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History of the Ancient and Modern Hebrew Language

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Linguistic Changes Affecting the Pronunciation of Biblical Hebrew 2000 B.C.E. - 850 C.E.

According to Various Scholars[1]

(N.b. I have appended links to my division by linguistic *phases*)

1. Bergstärsser
2. Harris
3. Birkeland
4. Blau
5. Sáenz-Badillos
6. Manuel
7. Rendsburg
8. Steinberg

1. Bergstärsser (Bergstärsser 1918-29[2]) - Changes in chronological sequence

a) c. 2000 - c. 900 B.C.E. (my *BHA phase 1*, *BHA phase 2*)

- Initial [w] > [y]

- Final [iy] > [ê]

- Case ending vowels of noun dropped in construct

- Frequently in closed stressed syllables [i] > [a]

- /i/ pronounced [ɛ]; /u/ pronounced [o]

- [aʾ] not immediately followed by a vowel shifts to [â]

- In stressed syllables: â/ā [aː] > [oː][3]

- /ṯ / > /ṣ/; /ďʾ/ > /ṣ/; /ð/ > /z/

- [n] immediately preceding a consonant assimilates resulting in the gemination of the following consonant

b) c. 900 - c. 600 B.C.E. (my *BHA phase 3*)

- Dropping of final short vowels

- [y] and [w], directly following a consonant, and now word final after the loss of the final short vowels, shift

  - [y] > [ī] e.g. ʾbikyu > ʾbiky > ʾbɛkî בְּכִי = "crying"
  - [w] > [ū] e.g. ʾśaḥwu > ʾśaḥû (Tib.ཤཧུ) = "swimming".[4]

- ʾ/ʔ/ directly following a consonant, and now word final after the loss of the final short vowels was dropped in speech though maintained in writing as ʾḫiṭʾu >ʾḫiṭʾ > ʾḫeṭ = "sin"

- Stressed short vowels lengthened while being reduced to [ə] when unstressed.

- [aw] > [ô];

- [ay] > [ê];

- [θ] > [š]

- [h] between 2 vowels usually quiesced.

c) c. 600 B.C.E.- c. 200 C.E. (my *BHA phase 4*)

- [ś] > [s]

- [ḥ] > [ḥ]

- [ġ] > [ᶜ]

- When a word ended in a cluster of 2 consonants a helping vowel is inserted between them e.g. /ˈmalk/ > /ˈmalɛk/

- Spirantization of the *bgdkpt* consonants

- Middle *shwa* quiesces

- A number of consonants loose the ability to geminate when followed by [ə]

- *shwa naʿ* [ə] > *shwa naḥ* [∅] i.e. quiesces.

- Reduction of word-final doubled consonants

- Helping vowels are inserted particularly before and after gutturals

2. Harris (Harris 1939, 1941[5]) - Changes in chronological sequence

a) c. 2000 - c. 900 B.C.E. (my *BHA phase 1*, *BHA phase 2*)

- Initial [w] > [y]

- [n] immediately preceding a consonant assimilates resulting in the gemination of the following consonant

- [aw] > [ô]; [ay] > [ê] (These shifts were not complete in Jerusalem dialect)

- /ď/ > /ṣ/

- /ð/ > /z/

- /t̠ / > /ṣ/

- Case ending vowels of noun dropped in construct

- [aʾ] not immediately followed by a vowel shifts to [â]

- [aː] > [oː]

- Stress generally falls on the syllable before the last vowel.

- The vowel before the second person pronominal suffix becomes [ə] e.g. 'your (ms) horse'

  nominative - sūsuka > sūsəka

  accusative - sūsaka > sūsəka

  genetive - sūsika > sūsəka

- [h] between 2 vowels mostly quiesces.

- [y] and [w] between 2 vowels frequently quiesces.

- The Suffix /t/ in suffix conjugation of verb (3rd fem. sing.) becomes /aː/

- Frequently in closed stressed syllables [i] > [a] e.g. šōˈmirt > šōˈmart MT שֹׁמֶרֶת

- Almost all final short vowels are dropped.

- In closed stressed syllables [i] > [ɛ]; [u] > [o]

- Stressed short vowels are "stress lengthened" really change in timbre: [i] > [e̯]; [u] > [o]

- [θ] > [š]

b) c. 900 - c. 600 B.C.E. (my *BHA phase 3*) - Changes in chronological sequence

- [h̯][6] > [h]

- [ġ] > [ʕ][7]

- Short vowels reduced to [ə] when unstressed.

- Spirantization of the *bgdkpt* consonants

- The suffix /at/ of fem. sing. noun becomes /a:/ e.g. malˈkat > malˈka: = "queen"

- Many penult stressed words shifted to ultimate stress.

- Syllable final:

  [iˀ] > [ê]

  [uˀ] > [û]

  [ɪˀ] > [ī]

  [ūˀ] > [ū]

  [āˀ] > [ā]

c) c. 600 B.C.E.- c. 200 C.E. (my *BHA phase 4*) - Changes in chronological sequence

- [ś] > [s]

- When a word ended in a cluster of 2 consonants a helping vowel is inserted between them e.g. /ˈmalk/ > /ˈmɛlɛk/

- [y] and [q] loose the ability to geminate when followed by [ə]

- Gemination of word final consonants disappears.

- Helping vowels are inserted before and after gutturals

- Unstressed [a] in closed syllables shifts [a] > [i]

- [a:] > [o]

- Gemination of gutturals disappears.

- In certain circumstances -

  [a] > [ɛ]

  [i] > [ɛ]

- Gutturals affect proximate vowels.

