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—. 2007. "The chronological development of the *segol* accent" (in Hebrew). *Lěšonénu* 69:87–114.

- —. 2009. "The original purpose of Biblical accentuation" (in Hebrew). *Mas'at Aharon: Linguistic studies presented to Aron Dotan*, ed. by Moshe Bar-Asher and Chaim E. Cohen, 469–486. Jerusalem: Bialik Institute.
- —. 2011. "A reconsideration of the correlation between the vocalization and the accentuation in the Babylonian tradition" (in Hebrew). *Israel: Linguistic studies in the memory of Israel Yeivin*, ed. by Rafael I. (Singer) Zer and Yosef Ofer, 251–267. Jerusalem: The Hebrew University Bible Project.
- —. In preparation. The Babylonian system of biblical accentuation: With comparison to the Tiberian system (in Hebrew).
- Spanier, Arthur. 1927. Die massoretischen Akzente: Eine Darlegung ihres Systems nebst Beiträgen zum Verständnis ihrer Entwicklung. Berlin: Akademie.
- Strack, Hermann L. 1876. The Hebrew Bible— Latter Prophets: The Babylonian codex of Petrograd, edited with preface and critical annotations. Petropoli: Beditio Bibliothecae Publicae Imperialis. Repr. New York, 1971: Ktav.
- Wickes, William. 1887. A treatise on the accentuation of the twenty-one so-called prose books of the Old Testament. Oxford: Clarendon. Repr. New York, 1970: Ktav.
- Yeivin, Israel. 1962. "A Babylonian fragment of the Bible in the abbreviated system". *Textus* 2:120–139.
- —. 1972. Bible—Hagiographa: Codex Berlin Or. Qu. 680—Codex New York, JTS 510 (in Hebrew). Jerusalem: Makor.
- —. 1973. Geniza Bible fragments with Babylonian massorah and vocalization (in Hebrew). Jerusalem: Makor.
- —. 1974. "A fragment of a masoretic treatise to the Pentateuch and Targum Onkelos" (in Hebrew). *Henoch Yalon memorial volume*, ed. by Edward Yechezkel Kutscher, Saul Lieberman, and Menahem Zevi Kaddari, 99–163. Jerusalem: Kiryat Sepher.
- —. 1985. *The Hebrew language tradition as reflected in the Babylonian vocalization* (in Hebrew). Jerusalem: The Academy of the Hebrew Language.

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Biblical Accents: Cantillation

In the synagogue the Hebrew Bible is not simply read, but chanted according to an ancient system of melodic motifs, notated in scriptural codices in the form of graphic symbols superimposed above and below the words. The art of chanting the Bible is called 'cantillation', a word derived from the Latin *cantare*, meaning 'to sing'. In the traditional Jewish liturgy, cantillation is performed by a solo singer, appropriately qualified and prepared, who chants the sacred text for the congregation according to the ancient traditional melodies, unaccompanied, in a free, speech-like rhythm.

In Hebrew, the motifs of cantillation are called טעם *te'amim* (singular טעמים *ta'am*) or טעמי המקרא *ta'ame ha-migra*. The word טעם ta'am in classical Hebrew generally means 'taste, sense, reason', alluding to another function of cantillation: to add the inflection that clarifies the meaning of the text. The term is first used in the Talmud (Babylonian Talmud Berakhot 62a), referring to the melodies to which the biblical text is chanted. In Yiddish, the lingua franca of the Jews in Northern Europe for centuries, these motifs (and their notation) came to be known as *trop*. The derivation of this word seems to be from the Greek tropos or Latin tropus, referring to a mode or extended melody in church music of the Middle Ages. The Yiddish term for the art of cantillation is לייענען levenen, a term that in other contexts means 'reading'. The equivalent Hebrew term is קורא gore, which also means simply 'reading'. The person designated to cantillate the Bible is called the בעל קריאה *ba'al geri'a* 'master of reading'. In this context, there is no lexical distinction between 'reading' and 'cantillation'. Implicit in the concept of Jewish liturgical reading has always been the assumption that the text would be cantillated, not spoken. But this is not an exclusively Jewish praxis; throughout Asia, sacred texts are cantillated in this manner. From the Moslems in the Middle East to the Hindu in India and the Buddhists in Japan, the words of sacred scripture are chanted in the simple rhythms of speech, in a performance practice resembling that of Hebrew Bible cantillation (Avenary 1972:1099-1100).

