum nominals is fairly straightforward: the long vowel in the second syllable remains unchanged in all forms, surfacing in Biblical Hebrew as *i* < *ī, *u* < *ū, or *o* < *ā (with the Canaanite Shift), while the short *a in the first syllable is pretonically lengthened to *å* in the absolute singular and reduced in all other forms. *ō < *ā regularly shifted to *ū in unstressed non-word-initial syllables, as in *matāqīma > *mṯuqim* 'sweet (m.pl.)', but *o* was analogically restored in most cases.

According to Fox (2003), the only *qV̆ṭV̄lum pattern with two high vowels that is reconstructable for Proto-Semitic is *quṭūlum. In Hebrew, the first *u was reduced due to the following non-low vowel, resulting in *qṭul*. This form of the stem is unchanged throughout the paradigm. As *quṭīlum and *qiṭīlum are not attested in other Semitic languages, Fox explains the Biblical Hebrew *qṭil* nouns (and one adjective) as loanwords or back formations, based on forms of *qaṭīlum nouns where the *a was reduced (pp. 193–194).

*qiṭālum undergoes the same reduction as *quṭūlum, as well as the Canaanite Shift, yielding an unchanging stem *qṭol*. While this is also sometimes seen as the outcome of *quṭālum (e.g. Fox 2003: 234), it is argued in chapter 3 that the Canaanite Shift did not operate after rounded vowels in the previous syllable. Thus, *quṭālum should have yielded **qṭål*; no unambiguous examples of this development are attested in the singular, the evidence being limited to *kurāʿayma > *krå*ʿ*áyim* 'shins'. A small number of other *quṭālum nouns occur in Biblical Hebrew, but as their *u is adjacent to a bilabial consonant in each case, it dissimilated

to *i, merging these words with *qiṭālum > *qṭol*, e.g. *burāṯum > *birāṯum > *broš* ‘juniper’.

Weak roots

Some words with *ʾ as their first radical have *e* in the first syllable instead of an expected *ḥåṭepē* vowel, like *ʾezor* < *ʾi^{d}zārum ‘loincloth’. In section 4.4, it is argued that *ṣere* was in free variation with the *ḥåṭepē* vowels in this position, which explains its absence in similar words like *ʾĕnoš* < *ʾināsum ‘man(kind)’.

With a feminine suffix

When the feminine suffix *-at- is added, the vowel in the first syllable is reduced in all cases, while the long vowel remains, resulting in *qṭilå*, *qṭulå*, and *qṭolå*. In words with the feminine suffix *-t-, the long vowel, which is now in a closed syllable, is shortened, and the *qV̆ṭV̄ltum noun merges with the corresponding *qV̆ṭV̆ltum pattern. Like in the latter paradigm, pretonic lengthening does not take place, as in *nḥóšɛ̯ṯ* ‘bronze’, if from *naḥustum < *naḥūstum (cf. the rare synonyms *nḥušå* and *nåḥuš*). This may indicate the secondary origin of these nouns.

9.2.5 *qVṭṭVl((a)t)um

According to Fox (2003), the reconstructible nominal patterns with a short vowel following a geminate second radical are *qaṭṭalum, *qaṭṭilum, *qaṭṭulum, and *quṭṭulum. The first vowel undergoes a qualitative change in all patterns but *qaṭṭalum, which is regularly reflected by *qaṭṭål*, with tonic lengthening in the absolute singular. As is argued in chapter 7, unstressed *a before a geminate assimilated in quality to a following stressed short vowel. Thus, *qaṭṭilum became *qiṭṭilum, while *qaṭṭulum merged with *quṭṭulum. *qiṭṭilum regularly developed to *qiṭṭel*; as the second *i follows a heavy syllable, it did not undergo pretonic lengthening and is reduced in the plural and before suffixes, as in *ʾillimīma > *ʾillmim* ‘dumb (m.pl.)’ (sg. *ʾillem*). *quṭṭulum seems to yield Biblical Hebrew *qiṭṭol*, as in one of the very few identifiable nouns of that pattern, *ṣippor* ‘bird’. The shift of *u to *i, generally seen as a form of dissimilation, has been explained in different ways: as the result of a general dissimilation of rounded vowels to *i before other rounded vowels (Huehnergard 1992: 222) or resulting from the

same reduction of *i and *u to *ə before non-low vowels seen in the *qV̆ṭVlum patterns, with a subsequent change of *ə > *i in closed, pretonic syllables (Garr 1985); in many of the possible *quṭṭulum nouns, the change may also be due to the dissimilation of unstressed *u > *i next to bilabials proposed in chapter 3.

The restrictions on vowel quality for *qVṭṭV̄lum nominals are the same as those for the *qVṭṭV̆lum patterns discussed above. *qaṭṭīlum and *qaṭṭūlum regularly yield *qaṭṭil* and *qaṭṭul*, respectively; these stems are unchanging throughout the paradigm. No secure *qaṭṭālum nominals are attested in Hebrew, although this is a very frequent pattern in other Semitic languages. Perhaps these words were morphologically transferred to *qaṭṭalum. The rather common category of *qiṭṭul* nouns may be reconstructed as *quṭṭūlum, with the same dissimilation in the first syllable seen in *quṭṭulum > *qiṭṭol*.

Weak roots

Words with a guttural second radical show degemination, either with compensatory lengthening of the preceding short vowel or without (virtual gemination). In *qaṭṭalum nominals with a virtually geminated second radical, *a has assimilated to ɛ before the following *å*, as in *paḥḥamum > *pɛḥåm* 'charcoal'.