3. Birkeland (Birkeland 1940[8]) - Changes not in chronological sequence

a) c. 2000 - c. 900 B.C.E. (my *BHA phase 1*, *BHA phase 2*)

- [aw] > [ô]; [ay] > [ệ] (In certain conditions these were later restored)

- Short vowels immediately followed by syllable final ʾ/ʔ/[9] lengthen.

- [a:] > [o:]

- [h] between two vowels quiesces (In certain conditions these were later restored)

- [y][10] and [w] between 2 vowels quiesces. When two vowels brought into contact by this, they merge into a monophthong e.g. [a] + [u] > [o:]

- [i] > [e]

- [u] > [o]

- Stressed short vowels lengthen

- Some unstressed short vowels reduced to [ə].

b) c. 900 - c. 600 B.C.E. (my *BHA phase 3*) - Changes not in chronological sequence

- Remaining word final short vowels dropped.

- Pretonic short vowels lengthen. E.g. /qaˈṭal/ > /qa:ˈṭal/ MT קָטַל

- Stress becomes phonemic

- Words ending in [a:], [i:] and [u:] become ultimately stressed

- Differences in vowel length remain but vowel length no longer phonemic

c) c. 600 B.C.E.- c. 200 C.E. (my *BHA phase 4*)

- Changes not in chronological sequence

- When a word ended in a cluster of 2 consonants a helping vowel is inserted between them e.g. /ˈmalk/ > /ˈmɛlɛk/

- The distinction between the categories of *shwa* (silent, median, vocal) is lost.

- Gemination of word final consonants disappears.

- Helping vowels are inserted before and after gutturals

- In practice vowel length distinctions disappear in full vowels. However the half-vowels - ə, ă, ŭ\ŏ, ĭ\ĕ - remain shorter than the full vowels.

4. Blau (Blau 1972, 1976, 1993, 1995, 1998, 2010)

a) c. 2000 - c. 900 BCE? - *Blau's Stress Periods*[11] *One* and *Two*[12] - Changes in chronological sequence

- Stress either -

1. on penultimate syllable, if it was long closed or containing a long vowel, and otherwise on the antepenult. OR,

2. The long vowel most closely preceding the case and mood endings the syllable containing that vowel is stressed. If there is no such long vowel, the syllable preceding the case and mood endings is stressed.[13]

- Stressed ʾ/ʔ/ closing a syllable after an ʾ/ʔ/ opening that syllable undergoes dissimilation with compensatory lengthening of the vowel between them - i.e. [ʾaʾ] > [ʾā] > [ʾō] e.g. - /ʾaʾḫuð/ > /ʾāḫuð/ > /ʾōḫuð/ > /ʾōḫið/[14] >> אֹחִז "I shall take".

- ʾ/ʔ/ closing a stressed syllable was elided with compensatory lengthening of the preceding vowel e.g. ˈraʾšu > ˈrāšu "head".

- Stressed [ā] shifts to [ō] prior to stress shift

- *Axial Change* - Stress becomes uniformly penultimate. Generally same syllables stressed as in TB Hebrew[15].

- Stressed [ā] shifts to [ō] subsequent to stress shift

- *Axial Change* - Final short vowels elided in 3 stages:

1. nouns (including participles) in construct

2. verbs

3. nouns in absolute state. Following the elision of short final vowels in the absolute state, short vowels in the preceding open syllable which now had become closed, underwent compensatory lengthening

a > a:

i > e:

u > o:.

> As for the dropping of the final short vowels, it took place apparently in three stages. At first, nouns in *status constructus* dropped their final short vowels …, then verbs[16] and at last nouns (including participles) in *status absolutus*.[17] Owing to the elision of short final vowels in the *status absolutus*, short vowels in the preceding open syllable which now had become closed, were compensatorily lengthened (viz. *a* to *a:*, *i* to *e:*, and *u* to *o:*; as *'dagu* > דָּג[18] "fish" [Cf. Harris 1939 pp. 60-62] (as against *'qallu* > קַל "light", because it was originally closed); *ya'šinu* > יָשֵׁן[19] "sleeping"; *ya'guru* > יָגוֹר[20] "being afraid"). This compensatory lengthening did not take place during the dropping of the final short vowels from the *status constructus* and verbs, and since during its operation these word classes already exhibited closed final syllables, they were not lengthened at all (therefore: שָׁמַר דָּג "he kept", with final short vowels, *viz, pataḥ*. Since the *ṣere* and *ḥolem* in יָשֵׁן[21] "he slept" and יָגוֹר[22] "he was afraid" correspond to *pataḥ*, they have to be considered short as well, whereas the same words when serving as participles contain long *ṣere* and *ḥolem*, similarly שֹׁמֵר *qṭl* as against the participle יָבֵד לִשְׁמֹר *qṭl/yqṭl* against the participle לָבֹד.

> (Blau 1976 p. 31).

- When a word ended in a cluster of 2 consonants a helping vowel is inserted between them e.g. /'malk/ > /'mɛlɛk/ (Blau's revised opinion[23])

- Some diphthongs (vowel immediately followed by non-geminated consonant) reduced to long vowels[24]

1. [uw] >[û] e.g. *huwšabtɛm* > *hūšabtɛm* הוּשַׁבְתֶּם = 'you were made to dwell'
2. [iy] > [î] e.g. *yiybaš* > *yībaš* יִיבַשׁ = 'it will be dry'.
3. [iw] >[û] e.g. *yiwkal* > *yūkal* יוּכַל = 'he was able'.
4. [uy] >[î] e.g. *wayyuyśam* > *way'yīśɛm* וַיִּישֶׂם = 'he put'.
5. [iwy] >[ûy] > [iyy] > [î] e.g. *kiwy* > *kûy* > *kiyy* > *kî* כִּי = 'burning'

b) c. 900 - c. 600 BCE? *Blau's Stress Period Three* - Changes not in chronological sequence

Clearly the Jerusalem literary Hebrew of c. 900 - c. 600 BCE. mainly or entirely corresponds to Blau's Stress Period Three. However, it is unclear to me to what extent Blau sees late developments in Stress Period Two extending into the First Temple Period and early developments in Stress Period Four commencing before the exile.

c) c. 600 BCE.- c. 850 C.E. - *Blau's Stress Periods Four and Five*

- In the fourth stress period there was a tendency toward stressing of the last syllable. With very few exceptions open penultimate short stressed syllables were not preserved. The vowel changes which accompanied this stress shift were different from those in the preceding stress period.

