The Tiberian Pronunciation Tradition of Biblical Hebrew

Volume I

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I.3. DAGESH AND RAFE

I.3.1. DAGESH

I.3.1.1. Preliminary Remarks

Dagesh is a dot that is marked within a letter. It is in origin an Aramaic active participle meaning ‘stabbing’ from the Aramaic root d-g-š ‘to stab’. This referred, it seems, to the ‘stabbing’ of the letter by the pen when the sign was marked.

The dagesh sign was used mainly in two contexts. These are (i) on a consonant that was geminated (traditionally referred to in modern grammars as dagesh forte) and (ii) on the consonants בגדכפת when they were realized as plosives (traditionally referred to as dagesh lene). In both cases the letter with dagesh was pronounced with greater pressure than its counterpart without dagesh.

The majority of consonants in the Tiberian pronunciation tradition could be marked with a dagesh.

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1 Our terms dagesh forte and dagesh lene go back to David Qimḥi (1160-1235), who uses the Hebrew terms דגש חזק (dagesh forte) and דגש קל (dagesh lene) in his Mikhlo. The terms דגש חזק and דגש קל are used also by Yequti’el ha-Naqadan, who was active in medieval Ashkenaz in the second half of the thirteenth century. He does not mention David Qimhi’s Mikhlo, which was written earlier, but it is possible that Yequti’el borrowed this terminology from Qimḥi (Yarqoni 1985, 105–13).
Dagesh is not marked, however, on the laryngeals and pharyngeals (אָתוֹן) in the Standard Tiberian tradition, except in a few isolated cases to ensure correct reading (e.g. the dagesh in ʾalef in four words, see §I.1.1.). In principle, therefore, these consonants are not geminated.

The letter resh, like the laryngeal and pharyngeal consonants, is generally not geminated by dagesh. Occasionally, however, the resh does have dagesh, e.g.

L: נִלְכַת בַּזְפָּתת 'your navel string was not cut' (Ezek. 16.4)
L: מִתְכַּחֲפַת 'the bitterness of its soul' (Prov. 14.10)
L: שָׁחֲא שָׁלֵיךְ 'because my head' (Cant. 5.2)
L: קָנָמַה יִת 'anything bad' (Jer. 39.12)
L: הָעֲמַה 'to irritate her' (1 Sam. 1.6)

When it is marked in cases such as these, it should be identified as dagesh forte, indicating the gemination of the consonant. In the attested examples, the resh with dagesh in the Tiberian Masoretic tradition would have had its primary realization as an uvular trill according to the rules that have come down to us from the medieval sources (§I.1.20.). This does not appear, however, to have been a relevant conditioning factor for the dagesh. Some Middle Eastern Jewish communities pronounce the resh as geminate in their biblical reading where the dagesh was marked, but in all cases they pronounce the resh as an apical-alveolar.²

In medieval manuscripts of Rabbinic Hebrew that belong to the eastern tradition of transmission, dagesh is marked on resh

² Morag (1960, 207–8).
more frequently than it is in the Tiberian biblical text. The tendency to mark *dagesh* is greater in some eastern manuscripts than in others. It is particularly common in the Parma B manuscript of the Mishnah. The *dagesh* is marked on *resh* after the relative particle שֶׁ (šé) and on the medial *resh* of a number of verbal and nominal morphological patterns with a geminated middle radical, e.g. עִיר ב (‘he mixed’ (*pi’el)) and מְעוּרֶּבֶּת (‘mixed’ (*pu’al)), סָרִין, ‘weavers.’

The *resh* is pronounced geminated in a similar range of contexts in Middle Eastern reading traditions of Rabbinic Hebrew that have survived into modern times, e.g. Aleppo [ʃɛrɐʔaˈta] (שֶׁרָּאֲתָּה) ‘who has seen (fs)’ (*Berakhot* 3.6), [ʕəɾˈreːβ] (עִיר ב) ‘he created an ‘eruv’ (*Eruvin* 2.6), [lɐhəɾˈgin] ‘to murderers’ (*Nedarim* 3.4). The gemination is more widespread in some traditions than in others. Also in verbal and nominal patterns with a geminated middle radical it tends to be restricted to certain verbal roots and lexical items, as is the case in the medieval manuscripts. Sometimes there are variations within the same root that are exploited to express a semantic distinction. In Jerba, for example, the *resh* in the root עִיר ב is geminated in the *pi’el* when it has the meaning of mixing one thing with another, but it is not geminated when it has the sense of creating an ‘eruv. Morag believes that the lack of consistency in the gemination of the *resh* across the traditions of Rabbinic reading and within

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individual traditions may have been the result of varying degrees of influence from biblical reading traditions.\footnote{Morag (1960, 208–16).}

The \textit{dagesh} in the \textit{resh} in the Tiberian biblical tradition in a case such as \(שֶׁר אשִי\) ‘because my head’ (Cant. 5.2) after the particle -\(י\), which corresponds to one of the contexts where it occurs in the eastern Rabbinic traditions, suggests that the tradition of gemination of this letter is of considerable time depth. It is likely to have had its origin at a period when Hebrew was a living language, assuming that Rabbinic Hebrew originated in the vernacular of the Tannaitic period. Its occurrence here may reflect the influence of spoken Hebrew at the time of the formation of the Tiberian reading tradition, the particle -\(י\) itself being a feature of Rabbinic Hebrew.

\textbf{I.3.1.2. Morphological Gemination}

A \textit{dagesh} may reflect gemination that is a feature of the morphological pattern of a word. This typically occurs in the second radical of the root, e.g. \(בִּק ש\) ‘he sought’, \(ג נָּב\) ‘thief’, \(ח נוּן\) ‘gracious’. A possible case of morphological gemination of \textit{resh} in the Tiberian biblical tradition is \(ךְ לֹא־כָּר ַּ֣ת שָּר\) ‘your navel string was not cut’ (Ezek. 16.4).

Morphological gemination also includes gemination that is inherent to the root. When a root has identical consonants as its two final radicals, these appear as a geminated consonant with \textit{dagesh} when adjacent to each other before an affix. This
gemination does not occur in word final-position when the stem does not have an affix, e.g.

עִם ‘peoples’, שֵׁם ‘his people’; cf. sing. שֶם < *ʾamm

גָּנִים ‘gardens’, גָּנֶה ‘his garden’; cf. sing. גָּנ < *gann

I.3.1.3. **Dagesh to Distinguish Meaning**

In various cases, gemination of a consonant reflected by a dagesh sign is used in the Tiberian tradition as a strategy to distinguish homophones (Yeivin 1980, 49, 294).

This may be contextually dependent. When, for example, the negator לא is juxtaposed with the homophonous prepositional phrase ו a dagesh is added to the negator to distinguish the two, e.g.

L: יִּהְיֶַּה ה זָָּר ע ל֖וֹ ל ֹ֥א [ˈlloː ˈloː] ‘The offspring would not be his’ (Gen. 38.9)

L: וֹ ע ל־רִֹּּ֥יב ל ֹֽא־ל [ˌlloː ˈloː] ‘in an argument that is not his’ (Prov. 26.17)

Gemination to distinguish homophones, however, is generally a permanent feature of the morphological pattern. It can be regarded, therefore, as a type of morphological gemination. Examples of this include cases such as אֲבִיר ‘powerful’ referring to God, used in phrases such as י עֲק ב אֲבִיר ‘the Mighty One of Jacob’ (Gen. 49.24, Isa. 49.26, Isa. 60.16, Psa. 132.2, 5) vs. אֲבִיר ‘powerful’, used to refer to humans, עֲצָבִּים ‘toils’ vs. עֲצָבִים ‘idols’, יָּנִּיח ‘he gives rest’ vs. י נִּיח ‘he places’, וּתָלִּינ ‘you spend the night’ vs. וּת לִּינ ‘you murmur against’, and the historical gemination
separating the pairs יִח ל ‘he begins’ (Jud. 10.18) vs. יִח ‘he profanes’ (Num. 30.3). The gemination in these pairs of forms most likely originates in existing variant morphological patterns that have been exploited to avoid homophony.

The gemination marked by dagesh in the interjection word אָּנָּּ֫ה (also written אָּנָּּ֫א) may have been a device to distinguish it from אָּנָּּ֫ל ‘to where?’. The use of dagesh to distinguish the meaning of homophones or polysemous words is more frequently encountered in the Babylonian tradition of Biblical Hebrew (Yeivin 1985, 355–63). In Babylonian vocalization, a dagesh (known as digsha in the Babylonian tradition) is represented by a superscribed minute gimel and rafe (known as qipya) by a superscribed minute qof.

In many cases in the Babylonian tradition a dagesh is added to distinguish between the use of a word that has an association with God and the use of the same word that has an association with humans (often with negative connotations) or foreign gods. This has been seen already in the Tiberian tradition in pairs such as רא בִּי vs. אֲבִּיר and עֲצ בִּים vs. עֲצָּבִּים. As in the Tiberian tradition, the dagesh is used in the Babylonian tradition in the member of the pair associated with humans or foreign gods. The word


8 A few cases of a dagesh that appear in the BHS edition and were identified by Knauf (1979) as serving to distinguish meaning have recently been shown by Golinets (2013, 247–52) to be no more than specks on the parchment of the manuscript.

9 Yeivin (1985, 1119).
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אלהים, for example, is marked with *dagesh* when it refers to foreign gods (Yeivin 1985, 357, 909–10), e.g.\(^\text{10}\)

> אלוהים (OB | L [BHS]: Deut 11.16 ‘other gods’)

> אלהי מצרים (OB | L [BHS]: Exod. 12.12 ‘the gods of Egypt’)

The *dagesh* is used also in the cognate word in Biblical Aramaic when it refers to foreign gods, e.g.

> אלהי דבא (MB | L [BHS]: Dan 5.4 ‘the gods of gold’)

The word כהנים is marked with a *dagesh* when it refers to ‘priests of foreign gods’ (Yeivin 1985, 358), e.g.

> כהנים (MB | L [BHS]: Zeph 1.4 ‘the priests’)

> כהנים (MB | L [BHS]: 2 Chron. 13.9 ‘and you will make for yourselves priests like the peoples of the lands’)

A *dagesh* is used elsewhere in manuscripts with Babylonian vocalization to mark other types of semantic distinctions of homophones. It is frequently marked on the prepositional phrase של, for example, to distinguish it from the homophone ל (Yeivin 1985, 1132–33), e.g.

> ישולם של (OB | L [BHS]: Job 21.31 ‘who will repay him’)

\(^{10}\) Data supplied by Shai Heijmans. OB = Old Babylonian, MB = Middle Babylonian.
This includes cases where the qere is ולא but the ketiv is ולא, e.g.

"ונא (OB | ketiv, qere ולא 1 Chron. 11.20 ‘and he has a name’)

Other cases include, for example, a dagesh on the word נא in Exod. 12.9, where it denotes ‘raw’, to distinguish it from נא expressing a request (Yeivin 1985, 357) and a dagesh on the resh of עיר your enemy’ in 1 Sam. 28.16 presumably to distinguish it from the plural of ערים ‘towns’ (Yeivin 1985, 354):

מִמַנֻו נ א (OB | L [BHS]: וּנֵא מִמֶׂנוּ L א Exod. 12.9 ‘do not eat any of it raw’)

ךָ (OB | L [BHS]: וּךָ 1 Sam. 28.16 ‘your enemy’)

The examples of dagesh functioning to distinguish meaning in the Babylonian tradition cited above are most easily interpreted as innovative additions to existing forms rather than morphological variants. It should be noted that in some cases the dagesh is marked after a long vowel, e.g. מָלַשׁ. The question arises as to whether these dagesh signs reflect gemination or are simply diacritical signs. Yeivin (1985, 355–63) believes they indeed have the function of dagesh forte. There is, moreover, objective evidence of gemination of dagesh to distinguish meaning in the Tiberian tradition in forms with a long vowel such as עַז by the marking Arabic shadda in the Karaite transcriptions, e.g.
There is also evidence of morphophonemic restructuring by means of innovative gemination in a variety of other reading traditions, including those that have come down to modern times in oral form.

