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3 The Canaanite Shift

3.1 Introduction

The Canaanite Shift is one of the better-known sound changes to have affected Biblical Hebrew. Phonetically, it is uncomplicated: at some point, some cases of Proto-Northwest-Semitic *ā shifted to *ō in an ancestor of Hebrew, resulting in correspondences of Biblical Hebrew *o*, as in *šālom* ‘well-being’, to reflexes of *ā in other languages, as in Aramaic *šlām*, Arabic *salāmun*, Gəʿəz *salām*, and Akkadian /*šalāmu*/. As Proto-Northwest-Semitic did not have a phonemic *ō vowel, this change of *ā > *ō would originally have been phonetic, only reaching a phonemic status when new cases of *ā were created by the contraction of triphthongs (see below and chapter 5). Besides Hebrew, Phoenician and Amarna Canaanite also attest the operation of this sound change, hence its identification as a shared Canaanite innovation. As the Phoenician and Amarna Canaanite data are much more sparse than those attested in Hebrew, they do not contribute anything to the investigation of the Canaanite Shift’s conditioning (Suchard 2012), and consequently, they will not be discussed in this chapter.

The controversy surrounding the Canaanite Shift is due to a number of apparent exceptions, where ā-vowels in other languages correspond to Biblical Hebrew *ā*, not ***o*. As sound laws should be exceptionless, this has led to two approaches which aim to resolve this problem. Either the Canaanite Shift is given a relatively restrictive conditioning, which then, together with analogy, explains the anomalous cases of *ā* for expected ***o*, or the reconstructions of the supposed counterexamples are revised, showing that they did not contain *ā at the time of the Canaanite Shift and could therefore not have been affected by it. After a brief consideration of various previous proposals, we will attempt to combine these approaches, first making sure that only words and grammatical categories with reconstructible *ā are taken into account, and then establishing phonetically plausible conditions which adequately explain the reflex of *ā in these words.

3.2 Previous suggestions

3.2.1 Stress-conditioned

Like many after him, Brockelmann (1908: 142–143) holds that the Canaanite Shift only affected stressed vowels, formulating it as *á > *ó. Unstressed and secondarily stressed syllables kept *ā, giving rise to interchanges such as *káka* ‘thus’ but *ko* ‘idem’, *mā* ‘what’ but *kāmóni* ‘like me’, etc. Nouns would originally have shown a similar interchange, as the position of the stress varied throughout the paradigm, but either the *ā or the *ō was then generalized. This then resulted in some apparent exceptions like *ṭabbāḥ* ‘cook’, formed after the plural *ṭabbāḥim* < *ṭabbāḥīma. The observation that the Canaanite Shift took place in the *qal* active participle *qoṭel*, as well as a few other forms that show an *o* which is never stressed in Biblical Hebrew, leads Brockelmann to posit the same stress system as is found in Classical Arabic (but see chapter 4) for Proto-Canaanite, in which the stress falls on the last heavy (i.e. closed or containing a long vowel) non-final syllable of a word, or, if the word does not contain any heavy syllables, on the first syllable. Thus, *qāṭilum would have an accented *á, which then underwent the Canaanite Shift.

Brockelmann is inconsistent in his explanation of the *á* in the perfect of II-wy and III-wy roots, like *qām* ‘he stood’ and *gālā* ‘he uncovered’. On page 142, he attributes this seeming non-operation of the Canaanite Shift to the weaker stress that verbs bore at the time, but further on in the same work, he gives a different explanation: *qām* has restored its *ā based on analogy with forms like *qámtā* ‘you (m.sg.) stood up’ (p. 613), and the final *ā of *gālā* was ‘anceps’, i.e. neither quite long nor short, and therefore did not undergo the Canaanite Shift, like the final vowel in *attā* ‘you (m.sg.)’ and the second person masculine singular personal suffix *-kā* (p. 627; see chapter 8). Finally, he notes that the Canaanite Shift did not occur in words where *ā was preceded by a round vowel, viz. *u or *ō, citing words such as *qorbān* ‘offering’ and *tošāb* ‘resident alien’ (p. 255). Thus, he believes in a Canaanite Shift that was both conditioned by stress and by preceding vowels.

The most problematic part of Brockelmann’s account is his explanation (or rather, explanations) of the II-wy and III-wy perfect forms. It seems unlikely that verbs like *qām* and *gālā* would have been less prominently stressed than proclitic prepositions like *kmo* ‘like’ < *kamā; also note that pretonic lengthening did not operate in *kamā, which would otherwise have yielded ***kāmo*, while it did take

place in *galā > *gālā > gālā (see chapter 4). The alternative explanations are no less problematic. Brockelmann attributes the preservation or restoration of *ā in qām to analogy with the first and second person forms like qámtā, but this analogy cannot have been modeled on the strong verb, as this should have yielded a different form: *qaṭalta (2m.sg.pf.) : *qaṭala (3m.sg.pf.) = *qamta (2m.sg.pf.) : *qama (3m.sg.pf.) > **qam, not *qāma > qām. A similar alternation between a long vowel in an originally open syllable and a short vowel in an originally closed one does occur in the imperfect of II-wy verbs, e.g. tāqúmu ‘you (m.pl.) will stand up’ < *taqūmū besides *tāqómnā¹ ‘you (f.pl.) will stand up’ < *taqumna, but this does not seem a very likely model for an analogical innovation in the perfect. Indeed, if the perfect paradigm of the II-wy verbs should have undergone analogical leveling, as Brockelmann, suggests, we may wonder why the third person forms should not have extended their vowel to the first and second persons, resulting in **qom ‘he stood up’, **qómtā ‘you (m.sg.) stood up’, etc.; a very similar change does seem to have affected the III-ṽ verbs, where analogy with the third person forms like *qaraṽa ‘he called’ restored the sequence *-aṽ- in closed syllables as in *qaraṽta > qárátā ‘you (m.sg.) called’, which should otherwise have yielded *qaraṽta > *qarāta > **qárótā, like *raṽsum > *rāsum > roš (Birkeland 1940: 40). For the problems associated with the concept of anceps vowels, which Brockelmann posits as an alternative explanation for the retention of word-final -ā in gālā, see chapter 8.

More or less the same formulation of the Canaanite Shift is adopted by Bergsträsser (1918: 143), who additionally names Aramaic influence as a source of preserved *ā. On page 145, he makes the important point that unstressed *ō (which often derives from *ā) occasionally appears as *u* in Biblical Hebrew, cf. forms like nāsoḡ ‘he turned back’ besides nsuḡóti ‘I turned back’ or mātōq ‘sweet (m.sg.)’ besides mtuqā ‘idem (f.sg.)’. In these forms, he sees the traces of a regular sound law which has largely been cancelled out by the effects of analogy. No cases of *ō > *u* are attested in word-initial syllables, cf. the many forms with unstressed *o* like the *qal* active participle qoṭel, where it cannot have been analogically restored; hence, we may tentatively state that *ō became *ū in non-initial unstressed syllables. Furthermore, Bergsträsser disagrees with Brockelmann on the exact prehistory of II-wy perfects like qām, which he considers unexplained. More

¹Not actually attested, but cf. forms like wattāšóbnā ‘and they returned’ < *(wa-)taṭubna from šwb ‘to return’.

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recently, Blau (2010: 48, 136) has also posited a stress-conditioned Canaanite Shift.

If the shift was indeed conditioned by the position of the stress, we may expect to find alternations between (originally) stressed *o* and unstressed *ā*. As we shall see, however, no such alternations can unambiguously be identified, a fact which has led scholars to posit a non-stress-conditioned formulation of the Canaanite Shift.

3.2.2 Unconditioned

Birkeland (1940) discounts some of Brockelmann's most important counterexamples of the Canaanite Shift. Based on irregular correspondences and evidence from Arabic and Phoenician spellings, he explains II-wy and III-wy perfect forms like *qām* and *gālā* as relatively late contractions from triradical forms like *qawama and *galawa, which postdate the operation of the Canaanite Shift (pp. 41–42; see chapter 5 for a discussion of this contraction). Word-final cases of -ā, in Birkeland's view, are late restitutions, resulting from dialect borrowing (p. 48, see chapter 8). Having thus eliminated most of the counterexamples that motivated the proponents of stress conditioning, he posits an unconditioned shift of *ā > *ō (ibid.). This explanation is adopted by Christian (1953), Rabin (1960b), and Dolgopolsky (1999), among others; the latter proposes a slightly different development of *a to explain the presence of the ָ in Samaritan Hebrew words like *rēʾoš* 'head' < *raʾsum.

The arguments given to explain the non-operation of the Canaanite Shift in some forms are compelling. Unfortunately, the proponents of an unconditioned change do not explicitly address the issue of nouns which must go back to forms with *ā, yet have not undergone the Canaanite Shift, like *tošāḥ*. This leads Blau (2010: 136) to rightly criticize these unconditioned accounts of the Canaanite Shift for their lack of explanatory power.

3.2.3 Bauer & Leander (1922)

As was discussed in the introduction to this work, Bauer & Leander (1922) treat the cases of apparently preserved *ā as evidence for their theory of Hebrew as a mixed language. As they can simply explain every non-occurrence of the Canaanite Shift as a later intrusion from the 'young' Semitic stratum spoken by the Israelite

invaders, many problematic forms that warrant special treatment for Brockelmann (1908) are dismissed, although his formulation of the Canaanite Shift in general is retained and held to have only applied to the ‘old’, pre-Israelite Canaanite stratum in Hebrew. Again, there is no good evidence to suppose Hebrew was a mixed language, so this explanation cannot be accepted.

3.2.4 Summary

The main point of contention in the debate surrounding the Canaanite Shift is whether it was stress-conditioned. Of the proposals that have been made so far, those that deny the relevance of the stress leave some of the material unexplained. Those scholars that posit stress conditioning, however, largely base themselves on forms that probably did not have **ā* at the time of the Canaanite Shift’s operation. In the next section, we will examine the possible examples and counterexamples of the Canaanite Shift to see whether stress conditioning is truly necessary to account for the data, and what other conditioning factors may be identified.