- In the prefix conjugation, the stress-distinction between the jussive and preterite on the one hand and the imperfect on the other is lost[25].

- In the prefix conjugation of most root types and stems stress in the second person feminine singular, the second person feminine plural and the third person masculine plural moves to the final syllable in the contextual form but not in the pausal form due to the pausal lengthening of the stressed vowel .

- In the suffix conjugation of most root types and stems stress in the third person feminine singular and the third person plural moves to the final syllable once again pausal lengthening blocks this shift. E.g.

contextual *qa:ˈtala: > *qa:təˈla: > qåtəˈlå but

pausal *qa:ˈta:la: > qåˈtålå

contextual *qa:ˈtalū > *qa:təˈlū > qåtəˈlu but

pausal *qa:ˈta:lū > qåˈtålu

- The *waw conversive* of the suffix conjugation became mainly ultimately stressed thus becoming distinct from the contextual form i.e. qa:ˈtaltī = "I killed"; wəqa:talˈtī = "and I will kill"

- Diphthongs [aw] and [ay] preserved "... when stressed and followed by a consonant belonging to the same syllable (in which case the diphthong was later broken up by the intrusion of an ancillary vowel ... as ˈbayt "house" (> בַּיִת), ˈmawt "death" (> מָוֶת), further when followed by *w/y*, as צַוֵּה /צַו "order!", ˈḥayy > חַי "alive", חַיִּים "life"[26].... In open syllables or when unstressed, they shift to ô/ê, as אוֹ "or", the *status constructus* מוֹת־ / בֵּית...." [27]

- See Blau 1995 for:

[aw] > [ô] before the MT orthography fixed;

[ay] > [ệ]; after the MT orthography fixed

- Originally short vowels lengthened in three cases (in addition to pausal lengthening …)

- in originally closed syllables, which, by elision of the closing consonant, had become open

- in originally open syllables in nouns in *status absolutus* which, by dropping of final short vowels, had become closed final syllables;

- in pretonic open syllables (pretonic lengthening and doubling).[28]

- When a word ended in a cluster of 2 consonants a helping vowel is inserted between them e.g. /ˈmalk/ > /ˈmɛlɛk/ (Blau's earlier opinion (= Period Five) opinion[29])

5. Sáenz-Badillos[30] (Sáenz-Badillos 1993) - Changes not in chronological sequence

a) c. 2000 - c. 900 BCE (my *BHA phase 1*, *BHA phase 2*)

- N.b. In dialect(s) reflected in Tel el-Amarna Letters (mid-fourteenth c. BCE)[31]:

- development of [e]
- [aw] > [ô];
- [ay] > [ệ]
- In stressed syllables [a:] > [o:]
- relative particle /ʾašar/
- causative *hiqtil*
- Initial [w] > [y]; [aw] > [ô]; [ay] > [ệ] (These shifts were not complete in Jerusalem dialect)
- [a:] > [o:]
- /ṯ / > /ṣ/
- /ď/ > /ṣ/
- /ð/ > /z/
- /ṯ / > /ṣ/
- Development of cohortative
- Disappearance of *Shafel* causative
- Use of article
- [ki] >[ti] as suffix 1st singular of suffix conjugation
- Preterite *yaqtul* replaced, except for its use in *waw conversive*, by suffix conjugation. This was eventually extended, by analogy to the suffix conjugation.
- [n] immediately preceding a consonant assimilates resulting in the gemination of the following consonant
- Dropping of final short vowels
- Elision of feminine marker [t] in noun and verb. N.b. - this could only have occurred after the dropping of the final short vowels

b) c. 900 - c. 600 B.C.E. (my *BHA phase 3*) - He does not explicitly deal with changes during this period.

c) c. 600 B.C.E.- c. 850 C.E. (my *BHA phase 4*, *BHA phase 5*, *BHA phase 6*)

- Elision of syllable or word-final *aliph*. This probably occurred early in this period.

- Spirantization of the *bgdkpt* consonants

- [ḫ] > [ḥ]

- [ġ] > [ʿ]

- [ś] > [s]

- When a word ended in a cluster of 2 consonants a helping vowel is inserted between them e.g. /ˈmalk/ > /ˈmɛlɛk/

- Pretonic Vowel Lengthening and doubling

- Philippi's law by which short [i] changes to [a] in closed stressed syllables

- Law of attenuation by which short [a] in closed unstressed syllables changes to [i]

- Reduction of certain vowels to *shewa* or, in the environment of a laryngeal consonant, to another ultra-short vowel

- Reduction of final doubled consonants

- Vowel changes before and after the laryngeals

- Reduction of double laryngeals and of double [r̄]

- Disappearance of intervocalic [h]

- Weakening of the pharyngeal and laryngeal consonants

- Possibly a further contraction of diphthongs or the use of anaptyctic vowels (*ˈbaytu > ˈbayit, *ˈmawtu > ˈmāwɛt), etc

6. Manuel (Manuel 1995 p. 265) - Changes in chronological sequence

a) Blau's Stress Period 1 (c. 2000 - c. 1500 BCE)

- accent on long penult or on antepenult

- ʾ/ʔ/ closing a stressed syllable was elided with compensatory lengthening of the preceding vowel e.gs. ˈraʾšu > ˈrâšu "head"; ˈyaʾmaru > ˈyâmaru "he says/will say". [*n.* Blau places this change in the second period ... but it

must have begun before stress fixed on the penult to account for the change in the PC-G of I-ʾ verbs (e.g., ˈyaʾ maru).]