The function of gemination to distinguish meanings of homophones is identifiable, for example, in the reading traditions of Rabbinic Hebrew that are reflected in the early vocalized manuscripts of the Mishnah. Kutscher (1969, 56, 76) drew attention to the following pair of words in the Kaufmann manuscript: קְתִיקָה ‘cutting’ vs. קְתִיקָה ‘piece’

The use of the pattern with dagesh to distinguish the concrete entity that is the result of the cutting from the verbal noun of the same root is likely to have developed by analogy with other nouns with the morphological pattern CCiCCa that express concrete entities in Rabbinic Hebrew (Bar-Asher 2015, 1342).

Various cases of gemination to distinguish meaning have been identified in the living oral tradition of Rabbinic Hebrew of the Yemenite Jews and the Hebrew component in their speech by Gluska (1995). These include distinctions between verbal forms and nouns, in which the noun has the gemination, e.g.

11 In this manuscript initial ‘alef + long qames, i.e. [ʔɔː], is represented by a single Arabic ‘alif. In Biblical Aramaic a long vowel is more widely tolerated in an unstressed syllable closed by a geminated consonant, e.g. וְלִשֵׁם ‘they enter’ (Dan. 4.4 qere); cf. also Syriac ‘ällin (Nöldeke 1869, 457).
‘making cheese’ vs. גבינה ‘cheese (noun)’
‘living (3pl. verbal adjective)’ vs. חיים ‘life (noun)’

Morag (1996) draws attention to some uses of gemination to distinguish meaning in the living oral tradition of Aramaic among the Yemenite Jews, e.g.

‘living’ (referring to God) vs. חיים ‘living’ (referring to humans)

In the Samaritan oral tradition of reading the Pentateuch there are numerous examples of morphophonemic restructuring to distinguish homophones.12 These include the strategy of distinguishing forms by the addition of gemination to one of the pair, e.g.

‘הערים ‘the cities’ (Tiberian הערים) vs. ‘ערים ‘cities’ (Tiberian הערים)13

וַעֲמָה ‘and the cubit’ (Tiberian וַעֲמָה) vs. וָעֲמָה ‘and a cubit’ (Tiberian וָעֲמָה)14

אדני ‘Lord’ (divine) vs. אדני ‘master’ (human)15

אסידא ‘the stork’ (animal) (Tiberian אסידא Lev. 11.19) vs. אסידאכ ‘your pious one’ (human) (Tiberian אסידאכ Deut. 33.8)16

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12 See in particular Florentin (1996) for examples of this phenomenon.
13 Ben-Ḥayyim (2000, 92).
14 Ben-Ḥayyim (2000, 92).
15 Ben-Ḥayyim (1957a-77 vol. 4, 8-9, vol. 5, 194, 2000, 260).
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yəmən ‘Yamin’ (proper name) (Tiberian יָמִין Gen. 46.10) vs. yəmmən ‘right hand’ (Tiberian יָמִין)17

wyāḇād ‘and he perished (past)’ (Tiberian רָבָא) vs. yāḇād ‘he perishes (non-past)’ (Tiberian רָבַע)18

I.3.1.4. Gemination Resulting from Assimilation

In some cases, gemination has resulted from the process of a consonant assimilating another consonant with which it is contact. This typically occurs at the boundary between the stem of a word and an affix. It also functions, therefore, as a marker of a morphological boundary, e.g.

יִפְל [jip-ˈpʰoːl] ‘he falls’ < *yinpol

נָת [nɔːˈθɑːtʰ] ‘you (fs) gave’ < *natant

מִש [miʃ-ˈʃɔːm] ‘from there’ < מִשׁ

יִק [jiq-ˈqəːh] ‘he takes’ < *yilqah

ותְכוֹנַן (Num. 21.7) [vaθikʰ-oːˈneːn] ‘and let it be established’ < חָסֵם


18 Florentin (1996, 218). This particular minimal pair is not attested in the Samaritan Pentateuch, but it can be inferred from the contrasting patterns used for the attested forms of the past and non-past, e.g. wyāḇādu ‘and they perished’ (Num. 16.33) vs. tāḇād דַּבָּד ‘it becomes lost’ (Deut. 22.3).
I.3.1.5. Gemination to Preserve High Lexical Vowels

In a number of cases a consonant after a high lexical vowel, most commonly /u/, though occasionally /i/, has been geminated to preserve it. High lexical vowels exhibit a higher tendency to be reduced to an epenthetic shewa than low vowels:

I.3.1.5.1. After qibbuṣ

‘deep (fs, mpl)’; cf. ms. *ʿamūq
‘red (fs, mpl)’; cf. ms. *ʿādum
(Gen. 3.7) ‘naked’ (mpl); cf. ms. *ʿērum
(1 Sam. 13.20) ‘his axe’; cf. sing. *qardum

This can be identified in various puʿal forms verbs that appear to be in origin passives of the qal pattern without morphological gemination (Gesenius, *Hebrew Grammar*, §52e):

‘they have been eaten’ (Neh. 2.3) < *ʿukalū
‘he was taken’ (Gen. 3.23) < *luqaḥ
‘and it will be poured’ (Zeph. 1.17) < *šupak

I.3.1.5.2. After hīreq

‘bond’ < *ʿisār

I.3.1.6. Gemination of a Consonant in Place of Vowel Lengthening

In a number of cases, a consonant is geminated after an original short *a*. This is attested predominantly at a morphological
boundary between the stem of a noun or adjective and an inflectional suffix. As a result, the vowel remains short and does not undergo pretonic lengthening, as would have typically been the case if the *a was in an open pretonic syllable, e.g.

גְּמִלָּה ‘camels’; cf. sing. גֵּמל
קַטִּים ‘small (mpl)’; cf. ms. קט
מְשִׁים ‘few’; cf. ms. מְשׁים
אָמָנִים ‘marshes’; cf. sing. אָמֵן
רִבְסִים ‘myrtles’; cf. sing. רִבְס
עֶקְרִים; cf. sing. עֶקְר ‘scorpion’
נְכֵּבָד (Isa. 23.8) ‘honoured of’; cf. ms. некב
מְשַׁבֵּר (Psa. 18.3) ‘my stronghold’; cf. sing. משבר
מְעָמִים (Isaiah 51.10) ‘the depths of’
בְּפָלֵגֵה (Jud. 5.15) ‘among the clans’
מֵאָסְפִים (Gen. 27.4) ‘tasty foods’
מֶעָמִים (Cant. 5.16) ‘desirable things’

In the following the *a vowel undergoes attenuation to a ḫureq:

וְהַמְרִיגֹים (2 Sam. 24.22) ‘and the threshing-sledges’; cf. sing. המרג
לֶמוֹר ג (Isa. 41.15)

Historical gemination of this nature can be reconstructed for ḡet in various forms where this letter is now preceded by pataḥ, e.g.

בַּחוּרִים (2 Sam. 24.22) ‘young men’; cf. sing. בוחר (< *bāḥūr)
I.3.1.7. Gemination Associated with Stress

In a few verbal forms, a final sonorant radical is geminated when preceded by a main stress accent and followed by an inflectional suffix, e.g.

וּחָּדּ֑ל (Jud. 5.7) ‘they ceased’

וְיִּחְּל (Job 29.21) ‘and they waited’

רָֽמְל (Job 29.12) ‘they are lofty’

נָּתָּן (Ezek. 27.19) ‘they gave’

I.3.1.8. Gemination after a Prefix

In some cases, gemination occurs at the boundary between a prefixed particle and the stem of a word, e.g.

בֶּלַּח (Jud. 5.7) ‘in what?’ < *ba + mā

בֶּלַּח (Jud. 5.7) ‘how much?’ < *ka + mā

עשִי (Jud. 5.7) ‘until you (fs) arose’ < *ša + stem

שֶׁר אשִי (Cant. 5.2) < *šɛ + stem

We can include here why < *la + ma. The gemination in this word is also associated with stress on the preceding syllable (see §I.3.1.7.), since it, in principle, does not occur in variant forms in which the stress occurs on the final syllable, e.g.
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לָּמֶָּ֤ה (Exod. 5.22). Gemination, however, still occurs when the word has maqaf and so is unstressed, e.g. לָּמֶָּ֤ה (Prov. 17.16).

Another possible case of this type of gemination is the *dagesh* that occurs after the prefixed conjunction *vav* in the [vayiqtol] verbal form. Another motivation for the *dagesh* here, however, is likely to be to distinguish the meaning of this form from the potentially homophonous but semantically distinct form (§I.I.3.1.3.).

Gemination is occasionally used as a strategy to mark a morphological boundary between the interrogative particle *he* and what follows, when the following word begins with *shewa*, e.g.

הָֽנֵ֣֖א בהָֽנֶּ֣ת בִּנְךַָ֛הוּ (Gen. 37.32) ‘acknowledge now whether it is your son's robe’

וְנִֽיִּקְטֵ֖ה (1 Sam. 10.24) ‘Have you seen?’

וְנִֽיִּקְטֵ֖ה (Gen. 18.21) ‘Is it according to its outcry’

וְנִֽיִּקְטֵ֖ה (Num. 13.19) ‘is it in camps?’

When the word following interrogative *he* begins with a guttural, the particle has a full *patah* vowel or, before *qames*, a full *segol*. These were pronounced as long vowels and can be regarded as substitutes for gemination of the initial guttural, e.g.

הָֽנֵ֣֖א (Gen. 31.14) ‘is here still’

וְנִֽיִּקְטֵ֖ה (Exod. 2.7) ‘shall I go’

וְנִֽיִּקְטֵ֖ה (Job 21.4) ‘Is (it the case that) I …’
I.3.1.9. Gemination at Word Boundaries (Deḥiq)

The phenomenon known as deḥiq (Aramaic ‘compressed’) has been described in §I.2.8.1.2. This involves the gemination of a word-initial consonant after an unstressed vowel in the preceding word, e.g.

וְאָּעִַּּ֣ידָּה בֵָּּ֔ם ‘I shall cause to witness against them’ (Deut. 31.28)

עֲשֶׁה־לְךַָּ֣ ת ‘you make for yourself’ (Prov. 24.6)

Hidāyat al-Qāri’ includes constructions with the interrogative word המ such as the following in the category of deḥiq:

מה ‘what is this?’ (Exod. 13.14)

In all cases in the Tiberian tradition the final vowel of the word before the geminated consonant was pronounced long but with reduced duration. In other traditions of Hebrew, there is evidence that the final vowel was pronounced short (see §I.2.8.1.2. for details). The dagesh exhibits properties of the dagesh in forms such as בּ ‘in what?’, in which it marks the boundary between morphemes, and the dagesh in forms such as גְמ לִּים ‘camels’, where it substitutes for the lengthening of the preceding vowel. Also in words such as גְמ לִּים ‘camels’, as remarked above, the dagesh coincides with a morpheme boundary. The dagesh of deḥiq can, therefore, be identified as primarily a marker of a boundary between two words that were closely connected prosodically. In the Tiberian tradition, efforts were made to make a clear prosodic division between the words also by maintaining some degree of vowel length in the final vowel or, in the case of
constructions with מִיְּרָּה, by introducing length in a fully shortened vowel.

I.3.1.10. The Distribution of the Fricative and Stop Variants of the Letters בֹּכְדּפַּת

For the distribution of the fricative and stop variants of consonants within words, see §I.1.25.

When a consonant occurs at the beginning of a word and the preceding word ends in a vowel, the general rule is that the consonant is fricative if the accent of the preceding word is conjunctive or if the preceding word is connected by maqqef, but is plosive if the accent of the preceding word is disjunctive, e.g.

שְלֹשַָּּ֣ה בָּנִּׁ֑ים [ʃaloːˈʃɔːvniːim] ‘three sons’ (Gen. 6.10)

זָּכָֹּּ֥ר וּנְק בָ֖ה בְרָּאָּׁ֑ם [zɔːˈχɔːɔʁ̟vunq̟eːˈvɔːbaʁ̟ɔːˈʔɔːɔm] ‘male and female he created them’ (Gen. 5.2)

נִמְצְאוּ־בִָּּ֗ם [nimsˁuʔvɔːɔm] ‘they were found among them’ (Jer. 41.8)

There are several exceptions to this principle. These are mentioned in the Masoretic treatises and include the following.

(i) When a paseq occurs after a word with a conjunctive accent, e.g.