3.3 Data

In this section, we will consider the possible occurrences of Proto-Semitic (**a* >) **ā* > Canaanite **ō* and (**a* >) **ā* > **ā*. To ascertain that the words and patterns we will be looking at contained **ā* at the time of the Canaanite Shift, we must exclude other sources of Biblical Hebrew *o* and *ā*. Alternative sources of Biblical Hebrew *o* are **u* in stressed syllables, as in the imperfect **yaqtulu* > *yiqtol*; possibly **u* in some pretonic syllables in pausal forms, as in **yaqtulūna* > *yiqtolun* (see chapter 4); **u* before originally geminated gutturals and **r*, as in **yuburraku* > *yborak* ‘he will be blessed’; syllable-final **aw* in most positions (see chapter 5 for the conditioning), as in **ṭawrum* > *šor* ‘bull’; **ṽwu* and **ṽyu*, as in **bawuṭa* > *boš* ‘he was ashamed’ (see chapter 5); and loanwords containing **ō* or **o*. Alternative sources of Biblical Hebrew *ā* are **a* which has undergone tonic, pretonic or pausal lengthening (see chapter 4), as in **dabarum* > *dābār* ‘word’; **a* before originally geminated gutturals and **r*, as in **ra‘atum* > *rā‘ā* ‘evil’; **ṽwa* and **ṽya*, as in **‘iyarīma* > *‘arim* ‘cities’ (see chapter 5); and loanwords containig **ā*, especially from Aramaic.

Table 3.1: *qāṭum nominals

BH	meaning	cognates
ʾon	‘virility’	Ug. <an> ‘power’
ʾor	‘light’	Ug. <ar>
goy	‘nation’	Mari Akk. /gāʾum/ ‘gang’ (ws loan)
dod	‘beloved’, ‘uncle’	Akk. /dādu/ ‘beloved’, Arab. <i>dādun</i> ‘foster-father’
dor	‘generation’	Aram. <i>dār</i>
ḥol	‘sand’	Aram. <i>ḥāl</i> ‘sand’, Arab. <i>ḥāl</i> ‘mud’
ṭob	‘good’	Aram. <i>ṭāb</i>
kos	‘cup’	Aram. <i>kās</i> , Arab. <i>kaʾsun</i> , Akk. /kāsu/ (see text)
qol	‘voice’	Aram. G _o . <i>qāl</i>
šoq	‘thigh’	Aram. <i>šāq</i> , Arab. <i>sāqun</i>

In order to be sure that a certain vowel goes back to *ā, then, we must show that alternative reconstructions are implausible on phonological or morphological grounds, and that there is no reason to assume that the word it occurs in has been borrowed. Alternatively, a reconstruction with *ā can be supported by cognate evidence, which will mainly be taken from Aramaic (in its different dialects), Classical Arabic, G_oz, and Akkadian. All of these languages preserve *ā as ā, but here too, ā has alternative sources. In Aramaic, ā (or ʾ) can also go back to *V̄wa or *V̄ya (Beyer 1984: 83). Arabic ā can reflect *awV̄ or *ayV̄ in open syllables.² G_oz ā can come from *a when adjacent to a guttural, as in *baḥr > *bāḥr* ‘sea’ (Tropper 2002: 36–38). In Akkadian, the loss of Proto-Semitic gutturals (except for *ḥ), *w and *y lengthened *a > /ā/ in a number of circumstances (Huehnergard 1997: 38–39); the most relevant for current purposes is that Old Babylonian /ā/ can derive from *V̄?A, ? representing *, *h, *ḡ, *w or *y, and A representing *a or *ā.

3.3.1 *ā > o

*qāṭum

The words in table 3.1 can securely be reconstructed as coming from a *qāṭum pattern.

²Cf. Classical Arabic *māta*, Biblical Hebrew *meṭ*, G_oz *mota* ‘he died’, all < *mawita (Suchard forthcoming).

Sub voce *hoāḥ* ‘thorn’, Koehler & Baumgartner (1994–2001: 296) cite an Akkadian cognate /ḥāḥu/, but this is not listed in the CAD or Von Soden (1965–1981). A possibly related form /ḥaḥi(n)nu/ (Von Soden) or /ḥaḥīnu/ (CAD) ‘thorny plant’ is attested, though. Akkadian /ḥaḥḥu/ has been interpreted as an Aramaic loanword, reflecting a putative Aramaic *ḥaḥḥ ‘hook’, but the meaning of the Akkadian is uncertain (Abraham & Sokoloff 2011: 33). Jewish Babylonian Aramaic and Syriac, on the other hand, have *hoḥā*/*hōḥā* as cognates. The alternate Biblical Hebrew form *ḥāḥ*, plural *ḥaḥim*, seemingly < *ḥaḥḥum, shows that the word does not come from a II-w root. This rules out the reconstructions *ḥawḥum and *ḥawuḥum, so it seems safest to assume a *quṭṭum pattern for the Northwest Semitic form of this word.

ḥop ‘shore’ might be compared to Arabic *ḥāfatun* ‘edge’, but it is more plausibly connected to Ugaritic <ḥp y[m]> ‘seashore’ (KTU 1.3ii.7). As the Ugaritic <ḥ> cannot correspond to the Arabic ḥ, the apparent cognate must be rejected, and the original vowel in Biblical Hebrew *ḥop* remains uncertain.

kos ‘cup’ could come from original *kaʷsu, as Arabic *kaʷsun* suggests. As will be seen below, however, Biblical Hebrew *o* that demonstrably derives from original *aʷ is usually spelled with the etymological ʾāleḫ in other cases. Thus, the attested spelling <kws>, rather than **<kʷs>, points to *kāʷsum, in which case the ʷ in the Arabic form would be secondary. Akkadian /kāsu/ is compatible with both reconstructions, but Aramaic *kās* points to *kāʷsum, as *kaʷsum would have yielded Aramaic ***kēs* (Beyer 1984: 138). In either case, we should expect the *o* in Biblical Hebrew *kos* to be the result of the Canaanite Shift.

The etymologies of *koāḥ* ‘might’, *loṭ* ‘covering’, *moṭ* ‘bar’, *noāḥ* ‘rest’, *noḫ* ‘peak?’, *soḏ* ‘council’, ʿoḏ ‘still’, ʿor ‘skin’, and *tor* ‘turtle dove’ are uncertain, so these words could come from either *qāṭu, *qaw(u)ṭu or *quṭ(t)u forms.

*qaṭālum

Secure *qaṭāl(at)um forms can be found in table 3.2.

šmonē ‘eight’ is included in this section, even though it is not strictly a *qaṭālum nominal. Based on the West Semitic forms, this numeral should be reconstructed as *ṭamānīyum. The initial /s-/ instead of **/š-/ in Akkadian is irregular.

Fox (2003: 184) states that “a few *qatul adjectives have completely merged, by analogy, with *qatāl, so that vowel reduction does not occur, for example, in the construct plural *qatōlē*”, listing *gādol* ‘large’, *ṭāhor* ‘pure’, *qādoš* ‘holy’, *qārob* ‘near’,

Table 3.2: *qaṭālum nominals

BH	meaning	cognates
ʾāton	‘she-ass’	Aram. ʾattān, Arab. ʾatānun, Akk. /atānu/
kāḃod	‘glory’	(see text)
ʿāḃodā*	‘service’	Arab. ʿibādatun (see text)
ʿārod	‘wild ass’	Aram. ʿrād
śʿorā*	‘barley’	Aram. sʿārā
šālom	‘well-being’	Aram. šlām, Arab. salāmun, Gə. salām, Akk. /šalāmu/
šāloš	‘three’	Aram. tlāt, Arab. ʿtalātun, Gə. šalās, Akk. /šalāš/
šmonε	‘eight’	Aram. tmānā, Arab. ʿtamānin, Gə. samāni, Akk. /samāne/ (see text)

* The original quality of the first vowel cannot be determined.

ḥāson ‘strong’, and rāḥoq ‘far’. As *qaṭālum adjectives with similar semantics are found in Arabic and Gəʿəz (pp. 181 and 183, respectively), however, and the Hebrew adjectives he lists have no clear *qaṭālum cognates, we should not completely rule out the possibility that they reflect *qaṭālum, as Fox concedes. On the other hand, yātom ‘fatherless boy’ also behaves like a *qaṭālum noun, but Syriac yaṭmā shows it was originally *qaṭulm.

The first vowel of ʿāḃodā ‘service’ cannot be securely reconstructed; while the Arabic cognate ʿibādatun has an *i* in this position, Arabic qīṭālun can go back to both *qīṭālum and *qaṭālum (Fox 2003: 180). ʾādon ‘lord’ is probably originally *ad-ānum, i.e. *ad- with the *-ānum suffix (see p. 77 below), as is shown by the alternation between Ugaritic <ad> and <adn> (also attested in the syllabic spelling *a-da-nu*) ‘father, lord’.

While they do show an *o* that is preserved in unstressed, open syllables, ʾāḥor ‘back’, bśorā ‘report’, ḥāḡore ‘girded’ (construct plural), māzor ‘boil’, *nVkoāḥ ‘straight(ness)’ (only attested with suffixes) and qṭorā ‘sacrificial smoke’ could all be either *qVṭāl(at)u or *qVṭul(at)u forms. In the latter case, they would have originally shown pretonic gemination of the consonant following their *u (see chapter 4), which was later degeminated with compensatory lengthening of *o to *ō. kāḃod ‘glory’, however, has a non-reducing *o* that cannot be due to a following guttural, and since it is clearly connected to the attested root *kbd* ‘to be heavy,

respected', a *qaṭālu reconstruction seems certain. *gāḥon* 'belly (of reptile)' also preserves its *ḥolem*, but as it is not derived from an attested Biblical Hebrew root, its etymology is somewhat unsure.

As there are few *qaṭulum nouns attested in Semitic (only unambiguously attested in Arabic; Fox 2003: 173ff.), *dārom* 'south', *ʿarob* 'noxious insects', *ʿāsor* 'set of ten' and *rāzon* 'high official' are more likely to be *qaṭālum forms, but this remains uncertain, as they are only attested without suffixes.

Wagner (1966: 127) considers the possibility that *bāḡodā* 'treacherous' is a loanword or a secondary creation based on a borrowing of the uniquely Aramaic agent noun pattern *qāṭōl*; this would explain its unreduced *ā* in the first syllable. Semantically, the same explanation might hold for *bāḥon* 'assayer' and *ḥāmoš* and *ʿāšoq*, both 'oppressor'. These three words are all attested only once or twice, in literary prophetic texts. Two other *hapax legomena* occur in Ezek 27:24, a prophecy against Tyre: *bromim* 'two-coloured fabric' and *glome* 'garments' (construct state plural). Given the context and their meaning, these might be loanwords.