The teachers of oratory in ancient Rome made disparaging references to this Asian practice of chanting a text. Cicero, the great Roman orator of the 1st century B.C.E., wrote, "If he had begun his whining sing-song, after the manner of the Asians, who could have endured it?" (8.27:118). And about a century and half later Quintilian disparaged "the practice of chanting instead of speaking, which is the worst feature of our modern oratory" (11.3.57:275).

There is evidence that in the first centuries of the Common Era some Jews, sensitive to the criticism of their Roman neighbors, had been reading the Bible without its melody. In the late 3rd century C.E. Rabbi Yohanan felt it neces-

sary to remind his fellow Jews that it was a requirement to chant the Torah: אמר רבי יוחנן: כל הקורא בלא נעימה...עליו הכתוב אומר: וגם אני כל הקורא בלא נעימה... עליו הכתוב אומר: וגם אני *amar rabbi yoḥanan: kol haq-qore be-lo ne'ima... 'alav hak-katub 'omer: ve-gam 'ani nattati lahem huqqim lo tobim* 'Rabbi Yohanan said: Anyone who reads without a melody..., of him the Scripture says, "Do they think I gave them laws that were not good?"' (Babylonian Talmud Megilla 32a, quoting Ezek. 20.25). Rabbi Yohanan's criticism implies that the normative procedure, the procedure from which some Jews were deviating, was to chant the Bible.

The Jewish tradition of chanting the Bible in public predates the institution of the synagogue. In Deuteronomy Moses is instructed כּּתִבוּ לַכֵּם אֶת־הַשִּׁירֵה הַזֹּאת וְלַמְדֵה אֶת־בִּנִי־יִשְׂרָאֵל אַימָה בִפִיהֵם kitbū lākem 'et-haš-šīrā haz-zōt wə-lammədah 'et-bənē-yiśra'el sīmah bə-pīhem 'write down this song and teach it to the people of Israel; put it in their mouths' (Deut. ווִדְבֵּר מֹשֶׁה בָּאָזְנֵי (זוֹדַבָּר מֹשֶׁה בָאָזְנֵי), and we read further ווִדְבֵר מֹשֶׁה כּל־קַהַל יִשְׂרָאֵׁל אֵת־דִּבְרֵי הַשִּׁירָה הַזָּאָת עַד תַּמֵּם way-ydabber moše bə-'azne kal-qəhal yisra'el 'et-dibrē haš-šīrā haz-zōt 'ad tummām 'Then Moses recited the words of this song to the very end, in the hearing of the whole congregation of Israel' (Deut. 31.30). In the 7th century B.C.E. King Josiah 'read' the Bible in the presence of the assembled people: זיעל הַמֵּלֵך בֵּית־ה' וְכַל־אֵישׁ יְהוּדַה וְכַל־ישָׁבֵי יִרוּשַׁלָם אָתוֹ וְהַכְּהֵנִים וְהַנְבִיאִים וְכַל־הַעֵם לְמָקֵטָׁן וְעַד־גַּדִוֹל וַיָּקָרֵא באָזְנֵיהֵם אֶת־כָּל־דְּבְרֵי סֵפֶר הַבִּרִית הַנְמְצָא בְּבֵית ה way-ya'al ham-melek bēt-YHWH wə-kål-'īš yəhūdā wə-kål-yōšbē yərūšālayim 'ittō wə-hakkōhẳnīm wə-han-nəbī'īm wə-kål-hẳ-'ẳm lə-miqqåton wə-'ad-gådol way-yiqrå bə-'aznehem [°]eṯ-kål-dibrē sēpēr hab-bərīṯ han-nimṣā bə-bēṯ YHWH 'The king went up to the House of the LORD, together with all the men of Judah and all the inhabitants of Jerusalem, and the priests and prophets-all the people, young and old. And he read to them the entire text of the covenant scroll which had been found in the House of the LORD' (2 Kgs 23.2) (the Hebrew word וייקן *way-yiqrå* 'and he read' in this context likely refers to cantillation, rather than to reading without a melody). And in the 5th century B.C.E., shortly after the return of the Judean exiles from Babylon, וַיָּאָסְפּוּ כַל־הַעָם כּאֵישׁ אֶחֶד אֶל־הַרְחוֹב אֵשֶׁר לִפְנֵי שֵׁעַר־הַמֵּיִם וַיָּאׁמְרוֹ לְעֶזְרֶא הַסּפֵּר לְהָבִיא אֶת־סַפֶּר תּוֹרַת מֹשֵׁה אֲשֵׁר־ צוּה ה' אֶת־יִשְׂרָאֵל: וַיָּבֵיא עָזָרָא הַכּהָן אֶת־הַתּוֹרָה לפני הַקָּהַל מָאֵישׁ וַעָד־אָשָׁה וְכָל מְבָין לְשָׁמְע בִּיוֹם אחד לחדש השביעי: ויקרא־בו לפני הרחוב אשרן לִפְנֵי שֵׁעַר־הַמַּיִם מִן־הַאוֹר עַד־מַחַצֵית הַיּוֹם נַגָּד האַנָשִׁים וְהַנָּשִׁים וְהַמִּבִינֵים וְאַזְנֵי כַל־הָעֵם אֵל־סֵפֵּר :הַתּוֹרָה way-yē'āspū kal-hā-'ām ka-'īš 'ehād 'el-hā-rhob 'ăšer lipnē ša'ar ham-māyim wayvomrū la-'ezrā has-sopēr lahābī 'et-seper torat mōše 'ăšer-șiwwå YHWH 'et-yiśrå'el: way-yåbī 'ezrā hak-kohēn 'et-hat-torā lipnē haq-qāhāl mē-'īš wə-'ad-'iššå wə-kol mebin lišmoa' bəvom 'ehåd la-hodes has-səbī'i: wav-yiqrå-bo lipne hå-rhob 'ăšer lipne ša'ar ham-mavim minhā-'or 'ad-mahăsīt hay-yom neged hā-'ănāšīm wə-han-nāšīm wə-ham-məbīnīm wə-'aznē kalhå-'åm 'el-seper hat-torå 'The entire people assembled as one man in the square before the Water Gate, and they asked Ezra the scribe to bring the scroll of the Torah of Moses with which the LORD had charged Israel. On the first day of the seventh month, Ezra the priest brought the Torah before the congregation, men and women and all who could listen with understanding. He read from it, facing the square before the Water Gate, from first light until midday, to the men and the women and those who could understand; the ears of all the people were given to the scroll of the Torah' (Neh. 8.1-3).