עָּשַּ֣וּ׀ כָּלָּׁ֑ה [ʕaʃuʔkalːɑ] ‘They have done completely’ (Gen. 18.21)

May the Lord add to his people (a hundred times as many) as them’ (1 Chron. 21.3)

(ii) When the first word ends in a consonantal vav, the letter at the beginning of the next word is normally a plosive, as it is after words ending in other consonants, e.g.

(enter) his courts with praise’ (Psa. 100.4)

‘I cried aloud to him’ (Psa. 66.17)

There are, however, two cases where the consonant is fricative after consonantal vav:

‘He will stretch the line of confusion over it’ (Isa. 34.11)

‘The sound of a carefree multitude was with her’ (Ezek. 23.4)

(iii) When the first word ends in a consonantal consonant yod, the letter at the beginning of the next word is normally a plosive, e.g.

‘perhaps you may inspire terror’ (Isa. 47.12)

‘for what great nation’ (Deut. 4.7)

‘into a great and mighty nation’ (Num. 14.12)

There is one exception to this:

‘the Lord in them’ (Psa. 68.18)

(iv) If two bets or kafs follow one another and under the first of them there is a vocalic shewa, then the first of the pair is plosive even when the preceding word ends in a vowel and has a conjunctive accent, e.g.
‘and when she came’ (Josh. 15.18)

‘and she caught him by his garment’ (Gen. 39.12)

‘Is it not like Carchemish?’ (Isa. 10.9)

If a vowel occurs under the first of the two consonants rather than shewa, the first remains fricative according to the usual rule, e.g.

‘And he (shall take) a wife in her virginity’ (Lev. 21.13)

‘men of Babylon’ (2 Kings 17.30)

We can generalize and say two fricative bets or kafs are avoided in syllable onsets in the same foot (feet indicated below by round brackets, extrametrical syllables are in angled brackets):

[(ba.vi.)(ˈdoː)]

[(vo.ː.)(ˈveː.el)]

[(viv.)(θu.ː.)(ˈleː.)(< hɔː >)]

A further factor is that the initial bet and kaf in constructions such as בִּבְנֵיהֶם and בָּבִֶּׁל are prepositional affixes. Other consonants that are not prepositions under the same conditions remain fricative, e.g.

‘and the sons of Dedan’ (Gen. 25.3)

‘you shall not abhor’ (Deut. 23.8)
The plosive pronunciation of the *bet* and *kaf*, therefore, is made further optimal by the fact that it clearly demarcates a morpheme boundary. This factor can be identified in a variety of other features of the reading tradition (§I.3.1.8.).

(v) Likewise, when the preposition *bet* has *shewa* and is followed by *pe*, the *bet* is plosive even when preceded by a word with a conjunctive accent ending in vowel, e.g.

**וְאִּכָּבְדֶָּ֤ה בְפִֽרְעֹה** ‘and I will get glory over Pharaoh’ (Exod. 14.4)

**זַּּקְרֵי אֲשֶׁר־שֶׁמֶתְּ יִבָּּֽי** ‘and my words which I have put in your mouth’ (Isa. 59.21)

When the *bet* has a vowel, it is fricative in these conditions, e.g.

**א ל־י ָֹּּ֥֑רֶּא בִּפְל גׁ֑וֹת** ‘He will not look upon the rivers’ (Job 20.17)

A *pe* is closely related to *bet* in its articulation. A preposition *bet* or *kaf* that is followed by a fricative consonant that is not of similar articulation is not made plosive under the conditions in question, e.g.

**ו י נִּח ַּ֣הוּ בְג ן־ע ֵּ֔דֶׁן** ‘and he put him in the garden of Eden’ (Gen. 2.15)

**לֹא כְג  ע ת בִָּּ֜הֲ בִּגוּּרְת** ‘surely when [the east wind] strikes it’ (Ezek. 17.10)

(vi) Seven cases do not fit into the previous categories, over which there was no disagreement by the Masoretes. Four of these are in the Song of the Sea (Exod. 15):

**גָּא ַּ֣ה גָּאֵָּּ֔ה** ‘he has triumphed gloriously’ (Exod. 15.1, 21)
Some of these appear to have been motivated by an effort to avoid a series of identical fricative consonants in contiguous syllables or words.²⁰

Cases over which there is said to be disagreement between Ben Asher and Ben Naftali include the following. L in some cases follows Ben Asher and in others Ben Naftali:

Ben Asher (L): נָּאָלְתָּ preparer, (Exod. 15.13); Ben Naftali: נָּאָלְתָּ.

Ben Asher: בָּאָוִיתָ הָשְׁמִינְיָ הַשָׁם הָשָׁמַע; Ben Naftali (L): בָּאָוִית.

Ben Asher (L): אָדְקָרְגָּר יָּבְדָּר שָּבְעָי, the counsellors, the treasurers, the justices’ (Aramaic, Dan. 3.2, 3); Ben Naftali: אָדְקָרְגָּר יָּבְדָּר שָּבְעָי.

²⁰ According to the Hebrew Masoretic treatise published by Ginsburg (1885, 37) the kaf in חָכְמָה (Dan. 5.11) was made a plosive since het and fricative kaf were difficult to combine due to the fact that they were similar in articulation (קרובים במוצא הבטוי).
Ben Asher: trigon, harp’ (Aramaic, Dan. 3.5);
Ben Naftali (L): סְנֶנָּא מֶנְשִׁיר.

On balance, Ben Naftali prefers clearer separation by reading *dagesh* in the majority of these cases.

(vii) Ben Naftali read the preposition *kaf* as plosive after וְָּּ֜י with a conjunctive accent in seven cases where Ben Asher read the *kaf* as fricative according to the usual rule.²¹ L follows Ben Asher in this respect:

<table>
<thead>
<tr>
<th>Ben Asher (L)</th>
<th>Ben Naftali</th>
</tr>
</thead>
<tbody>
<tr>
<td>וְָּּ֜י כִּשְּמַע עַד נִּיו</td>
<td>וְָּּ֜י כִּשְּמַע עַד נִּיו</td>
</tr>
<tr>
<td>‘when his master heard’ (Gen. 39.19)</td>
<td></td>
</tr>
<tr>
<td>וְָּּ֜י כִּשְּמַע</td>
<td>וְָּּ֜י כִּשְּמַע</td>
</tr>
<tr>
<td>‘and when he heard’ (Gen. 39.15)</td>
<td></td>
</tr>
<tr>
<td>וְָּּ֜י כִּרְאוֹת</td>
<td>וְָּּ֜י כִּרְאוֹת</td>
</tr>
<tr>
<td>‘and when (the king) saw’ (Esther 5.2)</td>
<td></td>
</tr>
<tr>
<td>וְָּּ֜י כִּרְאוֹת</td>
<td>וְָּּ֜י כִּרְאוֹת</td>
</tr>
<tr>
<td>‘and when he saw’ (Jud. 11.35)</td>
<td></td>
</tr>
<tr>
<td>וְָּּ֜י כִּרְאוֹת</td>
<td>וְָּּ֜י כִּרְאוֹת</td>
</tr>
<tr>
<td>‘and when they brought out’ (Gen. 18.17)</td>
<td></td>
</tr>
<tr>
<td>וְָּּ֜י כִּרְאוֹת</td>
<td>וְָּּ֜י כִּרְאוֹת</td>
</tr>
<tr>
<td>‘when he became king’ (1 Kings 15.29)</td>
<td></td>
</tr>
<tr>
<td>וְָּּ֜י כִּרְאוֹת</td>
<td>וְָּּ֜י כִּרְאוֹת</td>
</tr>
<tr>
<td>‘and when they had perished’ (Deut. 2.16)</td>
<td></td>
</tr>
</tbody>
</table>

I.3.1.11. Orthoepic Uses of Dagesh

In a number of circumstances, gemination marked by \textit{dagesh} has been introduced into the reading for orthoepic purposes to ensure that letters are clearly articulated and not slurred over. The cases in question fall into various categories.

I.3.1.11.1. Splitting Weak Consonants by Shewa

When two weak consonants are in contact across a syllable boundary, the first is sometimes geminated and marked with \textit{dagesh}. This has the effect of introducing a vowel in the form of vocalic \textit{shewa} between the two consonants, which increases their distinctness and reduces the risk of elision. This is found in particular in syllable contact involving sonorants (למנר), gutturals and \textit{qof}, e.g.

- מִּקְרֵה הַלָּ֑יְלָּה (Deut. 23.11) ‘accident of the night’
- מְרִֹּֽים (Job 9.18) ‘bitterness’
- וּוֹֽנְת קְנֵ֔ה (Jud. 20.32) ‘and we shall draw him away’
- יִּקְה (Gen. 49.10) ‘obedience of’
- הּ ׁ֑ ָּ ה רְעִּ֥מ (1 Sam. 1.6) ‘to irritate her’

\[\text{22} \text{According to Melamed (1948, 1) the purpose of the } \textit{dagesh} \text{ in} \ (1 \text{Sam. 1.6}) \text{is to distinguish this human activity (‘to irritate her’) from the meaning of the verb in} \text{‘the God of glory thundered’} \ (\text{Psa. 29.3}), \text{which refers to an action of God. This is a possible interpre-}\]
In some cases, this strategy is applied when only one of the consonants in contact belong to this group, and occasionally also elsewhere, e.g.

עִּקְבֹּ֥וֹת [ʕiqaˈvoːoθ] ‘footprints of’ (Psa. 89.52)
מִּקְדָּ֕ש [miq̟q̟aˈðɔːoʃ] ‘sanctuary’ (Exod. 15.17)
מִּטְהָּר [mittˁɔhɔːˈʀ̟ oː] ‘his lustre’ (Psa. 89.45)
מִצְעִּירָּׁ֑ה [missˁiʕiːˈʀ̟ oː] ‘small’ (Dan. 8.9)
וֹ ׁ֑ מִּטְהָּר [mittˁɔˈnoː] ‘to hide him’ (Exod. 2.3)

As can be seen from the list of examples above, the letter before the geminated consonant is frequently mem, especially when the mem has a hireq. Such forms may have been facilitated by the fact that similar sequences occur when the preposition Mn assimilates to a word. The same may apply to examples with initial he with patah, which resemble the prefixed definite article (Ariel 2020, 142).

This orthoepic strategy achieves a similar result as the strategies of lengthening the preceding vowel to induce reading of the shewa as vocalic, e.g. סֹֽלְעִֹּּ֥י [saːliˈʕiː] ‘my rock’ (2 Sam. 22.2, Psa. 18.3) (§I.2.5.8.5.), and the lengthening of the preceding vowel to

23 For the case for interpreting the dagesh in the forms מִּטְהָּר and מִצְעִּירָּׁ֑ה as orthoepic see Ariel (2020).
introduce metrical epenthesis between the two consonants, e.g. יהושע [jaʃaˈʃaʔ] ‘Isaiah’ (Isa. 1.1) (§I.2.10.).

A variant type of orthoepic strategy is to insert a vowel after the first of the two consonants in contact and geminate the second consonant, i.e. CC > CVCC rather than CC > CCVC. This is found in:

יִרְדֹּף [jiːrdɔf] ‘let him pursue’ (Psa. 7.6)

This may have been applied to avoid geminating resh. Parallels to such restructuring of the syllable structure of words are found in the Samaritan reading tradition, e.g.

tēšåbbaṣ < *tašbeṣ (Ben Ḥayyim 2000, 59 | L [BHS]: תשבץ Exod. 28.4 ‘checkered work’)

I.3.1.11.2. **Dagesh** to Strengthen Syllable Onsets

In the standard Tiberian manuscript codices there are a few cases of the marking of the dagesh sign on letters other than בגדכפת on the second of two consonants in contact at the boundary of syllables for the purpose of ensuring that the consonants and syllables are kept distinct. This ensured a clear division of syllables and words. In L, for example, a dagesh is sometimes placed on an initial lamed of the second word of a phrase connected with maqqef when the first word ends in nun, e.g. וֹו יִתֶּן־ל [vaʃaʔ] ‘and he gave him’ (Gen. 24.36) (Yeivin 1980, 294–95). This can be regarded as a measure to separate the two words clearly and prevent the coalescence and slurring of weak sonorant consonants. The dagesh would mark the articulation of the lamed with increased muscular pressure to ensure it maintains its correct articulation.
According to Kitāb al-Khilaf, Ben Naftali placed a dagesh in the first nun of the name בִּן־נוּן ‘the son of Nun’ (ed. Lipschütz 1965, כד). This was a measure to prevent the coalescence of two identical weak sonorant letters across a word-boundary. An alternative strategy to separate the two letters was to place a paseq between the words, e.g.

