

I.1. CONSONANTS

I.1.1. 'ALEF אָלֶף (א)

Glottal plosive [ʔ]

Consonantal 'alef occurs in the following contexts:

In the onset of a syllable at the beginning of a word, e.g. אָמַר [ʔa:'ma:aʁ] 'he said' (Gen. 3.16), אֱלֹהִים [ʔelo:'hi:im] 'God' (Gen. 1.1).

In the onset of a syllable in the middle of a word after a silent *shewa*, e.g. וַיִּבְיֹשׁ [vəjiv'ʔa:aʃ] 'and it became foul' (Exod. 7.21).

In the onset of a syllable in the middle of a word after a vowel, a *hatef* vowel or vocalic *shewa*, e.g. וַיָּבִיאוּ [jɔ:'vi:ʔu:] 'they bring' (Exod. 16.5), אֲזַזְרֶךָ [ʔaʔazzer'ʔɔ:] 'I gird you' (Isa. 45.5) מְאֹד [mo'ʔo:ɔð] 'very' (Gen. 1.31).

In the coda of a syllable in the middle of a word, e.g. וַיִּאַסֶּר [vəjəʔ'so:orʔ] 'and he tied' (Gen. 46.29).

In the Standard Tiberian tradition consonantal 'alef in the middle of a word between vowels is marked with *dagesh* in four places:

- (i) וַיָּבִיאוּ לְוֵי 'and they brought to him' (Gen. 43.26)
- (ii) וַיָּבִיאוּ לָנוּ 'and they brought to us' (Ezra 8.18)
- (iii) תָּבִיאוּ לֶחֶם | 'you shall bring bread' (Lev. 23.17)

(iv) לֹא רָאָו ‘they were not seen’ (Job 33.21)

These four cases are specified in Masoretic treatises and Masoretic notes. They are referred to, for example, in the Masoretic treatise *Hidāyat al-Qārī*:¹

It has been said that *dagesh* is placed in *’alef* in some specific places in Scripture, namely in the following four cases: $\text{וַיָּבִיאוּ לּוֹ אֶת־הַמִּנְחָה}$ ‘and they brought him the present’ (Gen. 43.26), $\text{וַיָּבִיאוּ לָנוּ בְיַד־אֱלֹהֵינוּ}$ ‘and they brought to us by the hand of our God’ (Ezra 8.18), $\text{מִמּוֹשְׁבֵי־תִיכֶם תָּבִיאוּ}$ ‘from you dwellings you shall bring’ (Lev. 23.17), $\text{וְשִׁפּוֹ עֲצָמוֹתָיו לֹא רָאָו}$ ‘and his bones, which were not seen, are laid bare’ (Job 33.21).

Some examples of references to the four places in Masoretic notes include the following:

ג' אלפין דגשין בלישנא וסימנהון ממושבתים תבטאו לחם תנופה, יביאו
לו את המנחה אשר בידם, ויביאו לנו, וחד בלשו' אחר ושפו עצמותיו לא
ראו

There are three occurrences of *’alef* with *dagesh* in a particular lexical item (viz. derivatives of the root בוא ‘to come’), these being in the verses $\text{מִמּוֹשְׁבֵי־תִיכֶם תָּבִיאוּ לַחֶם}$ ‘You shall bring from your dwellings two loaves of bread to be waved’ (Lev. 23.17), $\text{וַיָּבִיאוּ לּוֹ אֶת־הַמִּנְחָה אֲשֶׁר־}$ בְיָדָם ‘they brought to him the present which they had in their hand’ (Gen. 43.26), וַיָּבִיאוּ לָנוּ ‘they brought to us’ (Ezra 8.18), and one (case of *’alef* with *dagesh*) in another word,

¹ Long version, edition in vol. 2 of this book, §II.L.1.3.2.

(in the verse) וְשָׁפוּ עֲצָמוֹתָיו לֹא רָאוּ ‘and his bones which were not seen stick out’ (Job 33.21).²

חד מן ד' אלפין דגשין בקרי'

One of four *ʿalefs* with *dagesh* in Scripture.³

These show that the occurrence of *dagesh* in *ʿalef* in these specific places was fixed in the Tiberian tradition. In some of the early Standard Tiberian codices, however, *dagesh* is marked in *ʿalef* also elsewhere in addition to these canonical four places. This applies even to L, where it occurs in the following two additional places:⁴

L: Ruth 2.10: וְאֶנְכִי ‘and I’ (A: וְאֶנְכִי)

L: Ruth 2.11: וַתַּעֲזָבִי אֶבְרָתְךָ ‘and you left your father’ (A: וַתַּעֲזָבִי אֶבְרָתְךָ)

These two additional occurrences of *dagesh* in *ʿalef* in L are not referred to in the Masoretic notes, which indicates that they were not canonical in the Tiberian tradition. In the manuscript C there are numerous additional cases of *ʿalef* marked with *dagesh*, none of which are referred to in the Masoretic notes (Yeivin 1980, 285), e.g.

C: Hag. 1.1: שְׂאֵלְתֵי־אֵל׃ ‘Shealtiel’ (L [BHS]: שְׂאֵלְתֵי־אֵל׃)

² Ginsburg (1880, §5), source: Masora magna in British Library, Harley 1528 (fourteenth century, Spain).

³ Ginsburg (1905, 2), source: Masora magna in the Second Rabbinic Bible (Venice 1516–17, Bomberg) to Lev. 23.17, Job 33.21 and Ezra 8.18.

⁴ I am grateful to Ben Kantor for drawing these to my attention.

C: Jer. 38.12: בְּלוֹאֵי ‘rags’ (L [BHS]: בְּלוֹאֵי)

C: Isa. 51.19: קְרָאֲתֶיךָ ‘the things that befall you’ (L [BHS]: קְרָאֲתֶיךָ)

Ginsburg (1905, 2) draws attention to the existence of some Masoretic notes in European manuscripts that refer to a greater number of instances of *dagesh* in *ʾalef* than the canonical four. These must reflect the awareness of a greater extent of marking the *dagesh* in some manuscripts.

In manuscripts with Non-Standard Tiberian vocalization, the marking of *dagesh* in consonantal *ʾalef* is very frequent. In the Codex Reuchlinianus this is the general rule with only a minority of exceptions. In the single verse Isa. 37.33, for instance, we find: אָמַר ‘he said’ (L [BHS]: אָמַר), אֶל ‘to’ (L [BHS]: אֶל), אַשּׁוּר ‘Assyria’ (L [BHS]: אַשּׁוּר) (Morag 1959, 218). There is frequent marking of *dagesh* in *ʾalef* also in manuscripts with Non-Standard Tiberian manuscripts written in the Middle East. In some of the Genizah fragments described by Blapp (2017), for example, the marking is as regular as in Codex Reuchlinianus. The following are a few selected examples from T-S A12.1 (Blapp 2017, 83):

אָמוֹ (T-S A12.1 | L [BHS]: אָמוֹ Prov. 29.15 ‘his mother’)

אֶשְׂרֵהוּ (T-S A12.1 | L [BHS]: אֶשְׂרֵהוּ Prov. 29.18 ‘happy is he’)

אָץ (T-S A12.1 | L [BHS]: אָץ Prov. 29.20 ‘he who is hasty’)

בְּאֵמֶת (T-S A12.1 | L [BHS]: בְּאֵמֶת Prov. 29.14 ‘truthfully’)

כִּסֵּאוֹ (T-S A12.1 | L [BHS]: כִּסֵּאוֹ Prov. 29.14 ‘his throne’)

יִרְאוּ (T-S A12.1 | L [BHS]: יִרְאוּ Prov. 29.16 ‘they will see’)

וְאֵין (T-S A12.1 | L [BHS]: וְאֵין Prov. 29.18 ‘where there is not’)

The motivation to mark the *dagesh* in the four canonical places in the Standard Tiberian tradition was, it seems, to ensure that the consonantal *ʾalef* was pronounced correctly and was not slurred over (Yeivin 1978, 1980, 285). The forms וְיִבְיֹאוּ לָךְ (Gen. 43.26), וְיִבְיֹאוּ לָנוּ (Ezra 8.18) and וְתִבְיֹאוּ לָהֶם (Lev. 23.17) are distinguished from other instances of similar forms of this verb in the biblical corpus by having a conjunctive accent followed by a word with an accent on the initial syllable. This is the context in which *dehiq* occurs when the final vowel of the first word is *qames* or *segol*, in which there is a fast reading and compression of the syllable between the two accents (§I.1.2.8.1.2.). They also exhibit the sequence of two adjacent high vowels [i:—u:] separated by *ʾalef*. It is likely, therefore, that the consonantal *ʾalef* was considered to be particularly in danger of being slurred over in such a context. Another common feature of these three cases is the occurrence of the sonorant consonant *lamed* at the beginning of the second word. The *ʾalef* in וְאֵין (Job 33.21) was evidently considered to be in danger of losing its pronunciation and being read as a glide between the two high [u:] vowels.

The greater number of occurrences of *dagesh* in *ʾalef* in some of the model Tiberian codices, especially C, reflects the extension of this principle to other cases of consonantal *ʾalef* that were considered to be at risk of being misread. Still further extension of this practice is found in some manuscripts with Non-Standard Tiberian vocalization, in which the marking of *dagesh* has become virtually regular.

The question arises as to whether this *dagesh* in *ʾalef* marked gemination or not. Some modern scholars have interpreted it as a sign to distinguish the consonantal realization of the *ʾalef* from cases where it does not have consonantal realization (e.g. Morag 1959, 218–19, 1960, 208 n.6, 1963, 5–6). It would, therefore, be equivalent to a *mappiq* on the letter *he*, which distinguishes final consonantal *he* from final *he* that is a vowel letter, rather than a marker of gemination. A statement in *Hidāyat al-Qāriʾ*⁵ appears to support this interpretation:

If it were said: Surely the *dagesh* in some of the four letters of this place (i.e. the letters אההע), namely in the *ʾalef* in the four passages that you have just mentioned, disproves your statement that *dagesh* is not put on the letters of this place of articulation, the response would be: If one examines carefully the so-called *dagesh* in the *ʾalef* in these four passages, one sees that it is not *dagesh*, since the speaker strives to introduce heaviness into it, but it is not made heavy.⁵

There is, however, evidence for the gemination of the *ʾalef* in some early Karaite sources. Yūsuf ibn Nūḥ, a Karaite scholar active in the second half of the tenth century, in his grammatical commentary known as the *Diqduq* compares the *dagesh* in the forms וַיְבִיאֵנוּ (Gen. 43.26) and וַיְבִיאֵנוּ (Ezra 8.18) to the *dagesh* that occurs in other forms due to the preceding stress:

וַיְבִיאֵנוּ (Job 13.9): ... The *dagesh* that occurs in the *lamed* has arisen due to the fact that the stress lengthens (the syllable beginning with) the *tav*, resulting in וַיְבִיאֵנוּ ‘you

⁵ Long version, edition in vol. 2 of this book, §II.L.1.3.5.

deceive him'. This conforms to what we have stated before, with regard to the occurrence of *dagesh* in some places when the stress lengthens what precedes, for example אֶל־מֹשֶׁה לֵאמֹר 'to Moses saying' (Exod. 6.10), וַיֹּאמְרוּ לֹא 'and they said "No"' (Gen. 19.2), וַיָּבִיאוּ לָנוּ (Ezra 8.18) and וַיָּבִיאוּ לוֹ (Gen. 43.26). The word וַיָּבִיאוּ is like תִּהְיֶה־תְּלוּ, in that the stress and the *dagesh* occur within the same word.⁶

This passage implies that the *dagesh* in the *ʾalef* indicates gemination in the same way as the *dagesh* in תִּהְיֶה־תְּלוּ. Ibn Nūḥ makes the following statement about the form רָאָו (Job 33.21):

The imperative of this is רָאָה, like כָּסָה and שָׁפָה.⁷

In Ibn Nūḥ's system of grammar, the imperative form is the morphological base of derivations. This statement indicates that רָאָו has the morphological base רָאָה and that this has the same pattern as כָּסָה and שָׁפָה, which are the bases of the forms יִכְסֶה 'it is covered' (Ecc. 6.4), וַיִּשְׁפּוּ 'and they stick out' (Job 33.21) with medial gemination.

In a Karaite transcription of רָאָו לֹא (Job 33.21) into Arabic script, an Arabic *shadda* sign is written over the *ʾalif* that transcribes the *ʾalef* with the *dagesh*:

⁶ תהתלו בו: ... ואלדגש אלדי וקע פי אללאם הו מן גהה אנה מד אלטעם פי תו כק תהתלו בו: והו כמא קלנא אנה יעמל פי בעק אלמואצע דגש ענד מא ימד אלטעם פי מא תהתלו מתל וַיָּבִיאוּ צאר וַיֹּאמְרוּ לֹא: וַיָּבִיאוּ לָנוּ: וַיָּבִיאוּ לוֹ קבלה נטיר אל מֹשֶׁה לֵאמֹר: *Diqduq* (ed. Khan 2000b, 369).

⁷ אמרה רָאָה מתל כָּסָה שָׁפָה, *Diqduq* (ed. Khan 2000b, 399).



לוא־זאוֹה (BL Or 2552 fol. 51r, 1 | L [BHS]: לוא־זאוֹה Job. 33.21 ‘they were [not] seen’)

This manuscript, which is datable to the tenth or eleventh century, elsewhere uses the *shadda* sign only to mark *dagesh forte*. This is clear evidence, therefore, that the *ʾalef* was being read as geminate.

The interpretation of the *dagesh* in *ʾalef* as a marker of gemination rather than a *mappiq* is reflected also by a statement in a Hebrew Masoretic treatise:

Moreover, three of the four (i.e. the four letters אהחע) have a single fixed type (of pronunciation), which is less than all the (other) letters, (namely) העה are deprived of taking *dagesh*.⁸

The implication of the passage is that *ʾalef*, unlike the other guttural letters, does indeed take *dagesh*.

Returning to the passage from *Hidāyat al-Qāriʿ*⁹ cited above, a close reading of this reveals that the author is not saying that the point in the *ʾalef* is simply a *mappiq* indicating consonantal realization. Rather the reader ‘strives to introduce heaviness into

⁸ ועוד שלשה מן הארבעה, דרך אחד להם קבועה, מכל האותיות גרועה, הע"ח מן הדגשה (Baer and Strack 1879, 5).

it, but it is not made heavy', i.e. the reader intends to read it as a *dagesh forte*, but the muscular tension normally associated with *dagesh forte* is not achieved due to its articulation in the larynx. The articulation of the *ʾalef* could, nevertheless, have been held for a longer duration.

In some manuscripts with Babylonian vocalization, the *dagesh* sign is marked on consonantal *ʾalef* in a wide variety of words (Yeivin 1985, 265–66). It is significant that *mappiq* on final *he* is represented by a different sign (Yeivin 1985, 335–36), suggesting that the *dagesh* in the *ʾalef* did not have the function simply of *mappiq* but rather indicated gemination.

In some of the reading traditions that have continued down to modern times in Jewish communities in the Middle East, the *ʾalef* with *dagesh* in the four canonical places is indeed still read as a geminate *ʾalef*, e.g. Aleppo (Katz 1981, 16), Baghdad (Morag 1977, 14), Yemen (Morag 1963, 5–6). Transcriptions of the Aleppo tradition, following Katz (1981, 16) are as follows:

Gen. 43.26: [ˌvajjaβiʔʔu]

Ezra 8.18: [vʰjaβi:ʔʔu]

Lev. 23.17: [taβiʔʔu]

Job 33.21: [ˈruʔʔu]

These traditions of reading the *ʾalefs* need not be interpreted as late interpretations of the point in the *ʾalef*, as Morag (1977, 14) argues, but rather continuities of medieval traditions.

In sum, the weight of evidence suggests that the *dagesh* point in *ʾalef* in the four canonical places in the Standard Tiberian

tradition indicated gemination of the *ʾalef*, and so should be transcribed [vaʃʃaːˈvi:iʔʔu:], [tʰaːˈvi:iʔʔu:], [ʁuʔʔu:]. The gemination was an orthoepic strategy that involved pronouncing the *ʾalef* with additional effort to ensure that it was not slurred over.

Within the Tiberian Masoretic tradition there are a number of pairs of identical lexical words, many of them in parallel passages, one of which has preserved the consonantal *ʾalef* whilst the other has lost it both in the *ketiv* and in the *qere*,⁹ e.g.

תּוּמִים (Gen. 25.24) — תּאֻמִּים (Gen. 38.27) ‘twins’

וּפְּוָה (Gen. 46.13) — וּפּוֹאָה (1 Chron. 7.1) ‘and Puah’¹⁰

וַתְּזַרְנֵי (2 Sam. 22.40) — וַתִּזְרְנֵי (Psa. 18.40) ‘you did gird me’

הַבְּרֹתִי (1 Chron. 11.39) — הַבְּאַרְתִּי (2 Sam. 23.37) ‘of Beeroth’

לְהַשְׁאוֹת (2 Kg. 19.25) — לְהַשְׁאוֹת (Isa. 37.26) ‘to cause to crash into ruins’

וַיִּרְפְּאוּ (Jer. 8.11) — וַיִּרְפְּאוּ (Jer. 6.14) ‘and they have healed’

In some biblical scrolls from Qumran, an *ʾalef* that is pronounced consonantal in the Tiberian Masoretic tradition is omitted in the orthography, indicating that it had lost its consonantal

⁹ These are listed in the Masora, e.g. Ginsburg (1880, §16a).

¹⁰ In the Non-Standard Tiberian manuscript BL Add MS 21161, fol. 250v this word is vocalized וּפּוֹאָה, which appears to be a hybrid form of וּפְּוָה and וּפּוֹאָה.

pronunciation. This is particularly common in the scroll 1QIsa^a, but is found also occasionally elsewhere, e.g.¹¹

משריך (1QIsa^a 3.17 | L [BHS]: מְאֲשְׂרִיךְ Isa. 3.12 ‘your guides’)

נספים (1QIsa^a 11.14 | L [BHS]: נִאֲסָפִים Isa. 13.4 ‘gathered [mpl]’)

ומלו (1QIsa^a 12.23 | L [BHS]: וּמְלֹאָו Isa. 14.21 ‘and [the surface of the world] will be filled’)

וישמו (1QIsa^a 19.3 | L [BHS]: וַיֹּאשְׁמוּ Isa. 24.6 ‘[and its inhabitants] pay the penalty’)

טלים (1QIsa^a 33.11 | L [BHS]: טְלָאִים Isa. 40.11 ‘lambs’)

תנתו (1QIsa^a 29.25 | L [BHS]: תִּנְתָּו Isa. 36.16 ‘his fig tree’)

הביו (1QIsa^a 13.19 | L [BHS]: *ketiv* הַבִּיאוּ *qere* הַבְּיֵאֵי Isa. 16.3 ‘give [fs advice]!’)

בוו (4Q141 f1i.12 | L [BHS]: בָּאוּ Deut. 32.17 ‘they came’)

אליב (4Q138 f1.13 | L [BHS]: אֱלִיָּב Deut. 11.6 ‘Eliab’)

נוות (4Q78 f10–12.7 | L [BHS]: נְאוֹת Joel 1.19 ‘pastures of’)

הרץ (4Q79 f1–2.9 | L [BHS]: הָאָרֶץ Hos. 2.2 ‘the earth’)

In living reading traditions that have survived down to modern times in Jewish communities in the Middle East a consonantal *ʾalef* is general pronounced, but is sometimes elided, especially between vowels, e.g.

¹¹ Data supplied by Aaron Hornkohl.

Aleppo

ha'ele (Katz 1981, 15 | L [BHS]: הָאֵלֶּה Gen. 48.1 'these')

Baghdad

wearba'ʕim (Morag 1977, 13 | L [BHS]: וְאַרְבָּעִים Gen. 47.28
'and forty')

Yemen

bʕi:hi:w (Morag 1963, 3 | L [BHS]: בְּאֵיָוִי Isa. 19.2 'against
his brother')

Morocco

isra'il (Akun 2010, 65 | L [BHS]: יִשְׂרָאֵל Exod. 14.30 'Israel')

The variants within the Masoretic tradition and the loss of *ʾalef* in the Qumran scrolls and modern living traditions reflect the vulnerability of consonantal *ʾalef* to weakening in reading traditions, which would have motivated orthoepic measures being taken to ensure their correct reading.

In the model Standard Tiberian manuscripts *ʾalef* that does not have a consonantal realization is sometimes marked with a *rafe* sign, e.g.

L: רִאֲשִׁי 'my head' (Psa. 40.13)

L: לֹא יִרְאֶנּוּ 'we do not fear' (Hos. 10.3)

It is regularly marked in L on *ʾalef* between two vowels that is not read as consonantal, e.g.

L: פְּתִיחִים (Psa. 116.6) 'the simple'

L: עֲנָפִים (Psa. 104.12) 'branches'

L: וְדָבְרָאִים (1 Chron. 12.9) ‘and like gazelles’

These words are listed in the Masora as cases where ‘*alef* is written but not read’.¹²

In some manuscripts with Non-Standard Tiberian vocalization the marking of *rafe* on non-consonantal ‘*alef* is very frequent, e.g.

Codex Reuchlinianus:

מְשֵׁא (Morag 1959, 218 | L [BHS]: מְשֵׂא Isa. 23.1 ‘oracle’)

שֹׁבֵי (Morag 1959, 221 | L [BHS]: שֹׁבֵי Isa. 37.33 ‘(does not come)’)

Genizah manuscripts

הַיֹּאבֵה (T-S A11.1 | L [BHS]: הַיֹּאבֵה Job 39.9 ‘will it be willing’) (Blapp 2017, 59)

שׂוֹנֵא (T-S A12.1 | L [BHS]: שׂוֹנֵא Prov. 29.24 ‘he who hates’) (Blapp 2017, 99)

וְלֵא (T-S A12.1 | L [BHS]: וְלֵא Prov. 29.24 ‘and not’) (Blapp 2017, 99)

In Non-Standard Tiberian manuscripts, ‘*alefs* that are non-consonantal in the Standard Tiberian tradition are occasionally marked with *dagesh*. In some cases where the ‘*alef* occurs word-internally, it is possible that these reflect consonantal readings of the ‘*alef*, e.g.

טֵפְאִים (BL Add MS 21161, fol. 160v | L [BHS]: טֵפְאִים Psa. 104.12 ‘branches’)

¹² Ginsburg (1880, §13).

יִשְׁמַעֲמֶל (Codex Reuchlianus | L [BHS]: יִשְׁמַעֲמֶל Jer. 40.14
'Ishmael')

It is sporadically, however, marked on a word-final *'alef*, which must have been read as non-consonantal, e.g.

אָנֵּן (T-S NS 248.2, Arrant 2020 | L [BHS]: אָנֵּן Gen. 13.9
'please')

וַיִּשָּׂא (T-S NS 248.2, Arrant 2020 | L [BHS]: וַיִּשָּׂא Gen. 13.10
'and he lifted')

אֲלֵךְ (T-S NS 248.2, Arrant 2020 | L [BHS]: אֲלֵךְ Gen. 15.1
'[do not] be afraid')

In a few model Tiberian codices a *rafe* is marked on an *'alef* in the word יִשְׂרָאֵל where it would be expected to be consonantal, e.g.