Beginning in the Second Commonwealth, the Torah was read in the synagogue. The Mishna describes the synagogue service on the Day of Atonement: הַנְאָת נוֹטֵל סֵפֶר תוֹרָה וְנוֹתְנוֹ לִראש הַכְּנֵסֵת [וָראש הַכְּנֵסֵת] נוֹתַנוֹ לַסֵּגֵן וְהַסֶּגֵן נוֹתַנוֹ לִכֹהֵן גָּדוֹל וִכֹהֵן גַּדוֹל עוֹמֵד וּמִקַבֵּל וִקוֹרֵא עוֹמֵד וִקוֹרֵא אַחֵרִי מוֹת וִאָדְ בֵּעָשוֹר hazzan hak-keneset notel seper tora ve-notno le-roš hak-keneset [ve-roš ha-keneset] notno las-segen ve-has-segen notno le-kohen ve-kohen gadol 'omed u-mgabbel vegore 'omed ve-gore 'ahare mot ve-'ak be-'asor 'The synagogue attendant takes a torah-scroll and hands it to the synagogue president. The synagogue president hands it to the deputy [high priest] and he hands it to the high priest. The high priest stands, receives [the scroll] and reads [therein] "After the death ... " and "Howbeit on the tenth day..." (Mishna Soța 7.7, quoting Lev. 16.1 and 23.26-32). The New Testament describes the practice of reading the הפטרה *haptara* 'a pericope from the Prophets' on a Sabbath: 'He [Jesus] went to Nazareth, where he had been brought up, and on the Sabbath day he went into the synagogue, as was his custom. And he stood up to read. The scroll of the prophet Isaiah was handed to him. Unroll-

ing it, he found the place where it is written, "The Spirit of the Lord is on me, because he has anointed me to preach good news to the poor. He has sent me to proclaim freedom for the prisoners and recovery of sight for the blind, to release the oppressed, to proclaim the year of the Lord's favor". Then he rolled up the scroll, gave it back to the attendant and sat down' (Luke 4.16–21, quoting Isa. 61.1–2).