Instead of *qVṭṭVlum nominals with a geminated second radical, some II-w roots form *qVṭlVlum nominals, reduplicating their third radical. Thus, we find *ṯawbabum > *šoḇåḇ* 'backsliding' instead of **šawwåḇ* from the root *šwb* 'to turn back' (Barth 1897).

With a feminine suffix

*qaṭṭVltum nouns do not show the same assimilation of *a to the following vowel as their counterparts. As with the apparent non-operation of pretonic lengthening in *qaṭVltum nouns, this may be due to the original non-absolute function of the *qaṭṭVlt- form of the stem. As the stress would not have fallen on the second vowel in non-absolute forms of the noun, the assimilation did not take place. *qaṭṭalatum yields *qaṭṭålå*, as in *ʾayyalatum > *ʾayyålå*.

9.2.6 *mVqṭVl((a)t)um

Of the various noun patterns with an m-prefix, special developments occur in *maqṭalum and *maqṭilum nouns. In a process often called the Law of Attenuation

(see chapter 7), the first *a of *maqṭalum nouns dissimilated to *e > *i* in a late change, limited to the Tiberian reading tradition, as in *magdalum > *maḡdål > *meḡdål > *miḡdål* 'tower'. This change was blocked before geminates, gutturals, and in a few other environments listed in chapter 7. As this development greatly increased the number of nouns with a *mi*-prefix, this may also have spread to other nouns where *ma- should have been preserved, as in *mizmor* 'psalm' (earlier *mazmōr, as in Hexaplaric μαζμωρ).

The absolute state of *maqṭilum nouns regularly developed to *maqṭel*, with tonic lengthening of the *i. In the construct state, this vowel developed to *a* through Blau's Law (see chapter 6 and the discussion of *qaṭilum nominals above), triggering the same dissimilation of *a > *i* seen in *maqṭalum nouns, as in *marbiṭu > *marbaṣ > *mirbaṣ* 'lying place (construct)'.

Weak roots

The most important deviation from the strong pattern is found with II-wy roots, which lost their second radical with lengthening of the following vowel in a pre-Proto-Semitic sound change. If this resulted in *ā, it regularly underwent the Canaanite Shift (see chapter 3), as in *maqāmum > *måqom* 'place'. Note that the *a is pretonically lengthened, as it is in an open syllable. In unstressed non-word-initial syllables, *ā > *ō regularly shifted to *ū, as in *ma^{t}ṣādahu > *mṣuḏo* 'his net', but *o* is analogically restored in most cases.

With a feminine suffix

Nouns with suffixed *-at- and *-t- behave as expected, with the minor point that unstressed *ō < *ā regularly develops to *ū, as in *manā^{t}satum > *mnusså* 'flight' besides the masculine *manā^{t}sum > *månos* 'refuge'; in some words, *o* was analogically restored, as in *mṣoḏå* (also *mṣuḏå*) 'net' based on *måṣoḏ* 'idem'.

9.2.7 Miscellaneous

Of the noun patterns with other prefixes than *mV-, only those with *ta- are somewhat frequent. These behave like the corresponding *maqṭVlum patterns.

The frequent nominal suffix *-ānum has regularly shifted to *-on* in most cases (see chapter 3). In a few words like *qɔrbån* 'offering', the Canaanite Shift was

blocked due to the preceding rounded vowel; from forms like these, the *-ån* form of the suffix was analogically extended to some other forms.

A unique interchange between geminated and ungeminated consonants is found in the *qiṭṭålon* noun pattern, e.g. *zikkåron* 'remembrance (absolute)' besides *zi̱kron* 'idem (construct)', *zi̱krono* 'his remembrance', etc. These words are usually reconstructed as *qVṭalānum, with irregular gemination of the second radical in the absolute singular (Blau 2010: 275). This gemination is ad hoc, however, and contradicted by many counterexamples. *Pace* Blau, it is easier to reconstruct this pattern as *qiṭṭalānum, with degemination occurring in forms where the non-pretonic *a was reduced.[1]

The adjectivizing *i*-suffix is also common. The vocalization of the plural, *-iyyim* (also *-im* with haplology) and *-iyyo̱t*, suggests a reconstruction as *-iyy-, but it should rather be reconstructed as *-īy-, which is more easily connected to the deviant form found in Aramaic, *-āy*. *-īyV is regularly reflected by *-iyyV* in Biblical Hebrew, as can be seen from *naqīyīma > *nqiyyim* 'innocent'. The same gemination took place before the feminine suffix *-at-, as in *-īyatum > *-iyyå*, while the form with the shorter feminine suffix, *-īytum, shortened its vowel in a closed syllable, developing to *-iytum > *-ītum > *-i̱t*.

Finally, it should be noted that many reduplicated nouns do not undergo tonic lengthening or the Law of Attenuation, which would disrupt the symmetry of the reduplicated parts; thus, for instance, *dardar* 'thistles' for regular **dirdår*.

9.3 Numerals

Table 9.1 lists the Biblical Hebrew absolute states of the cardinal numerals 1–10 and their Proto-Northwest-Semitic reconstruction. All PNWS forms are given in the nominative, but note that the forms of '2' go back to the oblique forms instead. Original *d has assimilated to a following coronal in *ʾaḥḥadtum > *ʾaḥḥattum and *sidt̲(at)um > *sitt̲(at)um; in the latter case, the *d is still attested in forms like the Classical Arabic cardinal *sādisun* (with dissimilation of *t̲ > *s*).

