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# Hebrew

Pablo Kirtchuk

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## 1. Introduction

The term *Hebrew* designates a language which, under diverse forms and in different contexts through the ages, has been the Jewish people's linguistic vehicle of cult, culture and communication. Its early form was adopted by the first Abrahamites who established in the country known first as Canaan, then Eretz Israel, and its contemporary form is spoken today by the 8.5 million inhabitants of Israel. It is also familiar to varying extent to most Jews in the Diaspora.

## 2. History

Biblical Hebrew (BH) is attested on tablets from the 14th century B.C.E. and represents the written form of the language of the Israelite tribes who later - during the 11th century B.C.E. - established a kingdom in the land formerly known as Canaan. Though there is no extant manuscript going back to that period, some biblical texts are faithfully represented in the Dead Sea Scrolls (DSS), many of which date from the first century B.C.E. Among the DSS there are also the Hebrew originals of some apocryphal books previously known only in Greek or Ethiopic translation. Ancient Hebrew is represented also by a certain amount of epigraphic and epistolary documents ranging from the 14th century B.C.E. to 132-135 C.E. From the beginning of that period we have the glosses from Tel El Amarna, hence from pre-Israelite Canaan, which bear a strong resemblance to Hebrew. Fifteen centuries later, we have Bar Kokhba's letters, written in a colloquial Hebrew typical of the Second Temple period. In between, we have, among others, the Gezer Calendar (10th century B.C.E.), about seventy ostraca from Samaria (8th c. B.C.E.) and a hundred from Arad (7th and beginning of the 6th century B.C.E.), the Lakhish letters (6th c. B.C.E.) and the Shiloah Tunnel inscription (7th century B.C.E.). All of this extra-biblical material is very important since it displays words, structures and pronunciations unknown from other sources shedding light on the first fifteen centuries in the history of the Hebrew language.

From the 2nd century B.C.E. onwards, the written documents testify to a real change in the grammar of the language. This is the stage known as Rabbinic or Mishnaic Hebrew (MH), after the most important document written in it, the Mishna - a collection of juridic oral debates developed and ultimately based upon the written Law, the Tora. Other documents from the same stage are legal treatises such as the Mekhilta, the Sifra and the Sifre, as well as the Midrashim, consisting of short anecdotes and commentaries, both Halakhic (juridic) and Aggadic (philosophical and literary). All of them reflect the oral language spoken between the 2nd century B.C.E. and the 3rd century C.E., probably descended from a colloquial variant spoken during late biblical times. In other words, the written norm represented in CBH probably existed along with an oral variant, which eventually became the norm of written LBH. This too had a spoken form of its own which eventually yielded written MH. A caveat exists, however, concerning the linearity of the language's evolution up to that point: this evolution is not always reflected in the documents from the corresponding period. Thus, early features may be found in late texts: bi-syllabic segolata (thus called after the segol (or equivalent) vowel in both their syllables): /mɛlɛk/ 'king', /qodɛʃ/ '(distinction >) sanctity', /saʃar/ 'tempest' result from the resolution of the consonant cluster in final position, the stress accent remaining on the first syllable. Now the primary, monosyllabic

forms /malk, qudš, safr/ are found in Origene's transliteration of the Hebrew Bible (3rd century C.E.), while in the Septuagint transliteration (3rd century B.C.E.), one finds the later bi-syllabic forms similar to those of the Tiberian vocalization).

Hebrew ceased to be spoken about the 3rd century C.E. and persisted only in a written form (cf., among others, Rashi's commentaries of the Bible and Talmud, 11th century C.E.).

From the 3rd century C.E. on, Hebrew continued to be used for juridical, intellectual, philosophical, poetic and liturgical purposes but not for daily oral communication save in particular circumstances when Jews from different countries had to resort to in order to understand each other. In Muslim Spain, written Hebrew acquired new characteristics: it is Medieval Hebrew (MdH).

At the turn of the 20th century that it became anew the mother-tongue of an ever increasing population. Its use is no longer limited to any particular aspect of life but embraces all of them.

The two millennia during which the language was not used in oral communication prevented it from evolving significantly, but they are also responsible for the fact that a six-year old Israeli child learning to read can understand the content of a Biblical or a Mishnaic passage, whereas no English child - and very few adults, for that matter - can understand a single sentence of Beowulf at a simple reading. 'Old English' is not 'English', so to speak, whilst understanding of one form of Hebrew - Biblical, Mishnaic, Dead Sea Scrolls, Medieval or Contemporary - allows a fair comprehension of all the others.

### 3. Script

The ancient Hebrew script is ultimately descended from the Sumerian cuneiform logosyllabary, adapted to Semitic in Ugarit as early as 1500 B.C.E., then modified in Phoenicia yielding a consonantal range of symbols, whence it was adapted by speakers of Hebrew to write their own vernacular. This Palaeo-Hebrew script, represented in epigraphic and epistolary texts from the first two millennia B.C.E. is preserved to this day by the Samaritans. The speakers themselves, however, replaced it in the the Second Temple period by the Square Hebrew alphabet, an Aramaic-inspired version of the same Semitic alphabet. Some of the DSS, from this very epoch, are written in this alphabet.

The vocalization system developed in Tiberias in the 8th century, but it reflects a very old pronunciation upon which is based the reading tradition. Ultimately, the Tiberian system was selected rather than two others, the Babylonian and Palestinian ones, which were not as complete.

The cantillation signs were invented at the same epoch and were meant to codify the musical rendition of the Biblical text. Although they are not part of the linguistic system as such, these signs are narrowly linked to intonation and facilitate syntactic parsing, pragmatic analysis and disambiguation of certain passages which otherwise would be difficult to interpret. The cantillation signs appended to the Biblical text probably constitute the first codified musical notation system.

### 4. Genealogy

Hebrew belongs to the Semitic language family within the Afro-Asiatic stock (cf. Bynon 1984). For the time being, let  $R_1R_2R_3$  represent the three radicals supposedly inherent to the Semitic root; emphatic /t/ will be represented by a capital, emphatic /s/ by <c> and voiceless fricative-latéral <š> by /š/. According to the model based on shared innovations (Faber 1998, in Hetzron 1998) this family is divided into two major branches: (1) East Semitic (ES) includes Assyrian and Babylonian, both of which are known under the common term 'Akkadian', as well as Eblaite; (2) West Semitic (WS), divided into two main sub-branches: (a) Central Semitic, including on one hand Arabic and on the other the Northwest Semitic group, constituted of Ugaritic, Canaanite (including Hebrew), Aramaic and Deir-Alla; (b) South Semitic, whose western group includes Ethiopian and Old South Arabian, and whose eastern group includes contemporary Soqotri, Mehri, Harsusi and Jibbali.

Within the Canaanite group of Northwest Semitic, in the Central- Semitic sub-branch of the WS branch, Hebrew is akin to Moabite (known above all from the tombstone of King Mesha, from the

14th century B.C.E.); to Phoenician and its avatars, Punic and Neo-Punic; to Ammonite; and to the Canaanite of Tel El Amarna, considered as Proto-Hebrew. It is also close to Ugaritic, though this language does not entirely belong in the Canaanite group.

Among the characteristics which Hebrew shares with other West Semitic Languages, the most striking one is suffix-conjugation for the perfect aspect (from MH onwards it encodes the past tense. As a member of the central sub-branch of WS it displays some additional properties too, such as pharyngalization as a secondary articulation - a re-phonologization of Proto-Semitic (PS) post-glottalization (Cantineau 1952, Martinet 1953) which we find to this day in Ethiopian; the non-geminate prefix-conjugation for the imperfect aspect (from MH onwards future tense); the within-paradigm generalization of vowels in prefix conjugation and the generalization of /-t-/ in suffix conjugation verbs.

As a member of the Northwest Semitic division, Hebrew changes Proto-Semitic word-initial /#w-/ into /#j-/ and has a double marking of the plural on the segolata or nouns built on the R<sub>1</sub>eR<sub>2</sub>eR<sub>3</sub> pattern - first by vocalic quantity: the /ε/ of the second radical in the singular becomes /ā/ in the plural; then by suffixation - /-i:m#/ is added to the /R<sub>1</sub>R<sub>2</sub>āR<sub>2</sub>-/ nominal theme. A second peculiarity is the assimilation of /l/ to /q/ for the root /lqh/ in the imperfect aspect, and a third one is the metathesis of morphological /-t-/ and R<sub>1</sub> {R<sub>1</sub> = sibilant} at the hitpaʕfe:l forms, cf./\*hiṭsakke:l/ > /histakke:l/.

Finally, within Canaanite, Hebrew displays some shifts peculiar to this group: /ā/ > /o:/ in closed tonic syllables, /-tu/ > /-ti:/ for the first person singular perfect, /a/ > /i/ in the first syllable of the derived intensive (/kannis > kinne:s/) and factitive (/hiḱni:s/) stems (the so-called Law of Attrition), and finally the spread of the /-nu:/ form for the suffixed accusative and genitive pronominal 1st person plural.

All of these properties, fixed once and for all in BH, characterize the structure of Hebrew through all of its stages to this day.

## 5. Typology

In terms of classical morphological typology à la Humboldt and Sapir, Hebrew is an inflecting language. Moreover, morphology is probably its most resisting structural bearing an unequivocal Semitic stamp. In terms of syntax, Hebrew is an accusative language ; as for word order, BH has the verbal predicate in initial position, with the subject marker affixed to it, then a possible explicit nominal or deictic subject in second position and, finally, the other verbal complements. This order is preserved in MH and MdH, whereas in IH the order of the first two components is reversed: first comes the nominal or deictic subject, then the verbal or nominal predicate. Only if the clause is subordinate or if it begins with a circumstantial complement does the BH order prevail. In all cases, the object takes the third position. Nominal sentences begin with the nominal or deictic subject, then comes the nominal or deictic predicate. In BH, the copula as such is not obligatory in nominal sentences; if it does occur, it is only for purposes of focalization of the preceding element. IH, on the other hand, uses the copula as a device to separate the subject from the predicate in nominal sentences, with no pragmatic effect whatsoever. BH being a synthetic language, all finite verbs take a subject affix, but the bi- or tri-valent verb (Tesnière 1959) can take, in addition, a direct object suffix. Thus /rāʔi:-ṭi:/ ‘see, past-1sg.subj’ means ‘I saw’, and /r<sup>e</sup>ʔi:-ṭi:-hā/ see, past-1sg.subj.-3sg.f.obj. means ‘I saw her’. Hebrew conforms to Greenberg’s Universals; thus, the attribute (including adjectives, subordinate clauses and genitives) follows the noun and the preposition precedes it. In BH possession is also synthetically expressed, by a mark of the possessor suffixed to the possessum. IH, on the other hand, has no object markers on the verb in the colloquial register but does display them, to some extent, in a literary style or high register, and the possessive markers appended to the noun itself in BH are still appended, but to the particle /ʕel/ (see below § 14.2). Thus, Hebrew never becomes as analytic as French, let alone almost isolating as English.

Another typological difference which distinguishes IH from BH and MH relates to nominal composition and prefixation. BH exhibits practically no example of nominal composition - all nouns are construed by derivation and can be expanded by means of the construct-state. IH, on the other hand, has a number of compound nouns and a score of nominal prefixes, mostly quantitative and spatio-temporal (Kirtchuk 1997).

BH makes a clear-cut distinction between definite and indefinite nouns, correlating mostly with presence or absence of the definite article (of deictic origin) /#ha-/ prefixed to the noun. In MH, there is a drastic diminution in the use of this device, the distinction being neutralized in most contexts and expressed, when absolutely necessary, by other devices, mostly a deictic demonstrative or a possessive suffix. This attrition of determination results from Aramaic influence. Aramaic, due to the freezing of the definite article /-a#/ suffixed to the noun, lost the determination opposition altogether. IH, which in this regard follows BH syntax, exhibits at present a trend similar to the one attested in MH as far as determination is concerned, once again as a result of foreign influence - this time not Aramaic but English. Thus, IH has expressions like /z<sup>e</sup>kujjot ʔadam/ 'human rights', a construct-state where the indefiniteness of /ʔadam/ 'man' is a calque from English, whilst Hebrew syntax commands /z<sup>e</sup>kujjot haʔadam/ 'The rights of Man'.