- Stressed [aː] shifts to [oː] e.gs. ˈrâšu > ˈrôšu "head"; ˈyâmaru > ˈyômaru "he says/will say".

- Dissimilation the /a/ of the discontinuous pronominal morpheme in the PC changed to /i/ (e.g. ˈyašʾalu >ˈyišʾalu "he asks/will ask") when the theme vowel was also /a/[32]. i.e. the 3 forms of the *qal prefix conjugation* became -

yaqtulu

yaqtilu

yiqtalu

- The 3 moods are

yaqtulu - imperfect/indicative *yaqtula* - volitive/subjunctive

yaqtul- preterite and jussive

yaqtuln(n)a - energic

- [aw] > [ō]; [ay] > [ệ] when unstressed egs.

- *Medial unstressed heterogeneous diphthong contraction*. In a medial syllable, an unaccented PS /a/ followed by an unvoweled heterogeneous semi-vowel contracted with the semi-vowel to form a secondary long vowel

[aw] > [ô] e.g., *ˈmawšabu > *môˈšabu = "dwelling"; *mawtu > *mōtu = "death of"

[ay] > [ệ] e.g. *ˈhayṭiba > *hệˈṭība = "he did well"; *baytu > *bệtu = "house of"

- Final diphthongs actually triphthongs with the inflectional morpheme (case or mood), and now accented, unreduced. E.g. *ˈmawšabu (root wšb > yšb) = "seat".

- *Homogeneous diphthong*[33] *contraction*. Accented PS short vowel followed by an unvoweled homogeneous consonant and another consonant (other than a pharyngeal or [r]) contracted with the first consonant to form the corresponding long vowel.[34] Examples -

[ʾa] > [ā]

[iy] > [ī][35] ḥaˈṣī[36] = "half"; yihī[37] = "may he be"

- [ʾa] in word-final position did not contract but rather quiesced. Examples -

- mōˈṣa[38] = "outlet"

- maśˈśa[39] = "load of"

- ṣaˈba[40] = "army"

- qaʾra[41] = "he read"

b) Blau's Stress Period 2 (c. 1500 - c. 900 B.C.E.)

- accent fixed on penult [*n.* At this point stress becomes phonemic; that is, the contrast (stressed versus unstressed) marks a difference in the meaning of otherwise identical forms, such as when otherwise identical forms, such as when verbs lose verbs lose their final mood vowels (e.g., imperfect versus jussive or preterite 3ms PC-G: yišʾmur [< yišʾmuru] versus ʾyišmur; II-w 3fs SC-G versus fs Ptcpl-G: ʾqāmā versus qāʾmā).]

*ʾmawšabu > *môʾšabu = "dwelling"

*ṣaʾdaqatu > *ṣadaʾqatu "righteousness".

*ʾmaškanu > *mašʾkanu "tabernacle".

*ʾbanaya > *baʾnaya = "he built";

*ʾšamarū > *šaʾmarū "they guarded"

*ʾdabbara > *dabʾbara = "he spoke"

*ʾyišʾalu > *yišʾʾalu "he asks/will ask".

*ʾyômaru → *yôʾmaru "he says/will say".

*ʾyašmuru → > *yašʾmuru "he guards/will guard"

c) Blau's Stress Period 3 (c. 900 - c. 600 B.C.E)

- accent on ultima as short vowels apocopate and accent becomes phonemic

- final short vowels lost in construct e.g.s - *môšabu > môšab = "dwelling of"; *bêtu > bêt = "house of".

- final short vowels lost in verb e.g.s -

*baʾnaya > *baʾnay > *baʾna = "he built";

*dabʾbara > *dabʾbir = "he spoke";

*yišʾʾalu > yišʾʾal "he asks/will ask".

yōʾmaru > yōʾmar "he says/will say".

*yašʾmuru > *yašʾmur > *yišʾmur "he guards/will guard"

- Final diphthong shifted [ay] > [ê] regardless of stress e.g. dual and bound marker /ay/ mōšəbê (< mōšabay) = "seats of". This includes final diphthongs previously uncontracted due to stress contracted e.g. *yibʾnayu > *yibʾnay > yibʾnê

- final short vowels lost in absolute form of nouns/adjectives egs. -

*ˈrôšu > ˈrôš "head"

*môˈšabu > *môˈšab = "dwelling"

*ˈbaytu > *ˈbayt = "house"

*ṣadaˈqatu > *ṣadaˈqat "righteousness".

*mašˈkanu > *mašˈkan "tabernacle".

*ˈmalku > *ˈmalk "king".

- Following the elision of short final vowels words previously ending with short vowels now ended with ultimately stressed closed syllables; otherwise penultimately stressed.