[1] Blau rejects this possibility because unemphatic plosives tend to retain their gemination in all circumstances, but there are a few other cases of this degemination (Bergsträsser 1918: 142). Assuming degemination before *šwå* was regular, analogical restoration of the gemination would be easy and desirable in most morphological classes, especially with the unemphatic plosives, where a postvocalic singleton would have undergone spirantization. In this noun pattern, however, the degemination seems to have been generalized as a morphophonological rule.

Table 9.1: Cardinal numerals 1–10 (reproduced from chapter 2)

meaning	masculine		feminine	
	PNWS	BH	PNWS	BH
1	*ʾaḥḥadum	ʾɛḥåḏ	*ʾaḥḥattum	ʾaḥaṯ
2	*t̲nāna	šnáyim	*t̲intāna	štáyim
3	*t̲alāṯatum	šlošå	*t̲alāṯum	šåloš
4	*ʾarbaʿatum	ʾarbåʿå	*ʾarbaʿum	ʾarbaʿ
5	*ḫamisatum	ḥămišåå	*ḫamisum	ḥåmeš
6	*siṯ̲tatum	šišåå	*siṯ̲tum	šeš
7	*sabʿatum	šiḇʿå	*sabʿum	šɛ́ḇaʿ
8	*t̲amāniyatum	šmonå	*t̲amāniyum	šmonɛ
9	*tisʿatum	tišʿå	*tisʿum	téša ʿ
10	*ʿaśaratum	ʿăśårå	*ʿaśrum	ʿɛ́śɛr

The *ḥ* in '1' is virtually geminated in both genders. In the masculine, *a has changed to ɛ through height assimilation to the following *å*. The best explanation for the unique initial cluster in *štáyim*, with a plosive *t*, is given by Bravmann (1952), who believes that, as in Syriac *šittā > *štā* 'six (m.)', the sequence *šitt- was reduced to *št-* due to the phonetic similarity between *š* and *i*. In *ʾarbaʿ*, the expected second vowel **å*, with tonic lengthening, is assimilated to the following guttural (Blau 1983). The gemination in *ḥămišåå* is based on analogy or contamination with *šišåå* (Brockelmann 1908: 486). Both forms of '8' show the regular contraction of a triphthong.

The masculine construct states *šlóšɛṯ̲*, *ʾarbáʿaṯ̲*, *ḥămévšɛṯ̲*, *šévšɛṯ̲*, and *ʿăśérɛṯ̲* all show the *-t- allomorph of the feminine suffix, rather than the *-at- found in the absolute state. This shorter allomorph is also associated with the construct state in some other nouns. The lack of gemination in *šévšɛṯ̲* is usually attributed to influence from *ḥămévšɛṯ̲*, but given the close parallel in the interchange between *ʾišåå* (absolute) / *ʾévɛṯ̲* (construct) 'woman', this may be the result of sound change. In the feminine, the construct states *šḇaʿ* and *tša ʿ* are vocalized as so-called reverse segolates; given the high sonority of their final consonant, this is probably due to early insertion of an epenthetic vowel, also found in forms like *zraʿ* 'seed (construct)' besides the absolute state *zɛ́raʿ* (Steiner 1976).

The cardinal numeral *rišon* 'first' is derived from *roš* 'head', with dissimilation of *ō > *ī before *ō (Bauer & Leander 1922: 628). The other cardinals all have the

adjectivizing suffix *-i* < *-īyum attached. Except in *šeni* 'second' and *šišši* 'sixth', the base is consistently *qaṭīl- > *qṭil-*. Note that the word for 'second' shows a pretonically lengthened *e*; if the reconstruction of the cardinals given here is correct, this *i may have been taken over from the feminine form at some point after the reduction of *i in open syllables before non-low vowels. The secondary creation of *šišši* may have been motivated by the dissimilarity between the ordinal *si̲t̲tum, with assimilation of *-d̲t̲- > *-t̲t̲-, and the regular ordinal *sadīt̲īyum.

The numbers 11–19 are formed by combining a (frequently reduced) form of the unit and a word expressing the '-teen', *ʿåśår* with masculine nouns and *ʿɛśre* (spelled <ʿšrh>) with feminine nouns. The masculine '-teen' can probably be reconstructed as *ʿaśarVm; the Classical Arabic cognate *ʿašara* does not show nunation, but this may be due to its different syntactic behavior, as the tonic lengthening in *ʿåśår* shows that this form was mimated. Given the existence of Ugaritic <ʿšrh>, the most straight-forward reconstruction for the feminine is *ʿiśrVhV, with yet another form of the stem and an otherwise unknown suffix.

The higher numerals all regularly derive from their Proto-Northwest-Semitic reconstructions, with some minor exceptions: *ḥămiššim* '50' and *šib̲ʿim* '70' have been analogically remodeled after *ḥămiššå* '5 (m.)' and *šib̲ʿå* '7 (m.)', respectively.

9.4 Verbs

For the reconstructed Proto-Northwest-Semitic and attested Biblical Hebrew paradigms of the strong verb, see chapter 2. The development of the perfect suffixes is discussed in chapter 8. One development that was not mentioned there was the change of word-final *-at to *-ā, which affected the third person feminine singular ending. This took place between triphthong contraction, as *banayat > *banāt (see the section on III-wy verbs below), and tonic lengthening.