A question arising from the rapid evolution of IH is whether it can still be considered a Semitic language from a typological viewpoint. The question is in itself ill-posed since 'Semitic', 'Indo-European' and the like are, by definition, genealogical terms, and therefore no specific typological interpretation should be attached to them. Still, since Semitic languages do have a common typological core in the realms of phonology, morphology, syntax and vocabulary, just as do other linguistic families, one can reformulate the question in appropriate typological terms and then try to answer it, provided the criteria are carefully selected and defined, and a broad variety of languages from the families under analysis are examined. Failing to do so properly may lead to the mistaken conclusion that IH belongs to a supposed Indo-European type, the Standard Average European (S.A.E.) imagined by Benjamin Lee Whorf. Goldenberg (1996) and Kapeliuk (1996) prove that IH continues to be a Semitic language not only on a genealogical basis but on typological grounds too.

## 6. Iconicity

Iconicity, namely a correlation between meaning and form which contradicts to a large extent both Saussure's *arbitraire du signe* and Chomsky's logicist views on language is exemplified by Hebrew at all levels and at all stages (Kirtchuk 2000).

To give but a few examples: (a) Classical Hebrew, like Semitic in general, uses gemination, a phonetic then morphophonological mechanism to achieve semantic aims. But not any aim: the gemination of R<sub>2</sub> in the verbal schemata known as 'heavy' conveys a 'gemination', i.e. an intensification, of the action in one of several possible ways: a more determined intention - /šābar/ 'he broke', /šibbe:r/ 'he broke into pieces'; a greater frequency - /qāpaç/ 'he jumped', /qippe:c/ 'he bounced'; a greater number of actants - /lāmad/ 'he learned', /lime:d/ 'he taught'; in the nominal domain it is used to convey a consuetudinary or professional activity, cf. /huT/ 'string', /hajjāT/ 'tailor'; /gan/ 'garden', /gannān/ 'gardener'; (b) Of the same nature is the fact that causativity, namely the total control of one actant upon another, which he induces to do the action, is expressed by morphology, i.e. by a total merger of both action and causation in the framework of a specific verbal scheme; (c) In IH, the oral register does not express possession by suffixes but by constructions with /sael/, with one exception: kinship nouns. Nouns like /ʔem/ 'mother', /ʔāb/ 'father', /ben/ 'son', /bat/ 'daughter', /ʔah(ot)/ 'brother/sister', /gis(a)/ 'brother/sister-in-law', /ham(ot)/ 'father/mother-in-law' are often used, including in the colloquial register, with suffixed possessive indices. Thus, the close relationship existing in reality among kith and kin is reflected in the grammatical closeness expressed by affixation (morphology) rather than by analytic constructs (syntax); (d) At the syntactic level, adjectives are placed after the noun, but not in an arbitrary

order: they obey a gradient of perception, objectivity, concreteness and inherence. The higher an adjective is on that scale, the closer it is to the noun it describes. Thus, there is a correlation between semantics and syntax, or between meaning and form; (e) As far as lexicon is concerned, concepts of crucial importance (culturally or otherwise) show a wealth of roots expressing categorial shifts, while for less central concepts, a change of category is obtained by grammatical means or is altogether unmarked. No doubt, contemporary evolution - social, technological and otherwise - has an influence on the meaning of many elements. Yet, the lexical and semantic basic structure of Hebrew is founded on that of BH, MH and MdHA, and it is iconic, as one can infer from the names of some animals: donkey is /hāmo:r, ʔāto:n, ʕajir/, camel is /gāmāl, nāʔqā, bεkεr/, goat is /tajiš, ʕe:z, gēdi:/, sheep is /ʔajil, kibʕā, Tāε/ depending on sex and age - the first term referring to the sex or the male adult, the second referring to the female adult and the third to the young one. Other roots exist as well to express additional distinctions - such as a female about to give birth. Such distinctions are linguistically relevant, to this very day, for species that were of great economic and cultural importance at ancient times, and the same distinctions do not exist for unimportant species: goose is /ʔawwāz/, with only morphological changes to express the feminine and diminutive. In other words, the relative value of grammar and lexicon in establishing functional semantic distinctions remains as it was at previous stages of the language.

### 7. To the roots of he Hebrew root

As shown by Greenberg (1950), the root in Hebrew (as in Semitic in general), cannot have two homorganic consonants in neighbouring positions. In other words, it is impossible for homorganic consonants to appear as both R<sub>1</sub>R<sub>2</sub> or as both R<sub>2</sub>R<sub>3</sub>. Syllables can start only with a consonant and are said to be either open, namely (C)CV, or closed, namely (C)CVC(C).

However, if indeed the synchronically canonical root is supposedly constituted of three phonemic consonants, a majority of roots show a basis of two consonants expanded by: (1) a phoneme of length, realized as /w/, /j/ or [a:/i:/u:], yielding w/jR<sub>2</sub>R<sub>3</sub>, R<sub>1</sub>R<sub>2</sub>j/w, R<sub>1</sub>j/wR<sub>3</sub>, or R<sub>1</sub>a:/i:/u:R<sub>2</sub>; (2) an initial nasal /#n/, yielding nR<sub>2</sub>R<sub>3</sub>; (3) and initial /š/ (the Akkadian equivalent of WS grammatical /š/), yielding š(R<sub>1</sub>)R<sub>2</sub>R<sub>3</sub> (4) a laryngeal/pharyngeal /h, ʕ, ʔ/ in variable position; (5) the germination of the second radical, yielding R<sub>1</sub>R<sub>2</sub>R<sub>2</sub>; (6) the germination of both the first and second radicals, yielding R<sub>1</sub>R<sub>2</sub>R<sub>1</sub>R<sub>2</sub>; (7) a consonant out of a whole series, in final position. Moreover, the relationship between roots of the types R<sub>1</sub>R<sub>2</sub>R<sub>1</sub>R<sub>2</sub>, R<sub>1</sub>R<sub>2</sub>R<sub>2</sub>, and R<sub>1</sub>R<sub>2</sub>R<sub>3</sub> {R<sub>1</sub>/2/3 = w/j/n} which exhibit similarity at the morphological and at the semantic level, cf. /n.z.l./ 'flow', /z.l.z.l./ 'despise', /ʔ.z.l./ 'go [diminishing]', /z.l.l./ 'eat without consideration for the food', /z.w.l./ 'cheapen', all of which convey the concept of motion of a fluid downwards conveyed by the /l/ sound, is iconic, indeed onomatopoeic.

A combination of such processes may yield what we have designated as 'root grapes', namely groups of roots with two common phonemes in the same order and an overall same meaning, cf. /k.l.l., j.k.l., n.k.l., k.l.j., 'k.l., k.j.l., k.l.k.l./ 'be capable, contain'; /p.r.ʔ., p.r.d., p.r.j., p.r.z., p.r.h., p.r.T., p.r.k., p.r.m., p.r.s., p.r.ʕ., p.r.p., p.r.r., p.r.q., p.r.ʕ., p.r.š./ 'separate', /l.ʕ.g., ʕ.l.g., l.h.g., l.g.l.g./ 'talk in a particular way or sense'.

Now onomatopoeia (henceforth OP) is the well-known cross-linguistic phenomenon by which a linguistic element is phonetically inspired on the sound of the reality it conveys. Thus, in English metal is said to *clank*: this word is phonetically inspired on the very sound conveyed by its meaning as it is (1) perceived by the speakers and (2) reproduced according to the constraints of English phonology (for a detailed explanation, see Tsur 2001).

Hebrew has several advantages as far as linguistic research is concerned, particularly when a topic as central as OP is at stake. On one hand, it has a long and well-documented history; on the other, it has been reactivated barely one century ago. The first situation is uncommon, the second unique: yet both display OP, proving that it is a deep, far-reaching and lively device of linguistic

expression. Were OP characteristic only of the early stage of particularly old languages, we would expect to see it in Biblical Hebrew (BH) but not in its contemporary counterpart; were it typical of child-language, we would expect it to have no significant influence on grammatical and lexical structures; were it to reflect only emotional, oral and spontaneous imitation of sounds found in trivial situations, we would expect it to be absent from grammar and from highly systematized, symbolic, context-independent communication in general. None of these expectations is fulfilled: just like intonation-prosody, deixis and iconicity, OP too is found in all languages, moreover in their very grammar, and in all their diachronic stages, synchronic uses and stylistic registers, including those of Hebrew. Darwin (1872) intuited that the origin of language (OL) is in pre-linguistic communication founded on prosodic and intonative devices based to a large extent on the imitation of natural sounds. So does our contemporary Maturana (1973 *sqq.*). Fonagy (2007) shows the importance of emotional factors in the way language functions at its present stage and Bolinger (1949 *sqq.*) shows the adequacy found in language, to some extent, between content and form, *i.e.* iconicity, whose best exponent is of course OP, which we can grasp through actual tongues such as Hebrew is a major device in our understanding of language and the way it functions, not only diachronically, phylogenetically or ontogenetically but also synchronically, in our very own mouth, ears and brain. *Pace* Weinstock 1983, we can no longer avoid accepting that this evidence would suffice to corroborate Lamarck (1801-1809) corrected by Darwin (1859).

Hebrew displays OP from its oldest layers to our day (Horowitz 1960). Far from being an amusing mechanism with rather limited presence and influence, OP permeates the Hebrew lexicon and grammar deeply, widely and consistently. In order to show it, a brief introduction to the theory of the root in Hebrew and beyond is necessary.

The 3-P (3 phoneme) structure of the Semitic root conceived by the Arab grammarians and applied to Hebrew by Yehuda Hayyuj (10<sup>th</sup> century CE) levels all roots into a single pattern, at the cost of intellectual operations which necessitate a high degree of abstraction, nay invention, since they posit a third consonant when only two or even a single one are actually present. An opposite view, according to which Hebrew roots are bi-phonemic to begin with has been suggested by Leibniz (1672-6), Gesenius (1871), König (1895), Halevy-Hurwitz (1913), Bergsträßer (1962), Diakonoff (1965), Ehret (1995) and Bohas (2007). Kirtchuk (2003, 2007, 2009) shows the relevance of this view within the framework of *LUIT*, henceforth *PL* (forthcoming) and enlarges its scope from diachrony to synchrony, from semantics to cognition and from Hebrew to Semitic. Indeed, a proper analysis of the alleged 3-P roots in Biblical Hebrew allows recasting them into 2-P groups whose number is reduced by a whole order, from 10<sup>3</sup> to 10<sup>2</sup>. Moreover, in this realm lexicon and phonology are linked: the phonemes most frequently used to expand 2-P roots, modulate their basic meaning and restrain their application to a particular context or field are the reduplication of the second phoneme, or of both, or the adjunction of a sonorant of the group /l, m, n, r/, or of vowel length represented in some forms of the paradigm by /w, j/ or of an expressive ('guttural') of the group /h, ʔ, ʕ, ħ/. As the bi-phonemic elements at the basis of the tri-phonemic expansions often reproduce a natural sound, they reflect OP. It follows that the original root-bases included a perceived vowel or a sonorant implied by the very process of imitation to which OP boils down to. It is from the syllable so formed that the bi-phonemic element was abstracted (Lipinski 1997). Which means that the structure of Semitic and Indo-European roots is identical, enhancing Greenberg's *Eurasiatic* (2005) and Dolgopolsky's (2008) *Nostratic* – two different terms for a fairly identical reality, *i.e.* the common ancestor of Afro-Asiatic, Indo-European and other language families, descended ultimately from a single stem (Greenberg's *Proto-sapiens*).