Several Jewish scholars in the middle ages attest to the practice of cantillation. The 10th century Tiberian Masorete Aharon ben-Asher described the musical characteristics of the various סעמים *te'amim*. For example, he described מגביה וחוזר ובלשון as מגביה וחוזר ובלשון מתפזר magbiah ve-hozer u-bal-lašon mitpazzer 'It goes up and returns and is scattered with the tongue'. He summarizes his description of the זה כלל הטעמים ומשרתים, te'amim זה כלל ze kelal hat-te'amim נעימות מגולים ולא סתומים u-mšartim, ne'imot megullim ve-lo setumim 'This is the principle of the te'amim and their conjunctives: the melodies are revealed and are not hidden' (ben-Asher, Digduge hat-Te'amim 1.15, 23).

In the 11th century, Solomon Ishaqi (better known by his acronym, Rashi) described the practice of cantillation in his commentary on Babylonian Talmud Berakhot 62a "The cantillation of the Torah. This could refer to the notation [of the melodies] in the book or to the vocal inflection and the sound of the melodies for singing [the motifs] *pašța*, *darga*, *šofar mehuppak*...".

Two rabbis from this era attributed a divine origin to the tradition of cantillation. Rabbi Simha ben Samuel of Vitry (d. 1105) wrote, "The melodies and phrasing of the cantillation signs are a tradition from Mount Sinai." (Mahzor Vitry §120, p. 241). And Rabbi Yehudah He-Hasid (c. 1150–1217, Rhineland) wrote, The melodies were codified so that the Torah would not be chanted to the melody of the Prophets or the Writings,...rather each melody as it was established. For all this is the law [revealed by God] to Moses at Mount Sinai, as it says (Exod. 19.19) "God answered [Moses] with a voice". [Why is it written] "with a voice"? [Moses] transmitted to the Israelites the same melodies that he heard [from God]. (Sefer Hasidim § 302, p. 241).

The 12th-century Rabbi Yehudah Ha-Levy described the unique function of music in cantillating the Biblical text. "The aim of language



Figure 1. European notation.



Figure 2. Tiberian Jewish notation.

is to transmit an idea from the heart of the speaker to the heart of the listener.... But you see in the poor remnant of our language which has been preserved in writing, a language created and instituted by God, are implanted subtle elements that serve to promote the complete understanding of the intent of the speaker.... These are the te'amim with which the holy text is read. They signify the places where the speaker intended to pause between two thoughts or the places where he intended to connect ideas together. They distinguish question from answer, subject from predicate, words spoken in haste from more deliberate speech, command from supplication" (Sefer hak-Kuzari part 2, §72).

Between the 8th and roth centuries, the Masoretes of Tiberias codified and developed a system for notating the ancient cantillation melodies. The graphic signs (עמים *te*'amim) which depict the cantillation melodies are a form of ekphonetic notation indicating inflection patterns and serving as a reminder of melodic motifs. The עמים *te*'amim do not represent absolute pitches, as do the symbols of Western notation. The note depicted in figure I indicates the pitch a' (the sound produced by a string vibrating at the rate of 440 cycles per second), lasting .25 seconds, at a moderately soft level of volume.

By way of contrast, the cantillation sign אָבָיר *tebir* depicted in figure 2 is ambiguous.



Figure 3. *Tebir* as interpreted in seven different Jewish traditions (after Idelsohn).

It represents not one fixed pitch, but rather a motif, a cluster of notes, the exact identity of which will vary depending on the text to which it is attached, the liturgical occasion on which it is sung, and the background and temperament of the individual who sings it. Each Jewish community has its own unique melodic tradition. Figure 3 indicates some of the ways in which the symbol תביר *tebir* might be interpreted by Jews of seven different communities, when it is attached to a word from the Torah as chanted on a normal Sabbath. Of course, any attempt to represent cantillation motifs in Western notation will be somewhat misleading. The rhythms are more subtle than can be depicted, and the pitches of the motif could be sung in any key that is comfortable for the performer.



Figure 4. הְבָיר *tebir* as interpreted in six different liturgical contexts.