9.4.1 The strong verb

Fientive and passive *qal*

As the unsuffixed verbal forms all ended in a long or short vowel, tonic lengthening did not apply to them. Either the short vowel was lost in the first apocope, closing the syllable before tonic lengthening could operate (e.g. *qaṭala > *qaṭál > *qåṭal*), or the long vowel remained, blocking the operation of tonic lengthening (e.g.

*qaṭalū > *qåṭlu*). Pretonic lengthening did take place in all open, originally pretonic syllables, i.e. in all forms but the second person plural; thus, for instance, *qaṭál > *qāṭál > *qåṭal*. At some point after the operation of pretonic lengthening, the third person feminine singular and third person plural participated in the stress shift from their short penultimate syllable to the ultimate, followed by reduction of the short vowel: *qāṭálā > *qāṭalá́ > *qåṭlå*, *qāṭálū > *qāṭalú́ > *qåṭlu*. In pause, the originally stressed vowel was lengthened and preserved, as in *qåṭǻlu*. For the perfect forms with suffixes, see chapter 8.

In the imperfect, the *a of the prefix shifted to *e and, much later, to *i*, resulting in forms like *yaqṭulu > *yeqṭol > *yiqṭol* (see chapter 7). Due to a stress shift (discussed in chapter 4), the unsuffixed forms of the jussive like *yáqṭul > *yaqṭúl > *yiqṭol* merged with the corresponding imperfect forms. This led to the extension of the original jussive forms in *-ū and *-ī to the imperfect, causing the reflexes of *yaqṭulū, *taqṭulū, and *taqṭulī to largely replace those of *yaqṭulūna, *taqṭulūna, and *taqṭulīna. These forms with a final long vowel underwent the same stress shift and reduction as some forms of the perfect, resulting in *yiqṭlu*, *tiqṭlu*, and *tiqṭli*. The second and third person feminine, *taqṭulna, acquired an additional word-final *-h through contamination with the independent personal pronouns (see chapter 8), resulting in *taqṭulnah > *tiqṭólnå*. Pronominal suffixes on the imperfect either attach to the original energic suffix, *-Vn-, or to a historically long *e*, which originated in the III-wy paradigm. The second person masculine singular suffix, as in *yiqṭɔlḵå*, is exceptionally not connected to a linking vowel; this may be due to the secondary form of this suffix.

The imperative can originally be reconstructed as the second person jussive without a prefix, as in the masculine singular *qṭul > *qṭol*. Before vocalic suffixes, the stem vowel was reduced after losing the stress; as can be seen in the masculine plural, *qṭúlū > *qəṭəlṹ > *qiṭlu*, the epenthetic schwa (also phonetically present in the singular) develops to *i*, as in the construct plural noun forms like *dabaray > *dəbərē > diḇre*. Notably, we find a different form of the imperative before suffixes, as in *qɔṭléni*. This allomorphy may be attributed to the different position of the stress: *qṭúlū > *qiṭlu*, *qṭulénī > *qɔṭléni*. This suggests a regular metathesis in this environment, *#CCoCV́ > #CoCCV́: thus, *qṭolénī > *qoṭlénī > *qɔṭléni*. Since imperatives with an a-vowel lengthen it in this environment, e.g. *qråʾéni* ‘call me’, this sound change may be considered a special case of pretonic lengthening.

The reconstruction of the infinitive construct is somewhat uncertain. It is closely connected to the imperfect stem in all paradigms, but does undergo tonic

lengthening in many cases; this suggests a reconstruction as *qṭulum, in which case the forms without tonic lengthening were analogically rederived from the prefix conjugation stem. The same metathesis seen in the imperative takes place before suffixes, although the infinitive construct takes nominal suffixes, as in *qɔṭlo*, vs. the verbal suffixes found on the imperative, as in *qɔṭléhu*; this offers some confirmation for the sound law and reconstruction suggested above. The infinitive absolute, *qåṭol*, regularly reflects *qaṭālum.

The active participle, *qāṭilum in the masculine singular, undergoes the Canaanite Shift and tonic lengthening, yielding Biblical Hebrew *qoṭel*. In the feminine singular, the regular forms are *qāṭiltum > *qoṭélɛṯ*, with Philippi's Law and segolization affecting the second syllable, and *qaṭilatum > *qoṭlå*, with non-operation of pretonic lengthening after a heavy syllable; the alternate form *qoṭelå* is analogically modeled after the masculine. In the plural forms, *qoṭlim* (m.) and *qoṭloṯ* (f.), pretonic lengthening does not apply either. One of the Proto-Northwest-Semitic passive *qal* participles, *qaṭūlum, became the productive form in Hebrew, regularly developing to *qåṭūl* like other nominals of the same pattern.

Like the other internal passive stems, the passive *qal* is largely formed by changing the vowels of the corresponding active stem to *-u-a-. In the perfect, pretonic lengthening geminated the second radical, as in *quṭála > *quṭṭal*. Otherwise, the passive *qal* perfect and imperfect were affected by the same sound changes as their active counterparts.

Stative *qal*

In the perfect, *qaṭila and *qaṭula developed to *qåṭel* and *qåṭol*, respectively, both with pretonic lengthening. *qaṭil- first and second person perfect forms underwent Philippi and Blau's Laws (see chapter 6), changing the vowel in the second syllable to *a* as in *qaṭilta > *qåṭåltå*; the corresponding forms from *qaṭul- verbs regularly retain their *o*. This partial merger of *qaṭila and *qaṭala led to the transfer of some verbs from the former category to the latter.