Here is a list of those bi-phonemic groups whose onomatopoeic basis, which probably contained a vowel or a sonorant, is easy to grasp - even if the Hebrew forms are not exactly those reconstructed for Proto-Semitic (Dolgopolsky 1999) Afro-Asiatic or an even more remote ancestor, *cf.* Greenberg (2005) and Dolgopolsky (2008) - with their respective expansions (see also McCrum 1997, Nänny & Fischer 1999). The list is based on a thorough analysis of BH roots. The general sense of the bi-

phonemic root is given in bold. For some of them, a possible overall sense is added *in fine*.

b/p-z/s/ḵ : sound made by a **swift movement** (cf. Eng. *buzz*)

bzz ‘spoil, plunder’ (cf. *baz* ‘falcon’), bzbz ‘waste’, bzy ‘despise’, bwz ‘despise’, nbz ‘despise’, pzz ‘be agile, excited; ḥpz ‘be in a hurry’, pḥz ‘be excited > reckless’, tḵ ‘[move swiftly and ] seize’

b-h: sound made by a **frightened** person or meant to cause that effect (cf. Eng. *boo*)

bhl ‘dismay’, bhy ‘chaos’, bhh ‘contemplate with dismay’

b/p-ḥ/ḥ/w/y: sound made by a **springing / boiling / inflating** fluid (cf. Eng. *boil, bubble*)

bwḥ / bḥḥ / bḥ bḥ ‘boil, bubble’, nbḥ ‘spring’, nbḥ ‘prophesize < utter a flow of words’, bḥr ‘sound made by burning matter’, bḥy ‘cause to swell or boil up’; pwḥ ‘inflate, blossom’, npḥ ‘inflate’, ypḥ, pḥy, pḥt ‘deflate’, tḥ: ‘blow, inflate, deflate’, ḷpy ‘[inflate by] cooking (dough and the like)’. The following is a variant with an occlusive (post-) velar:

p/b-g/q: sound made by an explosion or a violent movement outwards, including a fluid (liquid or gas) stirring up, flowing, blowing, gurgling or whirling intermittently

bky ‘cry’, bwk / bwq ‘(stir up water or spring >) be confused’; nbk ‘spring’, ‘bk ‘whirl’, ḷbq ‘dust’, pky ‘trickle’, hpk ‘overturn, make into a shambles’ (cf. BH *buqa* ‘waste following a cataclysm’, mah<sup>a</sup>peka ‘overturn’); baqbuq (Jer 19, 1; 10 ‘clay recipient, CH bottle’, bqq ‘flow’, Jer. 19 7 ‘flood, ruin’ (cf. BH river and sources names *ḷejn boqeq, jaboq*), pgl ‘reject’, pgḥ ‘hit (> get in contact with, cf. Eng. ‘hit the road’), pgm ‘hit, wound’, pgr ‘[hit > faint >] die’, pgḥ ‘[hit > get in contact with >] meet’, pwg ‘ [be hit >] go numb’, pgy ‘bloom of the fig’, pqpq ‘[go out of certainty >] doubt’, špq [go out of stock, antonym] suffice’, pwq ‘bring outwards’, ḷpq ‘flow outwards’, pqḥ ‘spring off (buds from plants)’, bqḥ ‘spring off (birds from eggs)’, pqḥ ‘open eyes / ears / mind’, pqd ‘[hit / set apart >], appoint, fall upon, issue’

p/b-c/T/ḥ/: sound made by a **burst / breaking** of a solid (cf. Eng. *burst*)

pcc ‘break’, pcpc ‘break into pieces’, pyc ‘scatter’, npc ‘shatter’, pcḥ ‘cause to break’, pcl ‘split, press’, pcr ‘press’, pcḥ ‘break, wound’, pcy ‘open’, pcm ‘split open’, bcḥ ‘cut’, bcr ‘cut apart, protect’, ypḥ ‘shine out’, nbT ‘sprout’, bTḥ ‘to open lips’

p/b-r/:l: sound made by **iterative or sudden separating, dismantling, scattering,**

prḥ ‘wild ass’, plḥ ‘separate from the ordinary’, prd ‘divide’, plg ‘split’, pry ‘burst in fruit’, ply ‘be separated’, prr ‘split, divide’, prḥ ‘bud, sprout, shoot / fly away’, plḥ ‘cleave’, prT ‘break off’, plḥ ‘escape’, prk ‘display violence’, plk ‘territorial subdivision’, prm ‘unsew’, prḥ ‘become loose’, prp ‘unbind’, prs ‘divide’, prc ‘break through’, plḥ ‘[break through and] invade’, plc ‘shudder’, prq ‘dismantle’, pll ‘separate right from wrong > judge or pray for [clement judgment]’, prs ‘expand’, pls ‘weigh out’, prpr ‘tremble’, ḥpr ‘leap, be agile’, ḥpl ‘disappear’, npl ‘fall’, brḥ ‘escape’, brq ‘lightning separating the sky’, brr ‘separate’, bdr ‘district (cf. plk above)’, pzz ‘scatter’, bzz ‘distribute’, prz ‘open’, brz ‘appear’  
burst, divide

d-š: sound made by **hitting an object** (cf. Eng. *dash*)

djḥ ‘thread’, dḥḥ ‘that which is marched upon > grass’, dḥn ‘[smear with] oil or greasy matter’, ḥdḥ ‘beaten to apathy’, cf. CH dḥdḥ ‘marching repeatedly or fast without advancing (e.g. on sand or mud)’,



t/T-q/h: sound made by **hitting a hard object** (cf. Eng. *tack*)

btq ‘cut’, ntq ‘separate by cutting’, łtq ‘[cut and] transfer’, rtq ‘seize’, štq ‘cut (stop) talking’, Tħy/Twħ ‘shoot’, Tħr ‘eject’, TħN ‘grind’, Tyħ ‘besmearing a wall’; cf. CH taħ [tax] ‘strong noise, especially of shooting’

T-p: sound made by a **dripping liquid** (cf. Eng. *tap*)

Tpp ‘drip’, TpTp ‘drip’, nTp ‘spill’, Twp ‘drip’, Tpp ‘march as if dripping’, Tnp ‘dirt’, šTp ‘overflow’, šcp ‘overflow furiously’  
‘drip, flow intermittently’

g/k/q-z/c/š: sound made by **tearing or stripping apart**

gzz ‘shear’, gwz ‘vanish’, gzy ‘cut stone’, gzl ‘steal’, gzm ‘cut’, gzr ‘cut’, qcc ‘cut off’, qzz ‘cut off’, qss ‘strip off’, kss ‘divide up > compute’, qsm ‘distribute’, qcy ‘cut off’, yqc ‘awake’, qwc ‘thorn’, qcb ‘cut off, shear’, qcp ‘splinter’, qcƒ ‘cut off’, qcr ‘shorten’, qšš ‘cut and gather stubble’, qšy ‘be hard’ (cf. miqša ‘hammered work’), nqš ‘beat’, qšħ ‘be rough’

g/k/q-l/r sound made by **rolling or flowing**, a ‘round’ sound (cf. in many languages *gloogloo*, and the like for the same purpose; cf. also the terms for /l/: a *liquid*, and for r, in French: *roulé*, cf. Eng. ‘a rolling stone’ someone who moves to and fro, ‘surround’ move around so as if to contain)

gll/glgl ‘roll’, gly ‘move / wave /dis-cover’, grr ‘drag away’, grm ‘erode’, grp ‘take away’, gwr ‘sojourn for a while (then moving away)’, grš ‘expel’, grƒ ‘diminish’, grs ‘grind’, gry ‘small coin’, grgr ‘grain’, krt ‘amputate’, grn ‘threshing ground’, ngr ‘flow’, ?gr ‘gather < converge’, ?gl ‘dripping dew’, rgl ‘go around’, ?gn ‘bowl, bassin’, kll ‘surround, contain’, klkl ‘provide’, ykl ‘contain, be able’, ?kl ‘[surround, contain by] eating’, kl? ‘[surround, contain against somebody’s will] imprison’, kly ‘[surround, contain by] a recipient > tool’, fkl > [surround, contain by] digestion’, klħ ‘[surround, contain by] exerting power’, kwl ‘contain’, nkl ‘[surround, contain by] cunning’, klb ‘[surround, contain by] encaging’, klm [surround, contain by] iniquity’, krr ‘semi-spheric hollow recipient > measure of fluids’, kwr ‘semi-spheric, hollow furnace’, kry ‘make hollow, spheric, dig a hole’, nkr ‘take a deep and comprehensive look > know, recognize’, krf ‘deeply bow’, krs ‘[round] belly’, qll ‘be slight, swift, trifling’  
cyclic / circular / spheric movement / position / volume

g/q-š/h sound made by **touching**

ngƒ ‘touch’, šgƒ ‘mentally touch, attain’, gwƒ ‘be mortally touched, agonize’, gƒl ‘put away’, g?l ‘contaminate [and put away]’, gƒr ‘recriminate’, ngħ ‘touch with horns’, għn ‘touch with the belly’, lqħ ‘[touch and] take away’

q-b: sound made by **hitting something in order to make a hole in it, tapping**

qbb ‘vaulted tent, utter curse against’; nqb ‘pierce, hit, curse’, qby ‘stomach’, yqb ‘hollow, cavity’, qbl ‘opposite > attack > take > get > receive (for the semantic process, see eng. ‘get’), qbr ‘[dig a] grave’, qbƒ [hollow] cup’, rqb ‘[get hollow by] rotting’. CH: [kavkav, kafkaf] ‘type of sandals which taps the ground’

k/q/h-t/T sound made by **cutting or percuting** (cf. Eng. *cut*)

ktt percute', ktš 'bray', ktl 'cut into blocks > wall', ktb 'lisrot > write', ktr 'cut around > crown', ktp 'shoulder', lqT 'pick', qwT 'break', qTb 'destroy', qTl 'kill', qTm 'amputate', qTn 'belittle', qTf 'cut', qTp 'pluck off', htt 'break', htht '[break through] obstacle in path', ht<sub>k</sub> 'cut', htl 'wrap', htm 'cut short > seal'

q-r: sound made by **shivering**

qrr cold, qrh 'ice', qwr 'bore, dig', qry 'befall', qr? 'befall', dqr 'pierce', nqr 'bore, dig', qrn 'horn', yqr 'hard > dear', qrf 'tear', qrb 'battle', qrs 'hook', qrc 'sting'  
exert pressure on one point in space or time.

z-q: sound made by **sparking out of fire**

zwq 'spark', zqq 'purify by fire' (cf. Aram. ziq-a 'whirlwind'), nzq 'harm', zqp 'raise up, zqr 'vertical', znq 'raise up by a leap'; zkk 'pure, clear', zky 'pure', zkr 'clear, memory, male (cf. zqr 'vertical')

z/c -l: sound made by **flowing or leaking**

movement of liquids (l: liquid sound): zll 'cheap', zlzl 'despise', zwl 'lavish', nzl 'flow', zlg 'glide, slip', ?zl 'slip, go away', cll 'dive', clcl 'harpoon', zlp, dlp 'drip', zrb 'flow away', zr<sub>h</sub> 'shine', zry 'scatter', zrm 'flood away', zrf 'scatter, sow', zrq 'throw', zrr 'sneer', zwr 'be an outsider', nzz 'move away', ndr 'make a vow', zhl 'crawl', mzl 'stellar movement > constellation', m(m)zr 'born to a married woman from a man other than her husband, i.e. from a di-version', b/p-z/d-r 'scatter'  
flowing

c/š/ǧ -f: sound made by **whistling or hissing**

cpr 'peep > bird > cover or call by noise > fly over'), c<sub>pp</sub> / c<sub>pcp</sub> 'chirp, peep', cpy 'lay out/over', c<sub>pf</sub> 'offspring; snake's hiss', cwp 'float over', rcp 'pave over', c<sub>ph</sub> 'be wide over', cpn 'cover, put veil over', cpd 'draw together, contact over.' (cf. CH [tsif-tsip] 'birdsong'), špp 'horned snake', šwp 'bruise', špy 'sweep bare', nšp 'blow', nšb 'blow', špl 'be abased to the ground like a snake', špf 'abundance', špr Aram. 'unveil' > capra 'break of dawn', ǧpy 'lip'  
blowing horn, beauty, good health, good disposition (cf. in many cultures, whistling as an expression of admiration towards beauty)

š-s: šsy 'plunder', šsf 'divide, cleave', šsp 'hew (probably from šsf + syp 'sword')

šf/? – sound of a **waterfall or other powerful and dangerous natural phenomena**