L: לְהִגַּדִּיל לְמִעְלָה ‘to make exceedingly great’ (1 Chron. 22.5)

L: גֹּבְרָל יַר ב ‘iron in abundance’ (1 Chron. 22.3).

According to Kitāb al-Khilaf, Ben Naftali marked a dagesh in the qof of the verb יָעַב ‘he supplants’ (Jer. 9.3, (ed. Lipschütz 1965, ( and this is found in C and in a number of other Tiberian Masoretic manuscripts (Yeivin 1968, 51). This ensured a clear syllable division and also, by implication, indicated that the ʿayin had a silent shewa. This, moreover, alerted the reader to the fact that the syllable division was different from that of the more frequent form יָעַב ‘Jacob’. Qof falls into the category of weak letters, which is demonstrated, for example, by the fact that it often loses dagesh when in a metrically weak syllable with shewa (§I.2.5.2.). The practice of the Masorete Ben Naftali to use dagesh in this way reflects his general tendency to introduce innovative measures to ensure a careful reading to a greater extent than Ben Asher, who was more conservative (A. Ben-David 1957b).

24 For the need to avoid coalescence in such contexts see the discussion in Hidāyat al-Qāri, long version, edition in vol. 2 of this book, §II.L.1.4.10.
The phenomenon of marking *dagesh* to give prominence to syllable division has a natural phonological explanation. The optimal contact between two adjacent syllables is where the onset of the second syllable is stronger than the offset (coda) of the preceding syllable (Vennemann 1988, 40). According to this principle, strength is equated with the degree of sonority or the quality of being vowel-like. This optimality principle can influence how a sequence of phonological segments is syllabified.²⁵ In a sequence of two consonant segments CC, a syllable division between the two is more preferred if the second consonant is less sonorant, i.e. stronger, than the first. The sonority of a consonant can be decreased by a process of fortition. Gemination is a clear process of fortition (Bybee 2015, 45), so it follows that gemination of a consonant is a natural way to mark a clearer syllable division. This also indicates that the *dagesh* in such forms as בְּקֵיָּי should indeed be interpreted as having the phonetic realization of gemination and is not purely an abstract symbol of syllable division.

The practice attributed to Ben Naftali to mark *dagesh* in a weak letter after a guttural with silent *shewa* (ָֽיֶּּׁ) and in the second word in phrases such as and בִּינֵּז to mark a clear division of syllables occurs in a number of later Bible manuscripts, e.g. יִנֶּּׁאר ‘and he harnessed’ (Exod. 14.6), יִנֶּּׁאר ‘Jazer’ (Num. 32.35), לֶּׁהָלֶּׁכֶּל ‘to eat bread’ (Gen. 31:54), לֶּׁהָלֶּׁכֶּל ‘to them from sorrow’ (Esther 9.22) (Ginsburg 1897, 114–36; Luzzatto 2005, 169–

²⁵ Alvestad and Edzard (2009) have demonstrated how this principle can explain the distribution of the insertion of *hatef* vowels in verbs with initial *het* in Tiberian Hebrew.
72). These can be interpreted as reflecting a tradition of marking syllable divisions that is descended, directly or indirectly, from the practice attributed to Ben Naftali.

There is a reference in some early Masoretic sources to the practice of marking *dagesh* in the *yod* of the word יִיַּרְמִיָּ וְעַעֲרָיִם ‘and male donkeys’ (Gen. 32.16, L: וְעַיְרִים), which is attributed to either Ben Asher or Moshe Moḥe (Baer and Strack 1879, xxxviii–xxxix). This would be a use of *dagesh* on a weak letter after a vowelless guttural analogous to בֵּי עָקָפָה.

I.3.1.11.3. Extended *Dagesh Forte*

There is evidence that the practice of strengthening syllable onsets for orthoepic purposes by geminating a syllable-initial consonant was more widespread than is apparent from the vocalized Tiberian manuscripts. The process in question involved the reading of the *dagesh lene* in the stop variants of the letters בֵּגָדָפַת as *dagesh forte*, i.e. as geminate.

This is seen by examining in particular the Karaite transcriptions and passages in *Hidāyat al-Qāri*.

In several of the extant manuscripts of the Karaite transcriptions, the scribes marked the Arabic *shadda* sign where the Tiberian reading tradition had *dagesh*. In some manuscripts, the *shadda* is written only where the *dagesh* is *dagesh forte* according to the conventional interpretation of the distribution of *dagesh forte* and *dagesh lene*. In some manuscripts, however, the *shadda* sign is written both on letters with *dagesh forte* and on בֵּגָדָפַת letters with what is conventionally interpreted as being *dagesh lene*. Some examples are given below.
Manuscripts that mark *shadda* corresponding to only *dagesh forte*

**BL Or 2539, fols. 56-114**

*Dagesh forte*

- (BL Or 2539 MS A, fol. 63r, 8 | L [BHS]: תָּֽ֑רְרֵּ֥ר Gen. 21.11) ‘the word’

- (BL Or 2539 MS A, fol. 64r, 1 | L [BHS]: תָּֽ֑רְּם Gen. 21.15) ‘the water’

*Dagesh lene*

- (BL Or 2539 MS A, fol. 84r, 1 | L [BHS]: דְּבָּרָּׁ֑י Deut. 4.10) ‘my words’

- (BL Or 2539 MS A, fol. 67v, 1 | L [BHS]: מְזָּֽ֑ח Gen. 22.9) ‘the altar’

**BL Or 2544 + Or 2545 + Or 2546**

*Dagesh forte*

- (BL Or 2546, fol. 3r, 7 | L [BHS]: יַּֽ֑טְּרֶּ֥טֶּ֥טֶּ֥ט Num. 14.45) ‘and they beat them into pieces’

- (BL Or 2545, fol. 207v, 5 | L [BHS]: יְֽגָּא Lev. 27.33) ‘it will be redeemed’
Dagesh and Rafe

**Dagesh lene**

<table>
<thead>
<tr>
<th>Manuscript</th>
<th>Text Reference</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL Or 2544 fol. 74v, 2</td>
<td>L [BHS]: הַמְדַרֵא Exod. 3.3</td>
<td>‘the sight’)</td>
</tr>
<tr>
<td>BL Or 2544 fol. 74r, 10</td>
<td>L [BHS]: בָּאָשׁ Exod. 3.2</td>
<td>‘with the fire’)</td>
</tr>
<tr>
<td>BL Or 2544 fol. 75r, 6</td>
<td>L [BHS]: פָּנְיו Exod. 3.6</td>
<td>‘his face’)</td>
</tr>
<tr>
<td>BL 2546 fol. 132r, 11</td>
<td>L [BHS]: מִימֶשֶחֵזָה Num. 36.1</td>
<td>‘from the family of’)</td>
</tr>
</tbody>
</table>

Manuscripts that mark shadda corresponding to both dagesh forte and dagesh lene

<table>
<thead>
<tr>
<th>Manuscript</th>
<th>Text Reference</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL Or 2540</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dagesh forte</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BL 2540 fol. 4r, 4</td>
<td>L [BHS]: נַחַחֵצֶמוֹ Exod. 1.10</td>
<td>‘let us deal wisely’)</td>
</tr>
<tr>
<td>BL 2540 fol. 5v, 4</td>
<td>L [BHS]: וַאֲנִפֶסֶנָהוּ Exod. 2.2</td>
<td>‘and she hid him’)</td>
</tr>
</tbody>
</table>
Dagesh lene

(BL Or 2540, fol. 4v, 1 | L [BHS]: יִרְבֶ֖ה Exod. 1.12 ‘He increases’)

(BL Or 2540, fol. 3v, 4 | L [BHS]: גָּד Exod. 1.4 ‘Gad’)

(BL Or 2540, fol. 3v, 3 | L [BHS]: דָּן Exod. 1.4 ‘Dan’)

(BL Or 2540, fol. 7r, 5 | L [BHS]: מִה רְתֶֹּׁן Exod. 2.18 ‘you hurried’)

BL Or 2548 fols. 1-185

Dagesh forte

(BL Or 2548 fol. 3r, 10 | L [BHS]: מְדֻּוֶּּ֥ע Isa. 5.4 ‘why?’)

(BL Or 2548 fol. 13r, 9 | L [BHS]: הָמָּלֶּּ֥לֶּּ֖ח Isa. 37.5 ‘the king’)

Dagesh lene

(BL Or 2548 fol. 6r, 10 | L [BHS]: צִּמְדֵי Хארמ Isa. 5.10 ‘acres of the vineyard’)

(BL Or 2548 fol. 10r, 5 | L [BHS]: עד דָּוְּר Isa. 13.20 ‘until generation’)

‘you (ms) heard’)

Isaiah, thus)

In Arabic orthography, the *shadda* sign represents the application of greater muscular pressure to a consonant in order to lengthen it. In medieval manuals concerning the correct reading (*tajwīd*) of the Arabic Qurʾān, descriptions are given of various degrees of lengthening expressed by *shadda*, but it was never used like *dagesh lene* to mark a non-geminated plosive consonant. The Karaite transcriptions that mark the *shadda* sign are essentially phonetic representations of the Hebrew reading with an Arabic orthography and so one can assume that when the *shadda* is marked, it was intended to represent lengthening of the consonant. What the data above reflect, therefore, are two varieties of reading. In one variety the *dagesh* is given its expected pronunciation, with *dagesh forte* strengthened but not *dagesh lene*. In the other variety, however, both *dagesh forte* and *dagesh lene* are strengthened and so are given the same phonetic realization. We may call this latter type of reading the ‘extended *dagesh forte*’ reading. The reading without this extension of *dagesh forte* will be referred to as the ‘*dagesh forte—dagesh lene* reading.’

A passage from *Hidāyat al-Qārī* also reflects a type of reading that does not conform to the traditional classification of *dagesh* into *dagesh forte* expressing gemination and *dagesh lene*
expressing a non-geminated stop realization of a כככ consonant.

The passage in question concerns the consonant tav, which is said to differ from other letters in having three grades of strength. The form of the passage from the long version of this work is as follows:26

Chapter concerning letters that occur in three grades

Take note that just as there are among the letters those that when they are adjacent to another letter, this latter makes them light with rafe, likewise among the letters are those that occur in three grades with regard to heaviness and lightness. The first grade is lightening. The second is the normal dagesh. The third is the major dagesh. This includes the tav.

Take note that the tav, unlike the other letters, may occur rafe, as in וְתָּאָי הִשְׁרָה ‘and rooms of the gate’ (Ezek. 40.10); it may occur with dagesh, as in וְתַּחְתּוֹ תַּחְתּוֹ הָאָסְר ‘instead of bronze’ (Isa. 60.17), וְתָּאָי הוֹר ‘ornaments of gold’ (Cant. 1.11); and it may occur with major dagesh. The latter includes three tavs: וְתָּאָי הוֹר ‘He made it an eternal heap of ruins’ (Josh. 8.28), וְתָּאָי הוֹר ‘and its houses and its treasuries’ (1 Chron. 28.11), וְתָּאָי הוֹר ‘and these three men’ (Dan. 3.23). I do not know anybody who differs (in reading) with regard to these three tav. As for the form מִדְגֶּשׁ, there were differences (of reading) with regard to it. Take note that the Tiberians said that they have a resh that is not read (in the same way) by anybody else. It is likely that the climate of their town caused this.

It has the same status as the tav in the word בָּתִּים according to the view of Ben Naftali, who gives it a grade in between two grades.

The short version of *Hidāyat al-Qāriʾ* supplies more details about the differences in the reading of בָּתִּים:

Take note that tav in three places is strengthened with *dagesh* to a greater degree than (other) cases of tav with *dagesh*. These are יָשִּׁמְהּ לְעָלָּם וְיְשִּׁימֶה ‘He made it an eternal heap of ruins’ (Josh. 8.28), וְג נְצָּיו וְֹאֶֽת־בָּּּּ֔יו ‘and its houses and its treasuries’ (1 Chron. 28.11), וְג נְצָּיו וְֹאֶֽת־בָּּּּ֔יו ‘and its houses and its treasuries’ (1 Chron. 28.11). Note that there is disagreement concerning every tav in the form בָּתִּים, except in וְג נְצָּיו וְֹאֶֽת־בָּּּּ֔יו (1 Chron. 28.11). Whoever wishes to pronounce it with the normal *dagesh of tav*, may do so and whoever wishes to pronounced it with with the heaviness of the tav of וְג נְצָּיו וְֹאֶֽת־בָּּּּ֔יו (1 Chron. 28.11), may do so, on condition that this is when there are a conjunctive accent and a disjunctive accent in the word without an intervening letter.