- Stress lengthening of non-word final vowels in absolute form of nouns/adjectives [*n.* An additional shift attended the third stage of apocope: compensatory lengthening of the previous short vowel in newly (or singly) closed syllables. In the case of /a/: compensatory lengthening of the previous short vowel in newly (or singly) closed syllables. In the case of /a/> /ā/, the new vowel fills the gap left by the phonemic change of Period 1, when ā > ō. Because compensatory lengthening did not affect verbs ... there is some difficulty analyzing the non-/a/-theme vowels of verbs, which change to vowels generally considered long in other environments (e.g., dabˈbir > dabˈbēr, yišmur > yišmōr). Blau (Blau 1976 §9.1.3.) notes the apparent lengthening of /i/ and /u/ theme vowels in 3ms SC statives. Stative verbs, however, may not have had final vowels (as in Akkadian). Hence, the change in their theme vowel may be unrelated to the apocope of final vowels from transitive verbs. It is more likely that non-/a/-theme vowels in stative verbs lengthened later, by analogy, when their nominal (participle) counterparts did, yielding homographic pairs (3ms SC stative = ms Ptcpl stative; e.g., kābēd, qāṭōn). The /a/-theme stative verb did not participate in this analogous shift because its participial counterpart had a completely different vocalization (e.g., 3ms SC stative šakab versus ms Ptcpl stative šākib). This explanation is simpler than positing a special class of "short" *sere* (/ē/) and *holem (lōl)* as some suggest (e.g., Blau 1976 §9.1.3.).]. Egs.-

*môˈšab > *môˈšâb = "dwelling"

*mašˈkan > *mašˈkân "tabernacle"

*dabˈbir > *dabˈbêr = "he spoke"

*yišˈmur > *yišˈmo:r "he guards/will guard"

- Preposition [bi] > [ba]

- The suffix /at/ of fem. sing. noun becomes /a/ e.g. *ṣadaˈqat > *ṣadaˈqa "righteousness".

- Dissimilation the /a/ of the discontinuous pronominal morpheme in the *prefix conjugation* changed to /i/ when the theme vowels were /u/, /i/. i.e. the 3 forms of the *qal* PC became -

yiqtul

yiqtil

yiqtal

- Stress lengthening of word-final vowels in verbs and absolute form of nouns/adjectives

*ṣadaˈqa > *ṣadaˈqa: "righteousness".

*baˈna > *baˈna: "he built"

- Pretonic vowel lengthening

*ṣadaˈqa: > *ṣadaːˈqa: "righteousness".

*baˈna: > *baːˈna: "he built"

*šaˈmarū > *šaːˈmarū "they guarded"

- Propretonic vowel reduction

*ṣadaːˈqa: > ṣədaːˈqa: "righteousness".

d) Blau's Stress Period 4 (late 6th c. B.C.E. - mid-second c. C.E.)

- tone affects vowel quantity

- Words carrying stress on short open penultimate syllable shift to ultimate stress.

*šaːˈmarū → *šaːməˈrū "they guarded"

- Prepositions

[ba] > [bə]

[la] > [lə]

[ka] > [kə]

- Unstressed [i] > [ẹ] e.g. [ʾil] >[ʾẹl] = "god"

- Some time after the Greek and Latin transcriptions of Hebrew i.e. after 400 C.E. /aː/ > /å/

e) Blau's Stress Period 5 (Manuel includes Hellenistic Hebrew in this period[42] i.e. it covers c. third c. B.C.E. - mid ninth c. C.E.)

- /a/ elevated to /i/ in unaccented, closed syllables

*mašˈkaːn > mišˈkaːn "tabernacle"

*dabˈbeːr > dibˈbeːr "he spoke"

- Introduction of anaptyctic vowels - when a word ended in a cluster of 2 consonants a helping vowel is inserted between them e.g.

*ˈbayt > ˈbayit "house"

*ˈmalk > ˈmalɛk > ˈmɛlɛk "king"[43]

- [ā] > [ɔ] [*n.* This phonemic change is part of a general practice in TH of replacing quantitative (length) distinctions with qualitative ones (Goerwitz 1990:6).]. Egs.-

*môˈša:b > môˈšɔb = "dwelling"

*ṣəda:ˈqa: > ṣədɔˈqɔ "righteousness".

*mišˈka:n > mišˈkɔn "tabernacle"

*ba:ˈna: > bɔˈnɔ "he built"

*ša:məˈrū > *šɔməˈrū "they guarded"

7. Rendsburg (Rendsburg 1997, 2007)

a) c. 2000 - c. 900 B.C.E. - He does not deal with changes during this period.

b) c. 900 - c. 600 B.C.E. (EBHP period) - He does not deal with changes during this period.

c) c. 600 B.C.E.- c. 850 C.E. (my *BHA phase 4*, *BHA phase 5*, *BHA phase 6*)

- [ś] > [s]

- [ḫ] > [ḥ]; [ġ] > [ʿ] - c. 200 BCE

- Weakening of pharyngeals and laryngeals in some areas

- Spirantization of the *bgdkpt* consonants - c. 400 BCE

- Development of allophones of short vowels - Before 400 CE

- Philippi's law

- Law of attenuation between 400 and 850 CE

- Velarization[44] of the emphatics under Arabic influence - c. 1000 CE

8. Steinberg

Words Significantly Different in Pronunciation in Pre-Exilic Hebrew

With Geminated Final Consonents

Numerals in Pre-Exilic Hebrew

The History of Some Word Forms in Hebrew

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[1] See also Gibson 1965, Gogel, Beyer, Richter, Moscati.

[2] Adapted from Rabin 1971 p. 67

[3] Bergsträsser §1k

[4] Bergsträsser §17q.

[5] Harris. See also Harris' table

[6] [ḫ] (also transliterated as x, kh or k = [x]

[7] [ᶜ] = [ʕ], [ġ] = [ɣ]

[8] Adapted from Rabin 1971 p. 67.I did not have access to *Akzent und Vokalismus im Althebräischen : Mit Beiträgen zur vergleichenden semitischen Sprachwissenschaft*, by Harris Birkeland, Oslo, 1940.