C: בְּיִשְׂרָאֵל, L [BHS]: בְּיִשְׂרָאֵל 'in Israel' (1 Sam. 3.11)

Yeivin (1978, 226) suggests that this phenomenon in the model manuscripts may indicate that in this proper name the *'alef* was not pronounced as consonantal, i.e. [jisr^ʕ:e:el].¹³

The marking of *rafe* on consonantal *'alef* is attested sporadically also in manuscripts with Non-Standard Tiberian vocalization, e.g.

אָנֵּן (T-S A12.1, Blapp 2017, 99 | L [BHS]: אָנֵּן Prov. 30.2
'I')

¹³ A possible parallel to this elision of the *'alef* can be identified in the proper name דָּנִיֵּאל [dɔ:niʝe:el] 'Daniel' < **dāni-ʔēl*. Yeivin notes that in both names the *'alef* is followed by the letter *lamed*.

בְּקִרְאִי (T-S A13.20, Blapp 2017, 174 | L [BHS]: בְּקִרְאִי Psa. 69.4 ‘with my crying’)

In Non-Standard Tiberian manuscripts that otherwise use *dagesh* extensively in consonantal *ʾalef*, the *ʾalef* in the word ישראל is often marked with *rafe* (Pilocane 2004, 28).

In Biblical manuscripts with Palestinian vocalization, both the *dagesh* sign (דָּ) and the *rafe* sign (רָ) are found marked on consonantal *ʾalef*, e.g.

Dagesh:

[ו]שָׁא (Bod. Heb. e 30 ff. 48-49 | L [BHS]: שָׁא Isa. 6.11 ‘they lie waste’) (Kahle 1901, 278; Revell 1970a, 77)

Rafe:

[ו]בָּאוּ (Bod. Heb. e 30 ff. 48-49 | L [BHS]: בָּאוּ Isa. 45.20 ‘and come’) (Kahle 1901, 287; Revell 1970a, 77–78)

It is unlikely that in these cases the marking of the *rafe* reflects the loss of consonantal value of the *ʾalef*. The sign is likely to be intended to signal that the *ʾalef* is consonantal but ungeminated.

In L one encounters vocalizations such as the following:

Num. 26.7: הַרְאוּבֵנִי (BHS: הַרְאוּבֵנִי) ‘the Reubenite’ (B: הַרְאוּבֵנִי, S: הַרְאוּבֵנִי)

Josh. 12.6: לְרְאוּבֵנִי (BHS: לְרְאוּבֵנִי) ‘to the Reubenite’ (A: לְרְאוּבֵנִי)

2 Kings 10.33: וְהַרְאוּבֵנִי (BHS: וְהַרְאוּבֵנִי) ‘and the Reubenite’ (A: וְהַרְאוּבֵנִי)

Job 31.7: מְאֹרָם (BHS: מְאֹרָם) ‘blemish’ (A: מְאֹרָם)

Dan. 1.4: מְאֹרָם (BHS: מְאֹרָם) ‘blemish’ (*qere* note: מוּם)

The way these words appear in BHS, which does not mark *rafe*, would lead one to believe that the *ʾalef* in L is a consonantal *ʾalef* between two vowels. In the manuscripts the *ʾalef* is marked with *rafe* and in manuscripts other than L there is only one vocalization sign, either *qibbuṣ* before the *ʾalef* or a *shureq* dot on the *vav*, indicating that the *ʾalef* did not have a consonantal realization. The vocalization in L adds a *qibbuṣ* sign on the letter preceding the *ʾalef*. This is, therefore, a double marking of the *u* vowel that follows the consonant. The words should be read [ħa:ʁu:ve:'ni:], [mu:um],¹⁴ as shown by other model manuscripts, and also by the *qere* note in Dan. 1.4. The double marking and *qere* note were strategies to ensure that the *u* vowel was pronounced immediately after the consonant.

I.1.2. *BET* בֵּית (ב)

Bet with *dagesh* (בּ): voiced bilabial stop [b]

Bet without *dagesh* (בְ): voiced labio-dental fricative [v]

A *bet* without *dagesh* is frequently, but not regularly, marked by the *rafe* sign in the model Standard Tiberian codices.

According to *Hidāyat al-Qāriʿ*,² the Tiberians called this letter by the name בֵּי.¹⁵ This form of the name is also found in

¹⁴ The second [u] is an epenthetic, which is inserted after the long vowel in CVVC syllables (§I.2.4.).

¹⁵ Long version, edition in vol. 2 of this book, §II.L.1.1.2.

other Masoretic treatises, sometimes vocalized בְּ, ¹⁶ and the later recensions of *Hidāyat al-Qāri'*.¹⁷ It is referred to in Masoretic treatises also as בּ. ¹⁸ Both of these spellings represent the Arabic name of the letter, viz. *bā'*, which is pronounced *bē* due to *'imāla* in Arabic dialects (Nöldeke 1910, 131). This form of the name is found in some versions of *Sefer Yešira*.¹⁹

It is stated in *Hidāyat al-Qāri'* that the *bet* with *dagesh* is pronounced by closing the lips firmly.²⁰ In the Karaite transcriptions it is represented by Arabic *bā'* (Khan 1990a, 4, 2013).

According to *Hidāyat al-Qāri'*, *bet* with *rafe* is pronounced by closing the lips lightly. Taken by itself, this could be a description of a bilabial articulation of *bet rafe*. This is not confirmed, however, by other sources. The light closure of the lips would have accompanied a labio-dental articulation, and no doubt it is this secondary feature that the author refers to.²¹ Elsewhere in the *Hidāyat al-Qāri'* it is stated that *bet rafe* and consonantal *vav* have the same pronunciation:

¹⁶ Allony and Yeivin eds. (1985, 96), Baer and Strack (1879, 7, §6)

¹⁷ Arabic version of *Maḥberet ha-Tijān* (ed. Neubauer 1891, 10), Hebrew version of *Maḥberet ha-Tijān* (ed. J. Derenbourg 1871, 36).

¹⁸ E.g. *Hidāyat al-Qāri'* Long version, edition in vol. 2 of this book, §II.L.1.1.1., §II.L.1.1.2.; the treatise on the *shewa* edited by Levy (1936, בּ).

¹⁹ Eg. ed. Hayman (2004, 51).

²⁰ Long version, edition in vol. 2 of this book, §II.L.1.3.9. Eldar (1980, fols. 10b-11a, lines 84-88).

²¹ Cf. Eldar's (1980) commentary to this passage, n.75.

‘Every [consonantal] *vav* at the end of a word is pronounced, according to the Palestinians, with [the pronunciation of] *bet rafe*.’²²

This feature is alluded to also in a Masoretic treatise on the *shewa*:

‘Know that every *vav* which is prefixed to the beginning of a word and has *shewa* is read with (the pronunciation of) *bet*. ... I mean, it is pronounced as if it were the letter *bet*, as in ... וְאָמַר “and he shall say.”’²³

In some Karaite transcriptions into Arabic script, a fricative *bet* is occasionally transcribed by Arabic *wāw* and, vice versa, a Hebrew consonantal *vav* is sometimes transcribed by Arabic *bā*. This is a reflection of the fact that the two sounds were the same, e.g. in the manuscript BL Or 2548:

عناویم (BL Or 2548 fol. 3r, 10 | L [BHS]: עֲנָבִים Isa. 5.4
‘grapes’)

وقويي (BL Or 2548 fol. 42r, 3 | L [BHS]: וְקוֹיִי Isa. 40.31 ‘those
who are hoping for’)

We know from David ben Abraham al-Fāsi that in Palestine consonantal *vav* in these circumstances was pronounced as a

²² Long version, edition in vol. 2 of this book, §II.L.1.7.7. Eldar (1984b, Hebrew section, 10).

²³ אעלם אן כל ואו מזאד פי אול ללפטֵה ותחתה שוא יקרא בבא ... אעני יכרג באנה
מתל חרף בית כקולך ... וְאָמַר (ed. Levy 1936, כו).

labio-dental (see the description of *vav* §I.1.6. for details). It follows, therefore, that *bet rafe* was a voiced labio-dental.

In a few sporadic cases *bet rafe* is represented by Arabic *fāʾ* in the Karaite transcriptions, e.g.

وايزوف (Genizah MS 12, Khan 1990a, 151 | L [BHS]: ואיזוב

Num. 19.6 ‘and hyssop’)

The transcription with *fāʾ* reflects the perception that this Arabic sound was close acoustically to the voiced labio-dental [v]. It is common in transcriptions of Hebrew in medieval Muslim sources, e.g.

عرافا (al-Bīrūnī, *Chronology of Nations*, ed. Sachau 1878,

277 | ערָבָה ‘desert’)

لفانه (al-Bīrūnī, *Chronology of Nations*, ed. Sachau 1878,

187–192 | לְבָנָה ‘moon’)

دافورا (Ibn Khaldūn, Schreiner 1886, 253 | דְּבוֹרָה ‘Deborah’)

There are a few isolated occurrences of *pe* in place of fricative *bet* in biblical manuscripts from Qumran, which could be taken as evidence that the labio-dental pronunciation existed already in the Second Temple period, e.g.²⁴

בפנות (4Q6 f1a.3 | L [BHS]: בְּבָנוֹת Gen. 34.1 ‘[to visit the] daughters [of the land]’)

²⁴ Data supplied by Aaron Hornkohl.

עֲפָשׂוּ (4Q78 f10–12.7 | L [BHS]: עֲפָשׂוּ Joel 1.17 ‘[seeds of grain] have shrivelled’)

Similar interchanges of fricative *bet* with *pe* are attested in Jewish Palestinian Aramaic, alongside interchanges with *vav*, e.g. נבטייה ‘the Nabatean’, נפתייה ‘the Nabatean’, ניוותאי ‘the Nabateans’ (Dalman 1894, 74).

Hidāyat al-Qāri’ describes the stop [b] as one of the primary letters (ʿuṣūl) and the [v] as an additional secondary letter (*farʿ*).²⁵

I.1.3. *GIMEL* גִּמְלָה (ג)

Gimel with *dagesh* (ג): voiced velar stop [g]

Gimel without *dagesh* (ג̃): voiced uvular fricative [ɣ]

A *gimel* without *dagesh* is frequently, but not regularly, marked by the *rafe* sign in the model Standard Tiberian codices.

In *Hidāyat al-Qāri’* the name of this letter is spelt גמאל, which appears to reflect a different pronunciation from that of the normal Hebrew form of the name גִּמְלָה, with stress on the final syllable.²⁶ In the Hebrew *Maḥberet ha-Tījān*, a later recension of *Hidāyat al-Qāri’*, the name has the form גג.²⁷

²⁵ Long version, edition in vol. 2 of this book, §II.L.1.2.

²⁶ The spelling גמאל is used by ʿAbū al-Faraj Hārūn also in his grammatical text *al-Kitāb al-Kāfi* (ed. Khan, Gallego and Olszowy-Schlanger 2003, e.g. §I.25.35., §I.25.40., §I.28.2., §I.28.11., §I.28.12.) and by the anonymous Karaite author of the grammatical text *Kitāb al-Uqūd* (ed. Vidro 2013, 27, 317).

²⁷ Ed. Derenbourg (1871, 36).

Gimel with *dagesh* was a stop, which, according to *Hidāyat al-Qāri'*, was articulated with the middle of the tongue.²⁸ The Karaite transcriptions represent it by Arabic *jīm* or, occasionally, by *kāf*,²⁹ e.g.

הַגְּמִיל (BL Or 2539 MS A, fol. 63r, 3 | L [BHS]: הַגְּמִיל Gen. 21.8 ‘to be weaned’)

כְּבוֹר (BL Or 2554 fol. 11r, 7 | L [BHS]: כְּבוֹר Ruth 2.1 ‘mighty’)

These Arabic letters were pronounced respectively as a voiced palatal plosive [j] and an unvoiced velar plosive [k^h]. This is the pronunciation described by the early Arabic grammarians Sībawayhi and al-Khalīl (eighth century C.E.). Ibn Sīna in the eleventh century describes *jīm* as pronounced slightly further forward.³⁰ The Karaite transcriptions usually render *gimel* with *dagesh* by Arabic *jīm* due to the latter being a voiced consonantal plosive close to the place of articulation of [g]. It was preferred to *kāf*, which differed from *jīm* in being not only voiceless but also aspirated. It was a general principle of the transcriptions that voiced sounds were transcribed by one that was voiced but of a slightly different place of articulation rather than by an unvoiced letter of the same place of articulation.

²⁸ וְסִט אֶלְלִסְאָן, Long version, edition in vol. 2 of this book, §II.L.1.3.7.; Eldar (1980, fols. 10a-10b, lines 61-73).

²⁹ Khan (1990, 4, 2013).

³⁰ Roman (1983, 101–6, 218)

Gimel without *dagesh*, on the other hand, was a fricative articulated further back, on ‘the posterior third of the tongue, which is adjacent to the pharynx, opposite the (soft) palate.’³¹ In the Karaite transcriptions, fricative *gimel* is transcribed by Arabic *ghayn*, which was pronounced as a uvular fricative in the Middle Ages according to the descriptions of the Arabic grammarians.³²

Hidāyat al-Qāri’ describes the stop [g] as primary (*ʿaṣl*) and the fricative [ɣ] as secondary (*farʿ*).³³

I.1.4. *DALET* תְּלֶטֶת (ד)

Dalet with *dagesh* (ד): voiced post-dental stop [d]

Dalet without *dagesh* (דְ): voiced post-dental fricative [ð]

A *dalet* without *dagesh* is frequently, but not regularly, marked by the *rafe* sign in the model Standard Tiberian codices.

According to *Hidāyat al-Qāri’*, the Tiberians called this letter *dāl*, which is the name of the corresponding Arabic letter.³⁴

³¹ תְּלֶטֶת אֶלְלִסְאָן מִמָּא יְלִי אֶלְחִלְקוּם קוּדָאָם אֶלְחִנְךָ, Long version of *Hidāyat al-Qāri’*, edition in vol. 2 of this book, §II.L.1.3.6.; ed. Eldar (1980, fol. 10a, lines 58-59).

³² Roman (1983, 218).

³³ Long version, edition in vol. 2 of this book, §II.L.1.3.6.; Eldar (1980, fols. 8b, 10a, 254, n.58). Watson (2007, 43–44) considers the uvular fricative [ɣ] in Modern Arabic dialects to be the emphatic counterpart of the dorsal [g], involving a primary dorsal and non-primary ‘guttural’ feature.

³⁴ Long version, edition in vol. 2 of this book, §II.L.1.1.2.

This term is found also in some versions of *Sefer Yešira* (לד),³⁵ and in the later recensions of *Hidāyat al-Qāri'*, e.g. Arabic *Maḥberet ha-Tījān* (לדא),³⁶ Hebrew *Maḥberet ha-Tījān* (לד).³⁷

Hidāyat al-Qāri' states that the letter was articulated with 'the extremity of the tongue in combination with the flesh of the teeth', i.e. the gums.³⁸ Likewise, Saadya describes the place of articulation of *dalet* as being adjacent to the inside of the upper teeth.³⁹ When the letter had *dagesh*, the tongue was pressed firmly against the gums. When it was without *dagesh*, the tongue was pressed lightly against the gums. Both forms of the letter were articulated in the same place. The term 'end of the tongue' could include both the tip and the blade. Most versions of *Sefer Yešira* state that *dalet* was articulated with 'the beginning of the tongue',⁴⁰ but this is equally vague. The Spanish grammarian Ibn Janāḥ (eleventh century) specifies that it was articulated with the

³⁵ E.g. ed. Gruenwald (1971, 156), ed. Hayman (2004, 54).

³⁶ Ed. Neubauer (1891, 12).

³⁷ Ed. Derenbourg (1871, 36).

³⁸ טרף אללסאן מע לחם אלסאן, Long version, edition in vol. 2 of this book, §II.L.1.3.7.; ed. Eldar (1980, fol. 10b, ed. Eldar, 1980-81, lines 67-69).

³⁹ ופי דטלנת ... אנהא תגאור אלסאן מן זלך מן אעלאהא; Saadya, *Commentary on Sefer Yešira* (ed. Lambert 1891, 75).

⁴⁰ בראש הלשון (ed. Gruenwald 1971, 147; ed. Hayman 2004, 92-98). According to Morag (1960), however, the phonetic descriptions in *Sefer Yešira* reflect the pronunciation of Hebrew in Babylonia, so it must be used with caution when reconstructing the Tiberian pronunciation tradition.

blade of the tongue and not the tip.⁴¹ This corresponds to the description in one version of *Sefer Yeşira*, where it is stated that the letters דטלנת were articulated with the ‘middle’ of the tongue.⁴² It is easier, however, to interpret *Hidāyat al-Qāri*’ as referring to the contact between the tongue tip and the gums. An articulation with the blade of the tongue with the gums would have involved contact with the teeth.

Hidāyat al-Qāri’ describes the stop [d] as primary (‘aṣl) and the fricative [ð] as secondary (far‘).⁴³

The medieval scholar Isaac Israeli (ninth–tenth centuries C.E.), who had an expert knowledge of the Tiberian reading tradition, is said to have pronounced fricative *dalet* with a secondary ‘emphatic’ articulation (i.e. pharyngealized with retraction of the tongue root and increased muscular pressure) in two words, viz. אַפְדָּנֹו ‘his palace’ (Dan. 11.45) and וַיִּדְרְכוּ ‘and they have bent’ (Jer. 9.2). This was apparently due to the fact that the *pe* and the *resh* in these words were pronounced emphatic (see §I.1.1.17., §I.1.20.) and the emphasis spread to the *dalet*. The evidence for this is found in a commentary to *Sefer Yeşira* by Dunash ibn Tamim, who was a physician in court of the Fāṭimids in Kairouan, North Africa, in the tenth century C.E. He was the pupil of Isaac Israeli, who also worked as a physician in Kairouan:

⁴¹ פאן זלך אלטרף ליס הו אסלת אללסאן בל מא הו ארפע מן שלאסלה קלילא ‘This end (of the tongue) is not the tip of the tongue but what is slightly posterior to the tip’; *Kitāb al-Luma*’ (ed. Derenbourg 1886, 28).

⁴² דטלנת על חצי הלשון משתמשות, *Sefer Yeşira* (ed. Hayman 2004, 93).

⁴³ Long version, edition in vol. 2 of this book, §II.L.1.2., Eldar (1980, fol. 8b, 254, n.58).

The Arabs have sounds that the Hebrews do not have, namely the *dād* of קַצִּיב (*qaḏīb*) and the *dā'* of עֲטִים ('*aḏīm*). The meaning of *qaḏīb* is 'rod' or 'sceptre'. It is written with *šade* with a dot above it. It is a distinct sound, which resembles *dalet rafe*. The meaning of '*aḏīm*' is 'huge'. It is written with *ṭet* with a dot above it. It is a distinct sound, which resembles *dalet rafe*. ... Our master Yiṣḥaq, the son of our master Shlomo, of blessed memory, (i.e. Isaac Israeli) used to say that in the language of the Hebrews among the Tiberians there were (the sounds of) *dā'* and *dād* and he used to read ויטע אהלי אפֿטנו (Dan. 11.45, L: ויטע אהלי אפֿטנו 'He will pitch the tents of his palace'⁴⁴), in which he used to pronounce *dā'* although *dalet* was written. He used to read ויצרכו את לשונם (Jer. 9.2, L [BHS]: ויִצְרְכוּ אֶת־ לְשׁוֹנָם 'they bent their tongue'), in which he pronounced *dād*, although *dalet* was written. The reason for all this was that he was an expert in the reading of the Tiberians.⁴⁵

Early in the history of Arabic, the distinction between the pronunciation of *dād* (ض) and *dā'* (ظ) broke down. In modern

⁴⁴ BHS erroneously reads L as אֶהְלִי.

⁴⁵ ויש אצל הערביים הברות שאינם נמצאות אצל העבריים, והם הצדי מן קציב והטא מן עטים. פי' קציב שבט או שרביט ונכתב בצדי ונקודה מלמעלה והיא הברה בפני עצמה וגם היא דומה להברת דלת ברפי. ופי' עטים עצום ונכתב בטית ונקודה מלמעלה והיא הברה בפני עצמה וגם היא דומה להברת דלת ברפי ... והיה רבנא יצחק בן רבנא שלמה ז"ל אומר כי יש בלשון העבריים אצל הטבריים הטא והצדי והיה קורא ויטע אהלי אפֿטנו והיה מיסד הטא בלשוננו והיא בכתב דלת. והיה קורא ויצרכו את לשונם והיה מיסד הצאד בלשוננו והיא בכתב דלת. וכל זה למה מפני שהיה בקי בקריאת בני טבריה cited by Mann (1931, 670, n.106). Cf. Schreiner (1886, 221), Dukes (1845, 9, 93), Grossberg (1902, 24).

vernacular dialects, the two have merged either to an emphatic stop *ḏ* (mainly in urban dialects) or to an emphatic interdental *ḏ̣* (mainly in Bedouin dialects) (Versteegh 2011). In medieval Judaeo-Arabic, a *ṣade* with an upper dot (ص̣) was used to represent Classical Arabic *ḏād* (ض) and a *ṭet* was used to represent Classical Arabic *ḏāʾ* (ظ). As a result of their merger in the spoken language already in the Middle Ages, however, there was frequent confusion in the orthography of Judaeo-Arabic texts, in which a historical *ḏād* and a historical *ḏāʾ* were both represented by either *ṣ* or *ṭ* interchangeably.⁴⁶ The representation of a Hebrew *dalet* in the passage by both *ṣ* and *ṭ* and the statement attributed to Isaac Israeli that ‘in the language of the Hebrews among the Tiberians there were (the sounds of) *ḏāʾ* and *ḏād*’ should be interpreted in this light. A single emphatic sound was no doubt intended, presumably the emphatic interdental *ḏ̣* [ḏ^ʕ], given the fact that the author in the passage states that these two emphatic Arabic letters resemble *dalet rafe*.

ʿAbū al-Faraj Hārūn in his *al-Kitāb al-Kāfī* refers to the pharyngealization of *dalet* in the words *יְהוֹנָדָאֵם* (Dan. 11.45) and *יְהוֹנָדָאֵם* ‘topaz’ (Exod. 28.17):

‘Indeed, in Arabic there are letters that are pronounced with sounds that are not found in Hebrew, such as *jīm*, *ḏād* and others. Some teachers, however, when reading *יְהוֹנָדָאֵם* ‘the tents of his palace’ (Dan. 11.45) and *יְהוֹנָדָאֵם* ‘sardius, topaz’ (Exod. 28.17) pronounce the *dalet* in them like Arabic *ḏād* or *ḏāʾ* and these words sound like *יְהוֹנָדָאֵם* and

⁴⁶ See the discussion by Wagner (2010, 28–32).