Since in these passages it is stated that there are only three tavs that all readers agree should be given a major *dagesh*, this major *dagesh* must be something different from normal *dagesh forte*. Both what is traditionally regarded as *dagesh lene* and also what is traditionally regarded as *dagesh forte* would, therefore, have to be considered to belong to the second grade, the ‘normal *dagesh’*. The examples cited for the ‘normal *dagesh’ include only words that contain what is traditionally identified as *dagesh lene*, 27 Edition in vol. 2 of this book, §II.S.3.0.

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It does not follow, however, that ‘normal dagesh’ must be identified as *dagesh lene*. Rather the author makes no distinction between *dagesh lene* and *dagesh forte*. This could have been because the ‘normal dagesh’ was considered to include a range of phonetic realizations and degrees of muscular pressure that included an ungeminated stop and a geminated stop. This is the usual interpretation of the function of the *dagesh* sign. Alternatively the passage could be interpreted as meaning that there was no phonetic distinction between what we call *dagesh lene* and *dagesh forte*. Rather *tav* with *dagesh* was normally realized with a similar degree of muscular pressure and duration, whether in contexts where it is traditionally interpreted as *dagesh lene* or in contexts where it is traditionally interpreted as *dagesh forte*. This, in fact, is the more straightforward interpretation of the passage, especially since the point of the passage is the division into ‘grades’ based on differences in degrees of ‘heaviness’ (*thiqal*), i.e. muscular pressure, and one grade would not be expected to contain a range of different pressures. The third grade would, therefore, involve an exceptionally high degree of muscular pressure and, one can infer, duration, which are found only in a few isolated words. What we seem to have here, therefore, is a description of an ‘extended *dagesh forte*’ type of reading with the addition of three cases of extra-long *dagesh*.

According to Misha’el ben ʿUzzi’el in his *Kitāb al-Khilaf*, the Masorete Ben Naftali read all cases of *בָּתִּים* that had two accents by applying more muscular force than in cases without two...
accents (Lipschütz 1965, 4; Eldar 1994, 77). Ben Asher, however, is said to have disagreed with Ben Naftali and read only בָּתִּים (I Chron. 28.11) and וּבָּתִִּים (Deut. 6.11) with strong pressure. The second example is not mentioned in Hidāyat al-Qāri’ but has the same accents (‘azla and geresh). Ben Asher did not read any other cases of בָּתִּים with the same degree of pressure. Misha’el ben ʿUzziʾel (Lipschütz ibid.) cites a Masoretic statement that is attributed to Ben Asher: ‘because he (Ben Asher) mentioned in his Masora saying that in the Bible are four cases with intense dagesh.’ These statements in Kitāb al-Khilaf indicate that the pronunciation of tav as extra-long in some cases was a feature of the reading of Ben Asher and Ben Naftali.

At the end of the passage from the long version of the Hidāya it is stated that in the Tiberian reading there is a realization of resh that is not found in any other reading and that this ‘has the same status as the tav in the word בָּתִּים according to the opinion of Ben Naftali,’ who pronounced the tav of this word with ‘a grade in between two grades’ (mansila bayna manzilatayn). The author of Hidāyat al-Qāri’ applies a

28 CALUSH BATIM MEI KOS MA NUN ELEH MI KOS VAINEFTIL YORDSH AUNETI YESH PEF VAIYUL VGERH.

29 VOM CUSIYAA MEI KOS YESH PEF RIFINAA VAEMAA ALUSHE.

classification based on grades (manāzil) to three variant articulations of resh. These were non-emphatic advanced uvular [ɾ̚], emphatic alveolar [ɾʕ] and geminate respectively, which can, likewise, be correlated with three degrees of muscular pressure. The non-emphatic advanced uvular realization of resh is referred to in the Hidāya as the ‘light’ (khafīf) grade, the geminate resh, marked by a dagesh, is the ‘major’ (kabīr) grade, and the emphatic alveolar is ‘the grade between grades’ (manzila bayna manzilatayn) (Khan 1995, 2013c). Unlike the classification of the three variants of tav, the classification of three variants of resh is presented as two basic grades, with a third variant that is between two grades. The term manzila bayna manzilatayn is likely to originate in the Muʿtazilite theological tradition. It is used in Arabic grammatical literature to refer to cases of intermediate grammatical status. Al-Jurjānī (d. 471/1078), for example, states that the Arabic negator laysa has an intermediate position (manzila bayna manzilatayn) between the verb kāna and the negative particle mā with regard to the extent of its inflection. Mishaʾel ben ʿUzziʾel states that the distinctive feature of Ben Naftali’s reading of בָּתִּים was that he regularly pronounced the tav in it with more force when it had two accents than when it lacked a secondary accent. The term manzila bayna manzilatayn,

31 It was one of the principles of Muʿtazilite doctrine that the term ‘unbeliever’ could not be applied to a Muslim believer who had committed a grave sin. The latter, therefore, could be neither a believer nor an unbeliever, but in an intermediate state (manzila bayna manzilatayn); cf. Gimaret (2015).

therefore, must be referring to a degree of strength that was greater than a normal dagesh. In the passage on the tav in the Hidāya, the normal dagesh was read as a geminate so the intermediate position of Ben Naftali is presumably referring to a degree of strength that was greater than normal gemination but less than the extra-long pronunciation in the specified cases. The practice of pronouncing the dagesh of tav with a strength greater than normal gemination was, according to the Hidāya, unique to the Tiberian tradition.\(^{33}\)

The passage cited above from the original Arabic versions of Hidāyat al-Qāri\(^{\prime}\) underwent an adaptation in the Hebrew versions of the work that were produced in medieval Europe, such as Horayat ha-Qore (twelfth century) and Sefer Ṭaʾame ha-Miqra (thirteenth century) (Eldar 1994, 16–18). In Horayat ha-Qore the passage has the following form:\(^{34}\)

\(^{33}\) The Masorah Parva to I Chron. 28.11 contains the note: הַתִּי דַגְּשָׁהוּ ‘There are five tavs that have strong dagesh’. It is not clear in which words these tavs occur apart from the tav in בָּׂ֨תִָּּ֜יו in the 1 Chron. 28.11 (Dotan 1967, 15).

\(^{34}\) Ed. Busi (1984, 60):}
Chapter on the tav. In three places tav has a (stronger) dagesh than all (other) tav's with dagesh, namely:  

‘He made it an eternal heap of ruins’ (Josh. 8.28),  
‘and its houses and its treasuries’ (1 Chron. 28.11),  
‘and these three men’ (Dan. 3.23),  
and all cases of that denote measurement, such as:  

‘and twenty thousand baths of wine, and twenty thousand baths of oil’ (2 Chron. 2.9) and the like with patah and dagesh. But (cases of) that denote habitation, like:  

‘and houses full of all good things’ (Deut. 6.11),  
‘he made his slaves and his cattle flee into the houses’ (Exod. 9.20), all have qames and are not given strong dagesh (i.e. they have dagesh lene), with the exception of (1 Chron. 28.11), which, although it denotes habitation, it has strong dagesh and qames, because it contains a conjunctive accent and main accent, and it is as if it is two words. Some add to the ones (i.e. these examples) that should be given strong dagesh כָּל־טוּב (Deut. 6.11), because the conjunctive accent and main accent are together in the word.’

Here a section has been added to the original passage referring to the plural form בְּתֵים ‘baths’. This version of the passage conveys the sense that there are two types of dagesh, viz. dagesh forte and dagesh lene. The three cases of dagesh in the tav after qames in וְֹֽאֶׁת־בָּׂ֨תִָּּ֜יוּ (1 Chron. 28.11) and וְג נְז כָָּ֧יו (Dan. 3.23), and some also include the dagesh after the qames in וּבָּׂ֨תִִּּ֜ים (Deut. 6.11), are equated with the dagesh of בְּתֵים, i.e. they are interpreted as ‘normal’ dagesh forte. In all other cases of בְּתֵים the dagesh is dagesh
Dagesh and Rafe

There is no reference here at all to an extra-long grade of dagesh. Evidently the author of *Horayat ha-Qore* was not familiar with the version of the Tiberian reading tradition in which the extra-long dagesh existed. For this reason, he misunderstood the point of the original passage that the dagesh in the tav after qameṣ in the specified cases was exceptional in the degree of its strength and was not like the normal dagesh forte of words such as בִּית. The author of *Horayat ha-Qore* was also unfamiliar with the extended dagesh forte reading, since he alludes to a dagesh lene in most cases of בִּית.

One may infer from this that extra-long dagesh was a phenomenon of the extended dagesh forte reading and was not known in the dagesh forte—dagesh lene reading. It would appear that only the latter was transmitted to Europe, or at least in the circles where the European recensions of *Hidāyat al-Qāriʾ* were produced. If this is the case, then the reference to the Masoretes Ben Asher and Ben Naftali having extra-long dagesh in their

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35 The passage has the same adapted form also in *Sefer Ṭaʿame ha-Miqra*. Eldar (1984, 28) used this adapted version of the passage on the tav in his interpretation of the original Arabic version of *Hidāyat al-Qāriʾ* and this, therefore, led him to misinterpret the original. According to Eldar the al-dagesh al-kabīr ‘major dagesh’ of tav was not a fully geminated tav, but only a half-geminated one [t']. The fully geminated tav [tt] is found in the word בִּית. This argument is based on the assumption that the passage is excluding consideration of dagesh forte used to express gemination. In the passage on the grades of resh, however, the ‘major’ (kabīr) grade of the letter is said to be geminate resh with dagesh, as in נְאָוִית (1 Sam. 10.24). This is evidence that the classification of the grades of strength of tav includes the full range of the realization of tav.
reading of \textit{tav} in specific words would imply that their reading was of the extended \textit{dagesh forte} type.  

Another section of \textit{Hidāyat al-Qāri'} that could be interpreted as evidence for the extended \textit{dagesh forte} reading is one that concerns the reading of word-initial בגדכפת letters with \textit{dagesh} after a preceding word with a conjunctive accent in contexts where a fricative reading may be expected.\textsuperscript{36} Most of the constructions in this section contain word-initial בגדכפת consonants with what is normally interpreted as \textit{dagesh lene}. The section, however, also includes word-initial בגדכפת consonants in \textit{deḥiq} constructions. There is no doubt that the \textit{dagesh of deḥiq} constructions was \textit{dagesh forte} (§I.2.8.1.2.). It appears that \textit{Hidāyat al-Qāri'} considered these to have the same type of בגדכפת stop as the other constructions, which would imply that the word-initial בגדכפת in the other constructions would have been pronounced with \textit{dagesh forte}.  

The extended \textit{dagesh forte} reading arose by giving the \textit{dagesh} sign its full value in all contexts. One motivation for this was an attempt to make a maximally clear distinction between fricative and plosive forms of the בגדכפת letters. Another motivation for strengthening the pronunciation of the \textit{dagesh} in this way was to mark a clear separation between syllables. This enhanced accuracy of reading words with בגדכפת consonants was achieved without deviating from the standard Tiberian notation system.