Even within a single Jewish musical tradition, the interpretation of the same שעע ta'am is dependent on the text that is being read and the liturgical occasion. Figure 4 depicts the sound of $\eta = tebir$ in a Lithuanian community for the reading of (a) the Torah on a normal Sabbath (or Festival or weekday), (b) the Haftarah (Prophetic lesson) on a normal Sabbath or festival, (c) the book of Esther on the festival of Purim, (d) the book of Lamentations on the Ninth of Av, (e) the Song of Songs on Passover (the same melody is used for the Book of Ruth on Shavu'ot and the Book of Ecclesiastes on Sukkot), and (f) the Torah reading at the morning service on Rosh Hashanah and Yom Kippur.

The music of cantillation is *logogenic*, that is, its rhythm is determined by the natural cadences of speech. Its flow is quite flexible; there is no sensation of a regular meter. When cantillating a Biblical text, the words are considered the most important element—the words are "the master of the music," to borrow a phrase

from the Italian madrigalists. In the early 17th century, the Italian Rabbi Samuel Archivolti described cantillation as "a melody which is composed to fit the words in consideration of their ideas" (Adler 1975:100). However, few practitioners of the art of cantillation are sensitive to the subtle nuances of rhythm implied in the hierarchy of the syllables and the words. In the recitative style of cantillation, some syllables are longer and others are shorter. The shortest note is the chanting of a 'quick' syllable-an unaccented syllable containing either a vocalic shewa or a hatef vowel. An unaccented syllable containing a full vowel is short, but slightly longer than a 'quick' syllable. A syllable marked with a מתג ga'ya (also known as געיה meteg) or other secondary accent will be slightly longer, and a syllable marked with a primary טעם ta'am is the longest.

Individual words are also subject to a variety of rhythmic interpretations. The quickest word is one which has lost its independence, having been attached to another word with maggef (a hyphen-like symbol); it is treated as if it were entirely composed of unaccented syllables (→ Clitics: Pre-Modern Hebrew). A word bearing a conjunctive accent will be chanted more quickly than the disjunctive word which follows it. A word bearing a disjunctive accent will be performed with a slight ritardando and/or will be followed by a slight pause. Furthermore, disjunctive accents are hierarchical. The lowest level טעמים *te'amim* (level-four) are chanted without any pause or deceleration-פוֹר pazer, הַלִישָה-גָּדוֹלָה pazer gadol, הַלִישָה-גָדוֹלָה teliša gedola, gereš, גרשים geršayim, לגרמה legarmeh). Level-three טעמים *te'amim* have a slightly greater pausal function רְבִיע *rebia'*, דָרָקא *zarqa*, פַּשָׁטָא pašta, יְתִיב yetib, הְבֵיר tebir. Level-two טעמים te'amim are a bit stronger_זְקַף־גָדוֹל zaqepgadol, יַזְלֵף segol, שַׁלְשֶׁלֶתו šalšelet, זְלֵף zaqep, עפחא tippeha. And level-one טפחא te'amim have the greatest disjunctive function-אָתְנְחָתָא ²etnahta and סלוק silluq). While level-four טעמים te'amim have more elaborate (melismatic) musical content, appropriate for the beginnings of phrases, level-one טעמים *te'amim*, used for ending longer clauses and sentences, are melodically simpler and weightier.

The tempo of the weekday-morning Torah cantillation is generally rather fast. This is a short service, and most worshippers are eager to finish on time so that they can get to work. On the Sabbath, the service is more extended and its participants (in theory, at least) have allocated more time to the liturgy. The Sabbath cantillation need not be rushed. The service of the High Holy Days is the most extended and most solemn of all. The Torah reading on these mornings is slow and dramatic. In all cases, however, the proper rhythmic relationships among the *vagara vagara*.

Some musicologists speculate that in ancient Israel there may have been one generally accepted method of chanting the מעמים *te^camim* (Idelsohn 1929:71). When Jews settled in lands outside of their native land they attempted to preserve the traditional cantillation melodies and guard them from change. But, inevitably, their music was influenced by the sounds of the surrounding majority culture. Still, a glance at Figure 3 reveals that each of the variants has a similar contour, indicating the likelihood of a common origin.

We don't know what the original melodies were for the טעמים *te*'amim. But we are reasonably sure that throughout the years of the Diaspora these melodies evolved and mutated as they were passed on orally from one singer to the next. Inevitably, the chanting of the over othe next. Inevitably, the chanting of the over *ve*'amim became tinted by the alien colors of non-Jewish music. The cantillation motifs sung by German Jews began to sound different from those sung by Syrian Jews. Furthermore, even within a community, each individual would personalize the Diver *te*'amim. No two Jews chanted the Bible in exactly the same way.