In the imperfect, *yiqṭalu regularly developed to *yiqṭal*, without any lengthened vowels. Stress-bearing endings in *nun* caused pretonic lengthening, also in context, as in *tadbaqīna > *tiḏbåqin* 'you (f.sg.) will stick'.

The development of the participle is similar to that of the perfect, with the difference that as a nominal form, it undergoes tonic lengthening: contrast perfect

*gabuha > *gåḇah* ‘it was high’ with the participle, *gabuhum > *gåḇóăh* ‘high (m.sg.)’.

Nipʿal

The prefix of the *nipʿal* perfect developed from *na- to *ne- and later *ni-* in closed syllables (see chapter 7). The second syllable of *naqṭal- developed like that of the fientive *qal* perfect, *qaṭal-.

In the imperfect, *yinqaṭilu > *yiqqåṭel*, the *n-prefix assimilated to the following radical. The *a was pretonically lengthened. In the second person feminine singular and second and third person masculine plural, the stress shifted to the word-final vowel, with reduction of the penultimate vowel. Philippi’s Law affected the second and third person feminine plural, *tinqatilna > *tiqqåṭálnå*. The merger of the jussive with the imperfect was not caused by any identifiable sound change in the *nipʿal*, but is rather analogical to the same merger in the *qal*.

The prefixed *hi-* in the imperative is probably secondary, analogically borrowed from the *hipʿil*, where the imperative stem is also synchronically formed by changing the prefix consonant of the jussive (e.g. *taqṭel*) to *h* (as in *haqṭel*). The same goes for the infinitive construct, *hiqqåṭel*. Of the two infinitive absolute forms, *niqṭol* is derived from the perfect and *hiqqåṭol* from the prefix conjugation. As in the stative *qal*, the participle is identical to the perfect stem, only with tonic lengthening.

Piʿel, *puʿal*, and *hiṯpaʿel*

The change in the *piʿel* perfect of Proto-Northwest-Semitic *qaṭṭil- to Proto-Canaanite *qiṭṭil- is best explained as the result of an assimilation rule: *#CaC_1-$C_1\check{V}_1$ > *#$CV_1C_1C_1\check{V}_1$ (see chapter 7). Before consonants, the second *i of the perfect stem was affected by Philippi’s Law, resulting in forms like *qiṭṭáltå*. This form of the stem was extended to the second person plural, even though the *i was unstressed there, and sometimes to the third person masculine singular, causing *qiṭṭal* to compete with *qiṭṭel*.

No special developments affected the imperfect. The second and third person feminine plural should have undergone Philippi’s Law, but *e was analogically restored. As in the other derived stems (except for the *nipʿal*), the participle is formed by adding a prefix *mu- to the imperfect stem. In Hebrew, the *u of this prefix dissimilated to *i, but it was later lost in most forms.

The development of the *puʿal* forms is straightforward: perfect *quṭṭala > *quṭṭal*, imperfect *yuquṭṭalu > *yquṭṭal*, participle *muquṭṭalum > *mquṭṭål*.

The stem of the *hiṯpaʿel*, originally *-tqaṭṭal-, has changed to *-tqaṭṭil- in Hebrew, although some forms with *a between the second and the third radical remain. This may be due to contamination with the original Gt-stem, which was lost in Hebrew and seems to have merged with the tD-stem in some cases (Arnold 2005: 48–50). In that case, the Hebrew *hiṯpåʿel* would be something of a hybrid, combining features of the Gt-stem, *-qtaṭil-, as well as the tD-stem, *-tqaṭṭal-. As in the *niphʿal*, *hi-* was prefixed to the stem in word-initial position based on analogy with the *hiphʿil*.

Hiphʿil and *hɔphʿal*

In the strong verb, the *hiphʿil* contains the reflex of a long *ī between the second and third radical in all originally open syllables. This replaced the original short *i through analogy with the II-wy verb (see below): jussive *yaqim : imperfect *yaqīmu : perfect *hiqīma = jussive *yaqṭil : imperfect *yaqṭīlu : perfect *hiqtīla. This change in vowel length contributed to the preservation of the imperfect/jussive distinction in the *hiphʿil*. As the stressed syllable contained a long vowel in the perfect and imperfect, the stress did not shift to the ultimate in context, but rather stayed in place, yielding forms like *hiqṭílu*.

In the perfect, original *ha- was probably replaced by *hi- through analogy with the *piʿel* (Huehnergard 1992). As in other stems with *i before the third radical, the first and second persons were affected by Philippi's Law.

In the jussive, imperfect, and participle, the intervocalic *h was deleted together with the preceding vowel, resulting in forms like *yahaqṭilu > *yaqṭilu > *yaqṭil* and *muhaqṭilum > *maqṭilum > *maqṭil*.

The development of the *hɔphʿal* parallels that of the *puʿal*.

9.4.2 Guttural and weak verbs

Guttural verbs

In all verbs with one or more guttural radicals, reduced vowels usually become a *ḥåṭeph* vowel instead of the normal *šwå*; *šwå* that does not reflect a historical vowel is also often replaced by a *ḥåṭeph* vowel in verbs with a guttural first radical. If this *ḥåṭeph* vowel would occur in a closed syllable, it is written with the corresponding

full vowel, as in *yaʿaḇḏu* ‘they will serve’ instead of **yaʿăḇḏu*, parallel to non-guttural *yiqṭlu*.