Without doubt, there was a distinction historically between geminate and non-geminate stops (i.e. between dagesh forte and dagesh lene). This is seen, for example, in pre-Masoretic Greek and Latin transcriptions such as the Greek transcriptions of the second column of Origen’s Hexapla and the Latin transcriptions of Jerome:

βοκρ = בּקר, ερδοף = אֶרְדָף, σαδδיקם = צָדִיקם (Brønno 1943, 357, 383)

iego = יִּגְד ל (Sperber 1937, 158), marphe = מָרֵפֵא (Sperber 1937, 192), baddim = בָדִים (Sperber 1937, 211), thephphol = תִפְל (Sperber 1937, 159)

The evidence we have of the extended dagesh forte reading is datable to the tenth and early eleventh centuries in the use of the shadda in a certain group of the Karaite transcriptions and in Hidāyat al-Qāriʾ. This can be interpreted as reflecting the fact that it was in the late Masoretic period that the extended dagesh forte reading began to be used by some readers. Since the orthoepic work Hidāyat al-Qāriʾ seems to be assuming that the extended system is the correct Tiberian reading, it can be hypothesized that the extended system was regarded as the preferred system among the surviving teachers of the Tiberian reading at that period. Indeed, we have argued above that the sources can be interpreted as indicating that this was a feature of the reading of Ben Asher and Ben Naftali, who belonged to the last generation of Tiberian Masoretes.
As the Karaite transcriptions suggest, the extended *dagesh forte* reading appears to have existed alongside the more conservative *dagesh forte—dagesh lene* reading. Fragments of anonymous Masoretic treatises datable to the tenth or eleventh centuries reflect this variation. In one such treatise (ed. Allony and Yeivin 1985, 101), there is a reference to a distinction between ‘heavy *dagesh*’ (*dagesh thaqīl*) and ‘light *dagesh*’ (*dagesh khafīf*) that corresponds to the normally accepted distinction between *dagesh forte* and *dagesh lene*. In another treatise, on the other hand, cases that are traditionally regarded as *dagesh lene* are referred to by the Arabic term for gemination *tashdid* (II Firkovitch Evr.-Arab II 365, fols. 6r, 21r).

The orthoepic development of the orally transmitted Tiberian reading tradition appears not to have been known outside of Palestine and in the later Middle Ages it fell into complete oblivion. This lack of knowledge of the latest stages of the Tiberian reading arose because the tradition was disseminated outside Palestine and to later generations only in the form of the written vocalization. The vocalization in its standard form did not reflect these orthoepic developments. There is, therefore, a scholarly amnesia with regard to the final form of the Tiberian reading tradition, which can only be reconstructed in sources such as the Karaite transcriptions and the original Arabic versions of the orthoepic treatise *Hidāyat al-Qāri’*.

This extended *dagesh forte* reading is likely to have been the stimulus for the use of *dagesh forte* on other consonants at the onset of syllables to mark clear syllable division in forms such as the verb הָעֲק ‘he supplants’ (Jer. 9.3), which is attributed to Ben
Naftali in Kitāb al-Khilaf (ed. Lipschütz 1965, helt), and the extended use of dagesh in non-Standard Tiberian manuscripts (see §I.3.3. below).

I.3.1.12. Dagesh in the Word בָּתִּים

According to the passage on the tav in Hidāyat al-Qāri’ that was discussed in the previous section, the dagesh in the word בָּתִּים was pronounced in two ways. When the word had a secondary accent, it was pronounced extra-long, with the third grade of muscular force, greater than cases of בָּתִּים without a secondary accent. Ben Naftali pronounced all cases of the word with a secondary accent in this way, whereas Ben Asher read it as extra-long only in one (or according to the Kitāb al-Khilaf two) specific verse(s). The tav of the word was pronounced as a ‘normal’ dagesh (second grade tav) when the word did not have a secondary accent and also, in the case of the reading of Ben Asher, in cases where it had a secondary accent outside of the one (or two) specific verse(s). As discussed, the term ‘normal’ dagesh in this passage referred to a ‘normal’ geminate dagesh forte, since Hidāyat al-Qāri’ is describing an extended dagesh forte type of reading.

The extra-long duration of the dagesh is possibly the result of a prosodic epenthesis between stress prominences. When there was a secondary accent in the word, the tav was given an added duration to ensure a clearer separation between the stresses for the sake of rendering the reading eurhythmic to a maximal extent. The same applies to the other two words in which, according to Hidāyat al-Qāri’, the tav was pronounced extra-long, viz. These are 'וַיְשָׁמָה יְשִימֶֶּ֔הָּ ת לֵעְלָּם שַּמֶּּ֔ה 'He made it an eternal heap of
ruins’ (Josh. 8.28, נבירה אלְּךָ חַלָּתָוּן, ‘and these three men’ (Dan. 3.23). In both cases the tav occurs in between two stress prominences that are close to each other. In וְג בְּר יֶָּ֤א אִּל ךְ  תְלַָּּ֣ת הֵ֔וֹן one could assume that the word ‏ָּ֤ל ל־עַוֹלָּם had a secondary stress, although it is not marked by an accent or a gaʿya. The word has a short /e/ vowel, without inherent length (cf. ‏ָּ֤ו ל ב ֶֽלָּב, ‏ָּ֤ו ל ב ֶֽלָּב, like ‏ָּ֤ו ל ב ֶֽלָּב, ‏ָּ֤ו ל ב ֶֽלָּב), so it would be expected to be segol if not lengthened by some kind of stress (see §I.2.11.)

In the group of Karaite transcriptions that reflect an extended *dagesh forte* reading a shadda sign is marked on the tav representing the Hebrew tav in all cases, e.g.

**םְנְבַתְיִי** (BL Or 2550 fol. 18v, 5 | L [BHS]: בְּבָּתְיִי Zeph. 2.7 ‘in the houses of’).

In the group of Karaite transcriptions that reflect a *dagesh forte—dagesh lene* reading, however, a shadda is not marked on the tav, indicating that in this type of reading the word was read as a non-geminated stop, e.g.

**םְנְבַתְיִי** (BL Or 2544, fol. 189r, 13 | L [BHS]: בְּבָּתְיִי Exod. 9.20 ‘the houses’)

**םְנְבַתְיִי** (BL Or 2544, fol. 159r, 8 | L [BHS]: בְּבָּתְיִי Exod. 8.9 ‘from the houses’)

**םְנְבַתְיִי** (BL Or 2544, fol. 181v, 4 | L [BHS]: בְּבָּתְיִי Exod. 8.17 ‘the houses’)}
Also where there is a secondary accent in the word, the transcriptions of this group do not mark a shadda sign, reflecting a pronunciation with an ungeminated tav. This applies even to 1 Chron. 28.11, which is the form in which, according to the Masoretic treatises, both Ben Asher and Ben Naftali read the tav as extra-long:

We have seen that the author of *Horayat ha-Qore* in medieval Europe states that the tav of the word has *dagesh lene*, except in מְלֵא יָם כָּל-טוּב (1 Chron. 28.11) and מְלֵא יָם מִלְּא יָם (Deut. 6.11).

Hayyūj, writing in Spain at the end of the tenth century, considered that the tav in all instances of בָּתִּים was pronounced
as an ungeminated stop. This is implied by the following passage from his Kitāb al-ʿAfʿāl Dhawāt Ḥurūf al-Līn:37

‘As for the “light” (type of בָּרַָּ֣א בְר אשִּ֖ית אֱלֹהִּׁ֑ים, ‘in the beginning God created’ (Gen. 1:1) ... and like ‘and they shall fill your houses and the houses of your servants’ (Exod. 10.6).38

Yequtiʾel ha-Naqdan, who was active in medieval Ashkenaz in the second half of the thirteenth century, writes in his work ‘En ha-Qore that the tav in the word בָּתִּים should be read with dagesh lene following Hayyūj:39

‘I have found that Rabbi Yehudah Ḥayyūj, of blessed memory, said that there is a dagesh lene in the tavs of בָּתִּים, and the like. .... Be careful not to pronounce the dagesh strongly.’

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37 Ed. Jastrow (1897, 12–13): וּמְלָא שָׁלְךָמָּלְאַבָּר אָשִּׁית בָּרָּא אלהים ...

38 The plosive pronunciation of the tav after long qameš was regarded as anomalous by Ḥayyūj and he is quoted by Ibn Ezra in his Sefer Ṣaḥot (ed. del Valle Rodríguez 1977, 1:289) to the effect that the qameš occurs to differentiate the word in meaning from בָּתִּים ‘baths’ (measure of capacity); cf. Charlap (1999, 121–22). The source of such a statement about the differentiating function of the qameš cannot be identified in the extant corpus of Ḥayyūj’s writings. It may be based on Ibn Ezra’s misinterpretation of the passage concerning the בָּתִּים consonants and בָּתִּים in Kitāb al-ʿAfʿāl Dhawāt Ḥurūf al-Līn (ed. Jastrow 1897, 12–13) (José Martínez Delgado, personal communication).

39 Ed. Gumpertz (1958, 46): מצאתי שאמר רב יהודה חיות בָּתִּים וּבָּתִּים ... וּמְלָא שָׁלְךָ, שָׁלַח בָּתִּים ... השörü לכל בתיוים ... והأمر על שָׁלַח בָּתִּים אֶת הָתיים בָּתִּים.
The reading traditions of the Jewish communities in Arabic-speaking countries in modern times preserved the gemination of *dagesh forte* according to the distribution of the *dagesh forte—dagesh lene* system of reading. There is no trace of an extended *dagesh forte* type of reading. Nor is there any trace of an extra-long gemination of *tav*. The plural form בָּתִּים is regularly read with *dagesh lene*, e.g. Yemen: bavoːʰeːxäm (בְבָּת יכֶֹֽׁם ‘in your houses’ Isa. 3.14) (Morag 1963, 38; Ya’akov 2015, 72 n.134). This applied even to cases where the word has a secondary accent.

It appears, therefore, that the extended *dagesh forte* reading, which included the reading of the *tav* of בָּתִּים as geminate and as extra-long in some cases where it had two accents, fell into oblivion in Jewish communities outside of medieval Palestine.

**I.3.1.13. Loss of Gemination**

Gemination has been lost in the Tiberian tradition in the following circumstances.

**I.3.1.13.1. Guttural Consonants**

Guttural consonants, and frequently also *resh*, lost their gemination in the pre-Masoretic period due to their weakness. In such cases the preceding vowel was lengthened by way of compensation:

- סְאָדֵם [haːʔaˈdɔːm] ‘the man’ < *ha’ɔ* ə*ad*am
- הַשֵּׁם [haːˈʃeːm] ‘the tree’ < *ha’ɔ* ə*esh*
- הַחֹדֶש [haːˈhoːdɛʃ] ‘the month’ < *haḥ* ə*ḥodeʃ*
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I.3.1.13.2. Weak Consonants with Shewa

Gemination is occasionally lost in a consonant that has vocalic shewa. This applies in particular to sibilants, sonorants (yod, lamed, mem, nun) and qof, which are weak consonants. The loss of gemination in such cases has two causes, viz. the articulatory weakness of the consonants and the prosodic weakness of the syllable of the shewa (§I.2.5.2.). There is some variation across the manuscripts with regard to the loss of gemination in such forms. In some cases, there is no compensatory lengthening of the preceding vowel, and the consonant that loses the gemination is syllabified as the coda of the preceding syllable, e.g.

L: הָּרֶׁמֶׁש ‘the frames’ (1 Kings 7.28 < לְבִּים)
L: הָּלִיִּם ‘the Levites’ (Exod. 6.25, etc. < לְיִּים)
L: הָּיוֹדֵב ‘and he spoke’ (Gen. 8.15, etc. < דּוֹב)

In some cases, the preceding vowel is lengthened, generally indicated by a gaʿya, and the consonant that has lost the gemination is read with vocalic shewa. This applies most commonly to a mem after the definite article (§I.2.5.8.1.) and a sequence of two identical consonants (§I.2.5.8.3.):

L: הָּמְדֵב ‘the one speaking’ (Gen. 45.12, etc. < הָּמְדֵב, ‘the one speaking’)
L: הָּבִּלֵל ‘when he cursed’ (A: בִּלֵל, 2 Sam. 16.7 < בִּלֵל)
I.3.1.13.3. Loss of Gemination when Adjacent to another Geminated Consonant

Dotan (1983) has shown that in L a *dagesh* marking gemination is sometimes omitted in a consonant with a full vowel when it is immediately followed by another geminated consonant. The omission of *dagesh* in this context is too systematic to be regarded as simply a scribal error, but rather it must be considered to reflect a phenomenon of the reading tradition. It is attested most commonly in weak consonants of the type that tend to omit *dagesh* when they are pronounced with *shewa*, i.e. sibilants, sonorants and *qof*. The majority of examples occur after the interrogative יִּמֵּן, the preposition מִּן, the definite article or the *vav* consecutive. In many cases the *dagesh* is printed in BHS, although it does not appear in the manuscript L, e.g.