šwf 'cry for help', šfy 'cry for / pay attention', yšf 'help, deliver', šfn 'lean, turn towards', šff 'be blinded', ššf 'pay strong attention (cf. 'yeled šaf<sup>a</sup>šufim 'a spoiled child'); š?g 'lion's roar', š?y 'water's roar', šw? 'storm's roar', y?š '[roar with] despair'

m-T / t: sound of **demolition or destruction**

m<sub>wT</sub> 'totter, shake, slip', m<sub>Tr</sub> 'totter of rain'(m<sub>Tl</sub> 'wrought metal rod'), m<sub>TT</sub> 'demolish', m<sub>wT</sub> 'die'

m-š: sound associated with **caressing, fondling** (for palatality as an affective feature, Fonagy 1983)

mšš, mšmš, ymš, mwš 'touch with care, feel with one's fingers', mšh 'smear, anoint'

m-l/r: sound made by **parting one's lips**

mwl 'cut', mll 'articulate, utter', mlml 'utter', mlq 'nip off', mhl 'adulterate wine' (cf. Fr. 'couper le vin'), mrh 'rub', mrq 'scour, polish', mrT 'scour, polish', mwr 'move to and fro > change', mrr 'passe by > drop', ʔmr 'say', ymr 'pretend', mry 'be contentious, refractory, rebel'  
cut [apart] > separate lips > utter

m-h/g/k/q: sound made by **striking** (cf. IE \*még- 'hit > fight > power, able > big > man')

mhy 'strike', mhʔ 'strike', mhq 'erase', mhC 'smite', mhT 'squeeze', mwg 'vanish, be frightened, weak', mwk 'become poor, weak', mkk 'weaken', mwq 'mock', mqq 'rot', ʃmq 'low, deep'

l-ʃ/q: sound made by **chewing and swallowing**

ʃʃ 'swallow', lwʃ 'speak', blʃ 'swallow', ʃʃT 'swallow greedily', ʃʃs 'chew', ʃʃz 'talk unintelligibly', ʃʃ-tʃʃ 'jaw', ʃʃb 'jest', ʃʃg 'speak strangely', ʃʃg 'mock', ʃʃg 'mock', ʃʃg 'speak much',

l-q: sound made by the tongue and lips when **licking or lapping**

lqq 'lap, lick, glean with one's tongue', CH lklk 'id.', lqT 'pick, glean',

n-q sound made by the throat when **groaning, sighing, sucking** and the like

ʔnq 'groan', nʔq 'id.', ʔnh 'sigh', ynq 'suck', qyn 'mourn aloud', qnn 'id.'

ʃ-k: sound made by **dragging and heaping branches**

ʃkk 'thorn, knife, hedge, cut branches > cover with branches (cf. ʃukka), interweave, protect', ʃkʃk 'be intermingled', ʃwk 'branch, hedge, fence up', ʃkr 'shelter economically by a reward', ʃkl 'interweave one's legs > sit crosswise'

r-T: sound made by **shivering, trembling**, possibly with metathesis

rTT 'tremble with fear', rTʃ 'dash into pieces', lTš 'sharpen'

r-q/g/k: sound of feet **tapping on the ground**

rqd 'dance, rq' 'stamp, beat', rqh 'beat and mix', hrg 'kill', rqn 'variegate', rgz 'agitate', rgl 'go about', rgm 'lapidate', rgn 'backbite', rgʃ 'disturb', rgš 'be in tumult', rkk 'make tender by beating' (cf. CH *rikuk basar* 'softening meat by beating it'), rwq 'emptying, making void', rqq 'making thin'

r-c: sound of **breaking stone or other hard matter**

rcc 'crush', rwc 'smitten', rcʃ 'pierce', rch 'murder', rcd 'move violently'

r-ʃ: sound associated with **threat or danger** (cf. Fonagy 2007 about the aggressivity conveyed by the drill articulation of 'r')

rʃʃ / rwʃ 'evil', rʃb 'hunger', rʃl 'poison', rʃm 'thunder', rʃc 'shatter', rʃš 'quake, noise'

r/l/n-h sound made by **humming or smelling**

ryh 'odour', rhrh 'smell', lyh 'humidity', lhlh 'moisten', srh 'smell bad', nhh 'fragrance', rwh 'wind'

ʕ-k/q sound made when **charging a heavy object**

ʕks ‘rattle, tinkle’, ʕkr ‘disturbing, noise’, ʕwq ‘totter’, ʕqy ‘press’, yʕq ‘distress’, ʕgm ‘be grieved’, ʕgn ‘strain’, ʕqb ‘heel, footprint’, ʕqd ‘tie fast’, ʕql ‘bend, twist’, ʕqm ‘curve’, ʕqr ‘hamstring’, ʕqš ‘twist’

ħ/ʕ-m: sound made in **reaction or desire of sensual** (gustative, tactile...) **pleasure** (cf. Eng. *mmm*, Fr. *miam*)

ħmm ‘warmth’, yħm ‘sexual heat’, ħmm ‘protect’, ħmd ‘desire’, ħwm ‘auburn’, ħmr ‘red’, ħml ‘pity, human warmth’, rħm ‘mercy, womb’, ħms ‘treat violently’, ħmc / ħmc be red’, ħmt ‘recipient for [red =] wine’, nfm ‘arouse by words, be agreeable’, nħm ‘deliver a speech’, nħm ‘soothe by words, console’, hamula ‘noise of words or otherwise’

ħ/ʕ-l: ħ-l/r: sound made by **flowing liquid**

ħly ‘illness, dismay, fear’, ħlh ‘illness’, ħyl ‘weakness’, ħll ‘void’, ħlh ‘water penetrating earth / being afraid’, nħl ‘river’, ħwl ‘void of sanctity’, yħl ‘begin’, ħlk ‘deprive, eat completely’, ħlm ‘dream, vision in a state of unconsciousness’, ħlp ‘pierce, pass’, ħlc ‘extract’, ħlq ‘smooth’, ħlš ‘feeble, deprived of strength’, yll ‘complain in dismay, meow’, ħly ‘feel or transmit pain’, ħlyl ‘cry in pain’

ħ-r: sound of **piercing or engraving** by metal or fire (cf. Eng. *en-gr-ave*)

ħrt, ħrT ‘engrave’, ħrš ‘plow / forge’, ħrs ‘scratch’, ħrc ‘trench’, ħrk ‘shades’, ħrr ‘make a hole’, ħrb attack, ħrg ‘rage’, ħrd ‘fear’, ħry ‘burn’, ħrk ‘set in motion’, ħrl ‘dry’, ħrm ‘exterminate, forbid’, ħrs ‘sun’ ħrc ‘gold’, ħrp ‘blush’, ħrq ‘gnash’

h-s / š -q: sound made as to **imitate or induce silence** (cf. Eng. *hush*)

hsy ‘quieten’, (h)šqT / štq ‘be quiet’

q-r sound made by a rooster **crowing**, qrqr ‘hen’s cluck’

t-ʕ: sound made by a **blowing** horn

trʕ, tqʕ ‘blow a horn’

ħ-c: sound made by **cutting through** with an obtuse object

ħcc ‘cut through’, ħcy ‘cut through’, ħwc ‘outside’, ħcb ‘dig out’, ħcr ‘clear up’, l/nħc ‘exert pressure, urge’, šħc ‘vanity’

h-q sound made by a **sudden or repeated inspiration of air**

ghq ‘chug’, šhq ‘gasp’, phq ‘yawn’

ħ/ʕ-š sound made by **swift movement**

ħšš ‘hasten’, ħwš ‘haste’, ‘wš ‘lend help’

Punctual examples in BH are:

ħoy, ħ<sup>a</sup>boy ‘lament’ (Is. 24, 16, cf. Lat. *vae*), daharot daharot ‘galloping’ (Jud. 5:22)

CH being essentially a projection of older stages of the language (vocabulary and morphology inspired on BH, syntax inspired on MH), it displays OP in the roots inherited from BH, but it has also created its own OP elements in the typical domains of animal expression, movement and natural phenomena. They are often metaphorized to denote the expression of human emotions (cf. also Darwin 1872). Here are the most notorious examples of CH verbal roots inspired on OP (I thank Nicolas Tournadre, who supplied some of these examples).

zmzm 'buzz', ptpt 'chat', ršř 'bruise like paper or banknotes', špšp 'rub', drdr 'let stones roll downhill', hmy 'coo', mlml 'murmur', nšnš 'pick small quantities of fruit, grains or the like at random from larger heaps or servings', slsl 'make sonore or visual circumvolutions', flq, šos, zbenq 'hit somebody in different manners, provoking different (and characteristic) sounds (< Yidd), dšdš 'walk upon mud or the like', bq bq 'bottle', ndnd 'swing', cfcf 'tweet > despise', cyc 'chirp > utter', lkk 'lick > adulterate', lklk 'lick', kħkħ 'rackle one's throat', hnhn 'hum in acceptance', zpzp 'zap', dpdp 'leaf, flip', šqšq 'shiver, tremble, totter > fear', hmhm 'ronronner', škšk 'bath one's feet in a river, lake or the like', clcl 'ring', gfy 'moo > cry aloud' gfgf 'quack', krkr 'croak', pfy 'bleat', chl 'whinny, neigh > rejoice aloud', yll 'meow > complain', řTš 'sneeze', kwħ, kfkf, grgr, řnpp 'speak through one's nose, emit nasalized sounds', gmgm 'stutter', řrq 'whistle', hmhm 'murmur in one's beard', mcmc 'blink', pmpm 'pump', gnħ 'groan', nħr 'snore', gwr, dhr 'gallop', nbħ 'bark', cwc 'chirp', hccr 'blow a trumpet', tss 'ferment', qss 'bite one's nails', srT 'scrap'

Roots with more than three radicals which deviate from all these patterns are of foreign origin. The total number of 3-phonemic roots is of about three thousand, but they can be reduced by a whole factor to some 250 *grapes* of bi-phonemic groups.

As it can be seen, verbs created on onomatopoeic roots are often built on the patterns C<sub>1</sub>C<sub>2</sub>C<sub>1</sub>C<sub>2</sub> or C<sub>1</sub>C<sub>2</sub>C<sub>2</sub>. Much like in BH, in Semitic, or – as far as those patterns represent reduplication - in language in general. Indeed, reduplication and OP are often associated, although the scope of reduplication is much wider on iconic grounds: it may reflect repetition at the semantic or pragmatic level, and not only at the phonological level (for a comprehensive bibliography, see Magnus 1997-2006). It may even be one link between raw and proto-grammaticalized communication '*Reduplication of the syllable in the [Hebrew] word "řtsaftseř" relates it to the transition from the child's babbling stage to the [...] use of verbal signs*' (Tsur 2001); '*By the repetition of the same syllable children signal that their phonation is not babbling but a verbal message*' (Jakobson & Waugh, 1979: 196, cf. also Waugh 1993).

## 8. Influences exerted upon Hebrew

The main languages which exerted an influence on Hebrew, either on its grammar or its lexicon at successive diachronic stages, are: Akkadian (on CBH), Aramaic, Persian and Greek (on LBH and MH), Arabic (on MdH and IH), Russian, Yiddish, English and to a lesser extent German and French (on IH).

CBH borrowed many building terms from Akkadian. The ancient Hebrews being nomads, they were not familiar with types, tools and techniques of architecture, and so terms such as /qi:r/ 'wall', /řanāk/, /peles/ 'level', /delet/ 'door', and others from the same semantic field are of Akkadian origin. Indeed, many of them do not have verbal derivatives, showing that they are of foreign origin. Akkadian influence is practically restrained to this semantic field and to a very ancient layer of the language, but due to the ever growing importance of lasting, hard-material construction as compared to tents and other elements of nomad life, these borrowed elements are central to the Hebrew vocabulary ever since, including IH.