[9] [ʾ] = [ʔ]

[10] [y] = [j]

[11] The following is from Blau 1976/93 pp. 30-34 -

> 9.1.1. In the earliest Proto-Hebrew (= pre-Tiberian) period which can be reconstructed the stress was on the penultimate syllable, if it was long closed or containing a long vowel), and otherwise on the antepenult. This explains the shift of stressed ā to ō … in both words like שׂוֹן (låšōn) "tongue" < lašānu (penult stress), and כֹּהֵן (kōhēn) "priest" kāhinu, (antepenult stress). It also explains original trilateral mediae geminatae forms like קַלּוּ (qallū) "they were light" < qalalū (if they were not originally biliteral forms…).
>
> 9.1.2. In the next stress period, general penultimate stress prevailed. It was during this period that ʾ (א) closing a stressed syllable was elided…. Since as a result of this elision raʾšu > rāšu shifted to (> rōš)... "head", the shift ā > ō still functioned during this period. In general, the stress of this period may be reconstructed by simply leaving it, in most cases, where it is in (Tiberian) Biblical Hebrew, but adding short final vowels eventually dropped, as דָּבָר (dåbår) "thing" < dabaru, אָכַל (ʾåkal) "he ate" < ʾakala, יֹאכַל (yōkal) "he will eat" <yōkalu, וַיֹּאכַל (wayyōkal) "he ate"< wayyōkal (exhibiting a form without an original final short vowel …), and similarly, at that period, the jussive yōkal, אָכְלוּ נוּ (ʾåkalnū) "we ate" < ʾakalnū (terminating in a long vowel, which has accordingly been preserved).
>
> 9.1.3. During the third Proto-Hebrew (= pre-Tiberian) stress period, the stress remained as in the preceding one, yet since final short vowels were dropped, words that, during the second period, had ended in such vowels, now became stressed on their last syllable, whereas those that terminated in consonants or long

vowels continued being stressed on the penultimate. Since the place of the stress was no longer uniform, it became phonological, as qāmat > קָ מָ ה (qåmå) "she stood up", in contrast with qāmatu > קָ מָ ה (qåmå) "standing up (fem. sing.)"; yōkalu> יֹאכַל (yōkal) "he will eat", in contrast with וַיֹּאכַל (wayyōkal) "and he ate". Cf. also nasabbat > נָ סַ בָּ ה (nåsabbå) "she turned", in contrast with נְ סַ בָּ ה (nəsabbå) <nasabbatu "turning (fem. sing)". At that period, there were still the contrasting forms of the imperfect yōkal < yōkalu, and the jussive yōkal.

As for the dropping of the final short vowels, it took place apparently in three stages. At first, nouns in *status constructus* dropped their final short vowels …, then verbs and at last nouns (including participles) in *status absolutus*. Owing to the elision of short final vowels in the status absolutus, short vowels in the preceding open syllable which now had become closed, were compensatorily lengthened (viz. *a* to *ā*, *i* to *ē*, and *u* to *ō*, as *'dagu* > דָּ ג (*'dåg*) "fish" [Cf. Harris 1939 pp. 60-62] (as against *'qallu* > קַ ל "light", because it was originally closed); *ya'šinu* > יָ שֵׁ ן (*yå'šēn)* "sleeping"; *ya'guru* > יָגוֹר "being afraid"). This compensatory lengthening did not take place during the dropping of the final short vowels from the status constructus and verbs, and since during its operation these word classes already exhibited closed final syllables, they were not lengthened at all (therefore:- שָׁ מַ ר דָּ ג "he kept", with final short vowels, *viz, pataḥ*. Since the *ṣere* and *ḥolem* in יָשֵׁ ן "he slept" and *יָגוֹר* "he was afraid" correspond to *pataḥ*, they have to be considered short as well, whereas the same words when serving as participles contain long *ṣere* and *ḥolem*, similarly נִשְׁ מַ ר *qṭl* as against the participle נִשְׁ מָ ר לְ דַּ בֵּ ר/ יְדַבֵּ ר *qṭl/yqṭl* against the participle מְ דַ בֵּ ר).

REMARK A: It stands to reason that the so-called pretonic lengthening … of short vowels in open syllables preceding the stress is later, its oldest attestation being the transcription of proper nouns in the Septuagint. It is especially frequent with a (as dabaru > דָּבָר "thing"), less with i (as ᶜiṣatu > עֵצָה "counsel", as contrasted with its reduction kātibīma > כֹּתְבִים "writing [masc. plur.]", …); and not at all with u, where it is either reduced (as burāšu > בְּרוֹשׁ "Juniperus phoenicea", šubbulīma > … שִׁבֳּלִים "ears") or, as a rule, preserved by dint of pretonic consonantal doubling… v. REMARK B.

REMARK B: Sometimes pretonic doubling of a consonant is substituted for pretonic lengthening, i.e. the combination of a long vowel with a simple consonant is superseded by a short vowel with a double consonant. This is especially- frequent after *u*, as *ᶜrumā* > עֲרֻמָּה "naked (fem. sing.), ... less after a, as *qaṭanā* > קְטַנָּה "small (fem. sing.)" very rarely after *i*. In contrast with pretonic lengthening, however, the pretonic doubling of consonants is analogically transferred to forms in which the next syllable does not bear the stress (as *qaṭanê* > קְטַנֵּי "small [masc. plur. construct]")....]