The main difference between non-guttural verbs and those with a guttural first radical is that in the prefix conjugation of the fientive *qal*, the prefix vowel *a did not shift to *e > *i*. Thus, the Barth–Ginsberg law still applies, as seen in the opposition between forms like *yaʿăḇoḏ* ‘he will serve’ and *yɛʿšar* ‘he will be rich’. The *a in the *niphʿal* perfect prefix did shift to *e > ɛ, as in *naʿzaba > *nɛʿĕzaḇ* ‘he was forsaken’, which shows that this is a different sound change than that affecting the *qal* prefixes (Lambdin 1985). In the *niphʿal* prefix conjugation, the gemination of the first radical was given up with compensatory lengthening of the preceding *e, e.g. *yinʿabidu > *yeʿʿābed > *yēʿābed > *yeʿåḇeḏ* ‘it will be cultivated’. The same change also affects verbs with *reš* as their first radical.

In verbs with a guttural second radical, short vowels following it are changed to *a* in forms that also occur with *a* for morphological reasons, like the *qal* perfect and imperfect and the *piʿel* perfect. It is unclear whether this is a morphological change, that only affected those verb forms where *a* could plausibly occur, or a sound change that was analogically canceled in those forms where the non-guttural verb only has non-*a* vowels, like the *piʿel* imperfect. The verb stems with a geminated second radical lost this gemination if the radical was guttural, with or without compensatory lengthening.

In verbs with a guttural third radical, short *e and *o have assimilated to *a* before the guttural in word-final position. In the infinitive, participle, *hiphʿil*, and pausal forms, *páṯaḥ furtivum* is inserted between a long, non-a vowel and a word-final guttural.

I-ʾ

While most verbs with *ʾ as their first radical behave like other I-guttural roots, a few frequent verbs have retained forms that are the regular outcome of sound change. In the *qal* prefix conjugation, *aʾC > *āC > *ōC (Canaanite Shift), e.g. *yaʾkulu > *yōkol. Verbs with *u as their theme vowel underwent dissimilation: after *ō in the preceding syllable, short *o becomes *a, as in *yoḵal* ‘he will eat’, while pausal, long *ō shifts to *ē, as in *toḵel* ‘you (m.sg.) will eat’ (see chapter 6). In the imperative and infinitive construct, *u was retained, as there was no prefix to cause dissimilation. Hence, we find forms like *ʾĕḵol* ‘eat (m.sg.)’ and ‘to eat’. The forms like *ʾoḥez* ‘I will seize’ and *wayyóḥɛz* ‘and he seized’ suggest

that *ʾḥz* originally had an *i theme vowel, rather than *u. The development of the highly frequent verb *ʾmr* 'to say' is further complicated by the dissimilation of *u > *i in unstressed syllables, caused by the preceding *m (see chapter 3). Thus, while we find the same development as that of *ʾkl* in the imperfect, the consecutive imperfect developed from *yáʾmur > *yáʾmir > *yṓmer > *wayyómɛr* 'and he said', pausal *wayyomar* with the pausal stress shift and Blau's Law (also discussed in chapter 6).

I-wy

Fientive verbs with *w as their first radical share certain weak features in all classical Semitic languages and are probably partially biconsonantal in origin. This situation was complicated in Northwest Semitic by the sound change of word-initial *w- > *y-, which affected the perfect of these verbs in the *qal*, *piʿel* and *puʿal*; *y was later analogically extended to the prefix conjugation of these stems, as well as the *hitpaʿel*.

The fientive *qal* prefix conjugation stem was originally only based on the second and third radical, as in *yaṯibu 'he will sit' from *yṯb (< *wṯb). In Hebrew, the first radical *y was analogically introduced into these forms, resulting in *yayṯibu > *yešeḇ*. The normal defective spelling of the prefix vowel *e*, as in <yšb>, may indicate that the expected archaic forms like *yāšeb were still in use when the orthography of the Hebrew Bible was fixed. This may be contrasted with the stative *qal*, where the historically present *y is regularly spelled, as in (pre-Proto-Northwest-Semitic *yiwraṯu >) *yiyraṯu > *yiraš* <yyrš> 'he will inherit'. In the consecutive imperfect, fientive forms maintained the original penultimate stress in unsuffixed forms, like *wayyéšɛḇ*, while the sonorous *a attracted the stress in stative forms like *wayyiráš* (see section 4.2).

The *qal* imperative and infinitive construct are biradical, an inherited feature of these verbs. The imperative is formed on the old stem of the prefix conjugation, without the analogically added *y, while the infinitive construct adds a feminine suffix *-t- (rarely *-at-). In these latter forms, Philippi's Law was operative (see chapter 6), the most common form developing like *sibtum > *šebt > *šɛbt > *šɛḇɛṯ* 'to sit'; the original *i is retained in suffixed forms like *šiḇṯḵå* 'your (m.sg.) sitting'.

In the *nipʿal*, *w was preserved due to its word-internal position. In the perfect, the unstressed diphthong *aw was contracted to ō, presumably before the change

of *a > *e in the prefix, as in *nawtara > *no̲tar* 'it was left'. In the prefix conjugation, n-assimilation resulted in a geminate *ww, as in *yinwatiru > *yiwwå̲ter* 'it will be left'.