פְּטָצָה. This, however, does not increase the number of letters, since the *dalet* has the same form, although the reading of it differs.⁴⁷

In some modern reading traditions, *dalet* is pharyngealized when in contact with an emphatic consonant. In the Moroccan reading tradition, for example, this is documented by Akun (2010) as occurring after emphatic [r^s], e.g.

jar^sl^sd^su (Akun 2010, 72 | L [BHS]: יֵרְדוּ Exod. 15.5 ‘they went down’)

I.1.5. *HE* הֵּ (ה)

Glottal fricative [h]

The name of the letter is normally spelt הֵּ or הִי, vocalized with *šere*, in the Masoretic treatises.

A dot in a final *he* indicates that the letter was to be pronounced as a consonant and was not merely a vowel letter (*mater lectionis*) for a final vowel, e.g. לָהּ [lɔ:h] ‘to her’, but מַלְכָּה [malk^h:] ‘queen’. This dot is known as *mappiq* (מַפִּיק), meaning literally ‘bringing out, pronouncing’. In medieval sources, such as the Masoretic treatises, the term sometimes is vocalized as *mappeq* (מַפִּיק, מַפִּיק),⁴⁸ which is an Aramaic *haf^cel* participle from

⁴⁷ Ed. Khan, Gallego and Olszowy-Schlanger (2003, §I.24.2): בל פי אלערבי מן אלאחרף אלמנטוק בהא פי כלאמהם מא לים לאלעבראני נחו אלגים ואלצאד וגירהםא ואן כאן בעק אלמעלמין אדא קרא אהלי אפדנו ואדם פטדה אכרג אלדאל פיהמא ככרוג אלצאד או אלטא פי אלערבי פיסמע מנה כמסמוע אפצנו פטצה פליס דלך בזאיד פי עדד אלארף אד אלדאל צורתהא ואחדה ואן אכתלפת אלקראה.

⁴⁸ E.g. CUL T-S D1.2.

the root *n-p-q* ‘to come out’. This is the earlier form of the term, *mappiq* being a later Hebraization. Some manuscripts of Masoretic treatises vocalize the term *mappaq* (מַפְּקָ).⁴⁹ In *Hidāyat al-Qāri*’ the consonantal pronunciation of *he* was referred to as ‘appearance’ (*duhūr*).⁵⁰

The *mappiq* is in principle marked in consonantal *he* only at the end of a word since in vocalized texts it is only in this context that there would be ambiguity of reading, e.g. הַלְדָּה [jal'dɔ:h] ‘her child’ as opposed to הַלְדָּה [jal'dɔ:] ‘girl’. At the beginning or in the middle of a word, a consonantal pronunciation in the onset of a syllable is indicated by a vowel sign on the letter or a following vowel letter, e.g. הַאֲוֹר ‘the light’ (Gen. 1.3), יִהְיֶה ‘it will go’ (Psa. 85.14), הוֹלִידוֹ ‘his giving birth to’ (Gen. 5.4) or by a *shewa* sign in a syllable coda, e.g. פְּדָהֶל [p^haðah'ʔe:el] ‘Pedahel’ (Num. 34.28). A word-medial *he* that does not have a vocalization sign or is not followed by a vowel letter must be read as a vowel letter, e.g. פְּדָהֶזֶר [p^haðɔ:'sʕu:urʕ] ‘Pedahzur’ (Num. 1.10; despite the normal English spelling of the latter, the *he* is not pronounced according to the Tiberian reading tradition).⁵¹ In some manuscripts, however, consonantal *he* is marked with *mappiq* within a word. This is found in particular in words of unusual form in which consonantal *he* is pointed with *shewa*, e.g. L and S בְּהֶשְׁמָה [bɔhʃam'mɔ:] ‘when it lies desolate’ (Lev. 26.43), S פְּדָהֶאֱל [p^haðah'ʔe:el]

⁴⁹ E.g. MS S27, fols. 1r-1v, *Hidāyat al-Qāri*’, short version, edition in vol. 2 of this book, §II.S.2.0.

⁵⁰ Long version, edition in vol. 2 of this book, §II.L.1.3.4.; Eldar (1980, fol. 9b, line 31).

⁵¹ Ofer (2013).

[p^haðahʔe:el] ‘Pedahel’ (Num. 34.28).⁵² In such contexts, the consonantal *he* was evidently felt to be at particular risk of being read incorrectly.

In the manuscript A the dot of the *mappiq* in word-final *he* is often placed low in the letter, as in Prov. 5.19 shown below, and is occasionally written under the letter.⁵³

A: 

L: 

BHS: בְּאַהֲבָתָהּ ‘with her love’

Mappiq is frequently written under final consonantal *he* in manuscripts with Non-Standard Tiberian (Non-Standard Tiberian) vocalization, e.g.

Genizah manuscripts

יְגִיעָה (T-S A11.1, Blapp 2017, 51 | L [BHS]: יְגִיעָה Job 39.16
‘her labour’)

לָּהּ (T-S A11.1, Blapp 2017, 51 | L [BHS]: לָּהּ Job 39.17 ‘to
her’)

אֱלֹהֵי (T-S A11.1, Blapp 2017, 51 | L [BHS]: אֱלֹהֵי Job 40.2
‘god’)

In Non-Standard Tiberian manuscripts from the Genizah, the *mappiq* is occasionally written in the lower half of the letter (Blapp 2017, 112, 128).

⁵² Yeivin (1980, 285).

⁵³ Yeivin (1968, 49–50).

European manuscripts

בְּקִרְבָּהּ (Codex Reuchlinianus | L [BHS]: בְּקִרְבָּהּ Isa. 19.14
‘within her’)

אֶתָּהּ (Codex Reuchlinianus | L [BHS]: אֶתָּהּ Isa. 19.17 ‘her
[obj.]’)

גְּבוּלָהּ (Codex Reuchlinianus | L [BHS]: גְּבוּלָהּ Isa. 19.19 ‘its
boundary’)

כְּגִבְהָ (BL Add 21161 | L [BHS]: כְּגִבְהָ Amos 2.9 ‘like the
height’)

Mappiq in the form of a dot under a final consonantal *he* is also found in some manuscripts with Palestinian vocalization, e.g.

פְּרִיָּהּ וְטוֹבָהּ (T-S 12.197, Kahle 1927, II, 80; Revell 1970a, 95
| L [BHS]: פְּרִיָּהּ וְטוֹבָהּ Jer. 2.7 ‘its fruits and its good things’)

In Non-Standard Tiberian manuscripts, a *mappiq* is occasionally written on a word-internal or even a word-initial consonantal *he* with a vocalization sign. In such cases, it is written within the letter, e.g.

Genizah manuscripts

נְהַרְרוֹת (T-S A13.35, Blapp 2017, 191 | L [BHS]: נְהַרְרוֹת Psa.
74.15 ‘streams’)

וְהִתְעַלְמָתָּ (T-S A5.12, Arrant 2020 | L [BHS]: וְהִתְעַלְמָתָּ Deut.
22.4 ‘and you ignore’)

יִהְיוּ (CUL Or 1080.A4.18, Arrant 2020 | L [BHS]: יִהְיוּ Num.
28.19 ‘they shall be’)

הַזֶּה (T-S NS 284.85, Arrant 2020 | L [BHS]: הַזֶּה Exod. 3.21
'this')

European manuscripts

וְהָיִיתָ (Codex Reuchlinianus, Morag 1959, 219 | L [BHS]:
וְהָיִיתָ 1 Kings 2.2 'and you will be')

Mappiq in Non-Standard Tiberian manuscripts is sporadically marked even where the *he* has the function of a *mater lectionis*.

מַעֲשֵׂה (T-S NS 68.22, Arrant 2020 | L [BHS]: מַעֲשֵׂה Deut.
28.12 'work of')

וְמַכֶּה (T-S AS 8.123, Arrant 2020 | L [BHS]: וְמַכֶּה Lev. 24.21
'and he who strikes')

It is significant that in A and in Non-Standard Tiberian manuscripts that mark *mappiq* under the *he*, when a dot is marked within consonantal *'alef*, it is, by contrast, always written within the letter. Moreover, whereas the Masora refers to the dot in *'alef* in the four canonical places (§I.I.1.1.) as *dagesh*, the term *dagesh* is never used to refer to the *mappiq*. The Masoretic notes and treatises generally refer to cases of *mappiq* in statements containing the participle *mappeq* 'to pronounce' such as

מְלִיץ מִן חֵד וְחֵד מִפְקִיז ה'

'Unique words in which one pronounces *he*' (Ginsburg 1880, §36)

This demonstrates that the *mappiq* does not represent gemination. Moreover, *he* is not geminated in any other context.

On some occasions in Non-Standard Tiberian manuscripts, a final consonantal *he* is marked with a *shewa* sign, e.g.

Genizah manuscripts

אֱלֹהֶיךָ (T-S A11.1, Blapp 2017, 47 | L [BHS]: אֱלֹהֶיךָ Job 39.17
'God')

יִגְבִּיחַ (T-S A11.1, Blapp 2017, 48 | L [BHS]: יִגְבִּיחַ Job 39.27
'it mounts')

European manuscripts

יִגְיֶה (Codex Reuchlinianus | L [BHS]: יִגְיֶה Isa. 13.10 '[does
not] give light')

When word-final *he* acts as a vowel letter, it is sometimes, though not regularly, marked with *rafe* in the model Tiberian manuscripts, e.g.

L: וְלֹא־יִכְלֶהָ 'she was not able' (Exod. 2.3)

L: חָזָה 'he saw' (Isa. 1.1)

L: סָרָה 'apostasy' (Isa. 1.5)

Rafe is written more regularly in some Non-Standard Tiberian manuscripts, e.g.

Genizah manuscripts:

אֶשְׁפָּה (T-S A11.1, Blapp 2017, 56 | L [BHS]: אֶשְׁפָּה Job
39.23 'quiver')

מִלְחָמָה (T-S A11.1, Blapp 2017, 59 | L [BHS]: מִלְחָמָה Job
39.25 'battle')

הַשָּׂדֶה (T-S A11.1, Blapp 2017, 59 | L [BHS]: הַשָּׂדֶה Job 40.20
‘the field’)

European manuscripts

לְמַלְחָמָה (Codex Reuchlinianus | L [BHS]: לְמַלְחָמָה 1 Sam.
23.8 ‘to war’)

קַעֲלָה (Codex Reuchlinianus | L [BHS]: קַעֲלָה 1 Sam. 23.8
‘Keilah’)

שָׁנָה (BL Add 21161 | L [BHS]: שָׁנָה Amos 2.10 ‘year’)

Some Non-Standard Tiberian manuscripts mark a *rafe* sign on *he* in contexts where it is consonantal in the Standard Tiberian tradition, e.g.

הוֹהֵ (T-S A13.20, Blapp 2017, 174 | L [BHS]: הוֹהֵ Psa. 68.36
‘he’)

הוֹשִׁיעֵנִי (T-S A13.20, Blapp 2017, 174 | L [BHS]: הוֹשִׁיעֵנִי Psa.
69.2 ‘save me!’)

בְּמִקְוֵה־לְוָהֵ (T-S A13.20, Blapp 2017, 175 | L [BHS]: בְּמִקְוֵה־לְוָהֵ
Psa. 68.27 ‘in the congregation’)

יְהוּדָהֵ (T-S A13.20, Blapp 2017, 175 | L [BHS]: יְהוּדָהֵ Psa.
68.28 ‘Judah’)

Here the *rafe* should, it seems, be interpreted as signalling that the letter is consonantal but not geminated.

The Masora identifies a number of cases where a word-final *he* that would be expected to be consonantal is not pronounced:

חד מן י"ח לא מפק' ה' בסוף תיבותה

‘One of eighteen cases in which *he* is not pronounced at the end of the word’ (Ginsburg 1880, §37)

This list includes cases where the *he* has the meaning of a 3fs suffix. In some cases, a *rafe* is marked over the *he* in L, e.g.

L: וַתְּחַמְּרָהּ ‘and she daubed it (fs)’ (Exod. 2.3)

L: הִנְסָדָהּ ‘its being founded’ (Exod. 9.18)

L: עֲוֹנָהּ ‘its (fs) iniquity’ (Num. 15.31)

L: צְדָהּ ‘its (fs) side’ (1 Sam. 20.20)

Another Masoretic note lists pairs of words ending in *he*, in one member of which it is pronounced consonantal and in the other it is not:

חד מן י"א זוגין חד מפק' ה' וחד לא מפק' ה' בסוף תיבותה

‘One of eleven pairs, in one of which *he* is pronounced and the other *he* is not pronounced at the end of the word’ (Ginsburg 1880, §38)

Some words in this list exhibit what are clearly variant realizations of the 3fs suffix. In some cases where the *he* is a vowel letter a *rafe* is marked over the *he* in L, e.g.

L: וּשְׂעָרָהּ ‘and its (fs) hair’ (Lev. 13.20)

L: וּשְׂעָרָהּ ‘and its (fs) hair’ (Lev. 13.4)

L: וְאֶתְנַנְּהָ ‘and her hire’ (Isa. 23.18)

L: לְאֶתְנַנְּהָ ‘to her hire’ (Isa. 23.17)

Examples of such 3fs suffixes without consonantal realization could be interpreted as the phonetic weakening of a final consonantal *he* that has become fixed in the reading tradition.

Alternatively, it may be morphological variation, reflecting different dialectal forms at an earlier period, which has become fixed.

There is ample evidence from the Dead Sea scrolls of the vulnerability of consonantal *he* to weakening in the Second Temple period. The cases of weakening that are discernible in the orthography are between vowels, e.g.⁵⁴

אֲחֵרִים (4Q6 f1.10 | L [BHS]: אַחֲרֵיהֶם Gen 48.6 ‘after them’)

אלוים (8Q4 f1.35 | L [BHS]: אֱלֹהִים Deut. 11.16 ‘gods’)

לְעֹלוֹת (4Q51 9e–i.9 | L [BHS]: לְהַעֲלוֹת 1 Sam 10.8 ‘to offer [sacrifices]’)

ומטו (1QIsa^a 10.11 | L [BHS]: וּמַטְהוֹ Isa. 10.24 ‘his staff’)

משתרים (1QIsa^a 22.26 | L [BHS]: מְהַשְׁתַּרֵּעַ Isa. 28.20 ‘[is too short] to stretch out’)

מתלות (1QIsa^a 24.18 | L [BHS]: מְהַתְּלוֹת Isa. 30.10 ‘illusions’)

לשמיע (1QIsa^a 47.26 | L [BHS]: לְהַשְׁמִיעַ Isa. 58.4 ‘to make heard’)

בתומות (1QIsa^a 51.9 | L [BHS]: בְּתֹהֲמוֹת Isa. 63.13 ‘through the depths’)

Weakening of consonantal *he* occurs also in modern reading traditions. This includes the weakening of final *he* written with *mappiq* in the vocalized text, e.g.

⁵⁴ Data supplied by Aaron Hornkohl.

Aleppo

leβad'da' (Katz 1981, 13 | L [BHS]: לְבַדְּהָּ Exod. 22.26 'by itself [fs.]')

missob'fa (Katz 1981, 13 | L [BHS]: מִשְׂבֹּעָה Ruth 2.18 'from her satisfaction')

Morocco

sara'ta (Akun 2010, 67 | L [BHS]: צָרָתָהּ 1 Sam. 1.6, 'her rival wife')

ʕalu'ta (Akun 2010, 67 | L [BHS]: עָלָתָהּ 1 Sam. 1.7 'her going up')

Kerala

haʕa'ba: (Forsström 2013, 461 | L [BHS]: הִשָּׁבָה Gen. 50.20 'he meant it [fs.]')

In the Babylonian reading tradition, a *mappiq* occurs in a 3fs verbal object suffix attached to a 3fs suffix conjugation form and after an energetic *nun* (Yeivin 1985, 336). In both these contexts the suffix is regularly non-consonantal in the Tiberian tradition. The Babylonian *mappiq* is a small superscribed *he*:⁵⁵

וְשָׂכַלְתָּהּ [wʃikk^hal'la:tt^hɪ:h] (וְשָׂכַלְתָּהּ Ezek. 14.15 'and you will make it (f) childless')

וּבְעָטָתָהּ [wɣe:ʕas'sa:tt^hɪ:h] (וּבְעָטָתָהּ 1 Sam 1.6 'and she provoked her')

⁵⁵ Data supplied by Shai Heijmans.

יִבְלַעְנָהּ [jivlɛ:'ʔa:mnɔ:h] (יִבְלַעְנָהּ) Isa. 28.4 'he will swallow it (f)'

This is most easily interpreted as reflecting the fact that the Babylonian and Tiberian traditions here have different morphological forms of the 3fs suffix. The occasional occurrence of a non-consonantal variant of the 3fs suffix in the Tiberian tradition in other contexts, therefore, could also be the result of morphological variation.

I.1.6. VAV וּ (ו)

Labio-dental [v] and labio-velar semi-vowel [w]

In *Hidāyat al-Qāri'* the name of this letter is spelt ווא, which represents, it seems, the corresponding Arabic name (*wāw*).⁵⁶

According to *Hidāyat al-Qāri'*, the place of articulation was the lips.⁵⁷ This could be referring to a bilabial [w] or labio-dental [v] pronunciation. It is, however, explicitly stated by David ben Abraham al-Fāsī (tenth century C.E.), the Palestinian Karaite lexicographer, that in Palestine consonantal *vav* both with and without *dagesh* was pronounced as a labio-dental. He makes this observation in the entry in his dictionary, *Kitāb Jāmi' al-'Alfāz* ('The book of the collection of words') on the name פֹּה:

תּוֹלַע וּפֹה (Gen. 46.13): name of a man. The accent is on the *vav* and it is read *rafe*. The pronunciation of the *vav* in it is like the way the Palestinians (pronounce the letter in words) such as בֵּה' (Gen. 27.29), אִיל' [fs.] (Lev.

⁵⁶ E.g. short version, edition in vol. 2 of this book, §II.S.2.2.

⁵⁷ Long version, edition in vol. 2 of this book, §II.L.1.3.9.

20.18, etc.), הַרְוּהָ ‘it watered’ (Isa. 55.10). Some of the teachers have made a mistake by reading it (like the *vav* in) רוּחַ ‘spirit’ and נִיחוּחַ ‘soothing’. This is because whenever the accent is on the letter before a *vav*, its pronunciation is light, between the lips, as in רוּחַ ‘spirit’ and נִיחוּחַ ‘soothing’, יְהוֹשֻׁעַ ‘Joshua’, לָנוּעַ ‘to sway’ (Jud. 9.9, etc.), שְׁמוֹעַ ‘to hear’, יָדַעַ ‘to know’, נֹחַ ‘Noah’, מִחַ ‘brain’. Its pronunciation (i.e. the *vav* of פָּנוּחַ), like every (consonantal) *vav* in our (reading tradition), both light (i.e. with *rafe*) and with *dagesh*, is between the upper teeth and the lower lip. Examples with *dagesh* are: יֵצְאוּ קוֹלָם ‘their speech went out’ (Psa. 19.5), צִוּם ‘he commanded them’ (Gen. 50.12, etc.), פָּאָשַׁר צִוָּה ‘as he commanded’ (Gen. 7.9, etc.), אָשַׁר יְצִוָּה ‘that he commands’ (Gen. 18.19, etc.). Examples with light (*vav*) are: הִנֵּה עַל-הַנֵּה ‘disaster upon disaster’ (Ezek. 7.26), וְרִנָּח לְשֵׂאוֹל ‘(you) be for them a king’ (Neh. 6.6), וְרִנָּח לְשֵׂאוֹל ‘and Saul was refreshed’ (1 Sam. 16.23), לֹא-יִבְשׂוּ קַוֵּי ‘those who wait for me will not be put to shame’ (Isa. 49.23). Now, תּוֹלַע וּפְנוּחַ (Gen. 46.13) is like this.⁵⁸

Al-Fāsi makes the point here that consonantal *vav* in all contexts is pronounced as a labio-dental [v]. The only exception is constituted by words that contain a *vav* followed by a guttural

⁵⁸ *Kitāb Jāmi‘ al-ʿAlfāz*, ed. Skoss (1936, vol. 2, 451-452): תּוֹלַע וּפְנוּחַ אִסַּם רְגַל וּלְחִנָּה פִּי אֱלוֹהֵי וּקְרָאתָהּ רַפִּי וּכְרוּגָה פִּיהָ אֱלוֹהֵי כְרָאִי אֱלֹשָׁמִיִּן מִתֵּל הַנֵּה דוּחַ הַרְוּהָ וּקַד גִּלְט בַּעֲץ אֱלִמְעֵלְמִין אֱלִדִּי יִקְרוּהָ מִתֵּל רוּחַ נִיחוּחַ וּדְלֶךְ אֵן כֹּל וִוִי יִכּוֹן אֱלִלְחֹן פִּי אֱלִחֶרֶף אֱלִדִּי קִבְלָה יִכּוֹן כְּרוּגָה מִכַּפֶּף בֵּין אֱלִשְׁפֶתִין מִתֵּל רוּחַ נִיחוּחַ יְהוֹשֻׁעַ לְנוּעַ שְׁמוֹעַ יָדַע נַח מַח. פְּכָרוּגָה כְּכָרוּגָה כֹּל וִוִי לְנָא אֱלִמְכַפֶּף וְאֱלִמְדָּגוּשׁ בֵּין אֱלִאֲסָנָן אֱלִפּוֹקָאֲנִיָּה וְאֱלִשְׁפָּה אֱלִסְפִּלְאֲנִי אֲעֵנִי בִּאֱלִמְדָּגוּשׁ מִתֵּל יִצָּא קָוִים צָוִים כְּאִשֶׁר צִוָּה אִשֶׁר יְצִוָּה וְאֲעֵנִי בִּאֱלִמְכַפֶּף מִתֵּל הַנֵּה עַל הַנֵּה הַנֵּה לְהֵם לְמִלְךְ וְרִנָּח לְשֵׂאוֹל לֹא יִבְשׂוּ קַוֵּי. וּמִתֵּלָה אֱלִאֵן תּוֹלַע וּפְנוּחַ.

with a furtive *pataḥ* such as רִיחֹךְ and גִּיחֹךְ, where it is pronounced ‘light, between the lips’. This must be referring to a bilabial glide between the vowel and the following *pataḥ* [ʔ̤ru:wah̥], [ni:ʔ̤o:wah̥].

It is stated in the Masoretic treatises that consonantal *vav* had the same pronunciation as *bet rafe*, e.g.