9.1.4. As the fourth Proto-Hebrew Proto-Hebrew (= pre-Tiberian) stress period started, originally short vowels had been lengthened in three cases (in addition to pausal lengthening …): in originally closed syllables, which, by elision of the closing consonant, had become open (as *katabat* > *kātabā* "she wrote") [fn. Final *–at*, serving as feminine ending of nouns and verbs (*yaldat(u)* "girl"; *katabat* "she wrote"), shifts to -*ā*, spelled הָ (יַלְדָּה כָּתְבָה) in non-final position, however, the *t* is preserved: יַלְדָּתוֹ "his girl", כְּתָבַתּוּ "she wrote it", and even in construct יַלְדַּת] in originally open syllables in nouns in *status absolutus* which, by

dropping of final short vowels, had become closed final syllables (as *dagu* > דָּג(*dåg*) "fish"; sometimes, by elision of the final consonant, these syllables had again become open, as *yaldatu* > *yaldāt* > יַלְדָּה(*yaldå*) "girl"); and in pretonic open syllables…. On the other hand, open penultimate stressed syllables in context, containing original short vowels, had not -been lengthened, as *kātabā* (as against pausal כָּתְבָה (*kåtåbå*)) "she wrote", *kātabū*, (as against pausal כָּתְבוּ(*kåtåbū*) "they wrote", *kətobū*, (as against- pausal כְּתֹבוּ(*kətōbū*) with a long *ō*) "write! (masc. plur.)", *sūsɛkā* (as against pausal סוּסֶךָ(*sūsêkå*) with a long *ê*) "your horse", *ʾanī* (as against pausal אֲנִי(*ʾånī*) " I"…

In the fourth stress period there was quite a strong inclination towards the stressing of the last syllable. With very few exceptions (as שְׁכֶחַנִי), open penultimate short stressed syllables were not preserved. They were either lengthened, presumably under the influence of the pausal forms (as שְׁמָרָנוּ "he preserved us") or, as a rule, the stress passed from these syllables to the ultima. The vowel changes which accompanied this stress shift were different from those in the preceding stress period.

Previously, the syllable preceding the stress had been lengthened, whereas original short vowels had been reduced in open syllables, second or fourth before the stress .... Now, it was short open syllables preceding the new stress that were reduced, whereas originally pretonic syllables, now having become the second syllable before the stress, were preserved, since they now contained lengthened vowels: כְּתְבוּ, כָּתְבָה , כָּתְבוּ (*i*being an auxiliary vowel), סוּסֶךָ, אֲנִי.

Yet sometimes the stress also shifted from long penult, especially from closed syllables, as ʾattā (cf. pausal אַתְּה) > אַתְּה "you (masc. sing.)"; *ᶜittā* > ... *ᶜattā* (cf. pausal עַתָּה) > עַתָּה "now", sometimes even from open long syllables, as *ʾanākū* >... ʾanōkū (through dissimilation, ... and analogy of the pronominal suffixes -*ī*/*nī*) אָנֹכִי (identical with the pausal form) > אָנֹכִי "I".

The vestiges of the same shift are to be found in yqṭl and qṭl with *waw consecutivum*. During the third stress period, *yqṭl* with *waw consecutivum* without suffixes was stressed on the penult,... the stress shifted from the closed peultimate syllable to the ultimate (as *wayyiktob* > וַיִּכְתֹּב "and he wrote"), but was preserved, as a rule, in open long syllables (as וַיֹּאכַל "and he ate", וַיְבָרֶךְ "and he blessed").)

Similarly, in *qṭl* with *waw* consecutive the stress shifted from the closed penult to the ultimate, as וּבָרַכְתָּ "and you will bless", וְאָכַלְתָּ "and you will eat", but was preserved in open syllables, as וְקָנִיתָ "and you shall buy".)

9.1.5. In the next (i.e. fifth) period, Hebrew stress became as it is exhibited by the Bible, the only change being that final consonant clusters were opened by an auxiliary unstressed vowel, thus giving rise to new, paroxytones): malk > מֶלֶךְ(mɛlɛk) "king", sipr > סֵפֶר(sẹpɛr) "book", qudš > קֹדֶשׁ(qodɛš) "holiness", wayyipn> וַיִּפֶן(wayyipɛn) "and he turned", *naᶜr* > נַעַר(nacar) "boy", *bayt* > בַּיִת(*bayit*) "house"; since the auxiliary vowel is, as a rule, *segol*, this phenomenon is called segolization.

N.b. Nouns in construct behave as either unstressed or weakly stressed.

[12] Nb. Blau does not attach dates to his "stress periods". I have had to deduce the probable date ranges myself.

[13] Blau 1993 p. 213.

[14] "u/ū/ō preceding u/ū/o/ō in the next syllable are, as a rule, dissimilated into i/ī: שִׁבֹּלֶת "ear" (of grain), Arabic sunbulat; אִשּׁוֹן "first", from רֹאשׁ "head"; חִיצוֹן "external", from חוּץ "outside". Rarely only is the second vowel dissimilated: אֶתֵּן "I shall take"< ʾōḫuð לוּלֵא "if not"... <lūlō." Blau 1976/1993 §8.4.

[15] "... it is almost impossible to predict word stress (in Tiberian Hebrew) according to syllable structure. Yet it is possible, as if by magic, to introduce order into this apparent chaos. Through *one single assumption* it is possible to explain the stress of the great majority of Hebrew words. Therefore this assumption has to be regarded as the most powerful explanation of the interdependence of stress and syllable structure, a veritable pillar on which everything hinges. Let us add to the Hebrew words the final short vowels which, according to comparative grammar, were lost in Hebrew, and then, without changing the traditional place of stress, *the great majority of words exhibit stress on the penult*. Those which are today stressed on the ultima have, as a rule, lost final short vowels, the addition of which makes them stressed on the penultima. And those which are today stressed on the penult have, as a rule, preserved their final syllable. Accordingly we assume a period of general penult stress. Therefore, words like hēʿqīmā, hēʿqīmū,tāʿqīmū, hāʿqīmū, ʾăʿnaḥnū, ᶜāʿlēhā, ʿʾarṣā, etc., which have preserved their final syllable, are still stressed on their penult, whereas words like dāʿbār, yāʿqūm, śāʿdē, gāʿlā,yigʿlē,kāʿtab, yikʿtob,dāʿgā, which have lost their short vowels (<*daʿbaru, <*yaʿqūmu,<*śaʿdayu, <*gaʿlaya, <* yigʿlayu, <*kaʿtaba, <*yakʿtubu, , <*daʿgatu), exhibit now ultima stress, yet, by addition of elided final shjort vowels, also attest to the existence of a general penult stress before the elision of the final short vowels." Blau 1978