Aramaic influence on CBH is restrained to a few borrowings including /j<sup>c</sup>gar řah<sup>a</sup>du:tā?/ (Gn 31,

47), lit. ‘monument of testimony’. It becomes, however, of great importance on LBH and even more so on MH, at all levels: phonological, morphological, syntactic and lexical. Thus, stress accent, oxyton in CBH, becomes paroxyton in LBH and MH; the final nasal /-m#/ becomes /-n#/ and the merger of /b/ with /s/ is completed. These changes affect morphology too since the plural masculine suffix /-i:m#/ becomes /-i:n#/. Some verbal schemata proper to Aramaic emerge in MH such as *nitpaʕʕal*. As for syntax, LBH and definitely so MH lose the so-called ‘waw conversivum’ which in CBH gives the aspectual forms of perfect and imperfect - *pāʕal* and *yipʕal* respectively - a temporal deictic value, so that /#wa- + *pāʕal*/ = future, /#wa- + *jipʕal*/ = past, the participle being a nominal form unmarked for tense. CBH is the only Semitic language to display such a combined aspecto-temporal system. Indeed, the term ‘conversivum’ hardly suits this waw since it does not convert anything; should we have to choose a more appropriate term, it would be *waw temporis* or *waw ostensivum*, since it gives the sign-value (positive or negative, i.e. prospective or retrospective, future or past) of the state’s or action’s time relatively to that of the utterance. In LBH and MH, much on account of Aramaic (and Greek) influence, the system is no longer a twofold aspectual one with a tense-marking device, but a threefold temporal verbal system altogether: the erstwhile perfect *pāʕal* marks the past tense, the erstwhile imperfect *jipʕal* the future tense, and the participle *po:ʕe:l* the present tense. At the same time the verbal construction *hājā+* participle emerges to encode for the durative/iterative aspect. Three major syntactic influences of Aramaic on the nominal system are exerted on agreement, determination and genitive constructions: (1) the agreement scheme of nouns may change to match the one of their Aramaic equivalents, e. g. /ʕāde/ ‘field’, which entails a feminine agreement under the influence of Aramaic /*haqal*/ ‘id.’, (2) the opposition determined - non-determined is no longer expressed by the presence or absence of the definite article /*ha-*/, which is scarcely used at all, but by means of syntactic devices, and (3) the synthetic construct-state, so prolific in BH, is replaced by a construction with /*sàel*/ ‘of’ which can be amplified by a suffixed index on the possessum which agrees with the possessor if the latter is determined. Thus, CBH /*ribbo:n hāʕolām*/ is in MH /*ribbo:no: ʕel ʕo:lām*/. At the lexical level, MH borrows from Aramaic many terms and phrases in the legal field, such as /*ge:T*/ ‘divorce’, /*niksej d°loʔ nājdej*/ ‘real estate’ and the like. It is upon Aramaic that Hebrew bestows the part played by Latin in the juridic jargon of the European languages. It is in this respect alone - and by no means at the genealogical level - that one might say that ‘Aramaic is Hebrew’s Latin’.

The Greek influence exerted at the same epoch - roughly the hellenistic period - on Hebrew is mainly a lexical one: terms such as /*ʕizme:l*/ ‘chisel’ (< *σμίλη*), /*ʕarnak*/ ‘purse’ (< *αρνακειον*), /*pinkàs*/ ‘notebook’ (< *πιναξ*), &c. are cultural terms of Greek origin which penetrated the language along with the concepts they convey.

From Latin come, among others, /*sapsâl*/ ‘bench’ (< *subsellium*) and /*lablâr*/ ‘scribe’ (< *libellarius*). From Persian, LBH borrowed among others /*pardes*/ ‘orchard’, /*pitgâm*/ ‘dictum’ and also /*gizbâr*/ ‘treasurer’, /*ginzâk*/ ‘archive’ and other bureaucratic terms which serve the Israeli administrative apparatus to this very day.

IH exhibits some Arabic influence at the morphological level, e.g. a suffix such as /-ijja/ in /*ʕirijjâ*/ ‘city hall’, /*mitrijjâ*/ ‘umbrella’, etc. As far as vocabulary is concerned slang words relating to sexuality, secretions, morally dubious professions and curses in IH are also primarily of Arabic or of Yiddish origin (Masson 1987). Recently, some words of that register have been borrowed from English, due to the influence of the media, and from Russian, mediated by immigrants from Russian-speaking countries.

Yiddish, the Jewish creole which evolved in the Valley of the Rhine in the 10th-12th centuries on a Germanic grammatical basis and a high ratio of Hebrew and Aramaic lexical elements (later it integrated Slavic elements as well), influenced Hebrew in several ways. The most striking one

consists perhaps of the Hebrew words which Yiddish itself had integrated then adapted to its own phonology (which varies according to the dialect), pronouncing them in the peculiar Yiddish manner (which to some extent preserves classical Hebrew characteristics). Those words, or rather the Yiddish forms of those erstwhile Hebrew words, were reintegrated by IH so as to create doublets both at the semantic and at the phonological levels with the IH normative form. Thus, the oxyton form /maʕ<sup>a</sup>sé/ in Hebrew means ‘story’, whilst the Yiddish paroxyton /májse/ means a long, complicated and often invented tale meant to serve as a pretext for something.

Russian has contributed some atone suffixes, of which three are most productive: (1) [-čik] which serves both for diminutives - cf. [baxur] ‘lad’, [baxurčik] ‘young lad’ - and for *nomina agentis*, cf. [tikun] ‘repair’, [tikunčik] ‘odd job man’; (2) [-nik] which denotes belonging to a group, a profession, etc., cf. [kibbutznik] ‘member of a kibbutz’, [garažnik] ‘owner of a garage’, and (3) [-tsia], the Russian equivalent of Latin [-tio(n)], cf. [inflatsia] ‘inflation’, [koalitsia] ‘coalition’, etc. (Masson 1987). From Russian also are certain curses. German and French contributed some terms but play no significant role in terms of grammatical influence.

American influence is deep in Israel, and loan-words from American English are not restricted to the domain of high technology in which they are especially numerous. A syntactic construction inspired on that language, with an ante-posed genitive, is often found in commercial advertising, cf. [dani hovalot], lit. ‘Danny Transports’ where Hebrew syntax requires [hovalot dani] ‘id’. American isolated words or phrases invade IH conversation mainly among people desirous of showing off their education (which often goes only to a certain point) or their supposed belonging to what they perceive as Western culture. This *Weltanschauung* characteristic of the Israeli secular middle-class is not necessarily shared by highly educated people, by observant Jews or by the popular class.

## 9. BH

BH is not homogenous, which is hardly surprising given the fact of its evolution over a millennium. Diachronically we may speak of Classical Biblical Hebrew (CBH), to which belongs notably the Pentateuch and of Late Biblical Hebrew (LBH) which includes, among others things, the Song of Songs and the Ecclesiastes, several Psalms and the frame-story of the book of Job. Stylistically, in addition to the legal prose which predominates in the Pentateuch, and the historic one found among others in the Books of Joshua, Judges, and Kings, there is a poetic style characterized in Debora’s Ode (Judges 5), a rare piece of Old Classical Hebrew, as well as of most of the Psalms and of most of the Book of Job. Linguistically speaking, this poetic style is marked as such by archaisms and rarities both at the lexical and at the grammatical levels. This style shows up in the Song of Songs, probably the greatest Hebrew erotic poem of all time, which belongs here too. In comparison with other Biblical texts, the Song of Songs is quite late from a linguistic point of view, since it bears the stamp of the most evolved LBH in its syntax and morphology, closer to those of the Hebrew spoken by Rabbi Yehuda Hanassi, compiler of the Mishna in the beginning of the 3rd century C.E., than to the language of King Solomon, its alleged author, who reigned twelve centuries earlier.

### 9.1. BH Phonology

Already CBH attests to the loss of several Proto-Semitic consonant phonemes: the PS interdental T (BH > S), D (BH > S), T (BH > T), the voiced fricative lateral ʕ (BH > S), the velar ħ (BH > h), and the uvular γ (H > ʕ). On the other hand, Hebrew preserves the unvoiced fricative lateral /ʃ/ (traditionally noted as /s/, cf. Steiner 1977) until relatively late (it begins to merge with /s/ in LBH, but the process is completed in MH). This is a fact worth mentioning since a conservative language like Arabic has lost it even though it has preserved all the other PS consonants including its voiced counterpart do. BH also develops a series of fricative allophones for the non-emphatic stops /b, p, d, t, g, k/. They are realized as plosives in syllable initial position (including word-initial position) after a schwa quiescent that closes the previous syllable, but as fricatives in all other conditions,

including after a schwa mobile following the first homo-syllabic consonant.

Gemination is a morphophonemic device which can affect all consonants except laryngeals and pharyngeals - /h,ħ,ʕ,ʔ/, the very same that are vacillating in IH - as well as the trill /r/. When applied to R<sub>2</sub>, gemination implements the intensive forms of the verb - active R<sub>1</sub>iR<sub>2</sub>R<sub>2</sub>eR<sub>3</sub>, passive R<sub>1</sub>uR<sub>2</sub>R<sub>2</sub>aR<sub>3</sub> and reflexive hit R<sub>1</sub>aR<sub>2</sub>R<sub>2</sub>eR<sub>3</sub> – as well as the strong (= non-affixed) *nomen agentis* R<sub>1</sub>aR<sub>2</sub>R<sub>2</sub>âR<sub>3</sub>.

PS /i:/ and /u:/ are retained, but stressed /â/ shifts to /o:/ in most contexts: this is the so-called Canaanite shift. PS short vowels also developed allophones (in certain cases phonemes altogether) as did the upgliding diphthongs: [â] and [a] from /a/; [o:], [o] and [â] from /u/; [e:], [e] and [ej] from /i/; [o:] from /aw/; [e:] and [a] from /aj/. The resulting system presents a notable departure from that of PS, as it is characterized by distinctions of quality rather than quantity. Thus, CBH has seven phonemic vocalic qualities, where a more conservative system, such as classical Arabic, has only three along with a phoneme of length, which yields six phonemic vowels. A central ultra-short vowel in CBH is the schwa, which can be either ‘quiescent’ (heb. nâḥ) or ‘mobile’ (heb. nâḥ). In the first case it is a non-vowel, and in the second the allophone of a full vowel in an atonic syllable. In the first case it is realized as zero and in the second as an ultra-short vowel, depending on morphosyntactic conditions. [i:] and [u:] are in complementary distribution with /j/ and /w/ according to a morpho-phonemic conditioning.

Syllables can be either stressed or unstressed. CBH stress accent falls on the synchronically last syllable for the patterns which lost their diachronically last one. This does not apply to some morphological categories which bear the stress accent on the penultima, such as segolate nouns ([R<sub>1</sub>eR<sub>2</sub>eR<sub>3</sub>, R<sub>1</sub>oR<sub>2</sub>eR<sub>3</sub>, R<sub>1</sub>oR<sub>2</sub>aR<sub>3</sub>, R<sub>1</sub>aR<sub>2</sub>aR<sub>3</sub>]), in which the last syllable results from a secondary development dissolving the final consonant cluster. The same goes for nouns with a suffixed directional /-â/ and most of the verbal forms in the perfect aspect. Stress accent cannot shift beyond the penultima. This state of affairs was caused by the attrition of final segments such as case marks. A contrast between long and short vowels exists between stressed closed or unstressed open syllables, on one hand, and stressed open syllables, on the other. The vowel of the former is long, and that of the latter short (except in some morpho-phonological categories such as the final syllable marker in the feminine singular which, though stressed and open, bears a long vowel /-â#/). It may seem difficult to speak about intonation in BH. There are some indices, however, which prove that distinct contours existed for assertion, interrogation and exclamation. Those indices are words which function in those three contexts, conveying three different meanings. For instance, mâ can function as assertive-negative, interrogative and exclamative: only intonation can distinguish these three clear-cut uses. It is clear therefore that intonation contours existed at least for those three modalities, and quite probably those contours obeyed universal (though not exclusive) patterns (cf. Hirst & DiCristo 1998).

## 9.2. BH Morphology

As in all Semitic languages, the core morphology consists of an inventory of lexical morphemes or roots and of grammatical morphemes or patterns, traditionally called schemata, whereby roots are actualized into word forms. Each root has an overall sense with a concrete meaning and often also an abstract, metaphoric one, sometimes resulting in polysemy. As long as the root is not interwoven into a schema it has no existence in discourse.