*qiṭālum / quṭālum

These two patterns have largely merged in Biblical Hebrew and are therefore treated under the same heading. As above, securely reconstructed *qiṭālum, *quṭālum and similar forms can be found in table 3.3.

It is not clear whether the quality of the reduced *ě* in *ʿənoš* 'man(kind)' must go back to **i* or could also originate in **u*. Both vowels are attested in the cognates listed. As Ugaritic, a Northwest Semitic language, is genetically closer to Hebrew than Arabic, we may tentatively adopt the vowel reflected in the former language and reconstruct the precursor to the Hebrew form as **ināsum*. *broš* 'juniper' has the Aramaic cognate *brōt*, but the Aramaic *ō* is probably an independent development from **ā* which occurred after **r* in some cases (Beyer 1984: 137). *gāron* 'throat' and *lāšon* 'tongue' go back to **garānum* and **lasānum*, respectively, innovative forms Hebrew shares with Ugaritic and possibly Aramaic, but which are distinct from their cognates in the other branches of Semitic, reflecting presumably older **girānum* and **lisānum*; the latter form is also reflected in Punic *alsounalph* 'oxtongue (a kind of plant)', with reduction of **i* (Steiner 2001).³ *lḥonā* 'incense', a widely borrowed *Kulturwort*, is also reflected by borrowed forms outside of Semitic. Mainly based on these forms like Greek *λίβανος* and Beja *libān*, Müller

³I thank Dr. C. Stadel for pointing this article out to me.

Table 3.3: *qitālum and *quṭālum nominals

BH	meaning	cognates
ʾāḃoy	‘uneasiness’	*
ʾezor	‘loincloth’	Arab. ʾizārūn
ʾēlohim	‘God, god(s)’	Aram. ʾēlāh/ʾalāhā, Ug. <ilh>, Arab. ʾilāhun
ʾēnoš	‘man(kind)’	Aram. ʾenāš, Ug. <inš>, Arab. ʾunāsūn*
bloye	‘waste (construct)’	*
broš	‘juniper’	Akk. /burāšu/*
gāron	‘throat’	Arab. jirānun, Akk. /girānu/*
(ʾε)zroāḥ	‘arm’	Aram. drāḥ, Arab. dirāḥun
ḥāḃol(āto)	‘(his) pledge’	*
ḥālom	‘dream’	*
ḥāmōr	‘donkey’	Aram. ḥmār, Arab. ḥimārūn, Akk. /imēru/
ysod	‘foundation’	Syr. ʾissādā, Arab. wisādun ‘pillow’
lḃonā	‘incense’	Arab. lubānun, Tigrīña ləbanāt*
lāšōn	‘tongue’	Aram. liššān, Syll. Ug. la-ša-nu*
ʿāḃot	‘rope’	*
ploni	‘someone’	Aram. plān, Arab. fulānun*
ptote	‘morsels (construct)’	Arab. futātun
rḥob	‘open place’	*
šrok	‘sandal-thong (construct)’	Arab. širākun
thom	‘primeval ocean’	Akk. /tiʾāmtu/
ʾεt-/t-mol	‘yesterday’	Gə. təmāləm, Akk. /timāli/

*See text.

(1974) reconstructs the source word as *libān, an Ancient South Arabian term, in his opinion. The Hebrew formation with an added feminine ending is most closely matched by the Tigrīña cognate, *ləbanāt*; both forms can be reconstructed as *libānat-. The *u* in the Arabic form may be due to assimilation to the following bilabial. *ploni* ‘someone’ has additional material after their third radical, but Arabic *fulānun* points to an original *qutālum form.

ʾāḇoy ‘uneasiness’, from the root ʾby, must be reconstructed with *ā as its second vowel, as *y and the surrounding vowels would have contracted to a monophthong if the preceding vowel were short (see chapter 5). For the same reason, *bloye* ‘waste (construct)’ must also be reconstructed with *ā in the second syllable. That the *holem* in *ḥāḇol* ‘pledge’ is historically long and thus derives from *ā is shown by its preservation in the suffixed feminine form *ḥāḇolāto* ‘his pledge’; non-reduction of *o* is also seen in *ḥālom* ‘dream’, ʾāḇot ‘rope’ and *rḥob* ‘open place’. The same cannot be said for *ḥāḡor* and *ḥāḡorā* ‘belt’, *ṭhorim* ‘hemorrhoids’, *mlo(ʾ)* ‘contents’ or *ṣror* ‘pouch’, though, as the *o* precedes a *reš* or guttural here and could therefore be secondary.

While *nḥuṣā* ‘bronze’ could come from *nuḥāsatum (cf. Arabic *nuḥāsun*), with further development of the unstressed *ā > *ō > *u*, it seems more likely that the Biblical Hebrew words derives from a form with an *ū in the second syllable, as is supported by the more common synonym *nḥóšet* < *nVḥustum (possibly < *nVḥūstum). A semantically similar example of a *quṭālum pattern being recast as *qVṭūlum in Biblical Hebrew is found in *ḥāruṣ* ‘gold’ besides Akkadian /ḥurāṣu/. Finally, Wagner (1966: 18) lists ʾēḡoz ‘nut’ as an Aramaic loanword, while *dror* ‘manumission’ is a loan from Akkadian /-(an)durāru/: the development of the latter can be traced throughout the Akkadian language, while Biblical Hebrew *dror* appears isolated, without an associated root (Mankowski 2000: 50). The fact that Akkadian /ā/ was borrowed as *ō shows that the speakers of Hebrew had some intuitive grasp of the correspondence of Akkadian /ā/ to Hebrew *ō. Alternatively, Mankowski (ibid.) suggests a loan extension of a native Hebrew word meaning ‘liquid’ based on the meaning of the cognate Akkadian word.

*qVṭṭālum

A small group of nominals which mainly describe human characteristics show gemination of the second radical and a following *o* which is not reduced when unstressed; this group includes *gibbor* ‘mighty (one), warrior’, *yilloḏ* ‘newborn’,

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yissor ‘reprover’, and *šikkor* ‘drunk’. The lack of gemination in the *r* of Samaritan Hebrew *aggibbūrəm* (Tiberian *haggibborim*) ‘the warriors’ and the fact that *yilloḏim* ‘newborn(s)’ shows an unreduced *holem* before a non-guttural consonant suggest that these words should be reconstructed as *qVṭṭālum.

The quality of the first vowel is hard to determine. Traditionally (e.g. Bauer & Leander 1922: 478–479), this small category has been connected with the *qaṭṭālum nouns found in many other Semitic languages (see below), e.g. Syriac *gabbārā* ‘warrior’. Fox (2003: 276), however, follows Huehnergard (1992: 222, n. 55) in reconstructing them as *quṭṭulum. The attested *hireq* in the first syllable would then be the result of back vowel dissimilation: *quṭṭul- > *qiṭṭul- > *qiṭṭol*.

Both reconstructions have their merits and problems. The *qaṭṭālum reconstruction is supported by the nice correspondence between Hebrew *gibbor* and Syriac *gabbārā* ‘warrior’, but no other correspondences; *quṭṭulum, too, lacks convincing cognate pairs. Fox and Huehnergard object that a *qaṭṭālum reconstruction cannot explain the *hireq* found in the Biblical Hebrew reflex of the pattern, *qiṭṭol*, but their proposed *quṭṭulum does not match the attested plural, *qiṭṭolim*, and they must resort to an explanation based on analogy. Finally, we should not exclude the possibility that the vowel goes back to an original *i, as is the case in the early loanword *kinnor* ‘zither’, ultimately from an Indian word like Telugu *kinnāra*. *qiṭṭālum is a reconstructable pattern, and the negative meaning of these nouns in Arabic (e.g. *ḥinnābun* ‘stupid, thick-nosed’; Fox 2003: 279) fits *šikkor* ‘drunk’, at least. For ease of reference, these four words and *kinnor* are listed among the possible *qVṭṭālum nominals in table 3.4, but their reconstruction with *ā cannot be ascertained.

While *šinnor* ‘pipe?’ would formally seem to belong to this group, its exact meaning and etymology are unclear (Koehler & Baumgartner 1994–2001: 1038), and it will therefore be excluded. *rimmon* ‘pomegranate’ also does not match the other words semantically, but its reconstruction as *qVṭṭālum is supported by Aramaic *rummān*. Both words probably derive from either *quṭṭālum (with dissimilation of *rumm- > *rimm- in Hebrew) or *qiṭṭālum (with assimilation of *rimm- > *rumm- in Aramaic).

This leaves us with two *qaṭṭol* nouns with one attestation each. *qanno* ‘jealous’ and *rattoq* ‘chain’ can both plausibly be interpreted as fossilized *pi·el* infinitives (see below), in which case *ʿel-qanno* ‘a jealous God’ in Josh 24:19 would actually be ‘a God of being jealous’. *rattoq* is textually uncertain and may be a corrupt form.

Table 3.4: possible *qVṭṭālum nominals

BH	meaning
<i>gibbor</i>	‘mighty, warrior’
<i>yilloḏ</i>	‘newborn’
<i>yissor</i>	‘reprover’
<i>kinnor</i>	‘zither’
<i>rimmon</i>	‘pomegranate’
<i>šikkor</i>	‘drunk’

Productive categories

There are also a number of productive morphemes and noun classes that show an *o* for older *ā. Due to their productivity, they offer less information about the precise conditioning of the sound change, but they are still useful.

In nominal derivation, there are several patterns with *m*-prefixes. *mVqṭalum patterns of II-wy roots have undergone a sound change *CWa > *Cā (with *W* representing *w and *y), resulting in *mVqālum, probably already in Proto-Semitic (Brockelmann 1908: 378). For *maqṭalum place nouns, for instance, we find Aramaic *mqām* from the root *qwm*, Arabic *makānun* and G_əʕəz *makān* from *kwn*, all meaning ‘place’. The Aramaic word’s Biblical Hebrew cognate, *māqom* ‘place’, shows that these *maqālum words underwent the Canaanite Shift in Hebrew. A list of attested words can be found in table 3.5; some words that do not show a strong semantic link with the *maqṭalum category and have *r* or a guttural as their third radical have been excluded, as they could also derive from *maqṭullum > *maqūllum > *maqullum.