The *hip̄ʿil* forms are similar to those of the *nip̄ʿal* perfect, e.g. *hawt̲iba > *hošib̲* 'he settled', *yahawt̲ibu > *yošib̲* 'he will settle'. A few verbs with original *y as their first radical are still distinguishable in the *hip̄ʿil*, where they develop like *hayniqat > *heníqå* 'she suckled'. In the *hɔp̄ʿal*, verbs with original *w contract the diphthong in their first syllable to *ū, as in *huwt̲aba > *hušab̲* 'he was settled'.

I-n

If the first radical of a verb is *n, it regularly assimilates to a following consonant, as in *yanpulu > *yippol* 'he will fall', although it is analogically restored in verbs with a guttural second radical. Most I-n verbs lose the first radical in the imperative and infinitive construct. These verbs, however, are only weak in languages that undergo n-assimilation, but not in other languages, like Arabic or Gəʿəz. This biradical formation of the imperative and the infinitive construct should therefore be attributed to the assimilation of the first radical in the prefix conjugation, which was analogically extended to the imperative: jussive *teqṭol : imperative *qṭol = jussive *tetten 'you may give' : imperative *tten > *ten* 'give' with degemination of the word-initial geminate. These imperative forms then gave rise to biradical infinitive construct forms through analogy with the I-w verbs (see above).

II=III

Most of the weak features of the geminate verbs are inherited from earlier stages of the language.[2] They show the result of two sound changes: the deletion of a short vowel between two identical consonants, as in *^{t}sababa > *^{t}sabba > *sa̲b* 'he turned', and the metathesis of a short vowel in order to produce a geminate, as in *ya^{t}sbubu > *ya^{t}subbu > *yåso̲b* 'he will turn'. In the perfect of the *qal*, *nip̄ʿal*, *hip̄ʿil*, and *hɔp̄ʿal*, a linking vowel *ā occurs between the stem and suffixes starting with a consonant; this *ā is affected by the Canaanite Shift, as in *^{t}sabbāta > *sabbóṭå* 'you turned'. Imperfect feminine plural forms of these stems insert a linking vowel -ɛ- after the stem through analogy with the III-wy verbs (see below): 3m.pl. *yebnū : 3f.pl. *tebnēnā = 3m.pl. *yasobbū : 3f.pl. *tasobbēnā. In the *qal* imperfect, *nip̄ʿal*

[2]The ideas expressed in the next two sections are argued more fully in Suchard (forthcoming).

perfect, and *hip̄ʿil*, the prefix vowel is in an open syllable, unlike in the strong verb. It is accordingly lengthened in pretonic position and reduced when further away from the stress. The *qal* and *hip̄ʿil* consecutive imperfect maintain the original penultimate stress in context, as in *wayyṓsɔb̲* 'and he turned' (see section 4.2). So-called Aramaising forms with a geminated first radical, like *yissob̲*, are based on analogy with the I-n verbs: *ten* 'give (m.sg.)' : *yitten* 'he will give' = *sob̲* 'turn (m.sg.)' : *yissob̲* 'he will turn'. Finally, the geminate verbs can either form a regular *piʿel*, with gemination of the second radical, or a *polel*, with *w inserted before the second radical, as in *ᵗsawbiba > *sob̲eb̲*. This is an analogy with the II-w verbs (see below): what was originally the second radical in these forms in a *qaṭlila form has been reanalysed as an infix, allowing the pattern to be extended to the geminate verbs as *qawlila. The presence of a long *ū in the *hɔp̄ʿal* prefix, as in *husab̲*, is also taken over from the II-wy verbs, while the *a* vowel in some *hip̄ʿil* perfects like *hep̄ar* 'he broke (pause)' is due to dissimilation from the preceding *e* (see chapter 6).

II-wy

The hollow verb is another category that inherited some weak features from Proto-Semitic. Wherever the first and second radical came into contact, the second radical was lost with lengthening of the following vowel, as in *yaqwumu > *yaqūmu > *yåqum* 'he will stand up'. When this resulted in *ā, as in a few stative *qal* imperfects and the *nip̄ʿal*, this vowel underwent the Canaanite Shift, as in *yibāṯu > *yeb̲oš̌*[3] 'he will be ashamed' and *nakāna > *nåk̲on* 'it is established'. This ō frequently surfaces as *u* in unstressed position. As in the geminate verbs, prefix vowels are more frequently in open syllables than in the strong verb, resulting in pretonic lengthening or reduction.

The *qal* perfect underwent triphthong contraction, resulting in a long *ā in the fientive verb and *ē or *ō in the stative verb (see chapter 5). In closed syllables, this vowel was shortened, as in *qawamta > *qāmta > *qamta > *qámtå* 'you (m.sg.) stood up'. The same contraction affected the *qal* participle, which has an identical stem to that of the perfect, e.g. *qåm* 'standing'. The imperfect feminine plural forms insert -ɛ- before their suffix, like the II=III verbs. The imperative has secondarily been adapted to the imperfect stem, replacing the expected *qum >

[3]With analogical retention of the prefix vowel, which should be lost in this position (see section 4.4).

***qom* by *qūm > *qum*, while the infinitive construct may simply have preserved the non-word-final form of the jussive stem, as in *qūmum > *qum*. As in some other categories of weak verbs, the consecutive imperfect preserves the penultimate stress in context, as in *wayyǻqɔm*. The infinitive absolute regularly contracts its triphthong, resulting in *qawāmum > *qawōmum > *qōmum > *qom*.