The schemata constitute frames that include vocalic and often consonantal components with which the roots are interwoven. Most schemata have a grammatical morphemic role, and that is the case mainly in the verbal system, in which they allow to distinguish diathesis and aspect. Thus, in the basic form of the verb, BH has R<sub>1</sub>âR<sub>2</sub>aR<sub>3</sub> and R<sub>1</sub>u:R<sub>2</sub>aR<sub>3</sub> (respectively 3p.m.sg.pf active and passive), in the intensive form R<sub>1</sub>iR<sub>2</sub>R<sub>2</sub>e:R<sub>3</sub> and R<sub>1</sub>uR<sub>2</sub>R<sub>2</sub>aR<sub>3</sub>, and in the factitive/causative form of the verb it has hiR<sub>1</sub>R<sub>2</sub>iR<sub>3</sub> and hoR<sub>1</sub>R<sub>2</sub>aR<sub>3</sub>. The expression of diathesis by vocalic change is a constant feature of Hebrew morphology through the ages, the only caveat being relevant to CBH:



the niR<sub>1</sub>R<sub>2</sub>aR<sub>3</sub> pattern serves as a substitute for R<sub>1</sub>u:R<sub>2</sub>aR<sub>3</sub> as the passive of the basic or Qal form. The total number of available schemata - verbal, nominal, and in a much smaller measure, of other categories, is of around a hundred.

Demonstrative deictics are composed of the elements /ʔ,h,l,z/ or combinations thereof. Autonomous personal dialogic deictics are founded on the theme /ʔan-/. The non-person, to use Benveniste's (1966) term, is expressed, like in other languages, by the application of a demonstrative deictic to animates (the result is traditionally called 'third person pronoun'). As in other languages (Kirtchuk 1993), even in Hebrew, a non-compounding language, deictics are capable of composition; thus CBH has /ha(l)-lâ-ze/ and /ha(l)-le-zu/ (sic), two emphatic sg.m./f. demonstratives composed of three distinct deictic elements. Other elements not founded upon tri-phonemic roots are indefinites-interrogatives, some conjunctions and some prepositions. Many prepositions are of nominal origin.

CBH is a synthetic language with a large number of inflectional processes comprising morphological marking of the major grammatical categories on both the noun and the verb. The noun inflects for gender and number, and there is a semi-productive inflection for the directive case. The verb inflects for person (including gender and number) and for aspect. The marked gender for both verb and noun is the feminine, as in all languages which exhibit a sex-based gender distinction. The number distinction in the noun is threefold: singular, plural and dual. The only adjectival scheme morphologically marked as such is the one denoting affiliation to a group, derived by suffixation of /-ij/ to proper names of peoples, places and the like. Many concepts usually encoded by adjectives in Indo-European languages are expressed in CBH by stative verbs marked as such by their specific morphology.

BH has a limited number of adverbs formed by a noun and an erstwhile accusative, which we shall more appropriately call an ad-verbal stressed case suffix /-âm#/: /jomâm/ 'at daytime' (< /jo:m/ 'day'), /dumâm/ 'silently' (< /do:m/ 'silence'), /hinnâm/ 'gratis' (< /hen(n)/ 'grace'), /rejqâm/ 'vacuously' (< /rejq/ 'empty'), /ʔâmnâm/ 'indeed' (< /ʔâme:n/ 'truth'), /pitʔo:m/ 'suddenly' (< /peʔaf/ 'sudden'). /šilšo:m/ 'the day before yesterday' does not seem to belong here. In any case, this is a close list whose members function in IH too. The mechanism, however, is obsolete including in BH itself. On the other hand, a mechanism which is productive throughout the history of Hebrew to this day, consists of the so-called he locale which is in fact a directive suffix, an enclitic /-â#/ postposed to the noun, probably akin to adverbial /-âm#/ (though evidence from Ugaritic might plead for a consonantal /h/ origin). Thus, we have in BH, e.g., /negbâ/ 'southwards from /negeb/ 'south' and in IH, e.g., /hâʔirâ/ 'towards the city' from /ha-ʔir/ 'the-city'.

While CBH is typologically synthetic, the following stages from LBH through MH to IH become more analytic. For instance, it is in LBH (Cant. and Eccl.) that we note the first signs the process whereby /še-/ (relative) and /l<sup>c</sup>-/ (dative) merge into /še/ (possessive): In oral IH it is employed, by and large, as the main device to express the relation of determination of one noun by another, regardless of the semantic content of this determination - possession, constitution, quality, &c.

### 9.3. BH Syntax

A non-marked sentence in CBH may be either verbal or nominal. The first type has the finite verb in initial position, with the subject indexed to it either as a suffix (in the perfect aspect) or as a prefix (in the imperfect). An explicit noun or deictic can follow the finite verb, then a verbal direct and/or indirect nominal complement, in this order. If the sentence begins with the complement, the predicate precedes the subject, cf. Gn 1,1 /b<sup>c</sup>re:ʔsi:t̄ bārâʔ ʔ<sup>c</sup>lo:hi:m ʔeʔ hašâmajji:m w<sup>c</sup>ʔeʔ hâʔâreç w<sup>c</sup>hâʔâreç hâjtâ tohu: wabohu: w<sup>c</sup>hošek ʔal p<sup>c</sup>nej t<sup>c</sup>ho:m/, lit. 'at-first restore-3sg.m.pf God-pl. det.foc./acc. def.-skies conj.-det.foc./acc. def.-earth conj.-def.-Universe be-3sg.f.pf chaos conj.-darkness upon face-gen. abyss'. Direct complements may appear as suffixes on the verb, as may

possessors on the noun. Of particular interest in BH syntax is the particle /ʔet/, to which grammars assign the function of marking the verb's second actant when it is determined. Yet, a thorough analysis proves that it was originally a focalizing particle, which, given the affinities between a determined and animate - hence non-prototypical - object and a subject, prototypically determined and animate, started to be used to distinguish the first from the second. It is /ʔet/ that fulfills that role because of the inherent affinity obtaining between the pragmatic function of focus and the syntactic one of object. The particle's function shifts then from a merely pragmatic use to a mainly syntactic one, without ever ceasing to play its initially pragmatic role. That is why in BH /ʔet/ introduces not only direct objects but also subjects (!) of passive verbs and is found even in nominal sentences. In such cases, it clearly plays the role of focalizer (Kirtchuk 1993). The nominal sentence, viz. one in which the predicate is a noun, is prototypically composed of two nouns, the first being the subject and the second the predicate. A copula is not necessary unless the sentence is marked for tense/aspect. If, though not marked for tense/aspect, a sentence has a third person deictic in agreement with the subject's gender and number, there is no copula but a pragmatic marker of focalization. In other words, thanks to the rich concord system of agreement which ultimately takes in charge the marking of syntactic roles, word order is rather free and may therefore be used for pragmatic purposes, namely for focalization and topicalization.

The construct-state is a common semitic morphosyntactic structure which enables a noun to determine a preceding one without a positive autonomous expression other than syntactic juxtaposition and phonological coalescence. Morphophonemic changes may occur on the first noun, the determinatum, if it is either a feminine singular or a masculine plural. In the first case, the suffix /-ā#/#/ of the first noun assumes its ancient form /-at#/#/; in the second case, the suffix /-i:m#/#/ of the first noun loses its nasal element and /i:/ is separated into two segments, [-ej]. In all cases, the first noun or determinatum loses its accent in favour of the determinans. It is the second that bears the definite article /#ha-/ if either the phrase as a whole or its second member is defined.

The agreement system is quite developed. The verbal predicate agrees with the subject in gender, number and person, and the attributive noun or deverbative nominal agrees with the kernel-noun in gender, number and determination. On the other hand, the predicative noun or deverbative nominal does not observe agreement in determination with the subject.

BH syntax abounds in parataxis: clauses and sentences are coordinated, mostly by /w\-/ , rather than formally subordinated. This does not mean that logical relations do not exist in BH, but that they are expressed otherwise than by conjunctions. Indeed, subordination is expressed mostly by the *consecutio temporum*, of which, Gn 1,1 quoted above is a fairly good example. The verbal forms and their distribution in the sentence, combined with the scope of uses of the conjunction /w<sup>c</sup>-/, largely context-dependent, as well as a thorough analysis of the meaning of /b.r.ʔ./ (a derivative of b-r; in the piʕʕ:el it means 'turn a parecl of bush into an habitable space' and gives also beriʔu:t 'health'; I thank Shlomo Izre'el, who observed that the root's meaning in Akkadian is indeed 'clarify, find out'), show that the proper translation is 'At first God restored the sky and the earth, because the Universe had been a chaos with darkness upon the abyss's surface'.

#### 9.4. BH Vocabulary

BH is a relatively limited corpus comprising only a reduced number of words, about 8000, 2000 of which are hapax legomena, i.e. have only one occurrence or appear in only one linguistic context. The proliferation of proper names and the roots they contain tend to show, however, that BH was much richer, and if the spheres of law, morality and the emotions are abundantly represented, it is due to a certain extent to the character of the book, not to that of the language. Abundant also is the semantic fields relating to nature, zoology, botanics, landscape, meteorology, agriculture, hydrology and irrigation. The vocabulary of administration, architecture, trade and craft, on the other hand, is relatively scarce and often of foreign origin. This distribution depicts quite faithfully

the culture which BH reflects and enhances.

### 10. The Dead-Sea Scrolls Hebrew (DSSH)

The Dead Sea Scrolls (DSS) are documents found in the caves of Qumran, in the desert of Judaea, which date from the first centuries B.C.E. They are the work of a Jewish sect and consist, in part, of biblical texts included also in the Massoretic canon, like the complete scroll of Isaiah, but also of texts proper to the sect and describing its diverse rites, *modus vivendi*, rules and so on, like the Commentary on Habacuq and the Temple Scroll, and, finally, of texts originating outside the sect, like Ben-Sira or *Ecclesiasticus* and the book of Jubilees.

The language of the DSS contains three major components: BH, an emergent MH and official Aramaic. It probably marks the transition between BH and MH. Yet, a thorough analysis seems to prove that it is somewhat different from the general colloquial Hebrew spoken in Jerusalem at the time, especially in what regards morphology and morphosyntax. Their vocabulary consists primarily of words known from BH, but there are also neologisms attested only in MH in the DSS. Characteristic of the DSS is their *scriptio plena*, in order to avoid confusion with Aramaic. Thus, not only long vowels are marked by *matres lectionis*, but short and even ultra-short ones as well. Pharyngeals and laryngeal consonants are labile. In the DSS the forms of the conversive and conjunctive imperfect are identical to those of the cohortative-jussive of BH (Qimron 2000). Another example is the series of doublets of deictics and suffixes found in DSS - those typical of BH and the same amplified by a final /-â#/ - of which none clearly predominates. Thus, we have /hwʔh/ 'he' and /hyʔh/ 'she' (standard H /hwʔ/, /hyʔ/). Also, /šɛ-/ in the DSS replaces ʔ<sup>a</sup>šer and šɛ when initiating an object clause but not ʔ<sup>a</sup>šer initiating a causal clause, whilst in MH it replaces both of them in all contexts. In MH, /šɛ-/ also occurs as part of the genitive particle /šɛl/, but in the DSS this particle occurs mainly as part of the larger syntagm /b<sup>c</sup>šɛl/ 'on account of'. Most of these features do not show a clear-cut dialectal distinction between DSS and MH. Notwithstanding Qimron's opinion, which favours a distinct Hebrew dialect reflected in the DSS, the aforementioned features could also support the hypothesis according to which DSS represents a transitory, certainly conservative and even voluntarily archaizing stage between BH and MH.

### 11. MH

Mishnaic Hebrew (MH) is the language of the Tannaitic texts (70-250 C.E.). It is called after the most important of these texts, the Mishna, compiled by Rabbi Yehuda Hanassi around the beginning of the 2nd century C.E. This corpus also comprises the Tosefta, the Halakhic Midrašim and a historic text called Seder Olam Rabba. MH is also used in the Amoraitic texts (250-500 C.E.), composed in Eretz Israel and including the Jerusalem Talmud and the Older Aggadic Midrašim - among others Genesis Rabba, Leviticus Rabba, and the Pesiqta d<sup>e</sup>Rab Kahana. MH was also used in Babylon: in the Babylonian Talmud. Further documents composed in MH are the Copper Scroll from Qumran (1st century C.E.), Bar-Kochba's or Bar-Kosiba's letters, found in the desert of Judaea (2nd century C.E.), and number of inscriptions mainly in synagogues.

MH was spoken until the beginning of the 3rd century C.E. Nonetheless, there is linguistic evidence to show that it had been spoken for several centuries beforehand. As a matter of fact, MH is the spoken form of Hebrew whose written counterpart is LBH. In other words, the Mishnaic linguistic colouring results from the accession to the status of a literary language of the colloquial variant of LBH, considered in late biblical times as a substandard form, improper for literary purposes. This is a typical example of the diachronic gap existing between written and colloquial language, the first being more conservative than the second. By the time the latter is judged proper for literary purposes, it has itself a more evolved, colloquial variant, used, naturally, in oral communication alone.