A similar category is that of *mVqṭālum nouns. These are less frequent than *m*-prefixed patterns with a short second vowel, but they do occur, e.g. Syriac *maḡtāšā* ‘blow’ or Arabic *miḡtāḡun* ‘key’. Unless the word is attested with suffixes in Biblical Hebrew, this category is indistinguishable from *mVqṭulum nouns, as is also the case if the *ḡolem* precedes a guttural or *r*. Only three words can thus be shown to be derived from a *mVqṭālum pattern: *maḡmon* ‘treasure’, *maḡob* ‘pain’, and *miḡšol* ‘obstacle’.

A final but very frequent example of the Canaanite Shift operating on a derivational morpheme is the suffix *-ānum, with several different meanings that need not concern us here. As will be seen below, this suffix is sometimes found in

Table 3.5: *mVq̄talu(m) nouns from II-wy roots

BH	meaning	BH	meaning
<i>mā·or</i>	‘luminary’	<i>mnorā</i>	‘lampstand’
<i>mābo</i>	‘entrance’	<i>mā·oḡ</i>	‘bread?’
<i>mādon</i>	‘strife’	<i>mā·on</i>	‘dwelling’
<i>m̄dokā</i>	‘mortar’	<i>m·onā</i>	‘dwelling’
<i>māzon</i>	‘food’	<i>māṣod</i>	‘hunting net’
<i>māḥol</i>	‘round dance’	<i>mṣodā</i>	‘net’
<i>mḥolā</i>	‘round dance’	<i>mṣolā</i>	‘depth’
<i>mākōn</i>	‘site’	<i>māṣoq</i>	‘stress’
<i>m̄konā</i>	‘base’	<i>māṣor</i>	‘stress, siege’
<i>mālon</i>	‘place to stay the night’	<i>māqom</i>	‘place’
<i>mmote</i>	‘death (construct)’	<i>māqor</i>	‘well, source’
<i>mnod</i>	‘shaking (construct)’	<i>mārom</i>	‘height’
<i>mānos</i>	‘refuge’	<i>māsoś</i>	‘joy’
<i>mānor</i>	‘beam’	<i>māšoṭ</i>	‘oar’

Biblical Hebrew as *-ān*, but its more common reflex is *-on*. Table 3.6 lists the attested words with *-on*.

Besides derived categories, there are a few cases of the Canaanite Shift operating in nominal inflection and verbal conjugation. In the nominals, there is the extremely frequent plural suffix *-ot* < **-ātum*, cf. Aramaic (construct state) *-āt*, Arabic *-ātun*, G_əʕz *-āt*, and Akkadian /*-ātu*/. This plural suffix, which is almost always attached to feminine nominals, is so common that it would be very impractical to list all of its occurrences; besides, it never occurs with *ā* < **ā*, so it cannot tell us all that much about the conditioning of the Canaanite Shift.

The same goes for two technically nominal patterns which are strongly associated with the verb. Firstly, there is the *qal* active participle *qoṭel* < **qāṭilum*, cf. Aramaic *qāṭel*, Arabic *qāṭilun*, Akkadian /*qāṭilu*/, all active participles, and G_əʕz agent nominals like *ṣādəq* ‘just’ (Fox 2003: 239). There are also some Biblical Hebrew **qāṭilum* nouns which are not (or not transparently) related to a verb, such as *oyeb* ‘enemy’ and *boqer* ‘herdsman’. Secondly, there is the *qal* infinitive absolute *qāṭol* < **qāṭālum*, cf. Akkadian /*qāṭālu*/.⁴ In Biblical Hebrew, other verbal stems form an infinitive absolute in *-ṭol* which was analogically created on this

⁴While this reconstruction is not certain (Strich 2013), it will be maintained in the present work.

Table 3.6: *-ānum nominals

BH	meaning	BH	meaning
ʾābaddon	‘perdition’	maššāʾon	‘deception’
ʾēbyon	‘poor (m.sg.)’	niqqāyon	‘innocence’
ʾāgmon	‘rush’	sillon	‘thorn’
ʾadmoni	‘red (m.sg.)’	siryono	‘his coat of mail’
ʾahāron	‘later (m.sg.)’	ʾiwwāron	‘loss of sight’
ʾišon	‘pupil (of eye)’	ʾizbonáyik	‘your (f.sg.) merchandise’
ʾelon	‘big tree’	ʾēlyon	‘highest (m.sg.)’
ʾallon	‘big tree’	ʾiššābon	‘pain’
ʾalmoni	‘someone’	ʾāqallāton	‘crooked (m.sg.)’
ʾāson	‘accident’	ʾerābon	‘pledge’
bizzāyon	‘contempt’	ʾermon	‘plane tree’
biṭṭāhon	‘confidence’	ʾiššāron	‘tenth part’
biṭron	‘gully?’	pidyon	‘ransom (construct)’
gāʾon	‘pride’	paʾāmon	‘bell’
gillāyon	‘hand mirror?’	piqqādon	‘deposit’
daʾābon	‘despair (construct)’	prāzon	‘country dwellers’
derāʾon	‘abhorrence’	piṭhon	‘reason to speak (construct)’
higgāyon	‘whispering’	piṭron	‘interpretation (construct)’
heronek	‘your (f.sg.) pregnancy’	šawwronáyik	‘your (f.sg.) necklaces (pause)’
herāyon	‘conception’	šāyon	‘waterless country’
zādon	‘insolence’	šimmāʾon	‘thirsty ground’
zedonim	‘running high (m.pl.)’	šipʾoni	‘viper’
zikkāron	‘remembrance’	qadmonā	‘eastern (f.sg.)’
ḥēbyon	‘veil’	qadmoni	‘eastern (m.sg.)’
ḥāzon	‘vision’	qiṣonā	‘outermost (f.sg.)’
ḥizzāyon	‘vision’	qiqālon	‘disgrace’
ḥiṣon	‘outer’	qālon	‘dishonour’
ḥallon	‘window’	qillšon	‘trident’
ḥēsron	‘want’	rišon	‘first (m.sg.)’
ḥippāzon	‘haste’	šāʾon	‘waste’
ḥarbone	‘heat (construct)’	šāʾon	‘din’
ḥāron	‘heat, anger’	šibbāron	‘breaking’
ḥermonim	‘holy places’	šabbāton	‘sabbatical’
ḥēšbon	‘account’	šiggāyon	‘dirge?’
yāḡon	‘grief’	šiggāʾon	‘madness’
yiddʾoni	‘soothsayer’	šiddāpon	‘scorching’
yerāqon	‘paleness’	šikkāron	‘drunkenness’
yšimon	‘wilderness’	šilton	‘mastery’
yitron	‘profit’	šalmonim	‘gifts’
kiḏon	‘dart’	šimmāmon	‘horror’
killāyon	‘annihilation’	širyon	‘coat of mail’
kiššālon	‘stumbling’	tahton	‘lower (m.sg.)’
kišron	‘skill’	tikon	‘middle (m.sg.)’
lašon	‘boasting’	timmāhon	‘astonishment’

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example. That this must have been an early, pre-Proto-Canaanite development, is shown by the fact that the *pi·el* has an infinitive absolute *qaṭṭol*, which must have been innovated when the perfect of this stem still had an *a in its first syllable, i.e. *qaṭṭila (for this reconstruction and dating, see Huehnergard 1992). The analogy could then be formulated as *qaṭVla (*qal* perfect) : *qaṭōlum⁵ (*qal* infinitive absolute) = *qaṭṭila (*pi·el* perfect) : *qaṭṭōlum (*pi·el* infinitive absolute). Two separate forms are attested for the *niṭ·al*: *niqṭol* and *hiqqāṭol*. *niqṭol* can be the result of a similar analogy to the one that created *qaṭṭol*. *hiqqāṭol*, however, must be based on the perceived relationship between this newly created *pi·el* infinitive absolute *qaṭṭol* and the infinitive construct, *qaṭṭel*. Formally, the analogy would be *qaṭṭel* (*pi·el* infinitive construct) : *qaṭṭol* (*pi·el* infinitive absolute) = *hiqqāṭel* (*niṭ·al* infinitive construct) : *hiqqāṭol* (*niṭ·al* infinitive absolute).

The *niṭ·al* shows more effects of the Canaanite Shift. In the perfect *niṭ·al* of II-wy roots, the same sound law that changed *maqWalum nouns to *maqālum resulted in *naqWala > *naqāla. In Canaanite, this *ā then shifted to *ō, resulting in Biblical Hebrew *nāḵon* ‘it was established’ from *kwn* and similar forms. The imperfect also has *o*, e.g. *yikkon* ‘it will be established’, but this is not the phonetically regular form. Rather, it is an analogical creation, based on the corresponding forms of II-geminate verbs; as these verbs regularly developed to have the same stem in the *niṭ·al* perfect, e.g. *na^tsbabū > *na^tsabbū > *nāsábbu* ‘they turned’, and imperfect, e.g. *yin^tsabibū > *yin^tsabbū > *yissábbu* ‘they will turn’, they offered a model for the extension of the perfect stem, e.g. *nā-ḵon*, to the imperfect, e.g. *yik-kon* (Suchard forthcoming).

Finally, there is the *-o-* which appears between the perfect endings beginning with a consonant (first and second person) and a heavy stem⁶, as in the *niṭ·al* and *hiṭ·il* of II-wy and geminate roots, as well as the *qal* of geminate roots: *nḅunóti* ‘I had understanding’ from *byn*, *hāqimóti* ‘I erected’ from *qwm*, *sabbóti* ‘I turned’ from *sbb*, etc. While Bauer & Leander (1922: 430) say this vowel originated in III-w roots and was transferred to the geminate and II-wy classes by analogy, no traces of this supposed *-aw- > -o- remain in the III-wy conjugation, and it is preferable to connect it with the /-ā-/ found in the Akkadian stative conjugation, e.g. /pars-ā-ku/ ‘I am cut’ (Blau 2010: 209).

⁵Or *qaṭālum, depending on whether the Canaanite Shift had already taken place.

⁶I.e. a stem ending in a historically long vowel and a consonant, like *hāqim-* ‘erected’ (pf.), or ending in two consonants, like *sabb-* ‘turned’ (pf.).