Every *vav* at the end of a word is pronounced according to the Palestinians as a *bet rafe*. (*Hidāyat al-Qāriʔ*)⁵⁹

Know that every *vav* that is prefixed to the beginning of a word and has *shewa* is read with (the pronunciation of) *bet*. ... I mean it is pronounced as if it were the letter *bet*, as in ... וְאָמַר ‘and he shall say.’ (*Treatise on the Shewa*)⁶⁰

Al-Fāsi indicates that the *vav* in the name פִּטְוָה (Gen. 46.13) was pronounced like other cases of consonantal *vav*, i.e. as labio-dental [v]. He says, however, that some teachers mistakenly read it as a bilabial [w]. This implies that there were different traditions of pronouncing the *vav* in this context. Mishaʔel ben ʕUzziʔel (tenth-eleventh century) makes the following observation about the pronunciation of *vav* in this word in his *Kitāb al-Khilaf*:

As for the word וּפְטוּהָ (Gen. 46.13), there is a consensus that it has a *vav* that (is pronounced) in the way it is read in

⁵⁹ Long version, edition in vol. 2 of this book, §II.L.1.7.7.

⁶⁰ אעלם אן כל ואו מזאד פי אול ללפטוה ותחתה שוא יקרא בבא ... אעני יכרג כאנה
מתל חרף בית כקולך ... וְאָמַר (ed. Levy 1936, כו).

Iraq, not like *bet rafe*, as in words such as עָנִיִּים ‘poor’ and so forth (in the pronunciation) of the Palestinians.⁶¹

The consensus referred to here is between the foremost Tiberian Masoretic authorities Ben Asher and Ben Naftali. They pronounced the *vav* in this word in the Babylonian fashion, i.e. as a bilabial [w], not like the labio-dental pronunciation of a *bet rafe*. This was presumably conditioned by the preceding [u:] vowel: [fu:rw:].

In Non-Standard Tiberian manuscripts, there are sporadic cases of fricative *bet* being written where Standard Tiberian orthography has a consonantal *vav*, which reflects their identical phonetic realization, e.g.

וּבְגָאֲבוֹתָו (T-S A5.7, Arrant 2020 | L [BHS]: וּבְגָאֲבוֹתָו Deut. 33.26 ‘and in his majesty’)

הַחֲבִילָה (T-S A21.125, Arrant 2020 | L [BHS]: הַחֲבִילָה Gen. 2.11 ‘Havilah’)

שָׁב (T-S AS 44.35, Outhwaite 2020 | L [BHS]: שָׁבָא Lam. 2.15 ‘emptiness’)

In Karaite transcriptions into Arabic script, a *vav* is generally transcribed by Arabic *wāw*. It is sometimes, however, transcribed by the Arabic letter *bā*². Arabic *bā*² is used elsewhere to transcribe both plosive *bet* [b] and fricative *bet* [v]. The occa-

⁶¹ ואמא לפטה ופוא מא פיהא כלף בון עלי מא יקרא באלעראק לא בשבה אלבי אלרפי (כ.ב). *Kitāb al-Khilaf* (ed. Lipschütz, 1965, p. 6).

sional use of *bā'* to transcribe *vav* indicates that scribes were confusing the labio-dental realization [v] of *vav* with that of *bet rafe*. It is attested as a transcription of medial and final *vav*, e.g.

غَابَعَنُو (Genizah MS 1, Khan 1990a, 45 | L [BHS]: גַּבְעָנוּ

Num. 20.3 'we had expired')

הַמְצִוֹת הַמְּצִוֹת (Genizah MS 1, Khan 1990a, 45 | L [BHS]: הַמְצִוֹת

Num. 15.22 'the commandments')

وَقُوبِي (BL Or 2548 fol. 42r, 3 | L [BHS]: וְקוּיְ Is. 40.31 'those

who are hoping for')

בְּגָדָיו (Genizah MS 1, Khan 1990a, 45 | L [BHS]: בְּגָדָיו

Num. 19.19 'his clothes')

Examples are attested in manuscripts of the transcription of consonantal *vav* with *bā'* when preceded by long [u:], e.g.

وَسَقُوبَاي [vaʃiqqu:'va:aj] (BL Or 2551 fol. 67r, 9 | L [BHS]:

וְשָׁקוּי Psa. 102.10 'and my drinks')

This corresponds to al-Fāsi's description of the *vav* in this context in the word פָּוָה as a labio-dental [fu:'vɔ:], but not the bilabial pronunciation [fu:'wɔ:] that is ascribed by Misha'el ben 'Uzzi'el to Ben Asher and Ben Naftali.

There is even one documented case of *bā'* transcribing a glide before a furtive *pataḥ*:

body of the *vav*, as in וּבָנָה 'and he will build' (Josh. 6.26, etc.), וּבְרַאֲתוֹ 'and you will clear it' (Josh. 17.18), וּבְרָא 'and he will create' (Isa. 4.5), וּבִינָת 'and the discernment of' (Isa. 29.14), וּבָרַר 'and clean' (Job 11.4), וּפָן 'and lest' (Deut. 4.9, etc.), וּפָנָה 'and he will turn' (Deut. 31.20, etc.), וּפֹט 'and Put' (Gen. 10.6), וּפִי 'and the mouth of' (Exod. 39.23, etc.), וּפּוֹל 'and beans' (2 Sam. 17.28), וּפְתָח 'and breathe' (Ezek. 37.9), וּמֶלֶךְ 'and king' (Gen. 14.2, etc.), וּמְלִכּוּתָהּ (cf. וּמְלִכּוּתָהּ 'her royal office' Esther 1.19), וּמֶשֶׁל 'and the ruler' (Gen. 45.8, etc.), וּמִקְלוֹ 'and his staff' (Hos. 4.12), וּמֵעַל 'and from upon' (1 Sam. 6.5, etc.), וּמַעַל 'and he acted treacherously' (cf. מַעַל Josh. 22.20). Nothing of this category is found that is pointed or read וּבְנָה, וּמֶשֶׁל, or וּפֹט, because these three letters are different from the other letters in this respect. When they read them (i.e. these words), it is not pronounced *bet*; I mean, the *vav* in them is not pronounced *bet*, as the aforementioned cases that have *shewa*. Rather, you read their *vavs* as if you are pronouncing אוּ, as if you are saying אַבְנָה, אַבְרָא, אַמְלִךְ. You should read all of them in this way. You need not read with a pure 'alef, for an 'alef does not appear in them, but I have only compared it (to 'alef) by way of approximation. ... And if the second letter of the words has *shewa*, then it is always pointed and read with a point in the body of the *vav* and it is not read as *bet*, I mean with *shewa*, rather it is read as a pure *vav*, as in וּלְלֵוִי 'and regarding Levi' (Deut. 33.8), וּשְׁמַע 'and hear' (Exod. 23.21, etc.), וּדְבַר 'and the matter of' (Num. 23.3),

וְקָרָא ‘and call’ (Ruth 4.11, etc.), וְרָדוּ ‘and have dominion over’ (Gen. 1.28, etc.), and other cases.⁶²

According to this passage, the onset of the syllable represented by conjunction ו was not *ʾalef*. It would be inappropriate, therefore, to transcribe it as [ʔu:]. This, moreover, would be a heavy CVV syllable, with a consonantal onset and long vowel in the rhyme. This would be an unexpected syllabic structure for a particle that has *shewa* in other contexts, when compared to the syllable structure of particles such as בָּ and לְ. These latter particles have a short vowel in an open syllable, represented by *shewa* (i.e. [ba], [la], see §I.2.5.1.) or a short vowel in a closed syllable when followed by a silent *shewa*, e.g. לְשִׁמוּאֵל [liʃmu:ʔe:el] ‘to Samuel’. It would be more appropriate to interpret the syllable structure of conjunctive *vav* ו as [wu], with a voiced labio-velar approximant [w] as onset. Such a voiced onset would resemble the vowel nucleus [u] in acoustic and articulatory properties, and therefore would be difficult to distinguish from a long [u:].

⁶² אדא גאור אלוו להדה אלתלתה אחרף והי במף פאנה לא יגוז חנייד אן תכרג בדאך אלכרוג ולא תנקט בשוא בל בנקטה ואחדה פי גוף אל ון מתל ובנה ובראתו וברא ובינת ובר ופן ופנה ופוט ופי ופול ופחי ומלך ומלכות ומושל ומקלו ומעל ומעל וליס יוגד פי הדא אלגנס אלבתה שי ינקט ולא יקרא ובנה ולא ומשל ולא ופוט לאן הדה אלתלתה אחרף מכאלפה לסאיר אלאחרף פי הדא ואדא קרוהא ולא יקאל בב אעני לא יקרא פיהא אלוו בב כמא תקרא אלאולה אלדי בשוא בל תקרא ואואתהא כאנד תכרגהא באו כאנד תקול אַבְנָה אַבְרָא אַמְלַךְ אַפְנָה עלי הדא אלמתאל תקרא כלהא וליס יגב תקרא באלף מחץ ולא יבין פיהא אלף ואנמא מתלת לך באלתקריב וכדא ... ואן כאן אלאחרף אלתאני מן אלתיבות בשוא פכלה ינקט ויקרא בנקטה פי גוף אלואו ולא יקרא בבא אעני בשוא בל (CUL Or 1080.13.3.2, fol. 1r–1v and Levy ed., 1936, כז). See on this passage Posegay (2019).

The Karaite transcriptions, indeed, represent the conjunction ו with an initial Arabic *wāw* and not an Arabic *ʿalif*. In some transcriptions, word-initial ו is represented by Arabic *wāw* vocalized with a Hebrew *qibbuṣ*, e.g.

ولنخدي (BL Or 2539 MS A, fol. 65r, 3 | L [BHS]: ולְנִכְדֵי Gen.
21.23 ‘to my posterity’)

وتخال (BL Or 2539 MS B, fol. 124v, 9 | L [BHS]: ותְכַל Num.
17.25 ‘so that you may make an end’)

Elsewhere in the manuscripts long [u:] is transcribed with a *shureq* point in *wāw*, e.g.

احوتينو (BL Or 2539 MS A, fol. 77r, 7 | L [BHS]: אחוֹתֵינוּ Gen.
24.60 ‘our sister’)

מִחוּץ (BL Or 2539 MS A, fol. 113v, 5 | L [BHS]: מִחוּץ Deut. 23.11 ‘from outside’)

תגעו (BL Or 2539 MS B, fol. 122v, 11 | L [BHS]: תִּגְעוּ Num.
16.26 ‘you touch’)

This applies even to cases where the orthography in the Hebrew *ketiv* is defective and the Tiberian codices have a *qibbuṣ*, e.g.

לזקוֹנָו (BL Or 2539 MS A, fol. 63r, 2 | L [BHS]: לְזִקְנָו Gen.
21.7 ‘in his old age’)

יֵאָכְלוּהוּ (BL Or 2539 MS B, fol. 119r, 1 | L [BHS]: יֵאָכְלוּהוּ)

Num. 9.11 ‘they shall eat it’)

This suggests that the vocalization with *qibbuṣ* reflects a consonantal + short vowel [wu]. In one manuscript an Arabic *damma* vowel is written on the *wāw* rather than a *qibbuṣ*, e.g.

וּמָא (BL Or 2554 fol. 80r, 12 | L [BHS]: וּמָא Cant. 7.7 ‘and

what’)

וּחְרָמֵינוּ (BL Or 2554 fol. 54r, 4 | L [BHS]: וּחְרָמֵינוּ Cant. 2.15

‘and our vineyards’)

וּדְמֵי (BL Or 2554 fol. 94v, 7 | L [BHS]: וּדְמֵי Cant 8.14

‘and be like!’)

In one manuscript, an initial conjunctive ו is transcribed by Arabic *wāw* vocalized with a Hebrew *shewa*. This most likely represents a consonantal onset followed by a short vowel, e.g.

וּמִסְפּוֹא (BL Or 2539 MS A, fol. 73v, 9 | L [BHS]: וּמִסְפּוֹא Gen.

24.32 ‘and fodder’)

וּמַיִם (BL Or 2539 MS A, fol. 74r, 1 | L [BHS]: וּמַיִם Gen.

24.32 ‘and water’)

In one manuscript an Arabic *fatha* sign is marked over the *wāw* that transcribes conjunctive ו, e.g.

وَمِي (BL Or 2552 fol. 99v, 5 | L [BHS]: וְמִי Ecc. 2.19 ‘and who’)

This reflects a variant reading tradition in which the conjunctive *vav* is read [va] even before a labial. This may be what the vocalization with *shewa* in the manuscript BL Or 2539 MS A was intended to represent. In Standard Tiberian pronunciation [wu] reflects the shift of the short vowel to a rounded quality by assimilation to the labial environment. One may compare traditions of reading such as [vami:] (L [BHS]: וְמִי) to cases in Origen’s Hexapla such as the following, where the Greek transcription has *ουα* or *ουε* where the Standard Tiberian tradition has *ו*:⁶³

ουαδου (Ambrosiana Palimpsest | L [BHS]: וְדָעוּ Psa. 46.11 ‘and know! (mp)’)

ουαλσωνι (Ambrosiana Palimpsest | L [BHS]: וְלִשׁוֹנִי Psa. 35.28 ‘and my tongue’)

ουαρημ (Ambrosiana Palimpsest | L [BHS]: וְרִעָם Psa. 28.9 ‘and shepherd (ms) them!’)

ουεβροβ (Ambrosiana Palimpsest | L [BHS]: וּבְרֹב Psa. 49.7 ‘and in the multitude of (cstr.)’)

Similar forms are occasionally found in the Babylonian tradition, e.g.⁶⁴

וּבְמִישׁוֹר (Yeivin 1985, 1152 | L [BHS]: וּבְמִישׁוֹר Mal. 2.6 ‘and in uprightness’)

⁶³ Data supplied by Ben Kantor.

⁶⁴ Data supplied by Shai Heijmans.

The normal vocalization of *vav* in the Babylonian tradition in such contexts, however, is with *hireq*, e.g.

וּמְהוּמָה (Yevin 1985, 338 | L [BHS]: וּמְהוּמָה Prov. 15.16 ‘and trouble’)

וּבְפִשְׁעֵיכֶם (Yevin 1985, 342 | L [BHS]: וּבְפִשְׁעֵיכֶם Isa. 50.1 ‘and for your transgressions’)

וּבְכִשְׂרוֹן (Yevin 1985, 352 | L [BHS]: וּבְכִשְׂרוֹן Ecc. 2.21 ‘and with skill’)

There is an exceptional case of *hireq* in L after conjunctive *vav* in this context, where *v* is expected:

L [BHS]: וְשָׁאַלְךָ (Gen. 32.18 ‘and he will ask you’ | S: וְשָׁאַלְךָ)

When word-initial conjunctive *v* is followed by a consonant with silent *shewa*, it sometimes takes minor *ga‘ya* in the Tiberian tradition. Minor *ga‘ya* lengthened the duration of a short vowel in a closed syllable slightly (represented in IPA as a half-long vowel, cf. §I.2.8.2.2.). When this is the case, some transcriptions represent the lengthened syllable with two Arabic *wāws*. This must be interpreted as representing a consonantal onset followed by a lengthened vowel [uː] vowel, i.e. [wuː], e.g.

וּוּלְהָאֵלֹהִים (BL Or 2540, fol. 8v, 4 | L [BHS]: וּוּלְהָאֵלֹהִים Exod.

3.8 ‘and to bring him up’)

וּוּלְיַעֲקֹב (BL Or 2546, fol. 85v, 8 | L [BHS]: וּוּלְיַעֲקֹב Num.

32.11 ‘and to Jacob’)

וּוּלֹא־הִזְרֹן (BL Or 2544 fol. 158r, 4 | L [BHS]: וּלְאַהֲרֹן Exod.

8.4 ‘and to Aaron’)

The same transcription is found when a word-initial conjunctive ו is lengthened by a phonetic *gaʿya* (§I.I.2.5.8.4.), which causes a following *shewa* to be read as vocalic, e.g.

וּוּשִׁי (BL Or 2555 fol. 96r, 5 | L [BHS]: וּשְׁתֵּה Ecc. 9.7 ‘and drink!’)

In some model Tiberian codices a *vav* before a following [u:] is written with a dot. This could be interpreted as an attempt to represent a labio-velar onset [w] rather than [v], e.g.⁶⁵

L, A: וּוּשְׁתַּחֲוּוּ (Deut. 29.25 ‘and they worshipped’)

L, B: וּוּטְ (Exod. 35.26 ‘they span’)

C: וּוּגְלוּ (Jer. 50.5 ‘let us join’)

In some manuscripts, consonantal *vav*, before [u:] and also in other contexts, is marked with a *rafe*, e.g.⁶⁶

C: וּוּתְשַׁוּוּ (Isa. 46.5 ‘and you make equal’)

L: וּוּיְהִי (Psa. 90.17 ‘and let it be’)

In manuscripts with Non-Standard Tiberian vocalization, these two strategies for marking consonantal *vav* have been extended to other contexts. The placement of a dot in consonantal

⁶⁵ Yeivin (1980, 285–286).

⁶⁶ Yeivin (1980, 286).

vav is found in such manuscripts in word-initial, word-medial and word-final position, e.g.

Genizah manuscripts

וְאֶרֶץ (T-S A13.20, Blapp 2017, 162 | L [BHS]: וְאֶרֶץ Psa. 69.35 ‘and earth’)

וְעִם (T-S A13.20, Blapp 2017, 162 | L [BHS]: וְעִם Psa. 69.29 ‘and with’)

תִּקְוֹתַי (T-S A13.20, Blapp 2017, 162 | L [BHS]: תִּקְוֹתַי Psa. 71.5 ‘my hope’).

עָלָיו (T-S A11.1, Blapp 2017, 51 | L [BHS]: עָלָיו Job 39.23 ‘upon him’)

European manuscripts

אֵלָיו (ASCNON B.I.1v, Pilocane 2004, 27 | L [BHS]: אֵלָיו Num. 27.11 ‘to him’)

In such contexts, the *vav* would have been pronounced as a labio-dental according to the Standard Tiberian tradition. Moreover, in some cases, a vowel sign is written under it, which shows it must be consonantal, e.g. וְאֶרֶץ. Comparison with the strategies for marking consonantal *vav* in the Babylonian and Palestinian traditions, however, suggest that the dot in the *vav* should be interpreted as a *shureq* vowel sign. Its purpose in the Non-Standard Tiberian manuscripts was to ensure that the letter was read as a separate segment from the adjacent vowel, although it was only an approximating representation of its pronunciation, i.e. presumably a labio-dental.

In Babylonian vocalization, consonantal *vav* is sometimes vocalized with a sign that can only be interpreted as a *shureq* vowel, e.g.⁶⁷

אָבִיו (OB, Yeivin 1985, 267 | L [BHS]: אָבִיו Deut. 27.16 ‘his father’)

וְלִפְנֵי (LB, Yeivin 1985, 267 | L [BHS]: וְלִפְנֵי Job 21.33 ‘and before him’)

לְגַב (OB, Yeivin 1985, 267 | L [BHS]: לְגַב Prov. 26.3 ‘for the back’)

According to the Mishaʿel ben ‘Uzziʿel in the passage cited above, the Iraqis, i.e. the Jews of Babylonia, pronounced consonantal *vav* as a bilabial, so a *shureq* was more appropriate as a representation of its pronunciation than in the Tiberian tradition. In manuscripts with Palestinian vocalization, the vowel sign of *holem* occasionally represents consonantal *vav*, e.g.

וַיִּשְׁתַּחוּּ (Bod. Heb. d 44, ff. 1-4, Dietrich 1968, 25* | L [BHS]: וַיִּשְׁתַּחוּּ לוֹ 2 Kings 2.15 ‘and they bowed before him’)

שָׁעַתִּי (T-S 20.53, Murtonen 1958, לד, Allony and Díez Macho 1958, 259 | L [BHS]: שָׁעַתִּי Psalms 30.3 ‘I cried’)

The *holem* sign here, as with the Tiberian *shureq*, must be regarded as an approximating representation of the labio-dental pronunciation of Palestinian consonantal *vav*.

In Gen. 46.13 L has a dot in the second *vav* of וַיִּפְּוּהָ. Some early codices do not have the dot, e.g. S: וַיִּפְּוּהָ. In B a dot appears

⁶⁷ Data supplied by Shai Heijmans.

to have been written and then erased.⁶⁸ The name occurs also in Num. 26.23 where L and other early codices have לְפִיָּה without the dot. It is likely that the dot in the vocalization of L in Gen. 46.13 should be identified as *shureq* to mark the consonantal pronunciation of the letter rather than a *dagesh* and the reading [fu:'wɔ:] was intended, as in other manuscripts.⁶⁹ The Babylonian vocalization of וּפְיָה (L, Gen. 46.13) is וּפְיָה (Yeivin 1985, 764), with a *shureq* over the *vav* and no vocalization on the *pe*. This could be compared to Tiberian vocalizations such as רִיחַ, which al-Fāsī claims contained a bilabial glide: [ɾu:wah̥]. Babylonian פְּיָה is likely to have been intended to represent [fu:'wɔ:].

In Non-Standard Tiberian manuscripts, *rafe* is marked on consonantal *vav* in a wider range of contexts than in the Standard Tiberian codices. It is found on *vav* in word-initial and word-medial position, e.g.

וְגַם (T-S A12.1, Blapp 2017, 99 | L [BHS]: וְגַם Ruth 1.12 ‘and also’)

תִּקְוָה (T-S A12.1, Blapp 2017, 99 | L [BHS]: תִּקְוָה Prov. 29.20 ‘hope’)

גִּצְוֹתַי (T-S A12.1, Blapp 2017, 99 | L [BHS]: גִּצְוֹתַי Prov. 29.23 ‘pride’)

⁶⁸ A trace of dot is visible and the parchment has been scraped.

⁶⁹ In later sources the dot in the word is referred to as a *dagesh*. Jedidiah Norzi (seventeenth century) in his work *Minḥat Shai* (Mantua, 1742–44 ad loc. Gen. 46.13) refers to it as *dagesh* and notes that there were differences of opinion about its presence in the name in Gen. 46.13 in the sources available to him.

The function of the *rafe* here is to mark the letter as consonantal but ungeminated.

Occasionally a *rafe* sign is used to mark consonantal ungeminated *vav* in Palestinian vocalization, e.g.

עֲוָל (T-S 12.195, Kahle 1930, 83 | L [BHS]: עֲוָל Psa. 53.2 ‘iniquity’)

In Non-Standard Tiberian manuscripts, a consonantal *vav* is indicated by a *shewa* sign, often written within the letter. The *shewa* makes it clear that the letter closes a syllable and so is to be read as a consonant, e.g.

Genizah manuscripts

עֲלֵי (T-S A13.18, Blapp 2017, 125 | L [BHS]: עֲלֵי Psa. 89.46 ‘on him’)

כְּנַפָּי (T-S A13.18, Blapp 2017, 125 | L [BHS]: כְּנַפָּי Psa. 91.4 ‘his wings’)

European manuscripts

וְשׂוֹלָיו (Codex Reuchlinianus, Morag 1959, 219 | L [BHS]: וְשׂוֹלָיו Isa. 6.1 ‘and his train’)

וְהָרִיחוֹתָיו (BL Add 21161 | L [BHS]: וְהָרִיחוֹתָיו Hos. 14.1 ‘and his pregnant women’)

The distinction in the Middle Ages between the pronunciation of *vav* as a labio-dental in Palestine and its pronunciation as bilabial in Iraq is continued in modern reading traditions. In reading traditions of the Levant, such as Aleppo, consonantal *vav* is pronounced as a labio-dental, e.g.