[16] "Which still preserved final short vowels, when they were dropped in *status constructus*, ... *yirṣayu* > יִרְצֶה as against *śaday* > שַׁדַּי... but were affected by Philippi's Law ... contrary to *status absolutus*, thus exhibiting that verbs had lost the short final vowels earlier" Blau 1976 p. 31 n. (1).

[17] Blau 2010 §3.5.7.1.5.

[18] דָּג (/ʿdåg̲/ (/TH/+) ← /ʿdaːg/ (/EBHP/) < /ʿdagu/ (PH))

[19] יֵשֶׁן (/yåʿšẹn/ (/TH/+) ← /yaʿšeːn/ (/EBHP/) < /yaʿšinu/ (PH))

[20] יָגוֹר (/yåʿgor/ (/TH/+) ← /yaʿgoːr/ (/EBHP/) < /yaʿguru/ (PH))

[21] יֵשֶׁן (/yåʿšẹn/ (/TH/+) ← /yaʿšin/ (/EBHP/) < /yaʿšin/ < /yaʿšina/ (PH). Nb. /yaʿšin/ (/EBHP/) could have been pronounced as [yaʿšin] or [yaʿšẹn].)

[22] יָגוֹר (/yåʿgor/ (/TH/+) ← /yaʿgur/ (/EBHP/) < /yaʿgur/ < /yaʿgura/ (PH). Nb. /yaʿgur/ (/EBHP/) could have been pronounced as [yaʿgur] or [yaʿgor].)

[23] Blau 1978, 1979, 1993

[24] "Marginalia Semitica" I. Israel Oriental Studics 1 (197l), pp. 1-36, reprinted in *Topics in Hebrew Linguistics*, 1998 pp. 185-220.

[25] Presumably Blau has in mind something like -

	Imperfect	*Jussive*	*Preterite*
Qal	yiqʿtol	ʿyiqtol	wayʿyiqtol

Piel	yaqat'til/ yəqat'tel	ya'qattil/ yə'qattel	wayya'qattil/ wayyə'qattel
Niphal	yiqqa'til/ yiqqa'tel	yiq'qatil/ yiq'qatel	wayyiq'qatil/ wayyiq'qatel
Hiphil	yaq'tīl	'yaqtil/ 'yaqtel	way'yaqtil/ way' yaqtel
Hithpiel	yitqat'til/ yitqat'tel	yit'qattil/ yit'qattel	wayyit'qattil/ wayyit'qattel

[26] "Final ʾ(א [?]) preceded by a consonant is elided, as *ḥiṭʾu* > "sin" > *ḥiṭʾ*> חֵטְא.... If, however, the consonant preceding ʾ is *w/y*, the ʾ is assimilated and the *w/y* doubled: *šawʾ* > *šaww* > (final gemination generally being lost) ... שְׁוְא ׳ "vanity"; *gayʾ* > *gayy* > ... גַּיְא "valley". Similarly, *y* is assimilated to a following *w*. *sūsayw* > *sūsaww* > סוּסָיו "his horses"." Blau 1976 §7.1.6.

[27] Blau 1976 §7.3.2.2.

[28] Blau 2010 §3.5.12.2.9. - "...Hebrew underwent pretonic lengthening; we have attributed this to strong Aramaic influence at the time of the Second Temple."

[29] Blau 1972, 1976

[30] Especially pp. 68-70.

[31] P. 34.

[32] Manuel 1995 pp.19, 43. Barth's Law (= Barth-Ginsberg's Law) - says that the vowel of the *prefix conjugation* preformative was originally *a* in action verbs, and *i* in stative verbs. Joüon-Muraoka 1991 § 44 note 1

[33] Homogeneous diphthongs have both phases of the diphthongs are close in articulatory position and share the lip gesture.

[34] Manuel 1995 p.41.

[35] See also Manuel 1995 p.20, 41.

[36] 'ḥaṣiyu > ḥa'ṣiyu > ḥa'ṣiy > ḥa'ṣī > (TH) ḥă'ṣî - Manuel 1995 p.42.

[37] yihyay > yihy > yihiy > yihī > (TH) yəhî - Manuel 1995 p.42.

[38] 'mawṣaʾu > 'mōṣaʾu > mō'ṣaʾu > mō'ṣaʾ > mō'ṣa > (TH) mô'ṣā - Manuel 1995 p.42.

[39] 'manśaʾu > maś'śaʾu > maś'śaʾ > maś'śa > (TH) maś'śā - Manuel 1995 p.42.

[40] 'ṣabaʾu > ṣa'baʾu > ṣa'baʾ > ṣa'ba > ṣa'bā > (TH) ṣā'bā - Manuel 1995 p.42.

[41] 'qaraʾa > qa'raʾa > qa'raʾ > qa'ra > qa'rā > (TH) qā'rā - Manuel 1995 p.43.

[42] Manuel 1995 p.4 footnote.

[43] Manuel 1995 p.196, 224 and P. 253 note 833.

[44] Webster " formed with the back of the tongue touching or near the soft palate <the *velar* \\k\\ of \\'kül\\ *cool*>"