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# From Masoretic Signs to Cantillation Marks: Initial Steps (On the Virtual Dialogue between Alfonso de Zamora and Johannes Reuchlin)\*

*Nuo masoretinių iki kantiliacijos ženklų: pirmieji žingsniai  
(virtualus Alfonso de Zamoros ir Johannes Reuchlino dialogas)*

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## Abstract

Cantillation (the art of chanting sacred texts) is a phenomenon known to many nations; it also presents in the rites of different Jewish communities. However, it was only in the culture of the Jews of Europe that cantillation was perceived as a musical phenomenon. The task of the research is to analyze the first step of the process of the appearance of views of *ta'ame ha-Miqra'* as being elements of musical culture. The article deals with two treatises of the sixteenth century that influenced the formation of the view on the Masoretic signs as analogues to the neumas. The awareness of the cantillation of sacred books as a musical phenomenon came about as a result of the special attention given to the Masoretic signs at the time of the emergence of the Christian Kabbalah. These signs were an important component of the cultural transfer between Jewish (Ashkenazi and Sephardi) and Christian (Catholic and Protestant) cultures. Subsequently, a new generation of researchers shifted their attention from the mystical characteristics of the signs to the tunes they convey.

**Keywords:** Masoretic signs, cantillation marks, *ta'ame ha-Miqra'*, Alfonso de Zamora, Johannes Reuchlin, Complutensian Polyglot Bible, the Art of the Kabbalah.

## Anotacija

Kantiliacija (šventųjų tekstų giedojimo menas) – daugeliui tautų žinomas reiškinys, praktikuotas įvairių žydų bendruomenių apeigose. Tačiau tik Europos žydų kultūroje kantiliacija buvo suvokiama kaip muzikos reiškinys. Tyrimu siekiama apžvelgti požiūrio į *ta'ame hamikra* kaip į muzikinės kultūros elementą formavimosi pradžią. Straipsnyje nagrinėjami du XVI a. traktatai, kurie turėjo įtakos požiūriui į masoretinius ženklus kaip neumų analogus susiformuoti. Šventojo Rašto kantiliacijos kaip muzikinio reiškinio suvokimas atsirado dėl ypatingo dėmesio masoretiniams ženklams krikščioniškosios kabalos formavimosi metu. Šie ženklai buvo svarbus žydų (aškenazių ir sefardų) ir krikščionių (katalikų ir protestantų) kultūrinio perkėlimo (angl. *cultural transfer*) komponentas. Vėliau naujosios kartos tyrinėtojai perkėlė dėmesį nuo mistinių ženklų savybių prie jų perteikiamų melodijų.

**Reikšminiai žodžiai:** masoretiniai ženklai, kantiliacijos ženklai, *ta'ame hamikra'*, Alfonso de Zamora, Johannes Reuchlinas, Kompiuto poliglota („Biblia Polyglotta Complutense“, daugiakalbis Biblijos vertimas), Kabalos menas.

## Introduction

The system of vocalization, accentuation, and Masoretic notes is still relevant for Jewish religious communities. These are the tools necessary for structuring the text of TaNaKh and understanding its semantic nuances. Masoretic signs (diacritical marks) are indispensable for learning, including preparation of a person for public reading of sacred texts. Within the Jewish tradition the interpretation of these marks in the biblical text is rather an exegetical problem. The correct reading—according to the rules of grammar and syntax, and with the proper intonation—becomes a way of resolving issues not related to the signs themselves, but—thanks to them—to the text they accompany.

Of all the Masoretic signs, the *te'amim*<sup>1</sup> are the most difficult to master. The complicated graphical organization and the multiple meanings of the signs have often led to truncation (clipping) of their perception.<sup>2</sup> The marks, one of the functions of which is the transmission of cantillation tunes, do not appear in scrolls used directly in the synagogue liturgy. This may be one of the reasons they have been out of the attention of European scholars for quite a long time. For researchers brought up in other denominations, the need for these signs was not so obvious. But, as we know, it was Christian scholars who first wrote down the melodies transmitted by Masoretic signs.