ħaj^ljav (Aleppo, Katz 1981,4 | L [BHS]: חַיָּוִי Gen. 47.28 ‘his life’)

veɣam^lhu^r jiy^ldal (Aleppo, Katz 1981,9 | L [BHS]: וְגַם־הוּא יִגְדֹל Gen. 48.19 ‘and he also will be great’)

In the Samaritan reading tradition, consonantal *vav* has shifted to [b] (except in the case of conjunctive *vav*), reflecting its merger with fricative *bet* [v] and the consequent shift of fricative *bet* [v] to plosive *bet* [b] (Ben-Ḥayyim 2000, 33–34), e.g.⁷⁰

bābīyyima (Samaritan, Ben-Ḥayyim 2000, 33-34 | L [BHS]: וּוִיָּהֶם Exod. 26.32 ‘their hooks’)

išāb (Samaritan, Ben-Ḥayyim 2000, 33-34 | L [BHS]: עֵשָׂו Gen. 25.25 ‘Esau’)

The occurrence of *pe* in place of consonantal *vav* in a biblical manuscript from Qumran could be taken as evidence that the labio-dental pronunciation already existed in the Second Temple period:⁷¹

צַוָּה יְהוָה לְיַעֲקֹב (4Q111 3.8 | L [BHS]: צַוָּה יְהוָה לְיַעֲקֹב Lam. 1.17 ‘The Lord commanded Jacob’)

The pre-Masoretic transcriptions into Greek and Latin, however, reflect a pronunciation of the consonantal *vav* as a bilabial [w]. In Greek this is represented by ου or υ and in Latin by *u*, e.g.⁷²

⁷⁰ Here and elsewhere the transcription system of Ben-Ḥayyim is used for the Samaritan tradition.

⁷¹ Data supplied by Aaron Hornkohl.

⁷² Data supplied by Ben Kantor.

Septuagint (third century B.C.E.)

Οὐκάν (Göttingen Septuagint | L [BHS]: וַעֲקֹן Gen. 36.27
‘Akan’)

Εὗαν (Göttingen Septuagint | L [BHS]: תָּוָה Gen. 4.1 ‘Eve’)

Hexapla of Origen (c. 185–254 C.E.)

ουαδωρ (Ambrosiana Palimpsest | L [BHS]: וָדָר Psa. 49.12
‘and generation’)

βγηουαθω (Ambrosiana Palimpsest | L [BHS]: בְּגִאֲוֹתָו Psa.
46.4 ‘at its swelling’)

Jerome (346-420 C.E.)

uaiomer (Jerome, *Epistula* LXXIII.55.18, ed. Hilberg | L
[BHS]: וַיֹּאמֶר Gen. 4.15 ‘and he said’)

illaue (Jerome, *Hebraicae Quaestiones in Libro Geneseos*, ed.
de Lagarde et al., 6.5, 6, 12 | L [BHS]: יִלְוֶה Gen. 29.34 ‘[my
husband] will join himself [to me]’)

In medieval Greek transcriptions, on the other hand, con-
sonantal *vav* is represented by β, which reflects [v], e.g.

Nikolaos of Otranto (1155/60–1235)

βεέθ (Kantor forthcoming | L [BHS]: וַאֲתָ Gen. 1.1 ‘and
(direct object marker)’)

βτιγιομερου (Kantor forthcoming | L [BHS]: וַיֹּאמְרוּ Ex. 32.4
‘and they said’)

In modern Iraqi reading traditions, such as Baghdad (Morag
1977, 8) and Kurdistan (Sabar 2013), *vav* is pronounced as a bi-
labial [w]. The same applies to the Yemenite reading tradition,

which was closely related historically with Babylonia in the Middle Ages (Morag 1963; Ya'akov 2015), e.g.

w^ojɪd'gu (Baghdad, Morag 1977,8 | L [BHS]: וַיִּזְדְּקוּ Gen. 48.16
'and let them increase')

wǎʃɔfat^s (Yemen, Morag 1963,42 | L [BHS]: וַיִּשְׁפֹּט Isa. 2.4
'and He will judge')

I.1.7. *ZAYIN* זַיִן (ז)

Voiced alveolar sibilant [z]

According to *Hidāyat al-Qāri'*, the Tiberians called this letter *zāy* (זאי), which is the name of the corresponding Arabic letter.⁷³ A shortened form of the name, *zay*, was also used in Jewish Palestinian Aramaic (Sokoloff 1992, 175) and Syriac (Payne Smith 1879, 1116).

Hidāyat al-Qāri' states that the place of the articulation of the letter is the teeth.⁷⁴ This evidently refers to the movement of the teeth accompanying the pronunciation of the sibilants. The author does not mention the action of the tongue, which was the main articulator.⁷⁵ The *Sefer Yešira* describes *zayin* as being articulated between the teeth with a 'resting tongue', or a 'flat

⁷³ Long version, edition in vol. 2 of this book, §II.L.1.1.2.

⁷⁴ Long version, edition in vol. 2 of this book, §II.L.1.3.8. Eldar (1980, fol. 10b, line 77).

⁷⁵ Cf. Eldar (1980, n.70).

tongue' according to some versions.⁷⁶ In both these passages, the intention may have been that the tongue tip was not engaged in the articulation of the letter, i.e. it was articulated with the blade.

Hidāyat al-Qāri' mentions that there is a variant form of *zayin* which is called *zāy makrūkh*, but the author says he knows nothing about it.

It is said that there are some who attribute a particular feature to *zayin* and call it *zāy makrūkh*. I have not, however, been able to identify their purpose in using the term *makrūkh*, so that I could have described it.⁷⁷

It has been stated previously that I do not know anything that I can report about the *zāy makrūkh*. I have only mentioned it so that it be known that letters have different attributes.⁷⁸

The term *makrūkh* was used to refer to an emphatic, i.e. pharyngealized, form of *resh* (§I.1.20.). It appears, therefore, that

⁷⁶ בלשון 'between the teeth and with a resting tongue', בין שינים ובלשון ישן 'with a resting and flat tongue' (ed. Gruenwald 1971, 147; ed. Hayman 2004, 92–98).

⁷⁷ Long version, edition in vol. 2 of this book, §II.L.1.2.

⁷⁸ Long version, edition in vol. 2 of this book, §II.L.1.9.8. Cf. also Eldar (1984a, 32). The Yemenite orthoepic treatise known as the Hebrew *Maḥberet ha-Tijān*, which was based on the long version of the *Hidāya*, contains a similar statement: 'וכן יש להם זי"ן נקרא מכרוך ואינו ידוע אצלנו' (i.e. the Jews of Palestine) have a *zayin* called *makrūkh*, but it is unfamiliar to us (i.e. the Jews of Yemen)' (ed. J. Derenbourg 1871, 81); cf. Morag (1960, 210, n. 45).

the *zāy makrūkh* was an emphatic [z^ʕ], though its distribution is unknown.

An anonymous Masoretic treatise refers to two variant forms of the letter *ṣade* in the Tiberian Hebrew reading tradition:

There is another letter (with two realizations), which the people of Palestine never utter (in their vernacular speech). This is *ṣade* and (variant) *ṣade*. It is, however, familiar to the inhabitants of the lands (of the diaspora) due to their living in close proximity to other peoples and their using other languages and languages of other nations.⁷⁹

It is possible that this is referring to a voiced variant of *ṣade*, i.e. [z^ʕ]. Ibn Khaldūn (North Africa, d. 1406), indeed, refers to a voiced allophone of *ṣade* [z^ʕ] in the pronunciation of the name אַמְצִיָּהוּ, i.e. [ʔamaz^ʕi:hu:].⁸⁰

Sībawayhi describes the existence of an emphatic [z^ʕ] sound in Arabic, which arose through partial assimilation of the letter *ṣād* to an adjacent voiced consonant. With regard to the pronunciation of the *ṣād* in the word *maṣdar* ‘source’ he states:

⁷⁹ Ed. Allony (1973, 102, lines 29-32 [Allony’s reading has been corrected in places]): חרף אכר לא יקולוה אהל אלשאם בתה והו צדי ואנמא אלפוח סכאן אלבלדאן ללמגאורה ואלמסאכנה בגיר קבאילהם ואלאסתעמאל בגיר לגתהם ולגה אמם גירהם. Allony attributed this text to ‘Ali ben Yehudah ha-Nazir, but this attribution has been disputed by Eldar (1984a, 33, n.54, 1986, 59–61).

⁸⁰ He describes the *ṣade* as *al-ṣād al-muṣamma bi-l-zā* ‘*ṣād* flavoured with *zā*’; cf. Schreiner (1886, 254).

They make it (the *ṣād*) similar to the homorganic letter that is most like *dāl*, i.e. *zāy*, since it is unaspirated and not emphatic, but they do not change it into pure *zāy*, lest the emphatic quality of the letter be removed.⁸¹

An emphatic Arabic *zāy* was recognized as an additional Arabic letter in some medieval works on the correct recitation of the Qurʾān (*tajwīd*), where a voiced variant of an Arabic *ṣād* is intended.⁸² The Tiberian terminology may have been influenced by this tradition in the Arabic *tajwīd* literature.

The statement in *Hidāyat al-Qārī* concerning the *zāy makrūkh* implies that it is a variant of the written letter *zayin* ('there are some who attribute a particular feature to *zayin*'). The foregoing discussion, however, suggests that the term is referring to the voiced oral reading of the *ṣade*.

I.1.8. *ḤET* חֵת (ח)

Unvoiced pharyngeal fricative [ħ]

This letter is transcribed by Arabic *ḥā* (unvoiced pharyngeal fricative) in the Karaite transcriptions, e.g.

⁸¹ فضار عوا به اشبه الحروف بالبدال من موضعه وهى الزاى لانها مجهورة غير مطبقة ولم يبدلها
زايا خالصة كراهية الاجحاف بها للاطباق, *al-Kitāb*, ed. Derenbourg (1889, 476–77).

⁸² Makkī ibn ʿAbī Ṭālib al-Qaysī (d. 437/1045), for example, refers to *ṣād allatī yukālītu lafzuhā lafza al-zāy* 'A *ṣād* whose pronunciation is mixed with that of *zāy*', as in قزد (= قصد) and الزراط (= الصراط), *al-Riʿāya li-Tajwīd al-Qirāʾa wa-Taḥqīq Lafẓ al-Tilāwa* (ed. Farḥāt 1996, 107).

חַיִּט (BL Or 2539 MS A, fol. 100r, 8 | L [BHS]: חַיִּטְּ Deut.

19.15 ‘sin’)

כַּחֲסָדָּ (BL Or 2539 MS A, fol. 65r, 3 | L [BHS]: כַּחֲסָדָּ Gen.

21.23 ‘like the kindness’)

הַמִּזְבֵּיחַ (BL Or 2539 MS A, fol. 67v, 1 | L [BHS]: הַמִּזְבֵּיחַ Gen.

22.9 ‘the altar’)

According to *Hidāyat al-Qāri*, the pharyngeals and the laryngeals had the same place of articulation:

The letters חֶתֶט have a single place of articulation. This is the throat and the root of the tongue. The Tiberians call it the ‘root of the tongue’ and ‘place of swallowing’.⁸³

It is possible that the division of this place of articulation into the ‘root of the tongue’ and ‘place of swallowing’ was intended to refer to the production of the pharyngeals and laryngeals respectively. Some medieval grammarians state that *het* and its voiced counterpart *ayin* were articulated less deep in the throat than *alef* and *he*.⁸⁴

In the Standard Tiberian tradition, *het* does not take *dagesh*. According to *Hidāyat al-Qāri*, the letter *het* could not be made

⁸³ Long version, edition in vol. 2 of this book, §II.L.1.3.2.

⁸⁴ Ibn Janāḥ, *Kitāb al-Luma*‘ (ed. Derenbourg 1886, 26–27), Menaḥem ben Saruq, *Maḥberet* (ed. Filipowski 1854, 6).

‘heavy’ with *dagesh*,⁸⁵ i.e. it could not be pronounced with different degrees of muscular pressure.

In Non-Standard Tiberian vocalization, the distribution of *dagesh* is different from that of the Standard Tiberian tradition. The distribution of *dagesh* characteristic of the בגדכפת consonants is extended to most other consonants, with the result that, like the בגדכפת consonants, they take *dagesh* after a silent *shewa* or at the beginning of a word when not preceded by a word ending in a vowel and a conjunctive accent (Morag 1959; Blapp 2018). The *dagesh* in these consonants represented gemination (Yeivin 1983; Khan 2017). Further details of this system of marking *dagesh* will be given in §I.3.3. What is significant here is that the extension of *dagesh* to consonants other than בגדכפת in Non-Standard Tiberian manuscripts does not include the pharyngeals, which in the vast majority of cases do not take *dagesh*. This reflects the difficulty of geminating these consonants. A *dagesh* is found only very sporadically marked on *het* in Non-Standard Tiberian manuscripts, e.g.

Genizah manuscripts

חַיִּים (T-S A13.20, Blapp 2017, 163; 2018, 143 | L [BHS]:
חַיִּים Psa. 69.29 ‘the living’).

European manuscripts

מִלְחָמָתְךָ (Codex Reuchlinianus, Morag 1959, 219 | L
[BHS]: מִלְחָמָתְךָ 2 Sam. 11.25 ‘your fighting’)

⁸⁵ Long version, edition in vol. 2 of this book, §II.L.1.3.5.

This may have been a strategy for ensuring that the letter was read correctly and did not lose its consonantal pronunciation, rather than marking gemination. The *rafe* sign is occasionally used with a similar function in Non-Standard Tiberian manuscripts. As in some other contexts in Non-Standard Tiberian manuscripts, the *rafe* here marks the letter as consonantal but not geminated, e.g.

נְּהָרוּ (Blapp 2017, 175 | L [BHS]: נְהָרוּ Psa. 69.6 ‘they are [not] hidden’)

Both of these strategies for ensuring that the letter is read and not weakened are found in Palestinian vocalization, e.g.

Dagesh

לְחִיָּה (Fassberg 1987, 84 | L [BHS]: לְחִיָּה Lam. 1.2 ‘her cheek’)

Rafe

נִאֲלָחוּ (T-S 12.195, Kahle 1930, 82-84 | L [BHS]: נִאֲלָחוּ Psa. 53.4 ‘they have become corrupt’)

The potential vulnerability of *het* to weakening is reflected in Non-Standard Tiberian manuscripts by the practice of marking a *shewa* sign under the letter in word-final position. The purpose of this was to draw attention to the fact that they are consonants closing a syllable and are not to be weakened and read as vowel letters, e.g.

Genizah manuscripts

וְתִשְׁכַּח (T-S A11.1, Blapp 2017, 48 | L [BHS]: וְתִשְׁכַּח Job 39.14 ‘and she forgot’)

לְנֶצַח (T-S A13.18, Blapp 2017, 127 | L [BHS]: לְנֶצַח Psa. 89.47 ‘forever’)

European manuscripts

וַיִּבְרַח (Codex Reuchlinianus, Morag 1959, 233 | L [BHS]: וַיִּבְרַח 1 Kings 11.40 ‘and he fled’)

זֶרַח (ASCNON B.I. 2r, Pilocane 2004 | L [BHS]: זֶרַח 1 Chr. 2.4, ‘Zerah’)

Within the Standard Tiberian reading tradition a *het* was prevented from potential weakening in some contexts by lengthening the vowel before it (§I.2.10.), e.g. וּפְתַחְיָה [wufθa·h¹jɑ:] ‘and Pethahiah’ (Neh. 11.24), מְחַיֶּה [mi·h¹jɑ:] ‘reviving’ (Ezra 9.8). Another strategy to protect the consonantal pronunciation of *het* at the end of a word-internal syllable was to place a *dagesh* in the following letter (§I.3.1.11.2.). This is found in some early manuscripts (Yeivin 1980, 295; Ginsburg 1897, 133), e.g.

לְחֶמֶךָ (JTS ENA 346 | L [BHS]: לְחֶמֶךָ ‘your bread’ Ezek. 4.15)

There is clear evidence from the Dead Sea scrolls of the weakening of *het* in some biblical reading traditions in the Second Temple period, especially that of 1QIsa^a. This is reflected by the occurrence of *he* or *ʾalef* where the Masoretic tradition has *het*, e.g.⁸⁶

מִהַשּׁוּכִים (1QIsa^a 35.27 | L [BHS]: מִחֹשֶׁךְ Isa. 42.16 ‘darkness’)

⁸⁶ Data supplied by Aaron Hornkohl. Cf. also Reymond (2014, 92).

ואהללה (1QIsa^a 37.6 | L [BHS]: וְאַחֲלֵלִי Isa. 43.28 ‘and I will profane’)

ויהללהו (1QIsa^a 44.17 | L [BHS]: וַיַּחֲלֵי Isa. 53.10 ‘he caused him sickness’)

בצצחות (1QIsa^a 48.6 | L [BHS]: בְּצֻחָחוּתִי Isa. 58.11 ‘in scorched places’)

In the modern Samaritan reading tradition *het* has weakened in most contexts to *ʾalef* or zero (Ben-Hayyim 2000, 38–39), e.g.⁸⁷

ʾēsəd (L [BHS]: חֶסֶד Gen. 24.14 ‘grace’)

ʾamrāʾēfāt (L [BHS]: מְרַחֶפֶת Gen. 1.2 ‘was hovering’)

ruwwi (L [BHS]: רוּחִי Gen. 6.3 ‘my spirit’)

mār (L [BHS]: מָחָר Gen. 30.33 ‘tomorrow’)

wrū (L [BHS]: וְרוּחִי Gen. 1.2 ‘and the spirit of’)

The weakening of the pharyngeals reflected in the Dead Sea scrolls and the Samaritan tradition had its roots in the contact of Hebrew with non-Semitic languages, in particular Greek, in the pre-Islamic period. The measures taken to ensure the correct reading of the *het* in the medieval manuscripts described above show that a special effort had to be made to avoid its being weakened in the transmission of the Masoretic biblical reading traditions still in the Middle Ages. Indeed, in the medieval period there is evidence for the weakening of the pharyngeals in Palestinian liturgical poetry (§I.0.9.).

⁸⁷ Data supplied by Aaron Hornkohl.

I.1.9. *TET* טֵּת (ט)

Emphatic (i.e. pharyngealized, with retracted tongue root and increased muscular pressure) unvoiced alveolar plosive [tʕ]

According to *Hidāyat al-Qāriʿ*, it was articulated with the tongue tip and the gums.⁸⁸ In the Karaite transcriptions, it is represented by Arabic *tāʿ*, which was a pharyngealized [tʕ], e.g.

מֵה־טָבוּ (BL Or 2539 MS B, fol. 131v, 11 | L [BHS]: מֵה־טָבוּ
Num. 24.5 ‘how fair are [your tents]’)

מִי־חוּט (BL Or 2539 MS A, fol. 57r, 8 | L [BHS]: מִי־חוּט Gen.
14.23 ‘from a thread’)

כְּמִטְחָוּי (BL Or 2539 MS A, fol. 64r, 3 | L [BHS]: כְּמִטְחָוּי
Gen. 21.16 ‘like the shots of’)

In Greek transcriptions from the pre-Masoretic period, *tet* is represented by Greek *tau*, which was an unaspirated stop [t]. In Latin transcriptions from the pre-Masoretic period it is represented by Latin *t*, which likewise represented an unaspirated stop [t]. These reflected the unaspirated realization of the *tet*, which is also a feature of Arabic *tāʿ*. Examples:⁸⁹

⁸⁸ Long version, edition in vol. 2 of this book, §II.L.1.3.7.; ed. Eldar (1980, fol. 10b, lines 67–69).

⁸⁹ Data supplied by Ben Kantor.

Septuagint (third century B.C.E.)

Φουτιήλ (Göttingen Septuagint | L [BHS]: פֹּוּטִיִּלְךָ Ex. 6.25
‘Putiel’)

Ἰεκτάν (Göttingen Septuagint | L [BHS]: יֶקְטָן Gen. 10.25
‘Joktan’)

Λώτ (Göttingen Septuagint | L [BHS]: לוֹטְךָ Gen. 11.27 ‘Lot’)

Hexapla of Origen (c. 185–254 C.E.)

βατε (Ambrosiana Palimpsest | L [BHS]: בָּטַחְךָ Psa. 28.7 ‘[my
heart] trusted’)

εμματ (Ambrosiana Palimpsest | L [BHS]: מִן־מַטְּךָ Psa. 30.7 ‘I
[will not] be moved’)

φελλετηγι (Ambrosiana Palimpsest | L [BHS]: יִצְלַחְךָ Psa. 31.2
‘rescue me! (ms)’)

Jerome (346-420 C.E.)

phut (Jerome, *Commentary on Ezekiel*, ed. Glorie,
VIII.27.935 | L [BHS]: פֹּוּטִיִּלְךָ Ezek. 27.10 ‘Put’)

atemoth (Jerome, *Commentary on Ezekiel*, ed. Glorie,
XII.40.517–518 | L [BHS]: מִן־מַטְּךָ Ezek. 40.16 ‘narrowing
(fp)’)

bete (Jerome, *Hebraicae Quaestiones in Libro Geneseos*, ed.
de Lagarde et al., 54.5 | L [BHS]: בֵּטְחֶךָ Gen. 34.25 ‘security’)

mesphat (Jerome, *Commentary on Isaiah*, ed. Gryson, II.42.6
| L [BHS]: מִשְׁפָּטְךָ Isa. 5.7 ‘judgment’)

phaleta (Jerome, *Commentary on the Minor Prophets*, ed. Adriaen, Joel, II, p. 197, line 783 | L [BHS]: פְּלִיטָה Joel 3.5 ‘I will pour’)

I.1.10. YOD יֵי (י)

Palatal unrounded semi-vowel [j]; voiced palatal stop [j] when geminated

Saadya states that the Tiberians pronounced *yod* with *dagesh* like Arabic *jīm*:

As for *jīm*, it is in between *gimel* and *yod*. This is why the Tiberians pronounce it [i.e. *jīm*] when (reading) *yod* with *dagesh*.⁹⁰

According to the early Arabic grammarians Sībawayhi and al-Khalīl (eighth century C.E.), *jīm* was realized as a voiced palatal stop [j], which had the same place of articulation as the Arabic *yāʾ* (the semi-vowel [j]), so presumably Saadya is referring to the realization of *yod* with *dagesh* as [j], e.g. וַיִּשְׂמַד [vaɟʒaʕme:əð] ‘and he destroyed’ (1 Kings 16.12), which resulted from the strengthening of the articulation of [j] to a stop.⁹¹

⁹⁰ ואמא אלג'ים פפי מא בין אלג'ימל ואל'יוד, ולד'לך ג'עלהא אלטבראנין פי אל'יוד אלדגש *Commentary on Sefer Yešira* (ed. Lambert 1891, 42–43).