There are many musical traditions for chanting the טעמים *te^camim*. Subtle melodic changes are accepted in most communities, as are legitimate traditional cultural variations. But two elements have not changed in the past millennium and are common to all traditions: the primacy of the text and the Tiberian or 'Masoretic' system of punctuation. Tradition-bound Jews across the world accept the authenticity of אטעמי המקרא *ta'ame ham-migra* as they were codified in Tiberias by ben-Asher more than a thousand years ago. These graphemata appear in the printed Bibles of all Jews, from Yemen to Germany, from Morocco to England, from France to Israel, from Lithuania to Iraq. Every Jewish community has some tradition of interpreting these טעמים *te'amim* musically.

The first known transcription of the טעמים *te^camim* into Western notation was made in



Figure 5. Transcription of the טעמים *te'amim* from Reuchlin, 1518.

the early 16th century by the Christian Bible scholar, Caspar Amman (ca. 1460–1524). The European Renaissance had fostered an intellectual climate in which religious tenets were being reexamined and reformed and ancient sources were being scientifically analyzed. Many Christian scholars suspected that the mystical view of Scripture, the official dogma of the Catholic Church, was obscuring historical reality. These humanists wanted to examine critically the primary sources of the Bible for clues to a more scholarly understanding of ancient Israel, an understanding unclouded by the force of any one interpretation.

Caspar Amman was one of the first Christian humanists to grasp the importance of the understanding of the understanding of Biblical Hebrew. His Hebrew grammar, never published, contained a transcription into Western notation of the melodies of the סעמים *te'amim*. Amman's source for the notation was Johannes Boeschenstein (1472–1540), who supplied the same information for the best known of the Christian Hebrew grammars of this period, Johannes Reuchlin's *De accentibus et orthographia linguae Hebraicae* 'On the Accent and Orthography of the Hebrew Language', published in Hagenau in 1518.

Several other Christian theologians of this period published transcriptions of the סעמים *te'amim*, but all of these works were theoretical and seem to have gone largely unnoticed. We have no evidence of a major movement among Christians to chant the Bible using the סעמים *te'amim*. Jews did not read Latin textbooks, but rather continued to transmit their melodies orally. It would be another three centuries before there were further attempts to notate the before there were further attempts to notate the

After the emancipation, when a significant number of Jews had become conversant with Western notation, there was a new interest in transcribing the traditional melodies. But this time it was Jews publishing them for use by Jews. Many cantors were eager to avail themselves of the Western notational system as



Figure 6. Cantillation of Exod. 12.21–22 Babylonian Jewish tradition (Idelsohn 1923a). © 2013 Koninklijke Brill NV ISBN 978-90-04-17642-3

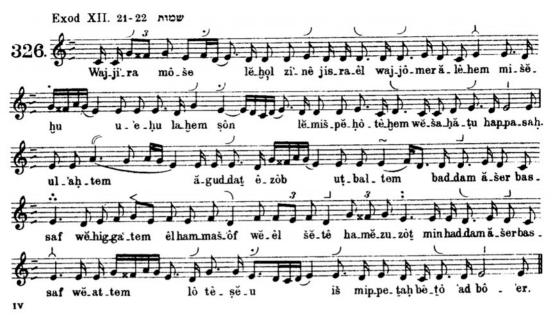


Figure 7. Cantillation of Exod. 12.21–22 Aleppo Jewish tradition (Idelsohn 1923b).



Figure 8. Cantillation of Exod. 12.21–22 Yemenite Jewish tradition (Idelsohn 1925).



Figure 9. Cantillation of Exod. 12.21 German Jewish tradition (Idelsohn 1929).

a modern and efficient means of teaching the liturgical chants to their students. Among the first to publish the טעמים *te^camim* in Western notation were Isaac Nathan (London, 1823), Samuel Naumbourg (Paris, 1847), Salomon Sulzer (Vienna, 1865), Abraham Baer (Göteborg, Sweden, 1877) and Israel M. Japhet (Frankfurt am Main, 1896).