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The awareness of intonation when reading sacred books, as a phenomenon requiring special attention, came about as a result of an extensive cultural transfer that involved Jewish (Ashkenazic and Sephardic) and Christian (Catholic and Protestant) cultures. It later served as the basis for conceptualizing the Masoretic signs as a proto-musical phenomenon. The core of the cultural transfer was the text of the Holy Scripture, which was an axial one defining each of these cultures, and the processes of reinterpretation affected not only the text itself but also the mystical practices based on it.

We know when and by whom the Masoretic signs' tunes were first written down using a system of notes. But the question remains: Why were they written down in notes? Why did they come to be seen as an analog of a musical notation? Why did the intonation of the signs become so important for scholars?

The task of our research is to analyze the first stage of the process that led to the emergence of the view of te'amim as elements of musical culture. We intend to identify the causes of a particular approach to music transcription of the Masoretic signs and determine the role that scholars assigned to cantillation tunes.

The main materials for our analysis are treatises containing the first musical notations of te'amim or descriptions of their melodies. These are the works of two scholars from the sixteenth century, Alfonso de Zamora (c. 1474–c. 1544) and Johannes Reuchlin (1455–1522). They both belonged to Christian culture. We will also consider some of the works of researchers who developed the ideas of Zamora and Reuchlin.

### Treatises where ta'ame ha-Miqra' was first presented to non-Jewish readers

It would be wrong to say that Jewish thinkers themselves did not pay attention to the intonation of the te'amim in their treatises. But on the one hand, they focused their attention on the interpretation of the text, and they took cantillation as a matter of course. It was taken for granted as an always-present daily occurrence. On the other hand, mystical teachings that included in-depth knowledge of signs were not generally available. The scholars followed what was said in the Talmud: the fullness of knowledge could only be revealed to the one who had comprehended it themselves (Hagigah 2). Thereby in their works, at best, the general characteristics of the tune with some additional details were given. For example, in the Kabbalistic treatise "Candle of God"<sup>3</sup> states:

Thanks to them [te'amim. – *E. Kb.*], the reading becomes beautiful and euphonic, soaring up, stretching and turning back. Among the signs there is, for example, zarka, which looks like a small curl and is called so because it "throws"

("zoreket") the melody forward, stretching it. The names of the other symbols also indicate their form and function, as do the names of letters and vowel marks.<sup>4</sup>

At the beginning of the sixteenth century, te'amim first appeared in texts addressed to a non-Jewish reader, almost simultaneously in two different editions. These were the Complutensian Polyglot Bible (Biblia Polyglotta Complutense, 1514–1517, 1522, Spain) and a treatise by Johannes Reuchlin (1518, Haguenau, Alsace).<sup>5</sup>

The Hebrew text of Polyglot Bible is accompanied by only two main signs. One of them separates verses (*sof pasuk*) and the second marks the middle caesura (*etnachta* or *athnach*).<sup>6</sup> The sixth volume of the Polyglot Bible contains the Hebrew- and Aramaic-Latin dictionary and grammatical explanations, compiled with the participation of Alfonso de Zamora. There Zamora pointed out that accents (i.e., te'amim) were closer to speech than to singing. He did not give any characteristics of their intonations.

In 1526, Zamora published the grammar for the second time (Zamora 1526). He expanded the fourth section of the treatise on cantillation marks, and called it "Accents and punctuation" (Cap. quartum de accentu, & punctis). Zamora listed three functions of the te'amim: 1) to indicate the stressed syllables, 2) to pass the chanting melody (canto), 3) to denote pauses. On a separate page Zamora wrote down the names of the signs from *zarka* till *sof pasuk* (Zamora 1526: 23).

In addition to this brief information, Zamora mentioned a different sound for te'amim in the Pentateuch, Psalms, the Book of Job, Proverbs or Song of Songs, and specified that the symbol  $\text{˘}$  (*zarka*) in these books is named *tsinnor*. This time, he characterized the intonation function of te'amim, comparing it with the notes:

Just as Christians in churches use notes—ut, re, mi, fa, sol, la—so do Jews use their accents. But in this singing they have a great variety according to the different themes of the Bible books. Pentateuch and historical books<sup>7</sup> are read in a simple and smooth way (plano & leni), the Prophets—in a severe and denouncing/threatening tone (severo & satyrico), especially the Book of Lamentations and the Book of Job. Psalms sound contemplative and serious (contemplativo & gravi), Proverbs—simple and earnest (plano & consiliativo), Song of Songs—lively and joyous (alacri & iocudo), Ecclesiastes—severe. But to do that well, one should know their tunes (vocis), connections and [have] live experience [of cantillation] (Zamora 1526: 21).