⁹¹ In some of the early Arabic dialects geminated *yāʾ* was pronounced like *jīm*; cf. Roman (1983, 101–6, 218). Ibn Sīnā in the eleventh century describes *jīm* as pronounced slightly further forward (Roman 1983, 243–46).

In many Non-Standard Tiberian manuscripts, a word-final consonantal *yod* is marked by a lower dot, which can be identified as a *hireq* vowel. Occasionally the *yod* is also marked with a *rafe* sign, e.g.

Genizah manuscripts

יְהוָה (T-S A12.1, Blapp 2017, 84 | L [BHS]: יְהוָה Prov. 30.9
'my God')

שִׁפְתָי (T-S A13.18, Blapp 2017, 130 | L [BHS]: שִׁפְתָי Psa.
89.35 'my lips')

European manuscripts

מִצְרָיִם (Codex Reuchlinianus, Morag 1959, 220 | L [BHS]:
מִצְרָיִם Isa. 1.24 'from my enemies')

גּוֹי (BL Add 21161 | L [BHS]: גּוֹי Joel 1.6 'nation')

In Babylonian vocalization, a *hireq* is marked not only on word-final consonantal *yod* but also on consonantal *yod* that occurs within a word, e.g.⁹²

בִּנְטָי (OB, Yeivin 1985, 277 | L [BHS]: בִּנְטָי Psa. 102.12 'bent')

הַגּוֹי (OB, Yeivin 1985, 277 | L [BHS]: הַגּוֹי Jer. 18.8 'the
nation')

וַיְהִי (OB, Yeivin 1985, 275 | L [BHS]: וַיְהִי Ezek. 17.6 'and it
became')

חַיִּיל (MB, Yeivin 1985, 275 | L [BHS]: חַיִּיל Prov. 31.10
'virtue')

⁹² Data supplied by Shai Heijmans.

Another strategy for marking word-final consonantal *yod* that is sporadically found in Non-Standard Tiberian is to write a dot within the body of the letter, which can be identified as a *mappiq* sign, e.g.

יָפִיִּץ (T-S A11.1, Blapp 2017, 51 | L [BHS]: יָפִיִּץ Job 41.2
‘before me’)

These strategies for marking word-final consonantal *yod* reflect the perception that the letter was a weak consonant and was vulnerable to being slurred over.

There is some sporadic evidence in various Greek transcriptions from the pre-Masoretic period of the weakening and contraction of *yod* where it is consonantal in the Masoretic tradition, e.g.⁹³

Hexapla of Origen (c. 185–254 C.E.)

Final *ay* represented by *eta* possibly reflecting contraction to \bar{e} (Kantor 2017, 234):

ωεβη (Ambrosiana Palimpsest | L [BHS]: אִבֵּי Psa. 35.19 ‘my enemies’)

σωνη (Ambrosiana Palimpsest | L [BHS]: אִשָּׂוּ Psa. 35.19 ‘those who hate me’)

Septuagint (third century B.C.E.)

Zero representation where consonantal *yod* appears in the Masoretic tradition:

⁹³ Data supplied by Ben Kantor.

Ἀλληλί (Göttingen Septuagint | L [BHS]: הִיחֵלְאֵלִי Num. 26.26 ‘Jahleelite’)

Ἀσιηλί (Göttingen Septuagint | L [BHS]: הִיחֶצְאֵלִי Num. 26.48 ‘Jahzeelite’)

Ἐτεβάθα (Göttingen Septuagint | L [BHS]: בְּיִטְבַּתָּה Num. 33.33 ‘Jotbathah’)

In some of the biblical Dead Sea scrolls, an *ʾalef* occasionally appears where there is consonantal *yod* in the Masoretic tradition, which reflects weakening, e.g.⁹⁴

אהרוג (1QIsa^a 13.3 | L [BHS]: יִהְרֹג Isa. 14.30 ‘it/he will kill’)

הראה (1QIsa^a 16.22 | L [BHS]: אֲרִיָּה Isa. 21.8 ‘lion’)

גואים (1QIsa^a 18.8 | L [BHS]: גּוֹיִם Isa. 23.3 ‘nations’)

שפאים (1QIsa^a 34.23 | L [BHS]: שְׂפָיִים Isa. 41.18 ‘hilltops’)

אואב (4Q98g f1.6 | L [BHS]: אוֹיֵב Psa. 89.23 ‘enemy’)

I.1.11. *KAF* כַּף (כ, ך)

Kaf with *dagesh* (כּ): unvoiced aspirated velar stop [k^h]

Kaf without *dagesh* (כ): unvoiced uvular fricative [χ]

A *kaf* without *dagesh* is frequently, but not regularly, marked by the *rafe* sign in the model Standard Tiberian codices.

⁹⁴ Data supplied by Aaron Hornkohl.

According to *Hidāyat al-Qāri'*, *kaf* with *dagesh* was articulated with 'the middle of the tongue.'⁹⁵ *Kaf* without *dagesh*, on the other hand, was articulated further back, on the posterior 'third of the tongue, which is adjacent to the pharynx, opposite the (soft) palate.'⁹⁶ In the Karaite transcriptions fricative *kaf* is represented by Arabic *khā'*, which was pronounced as an unvoiced uvular fricative,⁹⁷ e.g.

لاِخْوَل (BL Or 2539 MS A, fol. 74r, 2 | L [BHS]: לְאִיחְוֹל Gen.

24.33 'to eat')

בְּסִבְיָח (BL Or 2539 MS A, fol. 68r, 3 | L [BHS]: בְּסִבְיָח Gen.

22.13 'in the thicket')

בְּעֵינָאֵךְ (BL Or 2539 MS A, fol. 63v, 2 | L [BHS]: בְּעֵינָאֵךְ Gen.

21.12 'in your (ms) eyes')

Greek transcriptions from the pre-Masoretic period represent plosive *kaf* with the letter χ , which represented an aspirated voiceless velar stop [k^h] until the Byzantine period, rather than κ , which represented an unaspirated [k]. This

⁹⁵ Long version, edition in vol. 2 of this book, §II.L.1.3.6. Ed. Eldar (1980, fols. 10a-10b, lines 61-73).

⁹⁶ Long version, edition in vol. 2 of this book, §II.L.1.3.6. Ed. Eldar (1980, fol. 10a, lines 58-59).

⁹⁷ Roman (1983, 218).

demonstrates that plosive *kaf* at the time of these transcriptions was aspirated, e.g.⁹⁸

Septuagint (third century B.C.E.)

Χανααναῖοι (Göttingen Septuagint | L [BHS]: וְהַכְּנַעֲנִי Gen. 12.6
'Canaanite')

Χάσαδ (Göttingen Septuagint | L [BHS]: בְּשֵׁד Gen. 22.22
'Chesed')

Χαλέβ (Göttingen Septuagint | L [BHS]: כְּלֵב Num. 13.6
'Caleb')

Ἀσχανάζ (Göttingen Septuagint | L [BHS]: אֲשְׁכֶנֶז Gen. 10.3
'Ashkenaz')

Hexapla of Origen (c. 185–254 C.E.)

χααφαρ (Ambrosiana Palimpsest | L [BHS]: כְּעָפָר Psa. 18.43
'like dust')

χαμμα (Ambrosiana Palimpsest | L [BHS]: כַּמָּה Psa. 35.17
'how long/much ... ?')

χελλωθαμ (Ambrosiana Palimpsest | L [BHS]: כִּלְוֹתָם Psa.
18.38 'wiping them out')

δερχω (Ambrosiana Palimpsest | L [BHS]: דְּרָכּוֹ Psa. 18.31
'his way')

Likewise, in the Tiberian pronunciation tradition, plosive *kaf* was almost certainly aspirated. In the Karaite transcriptions,

⁹⁸ Data supplied by Ben Kantor.

plosive *kaf* with *dagesh* is represented by Arabic *kāf*, which was an aspirated stop.⁹⁹

Hidāyat al-Qāri' describes the stop [k^h] as primary (ʿašl) and the fricative [χ] as secondary (*farʿ*).¹⁰⁰

I.1.12. LAMED לָמֶד (ל)

Voiced alveolar lateral continuant [l]

In *Hidāyat al-Qāri'* the name of this letter is spelt לָמֶד, which appears to reflect a different pronunciation from that of the normal Hebrew form of the name לָמֶד, with stress on the final syllable.

According to *Hidāyat al-Qāri'*, the articulation of this letter involved the contact of the tongue tip with the gums.¹⁰¹

I.1.13. MEM מֶם (מ, ם)

Voiced bi-labial nasal [m]

In *Hidāyat al-Qāri'* the name of this letter is spelt מֶם.

⁹⁹ Roman (1983, 55).

¹⁰⁰ Long version, edition in vol. 2 of this book, §II.L.1.3.6. Ed. Eldar (1980, fols. 8b, 10a, 254, n.58). Watson (2007, 43–44) considers the uvular fricative [χ] in Modern Arabic dialects to be the emphatic counterpart of the dorsal [k^h], involving a primary dorsal and non-primary 'guttural' feature.

¹⁰¹ Long version, edition in vol. 2 of this book, §II.L.1.3.7. Ed. Eldar (1980, fol. 10b, lines 67–69). See the description of *dalet* (§I.1.4.) for a discussion of the passage.

I.1.14. NUN נן (נ, ן)

Voiced alveolar nasal [n]

According to *Hidāyat al-Qāriʿ*,¹⁰² it was articulated with the end of the tongue and the gums.¹⁰²

I.1.15. SAMEKH סםֿ (ס)

Unvoiced alveolar sibilant [s]

In *Hidāyat al-Qāriʿ*¹⁰³ the name of this letter is spelt סמס, which appears to reflect a different pronunciation from that of the normal Hebrew form of the name סמֿס, with stress on the final syllable.

According to the medieval sources, it was articulated in the same place as the letter *zayin*,¹⁰³ apparently with the blade of the tongue rather than the tip (see the description of *zayin* §I.1.7.).

In some medieval Muslim sources, the *samekh* in the name סמֿס ‘Phinehas’ is transcribed by *ṣād* [s^ʰ]: فنحاص (Schreiner 1886, 254). This apparently reflects its pharyngealization after the pharyngeal *het*.

¹⁰² Long version, edition in vol. 2 of this book, §II.L.1.3.7. Ed. Eldar (1980, fol. 10b, lines 67–68). Ibn Janāḥ (*Kitāb al-lumaʿ*, ed. Derenbourg, 27–28) distinguishes between the *nun* with a following vowel, which was pronounced with an admixture of nasal resonance, and *nun* without a vowel, which was articulated entirely in the nasal cavity.

¹⁰³ *Hidāyat al-Qāriʿ*, Long version, edition in vol. 2 of this book, §II.L.1.3; ed. Eldar (1980, fol. 10b, line 77); *Sefer Yešira* (ed. Gruenwald 1971, 147; ed. Hayman 2004, 92–98).

Sporadic examples of the pharyngealization of *samekh* in the environment of pharyngeals is attested in the Dead Sea scrolls, e.g.¹⁰⁴

ועוצותם (4Q76 4.12 | L [BHS]: ועֻצוֹתֶם Mal 3.21 ‘and you [pl] will trample’)

I.1.16. ‘AYIN עֵין (ע)

Voiced pharyngeal fricative [ʕ]

This letter is transcribed by Arabic ‘*ayn* (voiced pharyngeal fricative) in the Karaite transcriptions, e.g.

עיניה (BL Or 2539 MS A, fol. 64v, 3 | L [BHS]: עֵינֶיהָ Gen. 21.19 ‘her eyes’)

ויאעס (BL Or 2539 MS A, fol. 63r, 3 | L [BHS]: וַיַּעַס Gen. 21.8 ‘and he made’)

נשמע (BL Or 2539 MS A, fol. 63v, 3 | L [BHS]: נִשְׁמָע Gen. 21.12 ‘hear!’)

*Hidāyat al-Qāri’*³ does not distinguish between the place of articulation of the laryngeals and that of the pharyngeals. Some medieval grammarians, however, state that *het* and its voiced counterpart ‘*ayin* were articulated less deep in the throat than ‘*alef* and *he* (see §I.1.8.).

In the Standard Tiberian tradition, ‘*ayin* does not take *dagesh*. According to *Hidāyat al-Qāri’*, the letter ‘*ayin* could not be

¹⁰⁴ Data supplied by Aaron Hornkohl.

made ‘heavy’ by *dagesh*,¹⁰⁵ i.e. the consonant could not be pronounced with different degrees of muscular pressure. Also in Non-Standard Tiberian manuscripts, where the use of *dagesh* has been extended, ‘*ayin* does not take *dagesh*.’

In Palestinian vocalization *dagesh* is sporadically marked on ‘*ayin*, it seems as a measure to ensure that it was pronounced correctly and not weakened, e.g.

עָטִי (T-S NS 249.6, Dietrich 1968, 74* | L [BHS]: עָטִי 1 Chron. 2.35 ‘Attai’)

[פֶּר]עָ[ה] (T-S A43.1, Kahle 1930, 94 | L [BHS]: פֶּרְעָה Jer. 25.19 ‘Pharaoh’)

In Non-Standard Tiberian manuscripts, ‘*ayin* is occasionally marked with a *rafe* sign, marking the letter as consonantal but not geminated, e.g.

יַעֲרֵךְ (T-S A13.18, Blapp 2017, 140 | L [BHS]: יַעֲרֵךְ Psa. 89.7 ‘is comparable’)

לְעָם (T-S A13.20, Blapp 2017, 177 | L [BHS]: לְעָם Psa. 68.36 ‘to the people’)

The *rafe* sign is occasionally found on ‘*ayin* also in Palestinian vocalization, e.g.

עֵינַי (T-S NS 249.3, Dietrich 1968, 128 | L [BHS]: עֵינַי Psa. 77.5 ‘my eyes’)

¹⁰⁵ *Hidāyat al-Qāri’*, Long version, edition in vol. 2 of this book, §II.L.1.3.2., §II.L.1.3.3.

In many Non-Standard Tiberian manuscripts a word-final ‘*ayin*’ is marked with *shewa*, indicating that it was a consonant that closed a syllable, e.g.

Genizah manuscripts

הוֹדֵעַ (T-S A13.18, Blapp 2017, 127 | L [BHS]: הוֹדֵעַ Psa. 90.12 ‘teach!’)

רָשָׁעַ (T-S A13.20, Blapp 2017, 156 | L [BHS]: רָשָׁעַ Psa. 71.4 ‘wicked’)

European manuscripts

וַיִּשְׁמָעַ (Codex Reuchlinianus, Morag 1959, 233 | L [BHS]: וַיִּשְׁמָעַ 2 Sam. 22.7 ‘and he heard’)

הָרָעַ (ACAMO 28 2v, Pilocane 2004, 29 | L [BHS]: הָרָעַ ‘evil’ 1 Kings 16.25)

The use of *dagesh*, *rafe* and *shewa* in the manuscripts with Non-Standard Tiberian and Palestinian vocalization reflect the perceived vulnerability to weakening of the ‘*ayin*’. Similar strategies of vocalization were also used for other gutturals in these manuscripts (§I.1.1, §I.1.5., §I.1.8.).

Within the Standard Tiberian reading tradition a ‘*ayin*’ was prevented from potential weakening in some contexts by lengthening the vowel before it (§I.2.10.), e.g. שְׁמַעֲיָהוּ [ʃa.ma.ʕi.ja:hu:] ‘Shemaiah (2 Chron. 11.2), שְׁמַעֲנִי [ʃa.ma.ʕi.ʕa:] ‘listen’ (1 Sam. 28.22). Another strategy to protect the consonantal pronunciation of ‘*ayin*’ at the end of a word-internal syllable was to place a *dagesh* in the following letter (§I.3.1.11.2.). This is found in some early manuscripts (Yeivin 1980, 295; Ginsburg 1897, 133), e.g.

C: יַעֲלֹב (L [BHS]: יַעֲלֹב ‘he supplants’ Jer. 9.3)

There is clear evidence from the Dead Sea scrolls of the weakening of *‘ayin* in some biblical reading traditions in the Second Temple period, especially that of 1QIsa^a. This is reflected, for example, by the omission of *‘ayin* where it occurs in the Standard Tiberian Masoretic Text, or its replacement by *‘alef* or *he*, e.g.¹⁰⁶

יבור (1QIsa^a 22.19 | L [BHS]: K עבר Q יַעֲבֹר Isa. 28.15 ‘[the flood/whip] shall pass’)

משתריים (1QIsa^a 22.26 | L [BHS]: מִהֶשְׁתַּרַע Isa. 28.20 ‘[is too short] to stretch out’)

זלפות רעב (5Q6 f1v.6 | L [BHS]: זִלְעָפוֹת רָעַב Lam. 5.10 ‘fever from hunger’)

נטה (4Q27 f24ii + 27–30.18 | L [BHS]: נָטַע Num. 24.6 ‘[Yhwh] planted’)

מסלה (1QIsa^a 13.17 | L [BHS]: מִסְּלַע Isa. 16.1 ‘from Sela’)

ואתה (1QIsa^a 4.16 | L [BHS]: וְעַתָּה Isa. 5.5 ‘and now’)

אצית (1QIsa^a 19.27 | L [BHS]: עֲצוֹת Isa. 25.1 ‘counsel’)

In the modern Samaritan reading tradition *‘ayin* has weakened in most contexts to *‘alef* or zero (Ben-Hayyim 2000, 38–39), e.g.¹⁰⁷

ʿaz (L [BHS]: עֵז Lev. 3.12 ‘goat’)

¹⁰⁶ Data supplied by Aaron Hornkohl. Cf. also Reymond (2014, 92).

¹⁰⁷ Data supplied by Aaron Hornkohl.

yišmā'u (L [BHS]: יִשְׁמְעוּ Gen. 11.7 'they will (not) understand')

miyyūlām (L [BHS]: מֵעוֹלָם Gen. 6.4 'of old')

šār (L [BHS]: שֵׁעָר Gen. 25.25 'hair')

šū (L [BHS]: שׁוּעַ Gen. 38.2 'Shua')

The measures taken to ensure the correct reading of the 'ayin in the medieval manuscripts described above show that a special effort had to be made to avoid its being weakened in the transmission of the Masoretic biblical reading traditions still in the Middle Ages.

I.1.17. *PE* פֶּה (פּ, פֿ)

Pe with *dagesh* (פּ): unvoiced aspirated bi-labial stop [p^h]

Pe without *dagesh* (פֿ): unvoiced labio-dental fricative [f]

A *pe* without *dagesh* is frequently, but not regularly, marked by the *rafe* sign in the model Standard Tiberian codices.

In Masoretic treatises the name of this letter is sometimes spelt פֿי or פּא.¹⁰⁸

According to *Hidāyat al-Qārī*², *pe* with *dagesh* was pronounced by closing the lips firmly and *pe* without *dagesh* was pronounced by closing the lips lightly.¹⁰⁹ Taken by itself, this could be a description of a bilabial articulation [ϕ]. This appears,

¹⁰⁸ E.g. *Hidāyat al-Qārī*², short version, edition in vol. 2 of this book, §II.S.1.7.

¹⁰⁹ Long version, edition in vol. 2 of this book, §II.L.1.3.9.; ed. Eldar (1980, fols. 10b-11a, lines 84-88).

however, to be only a partial description of the sound, as is the case with the description of *bet* without *dagesh* (see §I.1.2.). The light closure of the lips would have accompanied a labio-dental articulation [f] and no doubt it is this secondary feature that the author refers to.¹¹⁰

We know from Greek and Latin transcriptions that in the pre-Masoretic period plosive *pe* was aspirated.¹¹¹ This is shown by the fact that it is represented in Greek by φ, which in the periods in question represented an aspirated stop [p^h], and in Latin by the digraph *ph*, the *h* reflecting aspiration [p^h]. Greek π and Latin *p* represented unaspirated [p]. Examples:¹¹²

Septuagint (third century B.C.E.):

Φαλιγγλ (Göttingen Septuagint | L [BHS]: פִּלְטִיָּאֵל Num. 34.26 ‘Paltiel’)

Ἀρφαξᾶδ (Göttingen Septuagint | L [BHS]: וְאַרְפַּכְשָׁד Gen. 10.22 ‘Arpachshad’)

Ζέλφα (Göttingen Septuagint | L [BHS]: זִלְפָּה Gen. 30.12 ‘Zilpah’)

Hexapla of Origen (c. 185–254 C.E.)

φᾶαδ (Ambrosiana Palimpsest | L [BHS]: פֶּחַד Psa. 36.2 ‘fear of (cstr.)’)

¹¹⁰ Cf. the commentary to this passage by Eldar (1980, n.75.).

¹¹¹ Kutscher (1965, 24–35).

¹¹² Data supplied by Ben Kantor.

φαιδιθ (Ambrosiana Palimpsest | L [BHS]: פִּדְיֹתָהּ Psa. 31.6
'you redeemed')

φολητ (Ambrosiana Palimpsest | L [BHS]: פִּלְטָה Psa. 32.7
'deliverance')

αρφαθ (Ambrosiana Palimpsest | L [BHS]: תִּרְפָּתָהּ Psa. 89.51
'the reproach of (cstr.)')

λαμεσφατι (Ambrosiana Palimpsest | L [BHS]: לְמִשְׁפָּטַי Psa.
35.23 'to my judgment')

Jerome (346-420 C.E.)

pharis (Jerome, *Commentary on Ezekiel*, ed. Glorie,
VI.18.504 | L [BHS]: פָּרִיץ Ezek. 18.10 'violent one')

phacud (Jerome, *Commentary on Ezekiel*, ed. Glorie,
VII.23.1001 | L [BHS]: פִּקּוּדָה Ezek. 23.23 'Pekod')

iesphicu (Jerome, *Commentary on Isaiah*, ed. Gryson, I.52.4
| L [BHS]: יִשְׁפִּיקוּ Isa. 2.6 '[they] clap')

mesphat (Jerome, *Commentary on Isaiah*, ed. Gryson, II.42.6
| L [BHS]: מִשְׁפָּטָה Isa. 5.7 'judgment')

Saadya refers to the existence of a 'hard *pe*' (*al-fā' al-ṣulba*) in the hapax legomenon אֶפְדִּינֹו 'his palace' (Dan. 11.45), which he describes as 'between *bet* and *pe* with *dagesh*'.¹¹³ This appears to be referring to an unaspirated, fortis realization of [p]. One may infer from this that the normal unvoiced stop *pe* was aspirated also in the Middle Ages. Dunash ibn Tamim reports that the

¹¹³ פי מא בין אלבי ואלפי אלדגש, *Commentary on Sefer Yešira* (ed. Lambert 1891, 42).

scholar Isaac Israeli (ninth-tenth centuries), who was ‘an expert in the reading of the Tiberians’, pronounced the *dalet* in this word like an Arabic *ḏāʾ*, i.e. as emphatic (pharyngealized).¹¹⁴ This implies that the ‘hard’ *pe* was also emphatic, the *dalet* being pronounced emphatic by assimilation (Steiner 1993).