Miscellaneous

A few nouns which appear to have undergone the Canaanite shift remain, belonging to patterns that have not yet been discussed, both isolated and derived. Of these, *śmol* ‘left’, spelled <šm·l> and <šm·wl> with a silent ʾálep̄, is the only one with cognates that make a reconstruction with *ā probable, although the precise form remains uncertain, cf. Syriac *smālā*, Ugaritic <šmal>, Arabic *šimālun* and *šam·alun*, Akkadian /šumēlu/. Bauer & Leander (1922: 484) attribute the strange spelling to an interchange between two pronunciations: something like *śam·al, as reflected in the consonantal spelling, and *śimāl, resulting in the traditional pronunciation, *śmol*. Whatever the actual origin of this strange word may be, its vocalized cognates reflect *ā and not *u corresponding to the Biblical Hebrew *o*, so we may assume that this *holem* is the result of the Canaanite Shift.

ʾεškol ‘grape’ seems to go back to *ʾitkālum, as evidenced by Jewish Babylonian Aramaic ʾitkālā and Arabic ʾitkālun,⁷ but the strange variation in attested forms (Aramaic also has *sḡōlā*, Arabic also has ʾitkālun ‘date stalk’) and the interchange between reduction and non-reduction of the *o* in the Biblical Hebrew plural ʾaškoloṭ / ʾεškloṭ show that this is probably a loanword.

ʾolām ‘eternity’ has many apparent cognates showing the reflex of *ā in the first syllable: Aramaic and Gəʿəz ʾālam, Arabic ʾālamun, all meaning ‘world’. As Fox (2003: 289–290) notes, however, there are two reasons not to reconstruct it as *ʾālamum. First of all, the Gəʿəz and Arabic words are both probably loanwords going back to Aramaic, which might itself have borrowed it from Hebrew with a change of *ō to *ā based on an intuitive understanding of Hebrew–Aramaic sound correspondences. Secondly, *ʾālamum would be the only reconstructible Proto-Semitic word of a *qāṭalum pattern, indeed, the only nominal with a long vowel in the first syllable other than the *qāṭilum participles. As no convincing etymology of ʾolām has yet been found (for an overview of the possibilities, see Jenni 1953), the word cannot be used as evidence for the Canaanite Shift.

There are a few II-wy verbs that have an *o* in the perfect. Of these, *ṭob* ‘to be good’ and ʾor ‘to be(come) light’ are probably secondary forms, based on the nominals *ṭob* ‘good (m.sg.)’ and ʾor ‘light’ discussed above. *boš* ‘to be ashamed’, on the other hand, is probably an old verbal formation, which also has an Akkadian cognate with the same meaning, /bāšu/. As it is a stative verb, it should probably be

⁷Also compare Ugaritic <uṭkl> with a different vowel in the first syllable.

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reconstructed as *bawuṭa, Biblical Hebrew *o* then being the result of a contraction of the triphthong *awu (see chapter 5).

In the imperfect, *boš* also has a *holem*, as in *yeḃoš* ‘he will be ashamed’, as does *bā* ‘to come’, as in *yāḃo* ‘he will come’. As *boš* is a stative verb, it should have originally had a *yiqṭalu imperfect: *yibwaṭu. This then underwent the same *CWV > *CṪV sound change as the *maqWalum > *maqālum nouns (Brockelmann 1908: 186), resulting in *yibāṭu, a form paralleled by Arabic ‘hollow alif’ imperfections such as *yanāmu* ‘he sleeps’ from *nwm* (Fischer 2002: 166). This *ā then underwent the Canaanite Shift, ultimately resulting in *yeḃoš*. Note that the vowel of the prefix is probably secondary: *yibāṭu should properly yield **yḃoš, with the *i being lost in an open syllable before a long vowel as in *ḏirā^cum ‘arm’ > *zroā^c* (see section 4.4). *yāḃo* ‘he will come’ and similar forms from the same paradigm, which is much more common than that of *boš* ‘to be ashamed’, probably regularly go back to *yabwa^u etc. > *yabā^u. We might expect an *i in the prefix, i.e. *yibwa^u, due to the Barth–Ginsberg Law (e.g. Joüon & Muraoka 2009: 118), but the *a vowel in the stem is secondary in this verb due to the laryngeal third radical (Brockelmann 1908: 613).

The identification of *u* as the regular outcome of *ō in non-word-initial unstressed syllables, prompted by Bergsträsser (1918: 145; see above), allows us to suggest two more examples of the Canaanite Shift in the verbal system. As will be argued in chapter 8, the first person plural perfect ending and the formally identical first person plural pronominal suffix should be reconstructed for Proto-Northwest-Semitic as *-nā, as reflected by Biblical Aramaic *-nā*; the formal identity with the Classical Arabic cognate makes it likely that this was the inherited form of the suffix. This *-nā then seems to have shifted to *-nō due to the Canaanite Shift, and further to *-nū > *-nu* in this unstressed, non-initial syllable. As the suffix was rarely stressed (only when pronominal suffixes were attached to the perfect ending), this unstressed reflex was preserved and generalized. The same may well have happened to the third person feminine plural perfect ending, which is to be reconstructed as *-ā, cf. Biblical Aramaic *-ā*, G^oz *-ā*, and Akkadian /-ā/. The same chain of sound changes that affected *-nā regularly changed *-ā > *-ō > *-ū, merging the suffix with the inherited third person masculine plural perfect ending *-ū. Hence, Biblical Hebrew has *-u* as the third person plural perfect ending in all cases, having lost its gender distinction.⁸

⁸That the merger of the third person plural masculine and feminine perfect forms was due to this merger of their endings as per the Canaanite Shift was suggested to me by Dr. A. Al-Jallad.

Biblical Hebrew has a few pronouns with *o* where other languages have reflexes of *ā. First, there is the personal pronoun ʾānoḳi ‘I’ < *ʾanāku, cf. Akkadian /anāku/. Additionally, there is the relatively rare demonstrative pronoun *zo*. This can be connected with the accusative of the not-quite-grammaticalized Arabic *dū* (nom.) / *dī* (gen.) / *dā* (acc.) ‘one of, owner of’. The other cases of this word also have Biblical Hebrew reflexes: the nominative **dū* resulted in the (also rare) demonstrative and relative pronoun *zu*, and the genitive **dī* yielded the quite common masculine demonstrative and relative pronoun *ze*. The feminine counterpart of this latter form, *zoṭ*, is spelled < zṭ >, as if it were from **dā*ṭu (see below), but it is more probably the accusative **dā* with a feminine suffix added, as in Arabic *dātu*, Gəʿəz *zātti* with an additional deictic element *-ti*, and probably Ugaritic < dt >. All of these languages would have preserved *ʾ, had it been present in this form.

A similar case to that of *zoṭ* is found in the negative adverb *lo* < l > ‘not’. The Biblical Hebrew spelling and the Arabic dialectal form *la*ṭ (Brockelmann 1908: 499) suggest reconstructing it as **la*ṭ, but that **lā* is the more original form is shown by the reflex *lā* in Classical Arabic and Aramaic (where **la*ṭ should have yielded ***lē*, Beyer 1984: 138) and the spelling as prefixed < l > without < ṭ > in the Old Aramaic of Tell Sfire and other inscriptions (ibid., 615), as well as the Ugaritic spelling < l >, reflecting a form without *ʾ.

Finally, there are the adverb *ko* ‘thus’ and the preposition *kmo* ‘like, as’, seemingly a longer form of proclitic *k-* ‘idem’. The latter should be reconstructed as **ka*-*mā*, cf. Aramaic *kmā*, Arabic *kamā*. This would then be the proclitic preposition **ka*- which has been extended with **mā*, unattested in Biblical Hebrew besides a few prepositional forms but possibly related to Arabic *mā* ‘what’ (although the latter should probably be reconstructed as **mah*, see below). *ko* ‘thus’ has sometimes (e.g. Brockelmann 1908; Bauer & Leander 1922; Blau 2010) been connected with the first part of Biblical Hebrew *kāḳā* ‘idem’ and equated with Biblical Aramaic *kā* ‘here’ and Akkadian /*kā*/ ‘thus’, a byform of /*kām*/ ‘idem’. Koehler & Baumgartner (1994–2001: 461), however, reconstruct it as **ka*-*hu*, i.e. ‘like it’, which does match the meaning better than the proposed Aramaic cognate.

3.3.2 *aṭ > o

Occasionally, the letter ʾālep is used to indicate a vowel that surfaces in Tiberian Hebrew as *o*. In some cases, this reflects a historical sequence of *aṭ, which then

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developed to *ā > *ō, i.e. the *ʾ was dropped with compensatory lengthening of the *a, and this long *ā then underwent the Canaanite Shift.

Nouns

Two nouns spelled with ʾálep̄ and pronounced with *holem* can be shown to have contained an *aʾ sequence due to cognate evidence: *roš* ‘head’ < *raʾsum, cf. Ugaritic <riš>, Arabic *raʾsun*, Gəʿəz *rəʾs*; and *šon* ‘sheep and goats’ < *šaʾnum, cf. Arabic *daʾnun*, Akkadian /šēnu/.

The spelling of *nod* ‘skin bottle’ as <nʾd> suggests a reconstruction as *naʾdum. There are no cognates unambiguously attesting the *ʾ, however, while Akkadian /nādu/ ‘waterskin’ does not show the expected e-colouring of *a in nouns containing a guttural and a resonant, like *šaʾnum > /šēnu/ ‘sheep and goats’ (Huehnergard 2013: 458–460). As the precise conditioning of this Akkadian sound change remains unclear, though, it is uncertain whether this word should be reconstructed as *naʾdum or *nādum.

bor ‘cistern’ is usually spelled with a *wāw*, not with an ʾálep̄, but there are two attestations in one verse (Jer 2:13) of a plural *borot* spelled <bʾrwt>, and the original presence of an *ʾ is strongly suggested by its occurrence in the related noun *bʾer* ‘well’. Possibly, the usual spelling of *bor* with *wāw* was purposefully chosen to prevent confusion with *bʾer*. Perhaps, then, *bor* should be reconstructed as *baʾrum, similar to the words above. Alternatively, this word may go back to *buʾrum, a possibility which is strongly supported by the Akkadian cognate /būru/. Blake (1951: 250) suggests that sequences of *uʾ originally yielded *ō, which would result in Biblical Hebrew *holem*, but in most cases, the ʾálep̄ that had been retained in spelling was hypercorrectly reintroduced in the pronunciation, resulting in *ʾo: thus *muʾdam ‘very’ > *mōd >> *mʾod > Biblical Hebrew *mʾod*.⁹ This restitution of the *ʾ could not have taken place in *bor*, as it was not spelled with an ʾálep̄, and so the regular outcome of *buʾrum remained unchanged.