This small fragment resembles the above passage from the Kabbalistic treatise, as it provides only general information about the manner of cantillating of the sacred texts by the Spanish Jews in the late fifteenth century (let us recall that more than thirty years passed between the expulsion of the Jews from Spain and the publication of the book).

The treatise “De accentibus et orthographia linguae Hebraicae” by Johannes Reuchlin was the second publication of that time giving an idea of te’amim. The book was printed in 1518 in Hagenau (at that time the capital of the Décapole) (Reuchlin 1518). This work is entirely devoted to Masoretic signs (vowel marks and te’amim): their functions are scrutinized in three sections, entitled “Ta’am” (meaning), “Meteg” (emphasis), and “Nagina” (melody). The last section tells about the cantillation tunes and contains a musical appendix. The tune of each sign in this section is written down in notes, and its melody is arranged for four voices (for chorus) according to the aesthetic ideas of that time. The main part was given to a tenor (according to the rules of cantus firmus).<sup>8</sup>

Comparing the conditions of the writing of these works, the form of representation of Masoretic signs in them, as well as the biographies of their authors, we can assume what reasons prompted the scholars to turn to te’amim.

### **The Historical Context: *Hebraica veritas* and the beginnings of the Christian Kabbalah**

The history of the Complutensian Polyglot is well studied. Bringing together biblical texts in Hebrew, Aramaic, Greek, and Latin was made possible by the activity of the Grand Inquisitor, Cardinal Francisco Jiménez de Cisneros (1437–1517). Being the Archbishop of Toledo and Primate of Spain, de Cisneros founded a university in Alcalá, where in 1507 he established The Collegium Trilingue to study Latin, Greek, and Hebrew. The main purpose of the study—to reveal the literal meaning of Scripture—was based on the view of the Torah language as a proto-language. Supporters of the ideas of *Hebraica veritas* believed that by reading the Bible “correctly,” the reader could see in it the evidence of the truth of Christian doctrine. Besides, the comparison of Scripture texts should have helped Christians to identify and correct the misrepresentations that they suspected had been made by the Jews.<sup>9</sup>

The words in each column of the Complutensian Polyglot (i.e., in the Hebrew, Latin, and Greek texts), as well as in the Aramaic one in the lower register of the page, are provided with identical Latin marks that allow you to find and match them. Detailed cross-references between texts make this publication more suitable for scientific research than for practical needs (worship). Te’amim in the Polyglot have only syntactic meaning; they indicate the places of the main caesuras.

Reuchlin’s treatise also aims to study the grammar of the Hebrew language, but if we consider it among the scholar’s other works, the meaning of Reuchlin’s turn to Masoretic signs appears to be different. Reuchlin was one of the founders of the Christian Kabbalah, but only two

of his writings were attributed by researchers as mystical: “Miracle-Making Word” (Reuchlin 1494) and “The Art of Kabbalah” (Reuchlin 1517).<sup>10</sup> Both books are presented in the form of a dispute between three people of different faiths.<sup>11</sup> The first one is devoted to the hidden meaning of the tetragrammaton. Debaters solve a kind of a riddle and come to the conclusion that there is a hidden fifth letter “syn” (שׁ), placed in the middle of the word, which in this case would be read as IHShUH (Jeshua).<sup>12</sup>

The second treatise of Reuchlin is the main scholar’s work on Kabbalah as a special art. Among other things, it talks about the possibility of using the mystical power of the Hebrew letters to gain the support of angelic beings and to open the path to God. Reuchlin sought to show the inclusivity of mysticism, removing the contradictions between science and faith. In particular, the scholar substantiated the unity of the nature of Kabbalah and Ancient Greek philosophy.<sup>13</sup> He considered rational knowledge only as a preparation for receiving the divine revelation. The treatise acquaints the reader with the techniques of a profit form of Kabbalah. Reuchlin turned to the tetragrammaton ones again, interpreting it in terms of *Gemetry* (an alphanumeric code).