The word *יְדֹנָן* is a loanword from Old Persian. The source word in Old Persian is reconstructed by Iranists as *apadāna*, *āpadāna* or *appadāna* ‘palace, audience chamber’. The *p* in Old Persian was unaspirated. The lack of aspiration was preserved when the word was loaned into Hebrew and this was transmitted in the Tiberian oral tradition down to the Middle Ages. There is no consensus among Iranists about the length of the initial vowel in the Old Persian word and whether the *p* was geminate or not (Ciancaglini 2008, 113–14). According to Henning (1944, 110 n.1), the *p* was originally geminated but the gemination of the Old Persian *p* was lost in Middle Persian (Old Persian *appadān* > Middle Persian **āpaḏān*). In the Tiberian tradition, the *pe* is geminated, which could, therefore, be an ancient feature. The antiquity of the gemination is shown, moreover, by the fact that the Old Persian word appears as a loanword in an Akkadian text datable to the Late Babylonian period where the *p* is represented as geminated: *ap-pa-da-an* (*appadān*).¹¹⁵

¹¹⁴ Dunash ibn Tamim, *Commentary on Sefer Yešira* (ed. Mann 1931, 1:670, n.106). For this passage see §I.1.4.

¹¹⁵ *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*, A/2 (1968), Chicago: Oriental Institute, 178.

There is evidence for the unaspirated pronunciation of the *pe* in this word in Greek and Latin transcriptions in the pre-Masoretic period, e.g.¹¹⁶

Ἀπαδανῶ (Theodoretus, fifth century C.E., *Commentarius in Visiones Danielis Prophetæ*, e.g. Migne, 81.1532)

apedno (Jerome, fourth century C.E., *Commentarii in Danielem*, ed. Glorie, IV.11)

In these transcriptions the *pe* is represented by Greek π and Latin *p* without following *h*, both of which represented unaspirated [p]. Jerome (*Commentarii in Danielem*, IV, 11–12) comments on the *pe* in this word as follows:

Notandum autem quod cum *pe* littera hebraeus sermo non habeat, sed pro ipsa utatur *phe* cuius uim graecum φ sonat, in isto tantum loco apud Hebraeos scribatur quidem *phe* sed legatur *pe*.

But it should be noted that while Hebrew speech does not have the letter *pe* (i.e. Latin *p* [p]), but instead of it uses *phe*, the force of which is approximated by the sound of Greek φ (i.e. [ph]), in that particular place (i.e. Dan. 11.45) among the Hebrews *phe* (i.e. פּ [ph]) indeed is written but it is read as *pe* (i.e., Latin *p* [p]).

It should be noted, however, that some Greek transcriptions are extant that represent the *pe* in the word by φ, reflecting an aspirated pronunciation, e.g.

εφαδανῶ (Theodotion, second century C.E.)

¹¹⁶ Data supplied by Ben Kantor.

εφαδανω/αφαδανω (Polychronios, fifth century C.E., *Commentarii in Daniele*, ed. Moutsoulas, 11.45)

This suggests that there were variant traditions of reading the *pe*, some preserving the unaspirated *pe* others pronouncing the *pe* as aspirated.

Another feature of all the Greek and Latin transcriptions cited above is that they represent the *pe* as ungeminated, whereas it is geminated in Tiberian tradition.

The word appears in various dialects of Aramaic, including Syriac, Jewish Babylonian Aramaic and the Aramaic of Targum Jonathan (Sokoloff 2009, 81, 2002, 154). In Syriac, where there is a reliable tradition of vocalization, the *pe* is ungeminated: ܦܢܐܢܐ (*āpadhnā*). There are, however, variant vocalizations of the word in the sources (Payne Smith 1879, 329–30). In some manuscripts, the *pe* is marked with a diacritic that is used elsewhere to represent the *pe* corresponding to an unaspirated π in Greek loanwords (J. B. Segal 1989, 489). The word appears in Arabic as *fadan* ‘palace’.

The *pe* in פֶּדָן in the Tiberian reading tradition was pronounced not only unaspirated but also pharyngealized. Elsewhere in the sound system of Tiberian Hebrew unaspirated unvoiced stops were pharyngealized, i.e. *ṭet* and *qof*. The feature of lack of aspiration did not exist in unvoiced stops without pharyngealization. Pharyngealization was, therefore, perceived to be the closest equivalent in the sound system of Tiberian Hebrew to the feature of lack of aspiration of the *pe*. This also applied to the sound system of the spoken language of the tradents of the reading tradition. At the time of Saadya and Isaac

Israeli, who report this feature, the spoken language was Arabic, in which unvoiced unaspirated stops were pharyngealized (i.e. the *tāʾ* and the *qāf*). It is not clear whether the pharyngealization of the *pe* in אֶפְדָּן existed in the reading tradition in the pre-Islamic period. Greek unaspirated τ and κ, likewise, were perceived to correspond most closely to Hebrew emphatic *tet* and *qof*, as shown by Greek transcriptions of Hebrew, e.g. Λώτ (Septuagint, לוֹט Gen. 11.27 ‘Lot’), Ἐνάκ (Septuagint, עֲנָק Deut. 9.2 ‘Anak’) and by Greek loanwords in Hebrew, e.g. פרסטלון ‘colonnade’ < περιστυλον (Copper Scroll 3Q15), קיתרוס (*ketiv* קתרוס) ‘zither’ < κίθαρως (Dan. 3.5, 7, 10, 15) (Heijmans 2013a).

A Masoretic note to Dan. 3.21 in L reads as follows

ג' מפק פ' בפומיהון וסימנהון פסנתרין פטשיהון אפדנו משנין לקראה

The meaning of this is not fully clear. One possible interpretation is as follows:

There are three cases where *pe* is pronounced differently by the reader, namely פְּסִנְתָּרִין ‘stringed instrument’ (Dan. 3.5, 3.7, 3.10, 3.15), פְּטִשְׂיָהוֹן ‘their tunics’ (*ketiv* פטישיהון Dan. 3.21), אֶפְדָּן ‘his palace’ (Dan. 11.45).

This suggests that the *pe* also of the words פְּסִנְתָּרִין and פְּטִשְׂיָהוֹן, which occur in the Aramaic section of the Bible, were pronounced unaspirated. The word פְּסִנְתָּרִין is a loan from Greek ψαλτήριον, so the *pe* would correspond to the unaspirated segment in the affricate ψ [ps]. The word פְּטִשְׂיָהוֹן is of uncertain etymology, but it has been suggested by Nyberg (1931, 187) that the source is Old Persian **patuš* ‘garment’, in which case the *pe* would correspond to an Old Persian unaspirated *p*. The *tet* in the word would, moreover, reflect the Old Persian unaspirated *t*.

It should be noted that there are a number of other Old Persian loanwords in Biblical Hebrew in which a Hebrew *pe* corresponds to an unaspirated *p* in the Old Persian source word but which were pronounced aspirated in the Tiberian Hebrew reading tradition, e.g. אֶשְׂרָף־רָמַיִם ‘satrap’ (< Old Persian *xšaθra-pāwan*) (Esther 3.12, 8.9, 9.3; Ezra 8.36), מְסַמָּה ‘message’ (< Old Persian **patiy-gama*) (Ecc. 8.11; Esther 1.20), נִשְׁכּוּפִי ‘a copy’ (< Old Persian **patiy-caṅniya* or **patiy-caṅna*) (Esther 3.14, 4.8, 8.13) (Gindin 2013). It would appear that in such cases the original unaspirated *p* was adapted to the sound system of Hebrew. Greek transcriptions such as *εφαδανω* (Theodotion, second century C.E.) and *εφαδανω/αφαδανω* (Polychronios, fifth century C.E.), cited above, would reflect a similar adaption of the *pe* also in the word אֶשְׂרָף־רָמַיִם in some reading traditions.

I.1.18. ŠADE אֶשְׂ (צ, ע)

Unvoiced emphatic (pharyngealized) alveolar sibilant [sʕ]

The name of the letter is vocalized אֶשְׂ in a Masoretic treatise (ed. Allony and Yeivin 1985, 102), with *shewa* in the initial syllable, reflecting a pronunciation with stress on the final syllable.

According to the medieval sources, it was articulated in the same place as the letters *zayin* and *samekh*,¹¹⁷ apparently with the blade of the tongue rather than the tip (see the description of *zayin* §I.1.7). In the Karaite transcriptions, it is represented by

¹¹⁷ *Hidāyat al-Qāriʿ*, Long version, edition in vol. 2 of this book, §II.L.1.3.8.; ed. Eldar (1980, fol. 10b, line 77), *Sefer Yešira* (ed. Gruenwald 1971, 147; ed. Hayman 2004, 92–98).

Arabic *ṣād*, which was an unvoiced pharyngealized alveolar sibilant [sʰ], e.g.

صباؤ (BL Or 2539 MS A, fol. 64v, 9 | L [BHS]: צָבָאוֹ Gen.
21.22 ‘his host’)

مصرایم (BL Or 2539 MS A, fol. 92r, 6 | L [BHS]: מִצְרַיִם Deut.
7.18 ‘Egypt’)

In §I.1.7. references are given to what appears to have been a voiced emphatic variant of *ṣade* [zʰ].

A Karaite transcription is extant in which Arabic *sīn* is written where the Masoretic Text has *ṣade*, reflecting the weakening of the emphatic pronunciation:

وفوريس (BL Or 2555 fol. 111v, 3 | L [BHS]: וּפְרִץ Ecc. 10.8
‘and he who breaks’)

I.1.19. QOF קֹף (ק)

Unvoiced advanced uvular unaspirated plosive [q]

According to *Hidāyat al-Qāri*, *qof* was articulated with the ‘middle of the tongue’, and so further forward than fricative *gimel* and *kaf*, which were pronounced with the ‘back third of the tongue’.¹¹⁸ This suggests an advanced uvular point of articulation. In the Karaite transcriptions, this letter is represented by Arabic *qāf*, e.g.

¹¹⁸ Long version, edition in vol. 2 of this book, §II.L.1.3.6.; ed. Eldar (1980, fols. 10a–10b, lines 61–72).

حَالًاق (BL Or 2539 MS A, fol. 85v, 4 | L [BHS]: חָלַקְתָּ Deut.

4.19 ‘he divided’)

وَبِأَقَارِ (BL Or 2539 MS A, fol. 74r, 5 | L [BHS]: וּבִקְרָה Gen.

24.35 ‘and cattle’)

لِزְקُونَاو (BL Or 2539 MS A, fol. 63r, 2 | L [BHS]: לְזִקְנָיוֹ Gen.

21.7 ‘in his old age’)

According to the medieval Arabic grammarians, *qāf* was unaspirated and articulated between the velar stop *kāf* and the uvular fricatives *khāʿ* and *ghayn* (Roman 1983, 110), i.e. in advanced uvular position. It is the emphatic counterpart of the dorsal velar stop *kāf* (Jakobson 1978; Watson 2007, 43–44).

The lack of aspiration of *qof* is reflected by Greek and Latin transcriptions from the first half of the first millennium C.E. In these the letter is transcribed by Greek χ and Latin *c* or *g*, which represented unaspirated stops, e.g.¹¹⁹

Septuagint (third century B.C.E.)

Κεδαμῶθ (Göttingen Septuagint | L [BHS]: קֶדְמוֹת Deut. 2.26
‘Kedemoth’)

Ἐνάχ (Göttingen Septuagint | L [BHS]: עֲנָק Deut. 9.2 ‘Anak’)

Hexapla of Origen (c. 185–254 C.E.)

κουμ (Ambrosiana Palimpsest | L [BHS]: קוּם Psalms 18.39 ‘to rise’)

¹¹⁹ Data supplied by Ben Kantor.

ουακισα (Ambrosiana Palimpsest | L [BHS]: וְהִקְיֹצָה Psa. 35.23 ‘awake! (ms)’)

Jerome (346-420 C.E.)

cira (Jerome, Commentary on the Minor Prophets, Amos, ed. Adriaen, I.1, 217 | L [BHS]: קִירָה Amos 1.5 ‘Kir’)

boger (Jerome, Commentary on the Minor Prophets, Amos, ed. Adriaen, III.7, 324 | L [BHS]: בּוֹקֵר Amos 7.14 ‘herdsman’)

I.1.20. *RESH* רֵשׁ (ר)

(i) Voiced advanced uvular trill [ʀ] or advanced uvular frictionless continuant [ʀ̥] and (ii) pharyngealized apico-alveolar trill [rʕ]

According to *Hidāyat al-Qāriʿ*, the Tiberians pronounced *resh* in two different ways, as was the case with the letters בגדכפת.

Its basic articulation was with ‘the middle third of the tongue’, as was the case with *qof* and plosive *kaf*, suggesting an advanced uvular position. It is not made clear whether it was a trill [ʀ] or frictionless continuant [ʀ̥]. In what follows, it will be transcribed as an advanced uvular trill [ʀ].¹²⁰

The secondary pronunciation of *resh* is said in the medieval sources to occur in the environment of the alveolar consonants דזצתטסל and can be inferred to be an apical alveolar trill. It is described by *Hidāyat al-Qāriʿ* as being intermediate in status

¹²⁰ *Hidāyat al-Qāriʿ*, Long version, edition in vol. 2 of this book, §II.L.1.3.6.; Eldar (1984a).

(*manzila bayna manzilatayn* ‘grade between two grades’), i.e. intermediate between the simple primary *resh*, which is described as ‘light’ (*khafif*), and geminated *resh* marked with the *dagesh* sign in the Tiberian vocalization, which is termed ‘major *resh*’ (*al-resh al-kabīr*).¹²¹ When contrasting it with the primary *resh*, *Hidāyat al-Qāri*¹²² describes the secondary *resh* as having the feature of ‘heaviness’ (*thiqal*) whereas the simple *resh* has the feature of ‘lightness’ (*khiffa*).¹²² The intermediate status of the secondary *resh*, therefore, can be identified as being an intermediate degree of muscular tension, between the light advanced uvular *resh* and the maximal degree of muscular tension brought about by the gemination of the *resh*. The instances of geminated *resh* marked with *dagesh* in the Standard Tiberian reading tradition appear to have lengthened forms of the primary *resh*, i.e. advanced uvular trills. They do not occur in the contexts that are said to condition the secondary alveolar *resh*. So geminated *resh* ר̄ may be transcribed [R̄R̄], e.g. הִרְעִימָהּ [hɑR̄R̄iʕi:ʕmɑ:ʕh] ‘to irritate her’ (1 Sam. 1.6).

¹²¹ *Hidāyat al-Qāri*’, Long version, edition in vol. 2 of this book, §II.L.1.9.6.; Eldar (1984a).

¹²² *Hidāyat al-Qāri*’, Long version, edition in vol. 2 of this book, §II.L.1.9.5., §II.L.1.9.7. The Hebrew *Maḥberet ha-Tijān* (ed. J. Derenbourg 1871, 81) states that the Tiberians pronounced this *resh* strongly (מחזקים). An anonymous Masoretic treatise preserved in the Genizah fragment CUL T-S NS 311.113 states that the Tiberians pronounced the *resh* with *dagesh* (ידגשוהא), but ‘in our country we do not know (this pronunciation)’. This is presumably referring to the Tiberian secondary *resh*.

We know from various sources that the Hebrew letter *resh* had two different types of pronunciation in the Middle Ages. The earliest text referring to this is *Sefer Yeşira*:

There are seven double letters, בג"ד כפר"ת. These are pronounced in two ways, which are two opposites—soft and hard, a strong structure as opposed to a weak one.¹²³

In his commentary on *Sefer Yeşira*, Saadya discusses the double pronunciation of the Hebrew *resh*. He states that the letters בגדכפרת are called double (*muḏā'afa*) 'because each of the letters is pronounced with two pronunciations, a hard pronunciation and a soft pronunciation'.¹²⁴ He refers to a difference between the Tiberian and Babylonian pronunciations of *resh*:

As for the double nature of the *resh*, the Tiberians have it in their reading of the Bible, whereas the Iraqis have it in their speech but not in their reading of the Bible. They call one type *resh makrūkh* and the other *ghayr makrūkh* ('not *makrūkh*'). As for the customs of the Iraqis in this matter, we have examined them but have found no principle uniting them. As for the customs of the Tiberians, we shall mention them in the commentary on the fourth part of this book.¹²⁵

שבע כפולות בג"ד כפר"ת ... ומתנהגות לשונות כפולות שלתמורות: בית בית, גימל גימל, דל דל, כף כף, פה פה, ריש ריש, תיו תיו כנגד רך וקשה תבנית גיבור כנגד חלש (ed. Gruenwald 1971, 156; ed. Hayman 2004, 54). For variant versions see Hayman (2004, 51, 127).

¹²⁴ לאן כל חרף מנהא יכרג בצותין צות כשן וצות לין (ed. Lambert 1891, 29).

¹²⁵ ואמר תצאעף אלריש פאנה ללטבראניין פי אלמקרא, וללעראקין פי כלאמהם לא פי פאמא רסום אלעראקין פי דלך. אלמקרא, ויקולון הדא ריש מכרוך וריש גיר מכרוך

Elsewhere in his commentary on *Sefer Yešira* Saadya refers to the ‘hard’ *resh* as *resh dagesh* and the ‘soft’ *resh* as *resh rafe*.¹²⁶

The word *makrūkh*, which is used by Saadya in the passage cited above, has been interpreted by scholars in various ways.¹²⁷ The most satisfactory interpretation is that it is an Arabicized form of the Hebrew word כָּרוּךְ ‘wrapped up, closed up’, analogous to the forms *madgūsh* ‘with *dagesh*’ and *marfi* ‘with *rafe*’, which are widely attested Arabicizations of the Hebrew terms דָּגוּשׁ and רַפּוּי. The term כָּרוּךְ is found in Masoretic sources in reference to closed syllables, as in the following passage from *Diqduqe ha-Ṭe’amim*:

אם לשון ברכה עם ב"ת משוכה ובו הטעם תמוכה לעולם היא כרוכה כמו
והתבְּרָכוּ בו ... ואם על כ"ף טעמו יפתח נאמו ובלשון ינעימו כמו ואבְּרָכָה

פאלתמסנאהא פלם נגד להא אצלא יגמעהא. ואמא רסום אלטבראנין פאנא נדכרהא פי תפסיר אלפרק אלראבע מן הודא אלכתאב (ed. Lambert 1891, 46). In part four Saadya describes how the hard *resh* occurs in certain phonetic environments (see below).

¹²⁶ Ed. Lambert (1891, 79). In some medieval sources describing the two different types of Tiberian *resh* the terms *dagesh* and *rafe* are confused. This is the case, for example, in *Diqduqe ha-Ṭe’amim* (ed. Baer and Strack 1879, §7) and the Hebrew *Maḥberet al-Tijān* (ed. J. Derenbourg 1871, 138). According to Revell (1981, 133) this confusion arose from the fact that in the few cases where the *dagesh* sign is marked in the *resh* in the Tiberian text, the *resh* is not preceded by the letters דוצתטסלן nor is it followed by לן. A *resh* that did occur in the environment of these letters was, therefore, considered to be *rafe*. Such sources, or the versions that have come down to us, must have been written by scribes who had no direct knowledge of the Tiberian pronunciation tradition.

¹²⁷ Morag (1960, 217–19).

מְבָרְכֶיךָ ... חוץ מאחד במקרא מיוחד כי על כ"ף טעמו ולא יפתח בנאמו
מנדעי עלי יתוב ולעלאה בְּרַכַּת

If a form of the root בר"ך has a *bet* with a vowel and the accent falls on it (i.e. the *bet*), it is always pronounced 'closed up' as in וְיִתְבָּרְכוּ בּוֹ 'and may they bless themselves by him' (Psa. 72.17) ... But if the accent falls on the *resh*, it is opened up in speech and pronounced with a vowel as in וְאֶבְרַכֶּה מְבָרְכֶיךָ 'and I will bless those who bless you' (Gen. 12.3) ... Except for one word, which is unique in the Bible, for its accent falls on the *kaf* but it is not opened up in speech: וּמְנַדְעֵי עָלַי יִתּוּב וּלְעֹלָאָה בְּרַכַּת 'and my reason returned to me and I blessed the Most High' (Dan. 4.31).¹²⁸

In this passage, the term כרוך is used to describe forms in which a *shewa* is silent, i.e. the *shewa* coincides with the closure of the syllable. The opposite of כרוך is when יפתח בנאם, which literally means 'it is opened up in speech'. This refers to the fact that the *shewa* is vocalic.

In the phrase *resh makrūkh*, the term is a calque of the Arabic phonetic term *mutbaq* (literally 'closed, covered'), which was used in the medieval Arabic grammatical tradition to refer to emphatic consonants, i.e. pharyngealized consonants.¹²⁹ A non-emphatic letter was referred to in the Arabic grammatical tradition by the term *munfatih* 'open'. The description of the Arabic emphatic letters by the grammarian Sībawayhi (eighth century C.E.) is as follows:

¹²⁸ Ed. Baer and Strack (1879, §53). For variant texts of this passage see ed. Dotan (1967, 140, 263).

¹²⁹ For details see Khan (1995).

When you position your tongue in the places of articulation of these four (emphatic) letters, your tongue forms a cover/closure extending from their place of articulation until the palate. You raise the back of the tongue towards the palate and when you have positioned your tongue thus, the sound is compressed between the tongue and the palate up to the place of articulation of the letters.¹³⁰

The terminological opposition between כרוכה and יפתח בנאם in the passage from *Diqduqe ha-Te'amim* above would, therefore, be directly parallel to the contrasting pair of terms *muṭbaq* vs. *munfatih*, which designated emphatic vs. non-emphatic consonants.

This variant of *resh*, therefore, was pronounced pharyngealized. Evidence for such an interpretation is found in the report by Dunash ibn Tamim that his teacher Isaac Israeli (tenth century), 'an expert in the Tiberian reading tradition', pronounced the *dalet* in the word וַיִּדְרְכוּ 'and they bent' (Jer. 9.2) like the pharyngealized Arabic letter *ḍād* (ويذركو את לשונם), by which he meant a pharyngealized voiced interdental [ḏ^ʕ]. This must have arisen by the spreading the pharyngealization of the contiguous *resh*.¹³¹

In a fragment of a Masoretic treatise datable to the tenth century, it is stated that this variant of *resh* 'is pronounced with a turning of the tongue' (*yuqāl bi-taqallub al-lisān*).¹³² This seems

¹³⁰ وهذه الحروف الاربعة اذا وضعت لسانك في مواضعهن انطبق لسانك من مواضعهن الى ما حاذى الحنك الاعلى من اللسان ترفعه الى الحنك فاذا وضعت لسانك فالصوت محصور في ما بين اللسان والحنك الى موضع الحروف, *al-Kitāb*, ed. Derenbourg (1889, 455).

¹³¹ For this passage see §I.1.4.