In spite of the overall unity of MH, there are differences between the language of the Tannaim (MH 1) and that of the Amoraim (MH 2). The latter shows some discrepancies due mainly to dialectal

reasons, as there is an oriental (Babylonian) variety of MH and western (Eretz-Israel) one (Bar-Asher 1999:17).

As for the manuscripts of Tannaitic MH which render faithfully the oral language in which the debates were actually held, they date mostly from the 11th-14th C.E. Mss. copied and printed from the 15th century onwards, reproduced in the printed versions currently in use, show many differences from the more ancient mss. and are therefore unreliable records of MH. The main reliable mss are known as Parma A and B, Paris, Kauffman and Leningrad.

### 11.1. MH Phonology

At this stage the merger of /š/ (in traditional Semitic transliteration <š>) and /s/ is complete, as it is shown by spelling: many words bearing /š/ are written either with s or š. Only very common roots bearing /š/ such as šry, šmʔl, šdy, and proper names such as yišrâʔel, šârâ, though having undergone the shift, continue to be written with š.

At this stage of the language /S/ is rephonologized and the erstwhile emphatic articulation becomes affricated, as attested in some Greek and Latin transcriptions. Accordingly, from MH on, some traditions pronounce /S/ as [ts] which is the current pronunciation in IH.

Schwa preceding a guttural is pronounced with the vowel following the guttural. The morpho-phonological alternation between pausal and non-pausal forms ceases to be relevant. Stress accent is on the penultimate syllable.

/-m#/ in word final position tends to merge with /-n#/ in favour of the latter, thus instauring an archi-phoneme /-N#/ in that phonetic context. A fluctuating orthography /-n#/ - /-#/# seems to indicate that the final nasal consonant could drop altogether, nasalizing the preceding vowel.

As for stress accent, there is evidence showing that, under Aramaic influence, it retrogresses to the penultima. It is this accent pattern that Hebrew words integrated by Yiddish seem to continue.

### 11.2. MH Morphology

In MH, the impact of analogy is extensively attested: thus, the conjugation of roots with R<sub>2</sub>= w/j and that of those with R<sub>3</sub> = ʔ merge in favour of the former so as to yield, for the root mcʔ - of frequent use as a quotation formula - the first person plural past tense form /mâci:nu/ 'we found' instead of the classical one /mâcâʔnu/ 'id.'. Modal forms which are rare in CBH disappear altogether. Other important morphological evolutions typical of MH are: the influence of the nipʔal scheme on hitpaʔʔe:l yielding the reflexive form nitpaʔʔal, the total disappearance of puʔʔal (save in the participle), the proliferation, again through Aramaic influence, of the Akkadian factitive/causative šapʔe:l (which reflects the sibilant characteristic of this language in correspondance to Semitic grammatical /#h-/) and of the reflexive ʔettapʔal. The nipʔal and piʔʔe:l patterns acquire an additional inchoative meaning.

Specific and rare forms found in CBH such as those of the imperfect jussive and cohortative as well as the archaic personal suffix /-ki/ for the 2nd person feminine singular disappear altogether, due to simplification of the morphology through analogy and syntactic re-organization of the verbal system.

The autonomous deictic for the first person singular is ʔ<sup>a</sup>ni, while CBH ʔ<sup>a</sup>noki disappears almost completely. The same holds for the plural, in which ʔ<sup>a</sup>nu: replaces ʔ<sup>a</sup>naḥnu: Under Aramaic influence, ʔatt is used along with ʔattâ as the second person singular masculine.

### 11.3. MH Syntax

As we pointed out before, MH syntax differs radically from BH's in many respects. MH verbal system does not have a *waw conversivum* anymore, since the system is no longer an aspectual one -

there is no need, therefore, for a special device in order to attribute a temporal deictic value to verbal forms which encode merely the state of (in)completion of the action. MH verbal system is indeed one in which the erstwhile imperfect aspectual forms have the value of future tense, the erstwhile perfect aspect forms have the value of past tense, and the participial forms integrate the verbal system with the value of present tense. Along with this change there is another major development affecting the MH verbal system, replacing by a syntactic device the aspectual oppositions expressed in CBH by morphological means: it is the emergence of analytic forms consisting of an auxiliary verb /h.w.j./ 'be' conjugated for person, including gender and number plus the participial form of the (semantically) main verb at the adequate gender and number. Such constructions mark the durative, iterative or habitual aspects, in all tenses and in the imperative mood, e.g. /hãjã po:ʕe:l/ 'he used to do'.

Under Aramaic influence too the rection of some bi- and tri-valent verbs changes, and the construction with the preposition /l<sup>c</sup>/ replaces the one with ʔeṭ. In other words, the accusative-direct rection retreats before the dative-indirect one.

MH makes extensive use of hypotaxis, and many logically hierarchical relations are expressed by syntactic subordination. The subordinating element in MH is not ʔšer as in CBH but še as in LBH. Moreover, in MH there is plethora of composite elements including conjunctions such as /keywan še/ 'as, since', interrogatives such as /ʔejze/ 'which', /ʔejmataj/ 'when' (with ʔej playing a role sensibly equivalent to that of Latin /#qu-/ = English /#wh-/), prepositions such as /ʕal m<sup>c</sup>nat še/ 'for', conditionals such as /ʔilmãleʔ/ 'if not (irrealis)' and lexemes such as /beit midraš/ 'house of study', pl. /bãtej midrašot/. The morpho-syntactic particularity here, in comparison with BH, is that both elements of the construct-state take the plural suffix.

As a whole, BH syntax is rather synthetic and paratactic whereas MH is rather analytic and hypotactic (which renders IH closer to the latter in both respects). Surprisingly enough, it is this change, namely the syntactic shift from BH to MH which is the major shift in the history of Hebrew structure. It is not without resemblance with the shift from Latin to Romance, the difference being that Hebrew had lost nominal declension and adopted prepositions already at its early biblical stage while Latin keeps it until quite late. Yet, if the syntactic colouring of BH is to a certain extent akin to that of Latin, MH has an undoubted Romance coloration.

## 12. Medieval Hebrew (MdH)

This term refers mainly to the Hebrew written in regions where Arabic was the dominant language of civilization, yielding important texts in philosophy, science and poetry. Thus, Arabic influence on MdH is exerted during the Middle Ages in the Middle and Near East but also in Muslim Spain (and adjacent zones like southern France). In this area, Jewish intellectuals wrote both Hebrew and - mainly - Arabic, whose influence on the former is perceptible at all levels. Phonologically, emphatics merge with their non-emphatic counterparts and vowel length/colour distinctions are lost. Morphologically, many words are created on Hebrew stems or roots upon Arabic inspiration, such as /mahut/ 'essence', /kammut/ 'quantity', /ʔejkut/ 'quality', /hippaʕalut/ 'the fact of being acted upon', etc. The suffix /-u:t/ is of Hebrew origin alright, but in BH it serves to create nouns out of roots with R<sub>3</sub> = w/j such as /gãlu:t/ 'exile' out of /g.l.j./, and very scarcely to create abstract nouns from other types of roots, such as /malku:t/ 'reign' out of /m.l.k./. In Medieval Arabic, the equivalent suffix /-ijja(t)/ is appended to roots but also to other morphological categories including interrogatives and indefinites to create plethora of philosophical concepts: accordingly, MdH employs /-ut/ in the same conditions. Syntactically, asyndetic hypotaxis spreads and the construction /ješ + l<sup>c</sup>/ + infinitive/, lit. 'there is + to + infinitive', is used in the sense of 'it is possible to + infinitive'. At the level of vocabulary, many scientific concepts of Arabic origin such as /qoTer/ 'diameter', /qoTeb/ 'pole', and the like penetrated Hebrew scientific discourse.

The outstanding Jewish figures who flourished in this cultural environment are among others

philosopher Maimonides, 'The Great Eagle' (1135-1204); the poets Shmuel Hanagid (993-1056), Shlomo Ibn Gabirol (ca. 1022-1070), Moshe Ibn Ezra (ca. 1060-1139), Yehuda HaLevi (12th century); and grammarians Yona Ibn Jannah, David Qimḥi, Yehuda Hayyuj, Menahem Ben-Saruq and Dunaš Ben-Labraṭ (10th century), Abraham Ibn Ezra (1092-1167) and David Qimḥi (ca. 1160-1235). There was also a great dynasty of translators, the Tibbonides from Lunel in the south of France (11th-14th centuries), to which Hebrew owes many a novel creation.

Still, other forms of Hebrew do exist at the same period, notably the language of preponderantly narrative writings of German Jews of the Middle Ages (Rosén 1995: 57). As he points out judiciously, the revival of Hebrew began in the 19th century precisely in that region on the basis of that form of language, namely Medieval Ashkenazi Hebrew (MdAH). Therefore, this form of MdH, though not quite as prestigious as the one developed in the Arabic-speaking world of the time, has a permanent influence on IH, reflected, for instance, in word order and accentuation. An important source for the study of MdAH is Sefer ḥasidim 'Book of the Pious', a recollection of stories by Rabbi Yehuda ḥeḥasid (ca. 1150-1217). To quote once more H. Rosén (1995:75 sqq.), the Ashkenazi [medieval] tradition had the most considerable weight in popular transmission, while the Arabic-speaking regions could play their part only through learned literatureé.

A third variant of MdH is the one developed by the paytanim or poets from Eretz-Israel who specialized in religious compositions. Their language is of a radical novelty inasmuch as they combine roots and patterns in a way never employed before, deriving plethora of new verbs, nouns, adjectives etc. using only the native resources of the language. This resulted in a rather cryptic language, much criticized by the Jewish poets and grammarians of Muslim Spain, who accused the payTanim of a sterile virtuosity which does not only include Talmudic elements, and imply a knowledge of the Midraš and contains real riddles, but goes as far as violating the rules of grammar. The truth is that no Hebrew poet before or since has ever gone so far in renewing the language using its own stock of lexical and grammatical morphemes, with such an intimate knowledge and such a spontaneous, playful freedom. PayTanim as ?elšazar Haqali:r and Yannay knew Hebrew in a Biblical sense, so to speak. Only the late Israeli poet David Avidan, though at the antipodes of religious literature, displays a slightly comparable linguistic creativity in Hebrew.

### **13. The Revival of Hebrew**

The Jewish equivalent of the Enlightenment movement in Europe is called 'Haskala'. It was the movement in vogue in the 18th and 19th centuries which promotes a trend among Jews of getting acquainted with science and humanities as well as with traditional Jewish scholarship. Its members feel a necessity of reactivating Hebrew and endowing it with a power to express the contemporary reality and a modern *Weltanschauung*. Indeed, they feel Yiddish to be somewhat homely, sentimental, proper to express the daily experiences of the inhabitants of the Shtetl, rather than a system of cognition and communication apt to express the most elevated thoughts and the finest perceptions of Man. On the other hand, they felt alien to the European languages and the way they have to convey those thoughts and feelings. Their natural choice then fell upon Hebrew, which, though not a spoken tongue for the time being, had the prestige of a great language of culture and the one which had been properly and utterly Jewish from the dawn of civilization. One figure within this movement is, among others, from a stylistic point of view, the 19th century writer Abraham Mappu, whose novels based on biblical themes and written in a style inspired by CBH constitute a pale image of the much more ambitious endeavour launched at the turn of 1870: the Revival of Hebrew.

This is indeed an unprecedented enterprise, which has remained unique ever since. True, Basque and Irish have been the object of similar attempts, but the comparison does not hold. On one hand, neither had ever ceased to be spoken altogether; on the other hand, both failed to become the main language of Euskadi or of Eire respectively. Hebrew, which had ceased being a truly spoken tongue

during the 3rd century C.E., is now the official language of Israel and its 8.5 million inhabitants. Many of them are functionally monolingual in Hebrew, which has become the mother tongue of the last three generations of Israeli-born Jews (the so-called 'sabras') and presumably of many more to come. In addition, it is continually adopted by the millions of Jews who do not cease to immigrate to Israel from all over the world, a factor which to a large extent accounts for the success of its revival. Indeed, the reasons for this success are basically of two orders, ideological and practical. The first is the will of the Jewish people to find anew its independence at all levels, national, cultural, and linguistic ones. The second determines that a bunch of people speaking a very large spectrum of languages but who hardly have any of them in common, and yet desperately need and want to communicate with each other, are bound to learn the language which is at some cultural-cum-psychological level (remote as it may be) common to them all. In the present case, it is Hebrew. Naturally, in order for the process to actually work, it was required that the language be latent in the individuals' minds, which was the case, indeed: at the time, a vast majority of Jews were observant to varying extents, which means that they were proficient in Hebrew reading and understanding. Thus, in order to be able to speak it, they only had to transform passive knowledge into active, not to acquire the language as if they were complete beginners.