The same linking vowel *ā > *-o-* found in the geminate paradigm occurs in the *nip̄ʿal* and usually *hip̄ʿil* perfect of hollow verbs. In analogy with the geminate verb, the *nip̄ʿal* has extended its perfect stem to the prefix conjugation: perfect *nåsab̲* : imperfect *yissab̲* = perfect *nåk̲on* : imperfect *yikkon*. An analogy with the I-y verbs is found in the causative stems, where the similarity between II-wy forms like *hiqīma > *hēqīm 'he erected' and I-y forms like *hayṭiba > *hēṭīb 'he did well' caused the I-wy form of the *hɔp̄ʿal* to be extended to the II-wy paradigm, as in *huqam*. Another peculiarity of these verbs is their *hip̄ʿil* participle, formed like *meqim*. The historically short vowel in the first syllable results from loss of the original intervocalic *h with preservation of the preceding vowel in an open syllable: *muhaqīmum > *mihaqīmum (with dissimilation, see chapter 3) > *miqīmum > *meqim*.

Instead of stems with a geminated second radical, II-wy verbs usually form a *polel*, *polal*, and *hit̲polel*. The *o* in these forms goes back to a contracted diphthong *aw, where *w was originally the second radical of the II-w verbs, as in *qawmima > *qomem*; *qawmima, in turn, regularly goes back to the expected D-stem, *qawwima (Barth 1897).

III-wy

Most forms of verbs with a glide as their third radical were still strong in Proto-Northwest-Semitic.[4] Triphthong contraction (see chapter 5) affects the endings of the third person perfect, most imperfect forms and the active participle of verbs with *w or *y as a third radical in all stems. The regular outcome of this contraction is *-å* for forms ending in *-a, as in *banaya > *bånå* 'he built'; *-ɛ* for forms ending in *-u, as in *yabniyu > *yib̲nɛ* 'he will build' (including the masculine active participle, e.g. *bonɛ*); *-u* for forms ending in *-ū, as in *banayū > *bånu* 'they built'; and *-i* in the second person feminine imperfect, ending in *-ī, as in *tabniyī > *tib̲ni* 'you (f.sg.) will build'. The merger of the stative and fientive

[4]Some of the reconstructions in this section were first presented at the 12. Mainz International Colloquium on Ancient Hebrew, held 30 October through 1 November 2015 at the Johannes Gutenberg Universität Mainz. I thank the attending audience for their comments.

paradigms in most forms prompted the generalization of the stative paradigm, as can be seen from forms like *baniyta > *bånítå* 'you (m.sg.) built' also occurring in historically fientive verbs. The third person feminine perfect first regularly developed to *banayat > *banāt > *banat and then added an additional feminine ending, yielding *banatat > *bånṯå*. The feminine plural imperfect form *tiḇnɛ́nå*, if not originally stative, is due to analogy with the strong verb, where the feminine plural is formed by adding *-nå* to the singular.

In the jussive, as in Classical Arabic, the third radical was absent in unsuffixed forms, as in *yabni. The word-final vowel was regularly lost. The resulting word-final consonant cluster is sometimes retained, as in *yasti > *wayyešt* 'and he drank', and sometimes resolved by an epenthetic vowel, as in *yabni > *wayyíḇɛn* 'and he built'. The masculine singular imperative, which similarly goes back to a form with a lost third radical, regularly develops like *bni > *bne*. The infinitive absolute, *båno* for expected **bånoy*, is due to analogy with the strong verb: perfect *qåṭal* : infinitive *qåṭol* = perfect *bånå* : infinitive *båno*. The infinitive construct regularly develops from Proto-Northwest-Semitic *binātum > *bnoṯ* (see chapter 4 for the reduction of *i); this was originally a *qiṭlatum* verbal noun, with a pre-Proto-Semitic sound change turning *binyatum into *binātum. The passive participle regularly retains its glide, as in *banūyum > *bånuy*.

In the *niphʿal*, the first and second person perfect forms do not have *-i- < *-iy- after the second radical, but *-e- < *-ay-. The consecutive imperfect, like *wattiggål* 'and you (m.sg.) revealed', is analogically formed by simply removing the ending of the imperfect *tiggålɛ* 'you (m.sg.) will reveal', based on the model of the *qal*. Similarly, the word-final vowel is reintroduced in the imperative, *higgåle* 'reveal (m.sg.)', through analogy with the interchange between *sḡol* and *ṣere* in the *qal* imperfect and imperative. The same happens in the other derived stems, although regular forms like *^{t}ṣawwi > *ṣaw* 'command (m.sg.)' are also preserved. The occasional first person singular perfect forms with *e* in the *piʿel* and *hipʿil*, like *gilléṯi* 'I revealed' for normal *gillíṯi*, are best explained with Rubin (2001) as resulting from a dissimilatory sound change with a very limited conditioning.

III-ʾ

The peculiarities of verbs with *ʾ as their third radical are due to a fairly late elision of that consonant in syllable-final position, with compensatory lengthening of the preceding vowel, e.g. *qāraʾ > *qårå* 'he called', *qāraʾtī > *qårǻṯi* 'I called'. This is

a later sound change than that affecting words like *ra›sum > *roš*; in these verbs, *› was analogically restored and maintained until much later. Other deviations from the strong paradigm are due to analogy with the III-wy paradigm.