¹³² Allony (1973, 102, text line 28).

to be referring to the retroflexion of the tongue tip (Khan 1995, 79). Retroflexion of the tongue tip is a feature often associated with pharyngealized alveolar *r* in modern spoken Semitic languages.¹³³

The references to the ‘heavy’ or ‘hard’ pronunciation of the secondary *resh* and its association with the term *dagesh* (e.g. Saadya *resh dagesh*), can be correlated with the fact that pharyngealized *r* was pronounced with greater muscular tension.

According to *Hidāyat al-Qāri’* and other medieval sources, this apico-alveolar pharyngealized *resh* occurred when it is preceded by the consonants דוצתטסלן or followed by לן and when either *resh* or one of these consonants has *shewa*.¹³⁴ This can be reformulated as the rule that alveolar *resh* occurs when one of the following conditions holds:

- (i) *Resh* is in immediate contact with a preceding alveolar, e.g. בַּמִּזְרָה [bamiz^lr^ʕε:] ‘with a pitchfork’ (Jer. 15.7), מִצְרָה [mas^lr^ʕe:ef] ‘crucible’ (Prov. 17.3).
- (ii) *Resh* is in the same syllable, or at least the same foot, as a preceding alveolar, e.g. דַּרְכּוֹ [dar^lk^ho:] ‘his way’ (Gen. 24.21), טְרַפֵּי [t^ʕar^lp^he:] ‘the leaves’ (Ezek. 17.9). The condition applies also to a *resh* in word-final position that is in the same syllable or at least the same foot as an alveolar,

¹³³ E.g. in Neo-Aramaic dialects (Khan 2008, 32).

¹³⁴ *Hidāyat al-Qāri’*, Long version, edition in vol. 2 of this book, §II.L.1.9.4., §II.L.1.9.7.; Saadya, *Commentary on Sefer Yešira* (ed. Lambert 1891, 79); Masoretic treatise attributed to Yehudah ha-Nazir (ed. Allony, 104, text lines 51-56).

although the *resh* is not marked with a *shewa* in such cases, e.g. שַׂר [sar^s] ‘commander of’ (1 Sam. 18.13), לְמַטֵּר [lim^tʔa:ar^s] ‘by the rain’ (Deut. 11.11).¹³⁵ A consonant with vocalic *shewa* is treated as belonging to the same foot as the following *resh* in the metrical structure of the phonetic realization of the word (§I.2.5.2.), e.g. צְרוּפָה [(s^sa.r^su:)(ʔw:)] ‘refined’ (2 Sam. 22.31), where feet are enclosed in round brackets and syllable boundaries are marked by dots. Likewise, as can be seen from the transcription לְמַטֵּר [lim^tʔa:ar^s], a closed syllable containing a long vowel has an epenthetic vowel of the same quality following the long vowel. It will be argued, however, that it is nevertheless in the same prosodic foot, viz. [(lim.)(ʔʔa:ar^s)] (§I.2.4.). On the phonetic level, therefore, the *resh* is strictly not in the same syllable as the alveolar in forms such as צְרוּפָה [s^sa.r^su:ʔw:] and לְמַטֵּר [lim.ʔʔa:ar^s]. The conditioning factor for the emphatic allophone of the *resh* is that it occurs in the same foot as a preceding alveolar.

- (iii) *Resh* is in immediate contact with or in the same syllable, or at least in the same foot, as a following ל or ך, e.g. עֶרְלִי-לֵב [ʔar^sle:-le:ev] ‘uncircumcised in heart’ (Jer. 9.25), גִּרְנִי [g^rni:] ‘my threshing-floor’ (Isa. 21.10), רִנְנָה [r^sannaⁿu:] ‘rejoice!’ (Psa. 33.1), רִנְנָה [r^samⁿʔw:] ‘joyful cry’ (Job 3.7).

Elsewhere *resh* had an advanced uvular realization, e.g. רֶכֶב [ʔr^e:xev] ‘chariotry’ (Exod. 14.9), מְרִאָה [mar^ʔʔe:] ‘appearance’

¹³⁵ These last two examples are cited by Saadya, *Commentary on Sefer Yesira* (ed. Lambert 1891, 79).

(Gen. 12.11), שָׁמַר [ʃɔːmaːaR] ‘he kept’ (Gen. 37.11), אָרְדוּךְ [ʔaRˈdoːof] (Psa. 18.38).

As can be seen in (ii) above, Saadya cites the example שָׁר [sarˤ] with *sin*. The letter *sin* (שׁ), therefore, also conditioned the occurrence of the pharyngealized *resh* in the appropriate contexts, although it is not explicitly mentioned in the list of conditioning consonants in the medieval sources, which includes only דּוּצַתְסִלְ. The letters *sin* and *samekh* had the same realization [s]. The written letter *sin* was considered to have *samekh* as its *qere* (§1.0.8.).

Pharyngealized *resh* is not unknown in modern reading traditions, e.g. in the tradition of Morocco (with the exception of Tetouan) *resh* may be realized as an emphatic alveolar trill [rˤ], generally in the environment of *a* or *u* or an emphatic consonant

רָאֵרֵ (Akun 2010, 49 | L [BHS]: אָוֹר / אָוֹרֵ Gen. 1.3 ‘light’)

This pharyngealization, moreover, may spread to adjacent consonants, e.g.

isˤrˤaˤil (Akun 2010, 72 | L [BHS]: יִשְׂרָאֵל Exod. 15.1 ‘Israel’)

jarˤiˤdˤu (Akun 2010, 72 | L [BHS]: יָרְדוּ Exod. 15.5 ‘they went down’)

In Jewish Palestinian Aramaic sources from the pre-Masoretic period, an *a* or *i* vowel sometimes shifts to a rounded vowel represented by *vav* in the orthography. This occurs in particular in a syllable closed by a labial consonant or *resh*, e.g. גּוּבְרָא (< *gavrā), ‘man’, רוּמְשָׂא (< *ramšā) ‘evening’, תּוּרְעָא (< *tarā) ‘door’, יוּרְדְנָא (< *yardenā) ‘Jordan’ (Dalman 1894, 65). A similar

vowel shift is attested in Christian Palestinian Aramaic, Samaritan Aramaic and also Palestinian Rabbinic Hebrew (Ben-Hayyim 1946, 194–96; Kutscher 1979, 496–97; Mishor 1998). Rounding of a vowel in the environment of labials is a natural development. The motivation for the rounding and backing in the environment of *resh* is not so clear, but could reflect a pharyngealized pronunciation of *resh*. Pharyngealized consonants involve the retraction of the tongue and consequent lip-rounding.¹³⁶ In Palestinian Aramaic and Rabbinic Hebrew, the *vav* before *resh* is not restricted to the environments that induced the pharyngealized *resh* in Tiberian Hebrew, but it may be interpreted as evidence that a pharyngealized *resh* existed in the spoken language of the Jews of Palestine in the pre-Islamic period.

In the passage from his commentary on the *Sefer Yešira* that is cited above, Saadya states that the Tiberians have a double *resh* in their reading of the Bible, whereas the Iraqis (i.e. Babylonians) have it in their speech but not in their reading of the Bible.

Saadya does not specify which type of Tiberian *resh* resembles the *resh* in the Babylonian biblical reading tradition. *Sefer Yešira* classifies *resh* among the consonants pronounced at the front of the mouth ‘between the teeth and with a resting tongue’¹³⁷ According to Morag (1960, 233), this reflects the

¹³⁶ For labialization associated with pharyngealized consonants in modern spoken Arabic dialects see Bellem (2007) and for this feature in Neo-Aramaic see Khan (2016, vol. 1, 50).

¹³⁷ בלשון ‘between the teeth and with a resting tongue’, בין שינים ובלשון ישן ‘with a resting and flat tongue’ (ed. Gruenwald 1971, 147; ed. Hayman 2004, 92–98).

pronunciation of the Babylonian Jews. This was no doubt similar to the pronunciation of *resh* in the modern reading tradition of the Jews of Baghdad, in which it is realized as an alveolar trill (Morag 1977, 6). It is significant to note that in the modern Arabic dialect of the Jews of Baghdad there are two reflexes of Classical Arabic *rāʾ*, viz. (i) a back velar or uvular fricative ([ʁ], [ʁ̥]) or (ii) an alveolar trill [r] (Blanc 1964, 20–25; Mansour 1974, vol. 1, 25–31, 34–35). This two-fold pronunciation in the Arabic vernacular may be the double *resh* of the speech of the Iraqis described by Saadya. So, the comparison by Saadya of the Tiberian *resh* with the Iraqi vernacular *resh* can be taken as evidence supporting the proposal to identify the two types of Tiberian *resh* as apical and advanced uvular.

Saadya does not refer to the speech of the Tiberians, but other sources indicate that the distinction between different types of *resh* in the Tiberian reading is also found in the local vernacular speech. The author of one extant Masoretic Treatise datable to the tenth century states that he undertook fieldwork in the streets of Tiberias to verify his analysis of the *resh* of the Tiberian reading, on the grounds that *resh* had the same pronunciation in the local speech of the (Jewish) inhabitants of Tiberias:

‘I spent a long time sitting in the squares of Tiberias and its streets listening to the speech of the common people, investigating the language and its principles, seeing whether anything that I had established was overturned or any of my opinions proved to be false, in what was uttered with regard to Hebrew and Aramaic, etc., that is the

language of the Targum, for it resembles Hebrew ... and it turned out to be correct and accurate.¹³⁸

The interpretation of this is not completely clear. The Aramaic mentioned by the author could have been vernacular Aramaic that was still spoken in Tiberias at the period. The Hebrew must have been the recitation of Hebrew liturgy or the occurrence of a 'Hebrew component' (Hebrew words and phrases) within vernacular speech. The reference to the two types of *resh* is found also in a Hebrew treatise in the corpus published by Baer and Strack,¹³⁹ in which, likewise, it is stated that this pronunciation existed in the conversational speech of the common people.

I.1.21. *SIN* שׁין (ש)

Unvoiced alveolar sibilant [s]

This had the same pronunciation as *samekh* in the Tiberian tradition. It is not distinguished from *samekh* in *Hidāyat al-Qāri'*. When it is stated in this work that 'The fourth place of articulation is the teeth, from which are heard four letters, namely זסצש (*zayin, samekh, ṣade* and *shin*),¹⁴⁰ the letter ס is intended to refer to both *samekh* and *sin*. As discussed in the

¹³⁸ וכנת אטיל עלגלוס פי סוחאת טבריה ושוארעהא א[סת]מע בלאם אלסוקה ואלעאמה
ואבחת ען עללגה ואצול[הא] אנטר הל ינכסר שי ממא אצלת או ינפסד שי ממא טהר לי
ופי מא נקט ב[ה מן] אלעבראני ואלסריאני ואנואעה אע לגה אלטרגום וגירה פאנה
(Allony 1973, 98–100). מגאלנס ללעבראני ... פכרג צחיה מחחר

¹³⁹ Baer and Strack (1879, §7).

¹⁴⁰ Long version, edition in vol. 2 of this book, §II.L.1.3.8.

Introduction (§I.0.8.), the written letter *sin* was considered to have *samekh* as its *qere*.

In the Karaite transcriptions, the diacritical dot of Hebrew *sin* is sometimes written over the left side of Arabic *sīn* when it transcribes *samekh*, e.g.

حسینداخا (BL Or 2551 fol. 10r, 8 | L [BHS]: חֲסִידָיִךָ Psa.
52.11 ‘your saints’)

مستتیر (BL Or 2551 fol. 13v, 7 | L [BHS]: מְסִתֵּתֵר Psa. 54.2
‘he who hides’)

كاحاسند (BL Or 2539 MS A, fol. 65r, 3 | L [BHS]: כַּחֲסֵדֶךָ Gen.
21.23 ‘like the kindness’)

As remarked in the Introduction (§I.0.8.), *samekh* and *sin* sometimes interchange in the same word or root in the fixed orthography of the Masoretic Text, e.g.

Ezra 4.5: וְשָׂכְרִים ‘and they hire’ vs. 2 Chron. 24.12 שְׂכָרִים

In the biblical manuscripts from Qumran, there are many cases of *sin* occurring in place of Masoretic *samekh* and vice versa, which is additional evidence that the equivalence in pronunciation existed already in the Second Temple Period, e.g.¹⁴¹

פשה (4Q136 f1.8 | L [BHS]: פֶּסַח Exod. 12.48 ‘Passover’)

¹⁴¹ Data supplied by Aaron Hornkohl.

וּשְׂרַתָּם (XHev/Se5 f1.14 | L [BHS]: וְסִרְתָּם Deut. 11.16 ‘and you [mpl] will turn away’)

שַׁעֲפֵי הַסְּלָעִים (1QIsa^a 47.4 | L [BHS]: סַעֲפֵי הַסְּלָעִים Isa. 57.5 ‘the clefts of the rocks’)

יִשָּׁד אֶרֶץ (4Q93 1.11 | L [BHS]: יִסְד־אֶרֶץ Psa. 104.5 ‘he established the earth’)

סִדְהוֹ (4Q134 f1.26 | L [BHS]: שִׁדְהוֹ Deut. 5.21 ‘his field’)

וּלְחִסּוֹף (1QIsa^a 24.23 | L [BHS]: וְלִחְשֹׁף Isa. 30.14 ‘and to scoop’)

סִיאִי (1QIsa^a 41.16 | L [BHS]: שִׂיאִי Isa. 49.18 ‘lift up [fs]!’)

Ibn Janāḥ (Spain, eleventh century) states that the *dagesh* in the *sin* of עֲשְׂבוֹת ‘herbage’ (Prov. 27.25) has the purpose of ensuring that it is not interchanged with *zayin*.¹⁴² This suggests that *sin* in contact with voiced consonants was susceptible of being read as voiced.

In some medieval Muslim sources, *sin* is represented by *ṣād* [s^f] in the name عيسو: עִישׁוֹ (Schreiner 1886, 254). This apparently reflects its pharyngealization after the pharyngeal ‘*ayin*’.

The pharyngealization of *sin* in the environment of emphatic consonants is attested in some modern reading traditions, e.g.

Yemen

[wajjs^ft^fɕ:m]) (Morag 1963, 37-38 | L [BHS]: וַיִּשְׂטָם Gen. 27.41 ‘and [Esau] hated’)

¹⁴² *Kitāb al-Luma‘* (ed. Derenbourg 1886, 240), Schreiner (1886, 241).

I.1.22. *SHIN* שׁין (שׁ)

Unvoiced palato-alveolar fricative [ʃ]

According to the medieval sources, its place of articulation was the same as that of the sibilants *zayin* and *samekh*, namely the teeth.¹⁴³ As was pointed out above in the section on *zayin* (§I.1.7.), this did not necessarily imply that the teeth were one of the primary articulators. It is described by Ibn Janāḥ as a ‘spreading letter’,¹⁴⁴ which no doubt referred to its palatalized articulation. In the Karaite transcriptions, it is represented by Arabic *shīn*, which, according to the Arabic grammarians, was a palatal fricative [ç], a pre-palatal fricative [ç⁺] or an alveolo-palatal [ɕ].¹⁴⁵ Tiberian *shin* was not primarily palatal, since it was not included by *Hidāyat al-Qāri’* among the letters that are pronounced with the middle of the tongue.

I.1.23. *TAV* תּוּ (תּ)

Tav with *dagesh* (תּ): unvoiced aspirated alveolar stop [t^h]

Tav without *dagesh* (ת): unvoiced alveolar fricative [θ]

A *tav* without *dagesh* is frequently, but not regularly, marked by the *rafe* sign in the model Standard Tiberian codices.

¹⁴³ *Hidāyat al-Qāri’*, Long version, edition in vol. 2 of this book, §II.L.1.3.8.; ed. Eldar (1980, fol. 10b, line 77). *Sefer Yešira* (ed. Gruenwald 1971, 147; ed. Hayman 2004, 92–98).

¹⁴⁴ חרף אלתפשי (*Kitāb al-Luma’*, ed. Derenbourg, 27).

¹⁴⁵ Roman (1983, 202, 218, 248).

In some manuscripts of *Hidāyat al-Qāri'*, the name of this letter is spelt תי or תא.¹⁴⁶

According to *Hidāyat al-Qāri'*, *tav* was articulated with 'the end of the tongue and the flesh of the teeth', i.e. the gums or alveolar ridge.¹⁴⁷ Likewise, Saadya describes the place of articulation of *tav* as being adjacent to the inside of the upper teeth.¹⁴⁸ When the letter had *dagesh*, the tongue was pressed firmly against the gums. When it was without *dagesh*, the tongue was pressed lightly against the gums. Both forms of the letter were articulated in the same place according to the medieval sources. It appears to have been pronounced with the tip of the tongue rather than the blade (see the description of *dalet* §I.1.4.).

Hidāyat al-Qāri' describes the stop [t^h] as primary (*'ašl*) and the fricative [θ] as secondary (*far'*).¹⁴⁹

We know from Greek transcriptions that in the first half of the first millennium C.E. plosive *tav* was pronounced with aspiration.¹⁵⁰ In Greek transcriptions from the pre-Masoretic period, plosive *tav* is represented by Greek *theta*, which was an aspirated stop [t^h]. In Latin transcriptions from the pre-Masoretic

¹⁴⁶ E.g. short version, edition in vol. 2 of this book, §II.S.3.0., §5.1.

¹⁴⁷ Long version, edition in vol. 2 of this book, §II.L.1.3.7.; ed. Eldar (1980, fol. 10b, lines 67–69).

¹⁴⁸ *Commentary on Sefer Yešira* (ed. Lambert 1891, 75).

¹⁴⁹ Long version, edition in vol. 2 of this book, §II.L.1.2.

¹⁵⁰ Kutscher (1965, 24–35).

period, it is represented by the Latin digraph *th*, which likewise represented an aspirated stop [t^h]. Examples:¹⁵¹

Septuagint (third century B.C.E.)

Θάρα (Göttingen Septuagint | L [BHS]: תָּרַח Gen. 11.24
'Terah')

Νεφθαλί (Göttingen Septuagint | L [BHS]: נַפְתָּלִי Gen. 30.8
'Naphtali')

Hexapla of Origen (c. 185–254 C.E.)

θαμιμ (Ambrosiana Palimpsest | L [BHS]: תָּמִים Psa. 18.26
'blameless')

αμαρθι (Ambrosiana Palimpsest | L [BHS]: אָמַרְתִּי Psa. 30.7
'I said')

Jerome (346-420 C.E.)

tharsis (Jerome, Commentary on Ezekiel, ed. Gorie,
III.10.763 | L [BHS]: תַּרְשִׁישׁ Ezek. 10.9 'Tarshish')

machthab (Jerome, Commentary on Isaiah, ed. Gryson,
XI.14.6 | L [BHS]: מִכְתָּב Isa. 38.9 'writing')

This aspirated realization of plosive *tav* continued in the Tiberian reading tradition. In the Karaite transcriptions, plosive *tav* with *dagesh* is represented by Arabic *tāʾ*, which was aspirated according to the medieval Arabic grammarians.¹⁵²

¹⁵¹ Data supplied by Ben Kantor.

¹⁵² Roman (1983, 55).

I.1.24. CONSONANT PHONEMES

The inventory of consonant phonemes in the Tiberian reading tradition can be reconstructed as follows:¹⁵³

Phoneme	Allophones	Orthography	Comments
/ʔ/	[ʔ]	א	
/b/	[b]	ב	
/v/	[v]	ב	See §I.1.25. below
/g/	[g]	ג	
/ɣ/	[ɣ]	ג	See §I.1.25. below
/d/	[d]	ד	
/ð/	[ð]	ד	See §I.1.25. below
/h/	[h]	ה	
/v/	[v], [w]	ו	There are variations in the realization of the allophones across different sub-traditions of reading (§I.1.6.).
/z/	[z]	ז	
/ħ/	[ħ]	ח	
/tʰ/	[tʰ]	ט	
/j/	[j], [j]	י	The stop allophone [j] occurs only when the consonant is geminated.

¹⁵³ The inventory of consonant phonemes presented here corresponds to that proposed by Schramm (1964, 63) on the basis of the graphemes of Tiberian Hebrew, although he did not have access to the original phonetic realizations.

/k ^h /	[k ^h]	כ, ק	
/χ/	[χ]	כ, ק	See §I.1.25. below
/l/	[l]	ל	
/m/	[m]	מ, ם	
/n/	[n]	נ, ן	
/s/	[s]	ס, שׁ	These were equivalent in the oral reading tradition. The distinction in orthography is an archaism (§I.0.8.).
/ʕ/	[ʕ]	ע	
/p ^h /	[p ^h]	פ	
/p ^s /	[p ^s]	פ	This is attested only in וְנִינְיָא 'his palace' (Dan. 11.45), where its occurrence is not conditioned by the phonetic environment, so it should be identified as a phoneme (§I.1.17.).
/f/	[f]	פ	See §I.1.25. below
/s ^s /	[s ^s], [z ^s]	צ	For the voiced variant see §I.1.7.
/q/	[q]	ק	
/r/	[R], [r ^s]	ר	The two variant realizations are conditioned by the phonetic environment and so should be identified as allophones (§I.1.20.).

/ʃ/	[ʃ]	ש	
/t ^h /	[t ^h]	ת	
/θ/	[θ]	ת	See §I.1.25. below

I.1.25. DISTRIBUTION OF THE VARIANTS OF בגדכפת

In general, the fricative variants of the בגדכפת letters (i.e. the forms written without a *dagesh* sign: [v], [ʁ], [ð], [χ], [f] and [θ], respectively) occur after a vowel when the letter is not geminated, e.g. רַב [ˈʁaːv] ‘much’ (Gen. 24.25), יִשְׁכְּבוּ [jiʃkʰaˈvuː] ‘they will lie’ (Isa. 43.17). In principle, therefore, the stop and fricative variants appear to be allophones conditioned by the environment. In many cases, however, the preceding vowel had been elided in some previous stage of the language, but the consonant nevertheless remained a fricative, e.g.

בְּכָתְבוֹ [baχθʰvoː] ‘when he had written’ (Jer. 45.1) <
**bakutubō*

מַלְכֵי [malˈχeː] ‘kings of’ (Gen. 17.16) < **malakē*

In a few such cases, a plosive and a fricative are in free variation, e.g.

רִשְׁפֵי [ʁiʃˈfeː] (Psa. 76.4), רִשְׁפֵּי [ʁiʃˈpʰeː] (Cant. 8.6) ‘flames’

The distribution of the plosive and fricative allophones, therefore, is not completely predictable from the phonetic context in Tiberian Hebrew. Consequently, the plosive and fricative variants of the letters should be distinguished in a synchronic phonological representation, e.g.

מַלְכֵי /malχē/ [mal'χe:] 'kings of' (Gen. 17.16)

בִּנְפֹל /binfol/ [bin'fo:ol] 'at the falling of' (Isa. 30.25)

In the corpus of the Hebrew Bible, however, there is no certain minimal pair arising from the phonemicization of the variants of the בגדכפת consonants, though such oppositions could hypothetically occur in Tiberian Hebrew. Such minimal pairs are found in Aramaic, where the בגדכפת consonants were likewise phonemicized (Khan 2005, 84–87).