Another word that is spelled with *wāw* but which probably contained a *ʾ is *moser* ‘bands’. As it appears to be a *maqṭilum instrument noun of the root ʾsr ‘to bind’, it should be reconstructed as *maʾʿsirum. An opposite example of non-etymological <ʾ> is found in *moznáyim* ‘balance, scales’, spelled <mʾznm>. The word should be reconstructed as *maw^dzinayma, as is attested by the lack of *ʾ in Ugaritic <mznm>. It is probably derived from a root that is not attested

⁹And similarly, *biʾrum ‘well’ > *bēr >> Biblical Hebrew *bʾer*.

in Biblical Hebrew, but is cognate with Arabic *wzn* ‘to bear (a load)’ (Koehler & Baumgartner 1994–2001: 539). Since this root is lacking in Hebrew, the word could have undergone folk etymology linking it to ʔózen ‘ear’, which would explain the spelling with ʔálep̄.

The origin of *porot* ‘shoots’, spelled with ʔálep̄, is unclear, and so is its reconstruction (Koehler & Baumgartner 1994–2001: 909).

Verbs

The existence of one class of weak verbs in Biblical Hebrew is completely due to the operation of this change of *a > *ā > *ō. These I-ʔ verbs have an *o* as the prefix vowel in the imperfect, e.g. *yobdu* <yʔbdw> ‘they will be lost’ <*yaʔbudū. Many I-ʔ verbs have analogically restored the consonantal *ʔ, leaving only a number of frequent verbs in this category, viz. ʔbd ‘to be lost, perish’, ʔby ‘to permit’, ʔhz ‘to seize’, ʔkl ‘to eat’, ʔmr ‘to say’ and ʔpy ‘to bake’. ʔhb ‘to love’ has only preserved the result of the sound change in the first person singular (*wā*)ʔhab̄ ‘(and) I loved’ and similar forms.

3.3.3 *ā > ʔ

*qāṭum

sās ‘moth’ would seem to go back to *^tsā^tsu, as supported by Syriac *sāsā* and Akkadian /*sāsu*/, but Arabic *sūsun* ‘moth-worm’ and Gəʕəz *šāše* ‘moth, worm’ show that both the vowel and the consonants exhibit irregular correspondences. The word was probably borrowed into all these languages from an unknown source, and it could have reached Hebrew after the Canaanite Shift had stopped operating, or simply as *sas-. Another option is that Hebrew borrowed it from Aramaic or Akkadian; or again, the different words may be onomatopoeic.

ʔāb̄ ‘cloud’ retains its ʔ in the construct state plural, ʔābe. As it is associated with the II-y root ʔyb, however, we may reconstruct it as *ʔayabum, rather than *ʔābum.

Another possible *qāṭum noun is *tā* (spelled <t>) ‘guard chamber’. That the ʔ is originally long is shown by the construct state plural *tāʔe* and by the Akkadian cognate /*tāʔu*/ ‘room’. Interestingly, the Aramaic cognates of this word have a *w* as the second radical, e.g. Syriac and Jewish Babylonian Aramaic *tawwānā*. This suggests that the word, at least as it appears in Hebrew and Akkadian, should be reconstructed as **tawaʔum*, which would regularly yield the attested forms.

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Finally, there are the active participles of II-wy verbs like *qām* ‘standing’. Like *āb* and *tā*, they retain their *qāmēš* in positions where originally short *a would undergo reduction, as in the construct state plural *qāme*. This historically long vowel should not be reconstructed as *ā, though, but as the result of a contracted triphthong *awa or *aya (see chapter 5). Thus, these participles are formally equivalent to *qaṭalum adjectives like *ḥādāš* ‘new’ or *yārāq* ‘green’ (Fox 2003: 162).

*qVtālum

krā-āyim ‘shins’ has cognates which attest to an *ā in the original second syllable: Syriac *krā-ā*, Arabic *kurā-un*. The word is also attested in a different form in Gəʿəz *kʷərnā* ‘elbow, forearm’ (< *kurnā, possibly metathesised from *kur-ān, cf. Yemeni Arabic *kir-ān*; Leslau 1987) and Akkadian /kurītu/, perhaps < *kuri-tum.

ānān ‘cloud cover’ would seem to go back to *anānum, as evidenced by Aramaic *nānā* and Arabic *anānun*. While there are few unambiguous Biblical Hebrew forms, though, the word apparently behaves like a *qaṭalum noun, as is seen from the construct state *ānan*, and many authors simply treat it as such. Fox (2003: 163) notes that there are several semantically related *qaṭalum nouns, like *bārāq* ‘hail’, *bārāq* ‘lightning’, and *māṭār* ‘rain’. The semantic association with these words may have prompted the shift of *anānum to a *qaṭalum pattern, yielding *anatum.

Blau (1996: 27) suggests that *ānāšim* ‘men’ was originally the plural of *ēnoš* ‘man, mankind’, in which case it would go back to *Vnāsīma and would have preserved its *ā as ā. The construct state *anše*, however, clearly shows that the stem should be reconstructed as *Vnas-, not as *Vnās-, which would have yielded **ānāše in the construct state; Blau sees *anše* as a secondary, analogical form, but it seems more prudent to see it as reflecting *inas-, the regular plural stem of *iš* ‘man’ < *ins-, with Dolgopolsky (1999: 161–162).

*qaṭṭālum

A relatively common category of nouns which is often reconstructed with an *ā > Biblical Hebrew ā is *qaṭṭāl*, consisting of nouns and adjectives expressing professions or habitual characteristics. The attested words are listed in table 3.7. At first sight, these words would seem to be derived from a *qaṭṭālum pattern, as reflexes of that pattern with very similar semantics are attested in many other

Table 3.7: *qaṭṭāl* habitual agent nominals

BH	meaning	BH	meaning
<i>gannāb</i>	‘thief’	<i>sallāh</i>	‘forgiving (m.sg.)’
<i>dawwāy</i>	‘faint (m.sg.)’	<i>sārābim</i>	‘obstinate (m.pl.)’
<i>dayyāgim</i>	‘fishermen’	<i>ʿawwāl</i>	‘ill-doer’
<i>dayyān</i>	‘judge’	<i>pārāš</i>	‘horseman’
<i>ḥabbārim</i>	‘partners’	<i>šawwār*</i>	‘neck’
<i>ḥattāʿim</i>	‘sinful (m.pl.)’	<i>šayyād</i>	‘hunter’
<i>ḥallāš</i>	‘weakling’	<i>qallāʿim</i>	‘slingers’
<i>ḥārāš</i>	‘artisan’	<i>qannā</i>	‘jealous (m.sg.)’
<i>ṭabbāh</i>	‘bodyguard’	<i>qaššāt</i>	‘archer’
<i>keḥāšim</i>	‘lying’ (m.pl.)	<i>raggāz</i>	‘excited (m.sg.)’
<i>naggāḥ</i>	‘prone to gore (m.sg.)’	<i>rakkāb</i>	‘charioteer, horseman’
<i>sabbāl</i>	‘bearer’	<i>raqqāḥim</i>	‘ointment mixers’

*Spelled <šwṛ>, perhaps to distinguish it from *šur* <šwr> ‘rock’; possibly derived from a supposed root *šwr* ‘to turn’, thus originally ‘turning’ (Koehler & Baumgartner 1994–2001: 1009).

branches of Semitic, e.g. Aramaic *gannābā* ‘thief’, Arabic *ḥabbāzun* ‘baker’, Gəʿəz *ʿaggār* ‘pedestrian’, and Akkadian /nappāḥu/ ‘smith’ (Fox 2003: 253–261).¹⁰ It is not certain, however, that the Biblical Hebrew pattern should actually be reconstructed as *qaṭṭālum, as these words often seem to behave as if their second syllable contains a historically short vowel, as in *qaṭṭalum. In the construct state, for instance, the *qāmēš* becomes a *pātāḥ*, e.g. *dayyan* ‘judge (construct)’. We might expect an original *ā to stay long, and thus yield **ā, even when unstressed.¹¹ The existence of a Proto-Semitic class of *qaṭṭalum nominals with these semantics is supported by evidence from Assyrian. In this dialect (or rather, collection of dialects) of Akkadian, *a in open syllables assimilated in quality to the following vowel’s syllable, resulting in stem-internal vowel alternations as in /qaqqudu/ ‘head’ (nom.), /qaqqidi/ (gen.), /qaqqada/ (acc.), all from *qaqqad- (Von Soden 1995: 15). This phenomenon also occurs in a class of nouns and adjectives with the semantics we are currently concerned with: for example, the assimilation of the second vowel in /šarruqū/ (nom.), /šarreḳē/ (gen./acc.) ‘thieves’ shows

¹⁰For *šawwār* ‘neck’, however, note the Aramaic cognates reflecting short *a: Syriac *šawrā*, Biblical Aramaic *šawwreh* ‘his neck’.

¹¹Although the construct state of words ending in the suffix *-ān* (see below) does change it to *-an*, e.g. *qṛban* ‘offering (construct)”; this must go back to *-ānum, as no *-anum suffix is attested.

Table 3.8: *-ān* nominals

BH	meaning
<i>birāniyyot</i>	‘fortresses’
<i>binyān</i>	‘building’
<i>dārḅān</i>	‘goad’
<i>kibšān</i>	‘oven’
<i>niššānim</i>	‘blossoms’
<i>inyān</i>	‘task’
<i>qinyān</i>	‘property’
<i>qorbān</i>	‘offering’
<i>šulḅān</i>	‘table’
<i>šinān</i>	‘highness’
<i>širyān</i>	‘scaly mail’

that it was short, i.e. the word is a *qattalum noun (Huehnergard 1992: 223, n. 59). Problematically, the few attested construct state plural forms of these nouns in Biblical Hebrew show retention of the *ā*, which is unexpected for short *a: *ḥattāʿe* ‘sinners (construct)’, *ḥārāše* ‘artisans (construct)’, *šawwāre* ‘necks (construct)’ (but *šawwrotekem* ‘your necks’ with reduction of the *a). Perhaps the strong resemblance of this Hebrew class of words to Aramaic *qattālum nouns led bilingual speakers to reinterpret these words as if their second vowel was historically long, giving rise to new, analogically preserved *ā* vowels in the construct state plural, one of the few forms in which a difference between *ā and *a would be visible and an infrequent form at that. Of course, the forms that have been used to argue for a reconstruction as *qattalum with a short *a, viz. the construct state singular forms like *dayyan* ‘judge’ and *šawwrotekem* ‘your necks’, could also be the result of analogy. Still, the possibility that these words did not originally contain a long *ā renders them unfit for use as evidence about the conditioning of the Canaanite Shift.