מִּשֶּׁנַּי ‘What is the burden’ (Jer. 23.33) < מִּשֶּׁנַּי

משֶׁרֶד ‘from the Almighty’ (BHS מְשֶׁרֶד, Isa. 13.6) < מְשֶׁרֶד

הָּצוּּנ ‘the monument’ (BHS הוֹצוּּנ, 2 Kings 23.17) < הוֹצוּּנ

הַמֶּסֶר ‘and the covering’ (BHS הַמֶּסֶר, Isa. 28.20) < הַמֶּסֶר

הַשָּׁבֵלìm ‘the ears of corn’ (Gen. 41.24, BHS mistranscribes the first vowel as a *qames* due to erroneously interpreting a fleck on the parchment as the lower dot of a *qames*: הַשָּׁבֵלìm; cf. B בָּלìm)

וַיִּלְחֶם ‘and he fought’ (BHS וַיִּלְחֶם, Jud. 11.20) < וַיִּלְחֶם

שְׂח ‘Uzziah’ (2 Kings 15.30) < שְׂח

אָמַּא ‘nations’ (Aramaic, Dan. 3.7) < אָמַּא
This kind of omission of *dagesh* occurs in the onset of un-stressed syllables and the following geminated consonant typically, though not invariably, forms the onset of a stressed syllable. The consonant that has lost the gemination is, therefore, generally prosodically weaker. The condition that the omission of the gemination occurs adjacent to other gemination could reflect a rhythmic phenomenon, whereby the clash of two strengthened, and so prosodically prominent, consonants is avoided.

### I.3.1.14. Erroneous Printing of *Dagesh* in BHS

Golinets (2013), in an important study of the manuscript L, has drawn attention to a number of errors in the diplomatic edition of L that is printed in BHS and its derivative digital editions in the reading of vocalization signs. This is due to various reasons, including confusion of natural specks on the parchment for pen marks, the concealment of vocalization signs by the strokes of letters and the overwriting or erasure of vocalization signs by a later hand.

Many of the errors in reading relate to the *dagesh* sign. Several *dagesh* signs that appear in unusual places in various words in BHS and are not found in other manuscripts have been demonstrated by Golinets (2013, 250–51) to be specks on the parchment of L. These include the following cases:40

40 There are a few additional places where the printed version of BHS is correct, but some of the digital versions and BHQ have an erroneously marked *dagesh*; see Golinets (2013, 250-251) for details.
<table>
<thead>
<tr>
<th>L</th>
<th>BHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen. 26.1</td>
<td>לֶׁךְאֲבִּימֶּלֶׁךְ</td>
</tr>
<tr>
<td>Gen. 34.28</td>
<td>חֲמַרְיִהְמֵם</td>
</tr>
<tr>
<td>Gen. 39.19</td>
<td>עָֹּּ֥שָּה</td>
</tr>
<tr>
<td>Deut. 12.9</td>
<td>לֵאֲרָבָאָתֶּם</td>
</tr>
<tr>
<td>Jud. 14.2</td>
<td>קְחוּ־אוֹתָֹּ֥הּ לִ֖י</td>
</tr>
<tr>
<td>Jud. 19.5</td>
<td>תֶ֖םל א־בָּא</td>
</tr>
<tr>
<td>Cant. 6.8</td>
<td>מְלָּכֵ֔וֹת</td>
</tr>
</tbody>
</table>

I.3.2. **RAFE**

The *rafe* sign is a horizontal line written over a letter. As with several other Masoretic terms, it appears to be an Aramaic participle in origin רָּפֶה. In Judaeo-Arabic Masoretic treatises it is sometimes Arabicized as an Arabic participle, e.g. the anonymous treatise preserved in the Genizah CUL T-S NS 157.52: ראפיה, pl. ראופי, *rawāfi*.

The main use of the sign is to mark consonants as fricative. It is not, however, marked consistently in manuscripts. The marking of the sign was not standardized in the Tiberian tradition to the same extent as the marking of *dagesh* and it differs from one manuscript to another. Some of the model Tiberian manuscripts mark it more frequently than others. *Rafe* signs are, for example, more abundant in C and S than in L and A. It is marked only rarely in B. If two letters together both require *rafe*, the sign is generally only marked once over the space between them.
Rafe is not represented in most printed editions, including BHS and BHQ, which are based on L.\textsuperscript{41}

The inconsistent marking of *rafe* on fricative consonants in L can be seen in the two sample verses below:

L:  Gen. 30.1-2

When Rachel saw that she bore Jacob no children, she envied her sister; and she said to Jacob, “Give me children, or I shall die!” Jacob’s anger was kindled against Rachel, and he said, “Am I in the place of God, who has withheld from you the fruit of the womb?”

In most manuscripts, the *rafe* sign is generally, but not always, marked also on non-consonantal *he* and *ʾalef*, e.g. מִלְכָּה ‘queen’, אֵֽלֶּא ‘he came.’ A few manuscripts, especially C and S, often mark a *rafe* on the *ʾalef* in יִשְרָאֵל ‘Israel’, possibly reflecting its elision in this frequently occurring word.

The *rafe* sign is used sporadically on other letters in the manuscripts.\textsuperscript{42} This is found mainly in contexts in which *dagesh* would be expected according to normal morphological patterns and prosodic processes, e.g.

Weak letters that have lost *dagesh* when pointed with *shewa*:

A: בִּקְשָׁו, ‘and they inquired’ (Jud. 6.29)

---

\textsuperscript{41} *Rafe* signs are marked in Ginsburg’s *Massoretico-Critical Text of the Hebrew Bible* (1894).

\textsuperscript{42} Yeivin (1980, 286-7), Blapp (2017, 17-19).
Omission of *dagesh* in word-initial position where it would normally occur according to the rules of *dehiq* (§1.2.8.1.2.):

A:  יִּשְׁחָה ל  ‘a meditation for me’ (Psa. 119.99)

After an accent in words where gemination would normally occur:

A:  יהו  ‘why’ (Job 7.20)

The *rafe* sign is sometimes marked in contexts that closely resemble contexts where *dagesh* would be expected, e.g. on a prefix of a verbal form that is preceded by *vav* with *shewa* to distinguish it clearly from a geminated prefix of a *wayyiqtol* form:

A:  יִּשְׁמֹע  ‘and will listen’ (Isa. 42.23)

A:  יִּבָּאו  ‘that he may come’ (1 Sam. 4.3)

After a prefixed preposition with *shewa* to distinguish the construction from constructions with a preposition combined with a definite article:

C:  בַּּם  ‘on he the hill of’ (1 Sam. 9.11)

On the *nun* of first person and third person feminine verbal suffixes to distinguish them from verbal suffixes with geminate *nun*:

A:  יִּפְֶד נ  ‘redeem me’ (Psa. 119.134)

A:  יִּשְׁמְת נ  ‘you have made me’ (Job 7.20)

L:  יִּתְצִלֶ֖ין  ‘they will tingle’ (1 Sam. 3.11)
Hidayat al-Qāriʾ uses the term rafe for an ungeminated consonant in such contexts, e.g.

When a rafe (letter) follows it, it has segol, as in לִידִידִי מֶַּה (L: לִידִידִי מֶַּה, A: לִידִידִי מֶַּה Jer. 11.15 ‘what has my beloved?’).\(^{43}\)

The letters with rafe in the contexts just described typically belong the set of weak sonorant letters ה, מ, ל. Rafe is sometimes marked on these letters in the manuscripts, no doubt by a process of analogical extension, when they are ungeminated in other contexts, where there is no risk of confusion with geminated letters, e.g.

C: נוּגְמָּל ‘he has granted us’ (Isa. 63.7)

C: צָּתֹוֹח מ ‘its leavening’ (Hos. 7.4)

S: יִדְעֵי ‘wizard’ (Lev. 20.27)

S: וְלִּשְנ יְנָּׁה ‘and into a byword’ (Deut. 28.37).\(^{44}\)

In some manuscripts, rafe is occasionally marked on vav to indicate its consonantal value. This is found before ו expressing [uː] and also in other contexts (§I.1.6.), e.g.\(^{45}\)

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

L: וּי ‘and let it be’ (Psa. 90.17)

\(^{43}\) Long version, edition in vol. 2 of this book, §II.L.3.2.2.: וְנַכְּנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְנַכְn

\(^{44}\) Yeivin (1980, 286–87).

\(^{45}\) Yeivin (1980, 286).
I.3.3. **DAGESH AND RAFe IN MANUSCRIPTS WITH NON-STANDARD TIBERIAN VOWELIZATION**

There is a considerable degree of variation in the use of the *dagesh* sign in manuscripts with Non-Standard Tiberian vocalization, but there is a clear tendency in many manuscripts for the sign to be used more frequently than in the standard Tiberian vocalization. Concomitantly there is also a wider use of the *rafe* sign.

The distribution of *dagesh* and *rafe* in Codex Reuchlinianus, the best known biblical manuscript with this system of vocalization, has been studied by Morag (1959). The use of *dagesh* and *rafe* in numerous other manuscripts of this type written in Europe, both biblical and non-biblical, has been described by Eldar (1978, 125–43). He shows that many of the manuscripts follow a basic principle of marking of *dagesh* similar to that of Codex Reuchlinianus, although there is a considerable amount of diversity in points of detail. Yeivin (1986) has described the distribution of *dagesh* in Vatican Urbinati 2, which was also written in Europe and exhibits a somewhat different distribution from the aforementioned manuscripts. The investigation by Blapp (2017, 2018) of Genizah fragments with Non-Standard Tiberian vocalization of a predominantly eastern origin from an earlier period (tenth–thirteenth centuries) has revealed a basic distribution similar to Codex Reuchlinianus and the material surveyed by Eldar, although each fragment exhibits some variant features.

In the Non-Standard Tiberian manuscripts, the rules of the marking of *dagesh* and *rafe* on the הָבֵכְפָּת letters in the Standard Tiberian system are, in principle, applied to all letters, except the
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pharyngeals (ח, ע, ר) and those that function as both *matres lectionis* and consonants (ך, ק, ר, ש). The *dagesh* sign, therefore, is marked on the majority of letters at the beginning of a word and within a word after a silent *shewa*.

**Genizah manuscripts**

1. תונש תדיק ז (T-S A12.1, Blapp 2018, 138 | L [BHS]: תֻּוְּבָּּ֣ת צֶ֭דִּיקִּים
   Prov. 29.27 ‘abomination of the righteous’)

2. עכלקרין (T-S A13.35, Blapp 2018, 139 | L [BHS]: וָּלֶּקֶרַני Psa. 75.11 ‘all the horns of’)

3. מקסרא (T-S A12.1, Blapp 2018, 141 | L [BHS]: מָחַסְרו Prov. 28.27 ‘lack’)

4. חלקלח (T-S A12.1, Blapp 2018, 141 | L [BHS]: חֶּׁלְק ת Ruth 4.3 ‘portion of’)

**European manuscripts**

1. מָסָר (Codex Reuchlinianus, Morag 1959, 217 | L [BHS]: מִּסְפַּּ֣ר
   Isa. 10.19 ‘number’)

2. מָלַג (Codex Reuchlinianus, Morag 1959, 225 | L [BHS]: מָלוֹג Jer. 18.9 ‘kingdom’)

3. קְרַחי (Codex Reuchlinianus, Morag 1959, 217 | L [BHS]: קְרִי
   Isa. 5.3 ‘my vineyard’)

4. נָס (Codex Reuchlinianus, Morag 1959, 217 | L [BHS]: נָס
   Isa. 10.18 ‘sick’)

Another aspect of the extension of *dagesh* in the Non-Standard Tiberian system is the use in some manuscripts of *dagesh* on
word-initial consonants after a preceding word with a final vowel and conjunctive accent, where a fricative form of the letter would be expected in Standard Tiberian. In these manuscripts, \textit{dagesh} is used also on other consonants in this context. Examples:

\begin{center}
(\textit{Vatican Urbinati 2, Yeivin 1986, 495 | L [BHS]})
\end{center}

(ֹֽל־אוֹיְבֶׁ יךָ  אבְדֶ֤וּ כָּ י)

Jud. 5.31 ‘may all your enemies perish’

(ִּגָּׁ֑פוּכִַּּ֣י נ)

Jud. 20.36 ‘that they were defeated’

According to Morag (1959, 226–28), the \textit{dagesh} sign at the beginning of a word and after silent \textit{shewa} in this system of vocalization did not have a phonetic realization of gemination but only had the function of indicating a syllable boundary. Eldar (1978, 125–43) likewise takes the view that this \textit{dagesh} did not have a phonetic realization but rather was a ‘separative \textit{dagesh}’.