In the 20th century the study of the טעמים te^camim took a more scholarly turn. Abraham Zvi Idelsohn, the pioneering Jewish ethnomusicologist, collected melodies for the טעמים te'amim from Jewish informants in a broad geographical sampling throughout Europe, North Africa, and Western Asia. He published his transcriptions in his monumental Thesaurus of Jewish Oriental Melodies and analyzed them in comparative tables in his Jewish Music in Its Historical Development. Johanna Spector, Robert Lachmann, and other researchers expanded the collection begun by Idelsohn. The Israeli musicologist Hanoch Avenary did a thorough analysis and comparison of available printed sources in his The Ashkenazi Tradition of Biblical Chant between 1500 and 1900. In his book, The Sacred Bridge, Eric Werner focused his study on the similarities between Jewish and Christian cantillation traditions.

In all Jewish traditions of Biblical chant, clarity and expressivity of the text is paramount. The melody constitutes a stylization of the natural inflections of expressive speech, in which some syllables in the words and some words in the text are emphasized more than others. There is also an aesthetic element; cantillation is a beautification of the text, a הדור מצוה hiddur misva 'enhancement of the commandment'. From a practical point of view, chanting is a stage device, a means of projecting the voice so that all worshippers in a large congregation would be able to hear the text. Chanting is also a mnemonic device, a means to help the reader memorize the text. From a liturgical point of view, chanting creates a border between sacred reading and secular reading. Chanting, rather than reading, allows the community to create a marker of a holy day. For example, on Rosh Hashanah Ashkenazic Jews use a special melody for reading the story of Abraham's binding of Isaac, but when that same story is read on Shabbat a month later, the regular melody is used. The chant thus serves as another symbol of the holy day, along with visual symbols, such as white curtains and vestments. In all cases, the music serves the sacred text. A traditional Jew would not conceive of singing the melodies of cantillation without their text, any more than he would conceive of performing the text without the appropriate melodies of cantillation.

References

- Adler, Israel. 1975. *Hebrew writings concerning Music: In manuscripts and printed books from Geonic times up to 1800.* Munich: Henle.
- Avenary, Hanoch. 1978. *The Ashkenazi tradition of biblical chant between 1500 and 1900*. Tel-Aviv: Tel-Aviv University Press.
- —. 1972. "Masoretic accents". *Encyclopedia Judaica*, vol. 11, cols. 1098–1111. Jerusalem: Keter.
- Beck, Astrid. 1997. *The Leningrad Codex: A facsimile edition*. Grand Rapids, Michigan: Eerdmans.
- ben-Asher, Aharon. 1967. Sefer dikduke haṭ-Te'amim le-Rav 'Aharon ben Moše ben-'Ašer. Ed. by Aron Dotan. Jerusalem: Ha-'Aqademya la-Lašon ha-Ivrit.
- Binder, Abraham W. 1959. *Biblical chant*. New York: Sacred Music Press.
- Cicero, Marcus Tullius. *Brutus Orator*. 1922. New York: Oxford University Press.
- Haik-Vantoura, Suzanne. 1970. La musique de la bible révélée: Une notation millénaire décrypté.
 Paris: Choudens (in English: The music of the Bible revealed. Berkeley, California: Bibal Press, 1991).
- ha-Levi, Yehuda. 2002. *Sefer ha-Kuzari*. Jerusalem: Nezer David.