*-ānum

Table 3.8 lists words in which the common *-ānum suffix appears as *-ān*. Some words have been excluded from the table as it is unclear whether they are common nouns or proper nouns, such as *liwyātān* (Leviathan) and *nḥuštān* (Nehushtan),

or because their meaning and etymology are unclear, such as *ḥammān* ‘incense stand?’.

While *-ānum usually appears as *-on* in Biblical Hebrew, the quality of the vowel remained unchanged in its relatives, such as Aramaic, and many of the words in table 3.8 have been suspected to have been borrowed from that language. Wagner (1966) lists *birāniyyot* ‘fortresses’, *binyān* ‘building’, and *‘inyān* ‘task’ as Aramaic loanwords; *binyān* is stated to derive from *bunyānu (cf. Arabic *bunyānun*), with the dissimilation of *bu > *bi which – in his opinion – was regular in Aramaic, but not in Hebrew. The conditioning of this dissimilation in Biblical Hebrew will be investigated below, but given the word’s semantics, which make it prone to borrowing, and broad attestation in Aramaic, we may unproblematically regard it as a loanword. Similarly, *dārḇān* ‘goat’ looks decidedly un-Hebrew: it is not connected with an attested Hebrew root, and the unreduced *ā* in the first syllable is reminiscent of the Aramaic *qal* active participle, *qāṭel*, as Bauer & Leander (1922: 500) note. The attested plural, *dārḇonot* ‘goats’, may have adopted the more common Biblical Hebrew form of the *-ānu suffix. Incidentally, these two forms of the word show an alternation between stressed *ā* and unstressed *o*, contrary to what the supposed stress-based conditioning of the Canaanite Shift would predict.

kibšān ‘oven’ and *širyān* ‘scaly mail’, finally, are of unclear origin. *kibšān* is often interpreted as ‘kiln’ and derived from the root *kbš* ‘to subdue, to rape’. The kiln would then be that in which ore is subdued. This derivation seems a bit far-fetched, especially since the other attested Biblical Hebrew *qitlānum nouns have a passive meaning or are action nouns; thus, *qinyān* ‘property’ is that which is acquired (*qny*), *ḥεšḇon* ‘account’ is either that which is accounted (*ḥšb*) or the act of accounting, etc. *kibšān*, then, should be **‘that which is subdued’ or **‘the act of subduing’, not ‘that which subdues’. In fact, Mishnaic Hebrew attests the word *kibšon* ‘secret’, which is a much better fit for the expected meaning ‘that which is subdued’. As we cannot be sure where *kibšān* comes from, we cannot know whether its *qāmεš* derives from an earlier *ā or not.

širyān ‘scaly mail’, which is also attested as *širyon* and *siryon*, cannot be connected with a known root, and the interchange between *šin* and *sāmeḵ* is very suspect. We are probably dealing with a loanword, although the source remains unknown. *šulḥān* ‘table’, too, is of uncertain origin. Thus, most of the *-ān* nominals must be discarded, and we are left with *niššānim* ‘blossoms’, *qinyān* ‘property’, *qorbān* ‘offering’, and *šin·ān* ‘highness’.

Table 3.9: Possible *mVqtālum nouns with preserved *ā*

BH	meaning
<i>mošāʿe</i>	‘exits (construct)’
<i>morāše</i>	‘desires? (construct)’
<i>maṭṭāʿe</i>	‘planting places (construct)’
<i>makkāreḥem</i>	‘their clients?’
<i>miqrāʿe</i>	‘convocations (construct)’

*mVqtālum

As was discussed above, there are a few attestations of Biblical Hebrew *mVqtālum nouns. While the absolute state singular of these nouns would be indistinguishable from *mVqtalum nouns if they did not undergo the Canaanite Shift, as both patterns would have merged in *mVqtāl*, there are several words which preserve their *qāmēš* in unstressed, non-pretonic syllables, which may indicate the presence of an *ā as the original vowel; the relevant forms are listed in table 3.9. Note that all of the words except for *morāše* ‘desires? (construct)’ have a guttural or *reš* as their third radical. As *mVqtalum nouns occasionally undergo seemingly secondary gemination of the third radical in the plural, as in *maḥšāk* ‘dark place’, plural *maḥšakkim* (absolute) / *maḥšakke* (construct), or *merḥāq* ‘distance’, plural *merḥaqqim* (absolute) / *merḥaqqe* (construct), these apparent *mVqtālum nouns listed in table 3.9 could also go back to *mVqtalum nouns with a geminated third radical in the plural, which was then regularly degeminated with compensatory lengthening of *a > ā in Tiberian Hebrew.

Additionally, the *mVqtālum or *miqtulum noun *mištoāḥ* ‘spreading place’ (for nets) has the construct state *mištaḥ*. This could indicate a stress-conditioned alternation between *mVqtōl (absolute) and *mVqtāl (construct), but this alternation is regular if the word is to be reconstructed as a *miqtulum noun: absolute *mištūḥum > *mištōḥ (with tonic lengthening, see chapter 4) > *mištoāḥ* (insertion of *pātaḥ furtivum* between the historically long non-a vowel and syllable-final guttural), while the construct state is *mištuḥu > *mištoḥ (no tonic lengthening in the construct state) > *mištaḥ* (with assimilation of the historically short non-a vowel before the syllable-final guttural).

Miscellaneous

There are two nouns of reduplicated patterns that seem to have an *ā preserved as ā. *ṣeʿeṣāʾim* ‘offspring’ has the construct state *ṣeʿeṣāʾe*, but this ā could be the result of compensatory lengthening after degemination of the *ʾ, in which case this word would be a *qVṭqattum reduplicated form with gemination of the last radical, similar to *taltallim* ‘date blossoms’. As in the imperative and infinitive construct, the first radical of this root, *yṣʾ* ‘to go out’, has been left off. Another reduplicated word is *ṣapṣāpā* ‘willow’, only attested once in that form. Its Arabic cognate *ṣafṣāfatun* contains an *ā, which might be the case for the Biblical Hebrew word, too. As names of flora and fauna are frequently borrowed, however, *ṣapṣāpā* cannot securely be used as evidence of the non-occurrence of the Canaanite Shift.

Two nominals remain. Besides the single attestation of the place name *tošābe gil·ād* in 1 Kings 17:1, which is textually uncertain,¹² *tošāb* ‘resident alien’ has no attested forms which would clearly differentiate between an *ā and an *a in the second syllable, but the Syriac cognate *tawṭābā* must go back to *tawṭābum. Then, there is *śmāli* ‘left (m.sg.)’, the adjective belonging to the noun *śmol* ‘left’ discussed above. As was mentioned, the precise reconstruction of *śmol* is unclear, but its *o* can be assumed to have derived from *ā. Many scholars (e.g. Blau 2010: 48) reconstruct *śmāli* with an *ā as well and see this interchange between *o* and *ā* as evidence of the stress-based conditioning of the Canaanite Shift. An alternative would be that *śmāli* is derived from a different word for ‘left’, such as the ancestor of Arabic *šamʾalun*, which is attested besides the form that is more easily connected with Biblical Hebrew *śmol*, viz. Arabic *šimālun*. Interestingly, a similar discrepancy between noun and adjective is found in the words for ‘right’: the noun is *yāmin* < *yamīnum, cf. Arabic *yamīnun*, but the adjective is *ymāni*. In this case, a motivation can be found for deriving a separate adjective form, as the expected form *ymini* had acquired the more specific meaning ‘Benjaminite’. As is the case for ‘left’, Arabic attests a cognate that could have given rise to the adjective for ‘right’: Arabic *yamanun* ‘right’ should go back to *yamanum, also reflected by Akkadian /imnu/. This form could be combined with the derivational suffix *-īyūm to form *yamanīyūm, resulting in *ymāni*. Since it is quite likely that the words for ‘left’ and ‘right’ influenced each other through contamination, there are a few different scenarios for the origin of *śmāli* and *ymāni*. *śmāli* could either

¹²For *mittošābe gil·ād* in the Masoretic Text, the Septuagint reads ἐκ θεσβων τῆς γαλααδ; together with the derived adjective *tišbi*, this points to *tišbe gil·ād as the more original vocalization.

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be the regular outcome of *šim(ʔ)ālīyūm, or of *šamʔalīyūm, or it could have been influenced by an independently formed *ymāni*. The latter, in turn, could be the regular outcome of *yamanīyūm, or it could have been contaminated by *šmāli*. None of these explanations seems inherently preferable over the others, so we cannot, for now, be sure about the origin of the *ā* in *šmāli*.

Brockelmann (1908), Bergsträsser (1918), and Bauer & Leander (1922) each view the presence of *ā* rather than *o* in II-wy and III-wy verbs like *qām* ‘he stood’ and *rāšā* ‘he was pleased’ as something that warrants explanation, as Aramaic (*qām*, *rā*) and Arabic (*qāma*, *raḏā*) have *ā* here. Brockelmann (1908: 142) attributes this non-operation of the Canaanite Shift to the fact that these verbs did not bear phrasal stress, while Bauer & Leander (1922: 192) take these verbs to be examples of the ‘younger stratum’ of Hebrew, which did not undergo the Canaanite Shift at all; Bergsträsser simply admits that the forms are unexplained. As noted above, however, Birkeland (1940: 41–46) convincingly argues that these instances of *ā* go back to earlier *awa and *aya, which were only contracted in the individual languages (or not at all, cf. Gəʕəz III-wy forms like *fatawa* ‘he desired’ and *bakaya* ‘he cried’; see chapter 5). In Canaanite, this only took place after the operation of the Canaanite shift, so these words did not have an *ā when it could have changed to *ō.

The pronominal suffixes *-kā* (2m.sg.) and *-hā* (3f.sg.) have also been the subject of much discussion. The length of their vowel, as well as that of the other second and third person pronominal suffixes and several other words, such as the independent personal pronoun *ʔattā* ‘you (m.sg.)’, varies between and even within separate Semitic languages; for variation within Biblical Hebrew, cf. *ʔālēkā* ‘on you (m.sg.)’, *ʔālēhā* ‘on her’, but *lāk* ‘to you (m.sg.)’ (pausal form), *lāh* ‘to her’. Brockelmann (1908) and others after him have tried to resolve this issue by stating that originally long, word-final vowels were phonetically not quite long or short, but anceps, i.e. something in between. This problem is investigated in depth in chapter 8, where the conclusion is reached that the word-final *-ā* in these forms does not reflect historical *-ā, and accordingly, they do not constitute counterexamples to the Canaanite Shift.