Yeivin (1983, 1986) agrees with Morag and Eldar that the function of the \textit{dagesh} in the Non-standard Tiberian manuscripts was to express the division of syllables. He argues, however, that it was not simply an abstract sign but rather had the phonetic value of a \textit{dagesh forte}. This would explain why it is not marked on consonants that do not in principle take \textit{dagesh forte}, in particular the pharyngeal consonants.

I should like to argue that the distribution of the \textit{dagesh} in manuscripts with Non-Standard Tiberian vocalization reflects a type of reading that arose by an analogical extension of the extended \textit{dagesh forte} reading (§1.3.1.11.3.). The analogical process involved extending the gemination marking strengthened
syllable onsets from בָּנָכָה consonants to all consonants in syllable onsets that could be geminated. Since gemination was a potential feature also of a range of other consonants, this distribution of gemination of the בָּנָכָה consonants in the extended dagesh forte reading was extended further to include these other consonants. This took place by a process of regularization, which resulted in a more consistent distribution of the orthoepic use of dagesh to mark clear syllable divisions, e.g.

<table>
<thead>
<tr>
<th>Extended dagesh forte reading</th>
<th>Non-Standard Tiberian Tiberian reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>תִּשְׁבָר</td>
<td>תִּשְׁבָר</td>
</tr>
<tr>
<td>תִּשְׁמָר</td>
<td>תִּשְׁמָר</td>
</tr>
<tr>
<td>נִּשְמָר</td>
<td>נִּשְמָר</td>
</tr>
</tbody>
</table>

The incipient extension of dagesh to strengthen the onsets of syllables is found in forms such as וּוּ יִּתֶּן־ל֖ and he gave him’ (L, Gen. 24.36) and forms attributed to Ben Naftali such as בִּן־נוּן ‘the son of Nun’ and בֵּי עְק ‘he supplants’ (Jer. 9.3).

The orthoepic marking of dagesh on the second of two identical letters across word-boundaries, such as בִּן־נוּן, and on a letter after a vowelless guttural, such as בֵּי עְק, is found also in some manuscripts with Palestinian pronunciation (Fassberg 1987), e.g.

[שְׁלֵלַכְתָּכ (T-S A43.1, Revell 1970a, 76 | L [BHS]: שְׁלֵלַכְתָּכ) Isa. 57.11 ‘on your heart’)

[ףַזְרְקָא (Bod. Heb. e 30 ff. 48-49, Revell 1970a, 76 | L [BHS]: הָּרְחוְֹקִּ֖ים מִּצְדָּקָֹּֽה) Isa. 46.12 ‘who are far from righteousness’)}
The use of the *rafe* sign is likewise extended in some Palestinian manuscripts analogously to its extension in Non-Standard Tiberian manuscripts. It is found in particular on consonants following *het* and ‘ayin that do not close a syllable, thus contrasting with *dagesh* that marks syllable closure after these consonants as we have just seen, e.g.

- (T-S A43.1, Revell 1970a, 77 | L [BHS]: רגמה Exod. 28.34 ‘bell’)
- (T-S A43.1, Revell 1970a, 77 | L [BHS]: הבש א Isa. 62.1 ‘I will not keep silent’)

In some Non-Standard Tiberian manuscripts, *dagesh* is added to a letter after a vowel, where a *dagesh* is lacking in the standard Tiberian tradition. This is found predominantly on the weak letters ב, ג, כ, ב and the sibilants in word-medial or word-final position, e.g.

- (T-S A13.20, Blapp 2018, 144 | L [BHS]: הלברות Psa. 68.25 ‘your processions’)
- (T-S A13.20, Blapp 2018, 144 | L [BHS]: י㺢 Psa. 68.22 ‘he will shatter’)
- (T-S A13.20, Blapp 2018, 144 | L [BHS]: י㺢 Psa. 70.6 ‘poor’)

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[Note: The above text is a transcription of the document's content, maintaining the original formatting and layout.]
These letters exhibit features of weakness in the standard Tiberian tradition, such as the loss of \textit{dagesh} when they have \textit{shewa} (§I.2.5.2.). It is likely, therefore, that the \textit{dagesh} that is added to them in these contexts after open syllables was primarily intended as an orthoepic measure to guard against their weak articulation and to ensure that they were pronounced distinctly.

Another consonant that is sometimes marked with \textit{dagesh} after a vowel in such manuscripts is \textit{tet}, e.g.

\textit{ונִּלְט פֹּֽתַּ֚לְטָ֥נִי} (T-S A13.20, Blapp 2018, 144 | L [BHS]: וֹֽתְפ לְטָ֥נִי Psa. 71.2 ‘and you rescue me’)

The manuscript T-S A13.20, where Blapp has identified many examples of this feature, also exhibits the marking of \textit{dagesh} on word-initial consonants that do not usually take word-initial \textit{dagesh} in Non-Standard Tiberian manuscripts, such as \textit{ḥet}, \textit{vav} and \textit{yod}:
There are numerous Non-Standard Tiberian manuscripts with the extended use of *dagesh* in the Genizah, which are datable to the Masoretic period or shortly after, i.e. tenth–thirteenth centuries (Díez Macho 1963; Blapp 2017, 2018). Arrant (2020) has shown that many of these manuscripts were written in a monumental format with three columns similar to the model Tiberian manuscripts. This suggests that the marking of *dagesh* in such manuscripts reflected a living reading tradition in the Middle East at the time when such manuscripts were written.46

Manuscripts with Non-Standard Tiberian extended *dagesh* were widely distributed in medieval Ashkenaz. Yequit’el ha-Naqdan, who was writing in medieval Ashkenaz in the second half of the thirteenth century, is aware of the existence of such manuscripts. He and readers in his community, however, thought that the *dagesh* was a *dagesh lene* and so, understandably, the *dagesh* had no phonetic realization in consonants that did not

46 Some medieval Arabic sources report marginal cases of *tashdīd* (i.e. gemination) of consonants at the beginning of syllables in the recitation of the Qur’ān, e.g. نَجْف فَتْ yakhṭīfu ‘it takes away’ (Q 2.20) (ed. Bergsträsser, 1934, 3). This would, presumably, reflect a similar orthoepic measure to ensure clear syllable division.
belong to the בגדכפת group. This is expressed in the following passage from his ‘En ha-Qore (ed. Yarqoni 1985, 105):

‘Now you should understand that the letters בגדכפת with dagesh are heard in all words (marked with them). Their being pronounced with dagesh or rafe is known in the language and fixed in the mouth, in the place of articulation, whether it be dagesh forte or dagesh lene. But as for the letters והלטנסצקש, the dagesh lene is not heard in them in most places ... most people of our land do not know how to pronounce the dagesh lene that occurs in these letters.’

Yequtiʾel then gives a number of examples of dagesh lene in the letters והלטנסצקש both after guttural letters, e.g. בּשָׁל, and after non-guttural letters, e.g. בּכֶש (Yarqoni 1985, 107). Although the tradition of marking this dagesh continued in medieval Ashkenaz, Yequtiʾel’s remarks indicate that the reading of the dagesh as dagesh forte had largely fallen into oblivion. He qualifies his remarks with the phrase ‘in most places ... most people of our land’, which may indicate that he was aware of some vestiges of the type of pronunciation that was originally reflected by the extended dagesh of the Non-Standard Tiberian vocalization. Indeed a statement by David Qimhi, writing in southern France at roughly the same period as Yequtiʾel, could

47 נשמעים בכל מלה בדגש ודיגושם ורפיונם ניכר בלשוןografית andndiglashו babel ו wspshov יריכו ובו ינשה דגש קל ובו ינשה דגש חזק אבל והדגש הקל לא נשמע בהם ברוב מקומיהם ... ורוב אונשי ארץ לא ידעו להשמיע את הדגש הקל וսмеча בו בחר מוקמות.
be interpreted as indicating that there were still memories of this original pronunciation. In his Mikhlol he states:

‘Whenever mobile shewa is followed by one of the letters בגדכפת, the letter from the בגדכפת (letters) is soft ... The same applies to the other letters with regard to their strength and lightness, for example in לָּמָּה ‘why’ the reading of the lamed is strong and in וְלָּמָּה ‘and why?’ the reading of the lamed is light because of the mobile shewa in it. In שָֹּֽא ל־הָָ֠אִּיש שָּאַּ֣וֹל ‘the man questioned us carefully’ (Gen. 43.7) the reading of the shin is strong; in וְלָּמָּה ‘and he shall ask for him’ (Num. 27.21) the reading of the shin is light. In לָּמָּה ‘(why) has your countenance fallen?’ (Gen. 4.6) the reading of the nun is strong; in וְל א־יָּקֹּ֥וּם וְנָּפְל עֹֽוֹד ‘they will fall and not rise again’ (Amos 8.14) the reading of the nun is light. Likewise, the other letters (are read) in this way, except for yod, which is always light unless it has dagesh.’

In this passage, Qimḥi refers to strong and weak variants of consonants. He states that this variation is found not only in the consonants בגדכפת, but also in other consonants. The distribution of the variation in the other consonants is the same as is found with the בגדכפת consonants, i.e. the weak variant occurs after a vowel. This appears, therefore, to be an allusion to the type of

48 Ed. Rittenberg (1862, 140a): כל שו׳׳א נע וقضا לה אאות מאותיות ב׳׳ד כפ׳׳ת הצאות היהיא אשר ההוח מב׳׳ד כפ׳׳ת חרות ... וכנברא האותיות כפ׳׳ת חרות וכמי להקה קריית הלمري די הודק,ﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффף

48 Ed. Rittenberg (1862, 140a): כל שו׳׳א נע וقضا לה אאות מאותיות ב׳׳ד כפ׳׳ת הצאות היהיא אשר ההוח מב׳׳ד כפ׳׳ת חרות ... וכנברא האותיות כפ׳׳ת חרות וכמי להקה קריית הלمري די הודק,ﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀﬀффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффффfff
pronunciation that is reflected by the extended *dagesh* of Non-Standard Tiberian vocalization, although Qimḥi does not refer to the marking of the *dagesh* sign on the strong variant of the consonants outside the בגדכפת group. His remark at the end of the passage that *yod* does not have strong and weak variants in the same way as the other consonants ‘unless it has *dagesh*’ can also be correlated to the type of pronunciation reflected by Non-Standard Tiberian vocalization. In manuscripts exhibiting this type of vocalization *yod* often lacks *dagesh* in word-initial or post-consonant position and takes *dagesh* only where this occurs in the standard Tiberian vocalization. In this passage, therefore, we may have evidence that features of the extended *dagesh* type of Non-Standard Tiberian pronunciation survived in Ashkenaz and were applied to biblical manuscripts with standard Tiberian vocalization. It should be noted, however, that Qimḥi makes a distinction between *dagesh lene* (דגש קל) and *dagesh forte* (דגש חזק) in the בגדכפת consonants and does not identify the fortition of the other consonants in word-initial position with the gemination of *dagesh forte*.

As alluded to by Yequtîʾel ha-Naqdan, the type of pronunciation that made a distinction in pronunciation between consonants outside the בגדכפת group after a vowelless consonant or word-initial position was not widely followed in medieval Ashkenaz. Yequtîʾel describes a reading tradition in which there was a general tendency to weaken *dagesh forte*, especially when the letter had *shewa* (Yarqoni 1985, 113). There is evidence from

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49 Cf. Morag’s (1959, 220) description of the distribution of *dagesh* in Codex Reuchlinianus.
transcriptions of Hebrew into Latin script in medieval France that letters with *dagesh forte*, according to the standard Tiberian vocalization, were not pronounced geminated (Gumpertz 1953, 5; Yarqoni 1985, 108–11). The marking of *dagesh forte* is, moreover, frequently omitted in medieval Ashkenazi prayer-books (Eldar 1978, 115–22), and is completely lost in modern Ashkenazi reading traditions (Glinert 2013, 192). This general weakening of gemination in Ashkenaz that had begun already in the Middle Ages would have eliminated the gemination that was distinctive of the extended Tiberian pronunciation tradition.