- he-Hasid, Yehuda. 1992. *Sefer Hasidim*. Jerusalem: Bloom.
- Herzog, Avigdor. 2007. "Masoretic Accents". *Encyclopaedia Judaica*, 2nd edition, ed. by Michael Berenbaum and Fred Skolnik, vol. 13, 656–664. Detroit: Macmillan Reference.
- Idelsohn, Abraham Z. 1922. Thesaurus of oriental Hebrew melodies. Vol. 3: Gesänge der persischen, bucharischen und dagestanischen Juden. Berlin: Benjamin Harz.
- —. 1923a. Thesaurus of oriental Hebrew melodies. Vol. 2: Songs of the Babylonian Jews. Berlin: Benjamin Harz.
- —. 1923b. Thesaurus of oriental Hebrew melodies. Vol. 4: Gesänge der orientalischen Sefardim. Berlin: Benjamin Harz.
- —. 1925. Thesaurus of oriental Hebrew melodies. Vol. 1: Songs of the Yemenite Jews. Berlin: Benjamin Harz.
- —. 1928. Thesaurus of oriental Hebrew melodies. Vol. 5: Songs of the Moroccan Jews. Berlin: Benjamin Harz.
- —. 1929. Jewish music in its historical development. New York: Holt, Rinehart and Winston (Reprint New York: Dover, 1992).
- Jacobson, Joshua. 2002. *Chanting the Hebrew Bible: The complete guide to the art of cantillation*. Philadelphia: The Jewish Publication Society.
- Lachmann, Robert. 1940. Jewish cantillation and song in the Isle of Djerba. Jerusalem: Azriel.
- Ne'eman, Yehoshua L. 1955. Tseliley ha-mikra. Volume 1—The accents and their structure, Torah, Haftarah (in Hebrew). Jerusalem: Israel Institute for Sacred Music.
- —. 1971. Tseliley ha-mikra. Volume 2—Shir hashirim, Ruth, Kohelet, Ekhah, Esther, High Holidays (in Hebrew). Jerusalem: Israel Institute for Sacred Music.
- Quintilian, Marcus Fabius. 1922. *Institutio Oratoria*. Trans. by Harold E. Butler. Cambridge: Harvard University Press.
- Rosowsky, Solomon. 1957. The cantillation of the Bible. New York: The Reconstructionist Press.
- Seroussi, Edwin, et al. "Jewish music". Grove Music Online. Oxford Music Online, http://o-www. oxfordmusiconline.com.ilsprod.lib.neu.edu/sub scriber/article/grove/music/41322pg3 (accessed 23 July 2010).
- Simha ben Samuel of Vitry. 2004. *Mahzor Vitry*. Jerusalem: Mexon 'Osar ha-Posqim.
- Spector, Johanna. 1986–1987. "Chant and cantillation". *Musica Judaica* 9:1–7.
- Weil, Daniel Meir. 1995. *The Masoretic chant of the Bible*. Jerusalem: Mass.
- Werner, Eric. 1959. The sacred bridge: The interdependence of liturgy and music in synagogue and church during the first millennium. New York: Columbia University Press.
- Zeitlin, Shneur Zalman, and Haim Bar-Dayan. 1974. Miqraey qodesh: The Megillah of Esther and its cantillation (in Hebrew). Jerusalem: Kiryat Sefer.
- —. 1984. Miqraey qodesh: The reading of the sacred books according to their melodies (in Hebrew). Jerusalem: Kiryat Sefer.

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Biblical Accents: Musical Dimension

Contemporary traditions of biblical cantillation are based on the Tiberian accent system. Every Jewish community has unique traditions that include different tunes for chanting the Pentateuch, the Prophets, and the Five-Scrolls (Song of Solomon, Ruth, Ecclesiastes, Lamentations and Esther). Some Jewish groups also have special tunes for the biblical portions read on certain festivals (i.e., the High Holidays). In the Tiberian Masoretic text the books of Job, Proverbs, and Psalms have signs of accents different from the rest of the Bible. A number of Psalms are an integral part of the prayers, and are chanted by various communities according to traditional tunes that have no connection with the accent system. Even in those cases where Psalms (and the book of Job, in certain communities) are performed as independent pieces, their traditional tunes have no connection with the accentuation system. This fact might be the result of the old edict that prohibited reading Psalms outside the Temple (Eldar 1994:34).

The cantillation tradition of every community is based largely on the specific musical tradition of that community, which in turn is naturally affected by contact with the surrounding non-Jewish cultures. Therefore, the first step in the classification of the various biblical chants is to map the relevant traditions according to their actual geographic extent. Thus we find the German-Jewish tradition spreading west to Denmark and England, and also to Eastern Europe as a 'Slavic' variation; the Spanish-Portuguese-Jewish tradition spread to Amsterdam and eastwards to Northern Greece and Turkey; the Italian-Jewish tradition has a 'Greek' variation; the Iranian-Jewish tradition has an 'Afganistani' variation; the Iraqi-Jewish tradition has Syrian, Egyptian, and Tunisian variations; the Moroccan tradition has Algerian and Libyan variations; and the Yemenite-San'ani tradition has Huggariya (= Shar'ab) and 'Adani variations. Furthermore, within each of the above traditions, there are also numerous local styles (that evolved wherever organized Jewish communities existed over an extended period of time). Today, however, as a result of World-War II, as well as the establishment of the State of Israel and the general improvement in communication, this musical richness