Another unexpected *qāmεš* is found in the *-ā* ending of the cohortative (e.g. *ʔelkā* ‘I would like to go’) and long imperative (e.g. *lkā* ‘(please) go’); these forms, too, are discussed in chapter 8. In brief, Moran (1960) shows that a similar form to the cohortative is used in the Amarna letters and links it to the Arabic subjunctive

yaqtula, with short *-a; this *-a was protected from the loss of word-final short vowels by the frequently attached precativative particle *-nā* (Blau 1977).

Brockelmann (1908) holds that the Canaanite Shift was not only conditioned by word stress, but also by phrasal stress. In this way, he explains the difference between *ko* and *kākā* ‘thus’, which he reconstructs as **kā* and reduplicated **kākā*, as well as the difference in vocalism between the *-mo* in *kmo* ‘as’ and *mā* ‘what’, which would then both come from **mā*. As we have seen above, *ko* should rather be reconstructed as **ka-hu*, literally ‘like it’. *kākā* might then be a similar form, with the second person suffix instead of the third person, i.e. **ka-ka* ‘like you’, perhaps ‘like this’, contrasted with **ka-hu* ‘like that’. Thus, *kākā* does not necessarily show **ā* > *ā̄*. While the *-mo* of *kmo* probably does derive from **mā*, *mā* is more likely to go back to **mah*, cf. Ugaritic <mh>, Arabic (reduplicated) *mahmā* ‘whatever’ (Blau 2010: 186). The original **h* would then be responsible for the usual gemination of the following consonant, which is hard to understand if we reconstruct **mā* with a long vowel. Syntagms such as *ma-zzē* ‘what is this?’ should then be reconstructed like **mah-dī*.

3.3.4 *aᵛ > ā̄

This section is limited to words which may have contained the sequence **aᵛ* in an originally closed syllable, as the **ᵛ* before a vowel was simply preserved until long after the operation of the Canaanite Shift, and often into Biblical Hebrew.¹³ Thus, the many examples of III-*ᵛ* verbs ending in *-ā̄*, e.g. *qārā* ‘he called’ and *yiqrā* ‘he will call’, will not be discussed, as the elision of their **ᵛ* is almost certainly a much later development than the elision of **ᵛ* in syllable-final position; when the Canaanite Shift was operative, they were still pronounced **qaraᵛa*, **yiqraᵛu*, etc., and did not contain a long **ā̄* that it could have targeted.

The first and second persons of the perfect of III-*ᵛ* verbs did contain a syllable-final **ᵛ*, as in **qaraᵛta* ‘you called’, and this should be expected to have elided, lengthening the **a* > **ā̄* in time for it to participate in the Canaanite shift, like that of **raᵛsum* > *roš* ‘head’ and others discussed above. The non-occurrence of such expected forms as ***qārōtā̄*¹⁴, however, is the result of paradigmatic leveling,

¹³In Tiberian Hebrew, *ᵛ* was regularly lost before unstressed vowels, cf. **miᵛatáyma* > *mātáyim* ‘two hundred’, **malᵛakátum* > *mlākā* ‘work’. Cases of Tiberian *ᵛ* before unstressed vowels are the result of analogical restoration based on their retention before stressed vowels.

¹⁴Punic *corathi* ‘I called’, attested in the *Poenulus*, is probably a corrupted spelling for /*qarōtī*/; this /*ō*/ tells us nothing about the workings of the Canaanite Shift, though, as it is probably the

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based on analogy with the third person forms and the strong verb: *qaṭala (3m.sg. perfect) : *qaṭalta (2m.sg. perfect) = *qaraṭa (3m.sg. perfect) : *qaraṭta (2m.sg. perfect).

Turning to the nouns, there is *ḥattāt* <ḥṭṭ> ‘sin(-offering)’, derived from the root *ḥt* ‘to sin’. While the word looks like it goes back to *ḥaṭṭaṭum, it could be a post-Canaanite Shift formation, patterned after other *qaṭṭaltum abstract nouns like *yabbastum > *yabbéšet* ‘dry land’, from the root *ybs* ‘to be dry’. Alternatively, the *aṭ could have been restored based on the plural *ḥaṭṭaṭātum, where it would have been retained.

The vocalic alternation seen in *roš* ‘head’ and its plural *rāšim* (absolute), *rāše* (construct) might seem to be an example of stress conditioning of the Canaanite Shift, but *rāšim* and *rāše* did not actually contain a syllable-final *aṭ sequence. As Bauer & Leander (1922: 620) note, these forms are the regular outcomes of *raṭasīma (absolute) and *raṭasay (construct), the expected plurals of the singular *raṭsum. That the plural of this word was formed in this way is supported by the Ugaritic spelling <rašm> ‘heads’, which probably reflects /raṭašūma/.

This leaves us with the precative particles ṭānnā and -nā, spelled <(ṭ)n>. Unfortunately, their etymologies and reconstructions remain unknown (for a recent discussion, see Hartlieb 2011). Thus, there are no strong examples of syllable-final *aṭ > *ā that was unaffected by the Canaanite Shift.

3.4 Analysis

Reviewing the data, the Canaanite Shift seems to have applied in the great majority of words with *ā. In fact, only seven words unequivocally show the development *ā > ā. Four of these (*niššanim* ‘blossoms’, *qinyān* ‘property’, *qarban* ‘offering’, and *šinān* ‘highness’) contain the highly productive *-ānum suffix, and are therefore of questionable use in establishing the conditions of the Canaanite Shift: if the *-ān form was preserved in some words or introduced through borrowing from Aramaic (as it certainly was), it could have secondarily spread to words where regular sound laws should have produced *-ōn. The words in table 3.10, then, are the only truly certain examples of *ā > ā.

result of the much later Phoenician Shift, which changed new instances of *ā > *ō (Friedrich & Röllig 1999: 43).

Table 3.10: *ā > ǎ

BH	PNWS	meaning
<i>krǎ·áyim</i>	*kurā·ayna	‘shins’
<i>tošǎb</i>	*tawtābum	‘resident alien’
<i>morǎše</i>	*mawrāṭay	‘desires? (construct)’

It is striking that two of these words have an *o* in the syllable preceding their ǎ. The third one, *krǎ·áyim*, should also be reconstructed with a rounded vowel in the syllable preceding the *ā: *kurā·ayma. It would seem, therefore, that the Canaanite Shift did not apply after rounded vowels, as was already suggested by Brockelmann (1908) on other grounds. Phonetically, this can be understood as a dissimilatory effect of the rounded vowel in the first syllable, which prevented the *ā in the second syllable from shifting to *ō. In the case of *tošǎb* and *morǎše*, where the *o* < *aw, this dissimilatory effect may have been due to the bilabial approximant *w, if the diphthong *aw had not yet been contracted to *ō.

We are now confronted with another problem, however: the words in table 3.11, where the Canaanite Shift has taken place in words with *u reconstructed in their first syllable. Interestingly, all of these words have a bilabial consonant directly preceding or following the *u. In the one word where this vowel has not been reduced in later Hebrew, *rimmon*, this *u has visibly dissimilated to *i*. Elsewhere in Hebrew, we find more cases of the dissimilation of unstressed *u > *i when adjacent to bilabials; a telling example is the preservation of *u in *·úmr̥um > ·ómer ‘saying’, but its dissimilation in the non-absolute singular forms of the paradigm, e.g. the construct plural *·umaray > *·imaray > ·imre, and the associated feminine, *·umrátum > ·imrǎ ‘idem’. The cases of preserved *u in this position, as in *dubbíma > *dubbim* ‘bears’, can be explained through analogy, in this case with the singular *dob* < *dúbbum. Hence, we may postulate a regular dissimilation of *u > *i in this position. Assuming, then, that this dissimilation of *u > *i next to a bilabial consonant took place in all of these words, they no longer contradict the non-operation of the Canaanite Shift after back, rounded vowels: while *kurā·ayma > *krǎ·áyim*, *burātum > *birātum > *birōtum > *broš*, etc.

Table 3.11: *qu(ṭ)ṭāl- > q(iṭ)ṭol

BH	PNWS	meaning
<i>broš</i>	*burātum	‘juniper’
<i>ploni</i>	*pulānīyum	‘someone’
<i>ptote</i>	*putātay	‘morsels (construct)’
<i>rimmon</i>	*rummānum	‘pomegranate’

3.5 Conclusion

We have seen that many supposed exceptions to the Canaanite Shift of Proto-Northwest-Semitic *ā > Proto-Canaanite *ō cannot be reconstructed with *ā at all. Some of these apparent exceptions are loanwords, others are of uncertain etymology, and some can more plausibly be reconstructed with *a or a triphthong like *awa. Once these words are excluded, the Canaanite Shift is regularly seen to apply to the vast majority of the eligible material. Contrary to the position held by Brockelmann (1908) and others, no stress conditioning is needed to explain the few cases where *ā was preserved as ā – although the occasional development to *ū in non-initial syllables noted by Bergsträsser (1918) was stress-conditioned, only occurring in unstressed syllables. Rather, the Canaanite Shift did not take place in words where *ā was preceded by a rounded vowel or *w in the preceding syllable, which exerted a dissimilatory influence on the vowel in question. In the handful of words where *ā did shift to *ō despite *u in the preceding syllable, we may assume that the adjacent bilabial consonant had caused the dissimilation of this *u > *i before the operation of the Canaanite Shift.

Chronologically, the Canaanite Shift must have preceded the contraction of triphthongs in Hebrew (see chapter 5), as *ā that resulted from earlier *ǃWa did not shift to *ō. Consequently, the Canaanite Shift also predated the first apocope of word-final short vowels and the loss of mimation (chapter 4). An absolute chronology is somewhat harder to establish. While the Canaanite Shift is attested in all Canaanite languages in which its effects would be visible – almost by definition – we cannot be sure that it took place at the same time in the ancestor of Hebrew as in that of Amarna Canaanite, which already attests its operation in the 14th century BCE. As the Canaanite Shift is one of the first sound changes to have differentiated pre-Hebrew from Proto-Northwest-Semitic, however, it must

predate the beginning of the Hebrew epigraphic record. Presumably, it is to be placed at some point in the second millennium BCE.