The seminal figure in the revival of Hebrew as a spoken tongue was Eliezer Ben-Yehuda (1858-1922), who began his public struggle for the cause in 1879 with the publication in the Hebrew journal *Hašāḥar* of an article entitled 'A burning question', whose title was changed into 'A considerable question' by the editor, Peretz Smolenskin. Ben Yehuda exposed there the cardinal place of language as a constituent of national identity in general, and the necessity to reactivate Hebrew in the framework of the Zionist endeavour. Once established in Jerusalem with his wife Debora (after her death, he married her sister Hemda), Ben-Yehuda devoted himself to lexicographic and neologistic work. He raised his children solely in Hebrew, and his eldest child, Itamar Ben-Avi (lit. son of ſBY, an acronym for his father's full name, 1885-1943) founded his own journal and pursued his father's task. It would not be appropriate to say that the renaissance of Hebrew is due to Ben-Yehuda alone, and yet, one must reckon that without his impulsion, his erudition and his determination the process would perhaps not have been crowned with success. On the other hand, as Hagege (2000) notes rightfully, had Ben Yehuda been a professional linguist, he would not have attempted such an ambitious endeavour. The revival of Hebrew is therefore a visionary's victory rather than a specialist's achievement - which is often the case of projects characterised by their grandeur. At some points of its recent history the primacy of Hebrew has been endangered, especially during the nineteen twenties when 'the languages fight' in the country's most renown polytechnic institute, Haifa's *Technion*, threatened with imposing German as the teaching language of the institution. At the time it was not clear, either, whether Hebrew should be the training language of schoolteachers in the pedagogical institute of Jerusalem. Eventually the choice fell upon Hebrew as a result of demonstrations common to both faculty and students, and the institution's name became *beit hamidraš l'morim hašibri*, with the emphatic last position of the adjective reflecting the circumstances of its emergence. Later on, the flux of immigrants from different horizons ensured that Hebrew be taught and spoken as the only common language for Jews whose languages were as diverse and numerous as their native origins.

Another important figure in the process of the revival of Hebrew was philologist and linguist H. Z. Torczyner-Tur Sinai (1886-1973), who contributed insights concerning the language's diachronic grammar, enhancing its development on harmonic bases, in accordance with the language's own resources and respecting its Semitic origin. High personalities who played a major role in this process, either by their scientific or by their literary work, include among others intellectuals David Yelin (1864-1941) and Joseph Klausner (1874-1958) as well as poets Haiim N. Bialik (1873-1934), Samuel Y. Agnon (1888-1970), Abraham Shlonsky (1900-1973), Alexander Pen (1906-1972), Nathan Alterman (1910-1970), Yonatan Ratosh (1908-1981) and David Avidan (1934-1995).

As for linguistic research of IH, the foremost scholar and the one who elevated Israeli Hebrew -

even the term is his - to the rank of a distinct stage in the history of the language, and not merely a pale reflection of its noble ancestors, is the late Haiim B. Rosén (1924-1999). Having acquired solid bases in Classical Philology, then a thorough linguistic training in Paris with Emile Benveniste, he devoted his life to investigating Hebrew, mostly IH, with the methods of structural linguistics, coining linguistic terms in Hebrew and making a decisive contribution to the constitution of the conception of IH as a complete, coherent and self-sufficient speech system, namely a specific form of Hebrew in its own right.

IH has been reactivated as a result of the will of its speakers, who decided to acquire the language and make it their children's mother tongue for generations to come. Its development, norm and standardization are therefore institutionally regulated. This responsibility rests upon the Academy of the Hebrew Language, which according to its status has to ensure a harmonic development of the language based on the investigation of its grammar and lexicon through the whole of its sources. The Academy, founded in 1953, is the successor of Vašad Halašon, 'The Language Committee' created by Ben-Yehuda in 1905 which fulfilled an equivalent role from its foundation in Ottoman-ruled Palestine, through the British mandate (1917-1947), and during the first years of existence of the State of Israel as such (1948-1953).

#### **14. Israeli Hebrew (IH)**

The variant of Hebrew spoken and written in Israel is not 'Modern' in the technical sense of that term in linguistics or philology. Indeed, it is not the immediate result of some continuous historical evolution just as Modern Spanish, say, is descended from Medieval Spanish, which continues Old Spanish, itself derived from Vulgar Latin and so on. Haiim Rosen coined the term Israeli Hebrew to design the variant which emerged in Israel following the revival of the language initiated at the end of the 19th century. Sometimes it is called 'Contemporary Hebrew' as well. All sort of reasons, linguistic as well as extra-linguistic - the numerous and diverse mother tongues of those who eventually became speakers of Hebrew, the relative prestige of their different social backgrounds etc. - influenced the language so that its characteristics are not exactly those wished by its reactivators. This is, indeed, what proves their success, since the language and its speakers have overridden their guidelines and evolved quite naturally as any true language does (Hagège 1993). In this context, the important neologic, scientific and normative work of the Hebrew Language Academy is an indispensable contribution to the language's development, and one which is natural in the process of its reviving.

As any genuinely spoken language, IH is used in the marketplace and in university lectures, in courts of tennis and in courts of law, by renowned writers and by people with only an elementary education, by native speakers from Israel and by speakers of other languages who learn it at the Ulpan, i.e., Hebrew School for adult newcomers.

As we have just said, Israeli Hebrew (IH) displays differences from previous stages, but these are not fundamental, neither did it detach itself in any real sense from the language's structure.

##### **14.1. IH Phonology**

In IH two phonological systems co-exist: (a) The so-called Sephardic one continues the pronunciation of Oriental Jews (save Yemenites). It preserves the distinct pronunciation of /ħ, ʕ, ʔ, h/, but does not distinguish the fricative allophones of /g, d, t/ from the plosive ones, nor does it preserve the so-called emphasis - pharyngalization - on /T, c, q/; (b) The second pronunciation, characteristic of the Jews from Europe and the Americas, which represents also the socially prestigious variant, has lost the distinction between /ħ/ and [x], the fricative allophone of /k/, in favour of the latter; /ʕ/ has merged with /ʔ/ and /h/ is unstable (IH is not the only Semitic language to treat 'gutturals' that way: Akkadian and Neo-Aramaic, to mention but two, behave similarly). Both systems have five vowel phonemes - /a,e,i,o,u/ - but no vocalic quantity.



A third system, inspired by the Yemenite Hebrew tradition, is now of almost no colloquial use even among the Yemenites except those of the older generation. The younger generations still use it when reading the Tora. This pronunciation is quite faithful to the CBH system, distinguishes emphatic (pharyngealized) from non emphatic consonants, preserves the distinction between the fricative and plosive allophones of /b, p, g, k, d, t/ and between /â/ and /a/.

Stress accent in IH is on the last syllable except in specific schemata where it falls on the penultimate syllable. In the colloquial language, proper names display a shift of the stress to the penultima (Rosen 1976). Thus, the plural of 'street', [re'xov], is [rexo'vot], but the name of a town in the center of the country, originally called after that word, is pronounced [re'xovot]. The same goes for [isra'ʔel] Israel (name of the country) and [is'rael] Yisrael (a man's name), and such cases abound. Hypocoristics usually bear the stress on the penultima. As a rule, loan-words preserve their original stress pattern and may bear it even on the antepenultima - which is never the case with original Hebrew words - cf. [ʔótobus] 'bus', [univérsita] 'university'.

Intonation in Hebrew has received little attention so far, as indeed in other languages. The intonation contour of the plain statement is a slightly descending one, whereas the interrogative contour is an ascending one, and exclamation is conveyed by a heavily changing contour (cf. also Hirst & DiCristo *ibid.*). The native speaker of Hebrew seems to articulate using more power and a larger amount of air than the average native speaker of other languages, though this has not been quantified as yet.

#### 14.2. IH Morphology and Syntax

To say that IH has LBH morphology and MH syntax would be a gross approximation, yet it describes the situation well enough. As a matter of fact, IH has innovated very little from a grammatical point of view. When compared to other modern Semitic languages such as Modern Syriac, Arabic dialects (including Maltese) and Amharic as well as other Ethiopic languages from Semitic stock, IH appears to have remained most faithful not only to the Semitic basic vocabulary, but to the Semitic grammar as well (Goldenberg 1996).

No doubt, this is due to the long lapse of time during which the language has not been spoken and therefore did not evolve. Indeed, except perhaps for its phonology, IH shows unmistakable Semitic properties: it is an inflecting language whose morphological hard core consists of roots and patterns. Suffice it to say that tri-phonemic or tetra-phonemic roots are currently extracted even from already constituted words and from loanwords, which means that the inventory of roots is not closed once and for all; new roots are regularly created (*ibid.*). IH still has, like CBH, a morphological distinction between stative verbs (in the past and present tense: R<sub>1</sub>aR<sub>2</sub>eR<sub>3</sub>) vs. active verbs (present tense: R<sub>1</sub>oR<sub>2</sub>eR<sub>3</sub>, past tense: R<sub>1</sub>aR<sub>2</sub>eR<sub>3</sub>). Nevertheless, in the colloquial language, the first tend to be used as adjectives and thus when the sentence is not in the present tense, its tense is expressed by an inflected auxiliary verb /h.w.j./ (Kirtchuk 1989). As a whole, written IH admits all BH morphology except for archaic features which were obsolescent already in BH itself.

As we said, IH, has number of compound nouns and a score of nominal prefixes, mostly quantitative, cf. xad- 'mono-', du- 'bi-', tlat- 'tri-', rab- 'pluri-', multi-, and spatio-temporal, cf. batar- 'post-', kadam- 'pre-', tat- 'sub-', fal- 'supra-', etc.

IH also allows a great syntactic freedom, though word order as well as verbal and nominal syntax are founded upon MH. Apparently, the order of elements in the sentence is quite free, but it is by no means arbitrary: in reality, it is pragmatically conditioned. This is rendered possible by the existence of a developed system of agreement and concord, which allows the order of elements to serve other tasks than merely identify the syntactic roles: thus, topicalization and focalization, to diverse degrees and of different elements, obtain by means of into-prosody and relative position or order in the utterance.

Nominal sentences exist in IH as they did in previous stages, though the use of a copula (a demonstrative or personal deictic in agreement with the subject) is common.

### 14.3. IH Registers

A register distinction already existed at two previous stages of the language, BH and MH. Naturally, however, it is in present day Hebrew that such differences are easiest to detect and describe. Indeed, IH does exhibit differences between written standard and super-standard, oral standard and sub-standard registers, even though these differences are not quite as salient or extensive as in French, or, especially, Japanese. As a matter of fact, the internal stratification of language reflects that of society, and Israeli society as yet is sociologically (less so economically) rather egalitarian and mobile. Super-standard written IH has a rather normative morphology, a relatively high ratio of syndetic subordination, lexical and idiomatic elements from previous stages - BH and MH - and a relatively low ratio of borrowings. Standard written IH - say, journalistic style - is slightly less normative, contains less BH and MH elements and more borrowings. Standard oral IH is close to the written standard, with a rapidly spreading phonological attrition of gutturals, a simplified morphology, few subordinating elements and some recent borrowings from English. Sub-standard oral IH has a looser agreement system, a certain amount of asyndetic subordination and coordination and a higher ratio of borrowings.

### Abbreviations

acc. – accusative, foc. – focalizer, m. – masculine, conj. – conjunction, gen. – genitive, obj.– object, def.- definite, idf. – indefinite, pf. – perfect, det. – determinate, ipf.- imperfect, pl. – plural, f. – feminine, sg. - singular, subj. - subject

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