The invocations of higher powers and the practice of the ascent of the soul, used by the Jewish Kabbalists, included the inscription and pronunciation of complex combinations of names and words derived from them. In addition, there were special chants that promoted the immersion in a meditative state. “He [who prays. – *E. Kb.*] should constantly sing pleasant melodies, humbling himself, begging, bowing, falling down and crying,” wrote an anonymous author of the thirteenth century.<sup>14</sup> Mistakes made in uttering the names of angels or spirits could be fatal.<sup>15</sup>

Reuchlin, referring to the “900 Theses” of Giovanni Pico della Mirandola (“Conclusiones Nongentae publicae disputandae,” Rome, 1486), wrote that sounds as such had a special magical power and could be more effective than words. In his exposition, the chain of ascent is as follows: sounds awaken feelings that stimulate the imagination. It, in turn, appeals to memory, the memory affects the mind, the mind impacts the intellect, and the intellect impacts the consciousness, which initiates contact with the angels (Reuchlin 1993: 269–271).<sup>16</sup>

The treatise “De accentibus et orthographia linguae Hebraicae” was printed in 1518, a year after the publication of “De Arte Cabalistica.”<sup>17</sup> Scholars refer this work to Reuchlin’s treatises on Hebrew grammar and put it in one row with his earlier “The Rudiments of Hebrew” (Reuchlin, 1506), which, in fact, was the first Hebrew language textbook.<sup>18</sup> However, the book can be correlated with Kabbalistic doctrine or, more precisely, it contains the knowledge necessary for mystical practices (the ones that allow you to take the first steps in the ascent). Reuchlin was the first who drew the attention of Christian scholars to te’amim as one of the

tools for conveying the correct pronunciation of a sacred text—from grammatical stress to melody of cantillation phrase. Cantillation marks for the researcher were the key to the tune contained in the Scripture.<sup>19</sup>

### Zamora and Reuchlin: A Hidden Dialogue

In the first quarter of the sixteenth century, Zamora and Reuchlin wrote their works independently of each other. However, we can see that later, in the 1526 edition, Zamora changed his view of te'amim and the nature of cantillation (which at first he considered more speech than singing). As for the music itself, he added only two things: first, a comparison of signs with notes and second, some explanations. There is no direct evidence of Zamora's acquaintance with the treatise on te'amim, but his "Introductiones Artis grammaticae Hebraicae" seems to be a kind of response to Reuchlin's works.<sup>20</sup>

Until 1526, Zamora did not have publications related to Kabbalistic doctrine. The first one is considered to be the "Epistola ad Hebraeos" ("Epistles to the Hebrews") placed in the same edition with "Artis grammaticae..."<sup>21</sup> Here Zamora successively had demonstrated his mastery of *Gematriy*, interpretation of the abnormal form of some letters, as well as the technique of combining letters. He also wrote about the hidden meaning of tetragrammaton (for example, he got the expression "was, is, and will be" by rearrangement of the letters: HYH, HWWH, YHYH).

In both Reuchlin's and Zamora's writings, there are references to the Kabbalistic treatise "Ginnat Egoz" ("The Garden of Nuts") by Joseph Gikatilla (1274).<sup>22</sup> In the preface to the "Artis grammaticae...", Zamora had mentioned Reuchlin's treatise "De rudimentis hebraicis," saying it needed additions (Zamora 1526: 3).

Reuchlin died a few years before the publication of "Artis grammaticae...", and Zamora did not get involved in the polemics with him. Zamora did not accept the position of Johannes Pfefferkorn, who accused Reuchlin of lacking skills in Hebrew; nevertheless, he saw gaps in the works of the German scholar. Zamora got a full-fledged Jewish education and a *smikha* of *Shoikhet* (professional certificate for ritual meat slaughtering) (Neubauer 1895: 398); that is, he knew the Talmud well, whereas Reuchlin, by his own admission, had not read it. In the "Epistles to the Hebrews," Zamora dealt with not the world of spirits, but directly the text of the Scripture, extracting from it the evidence of the truth of the Christian doctrine.

In that context, the above quoted short fragment about te'amim from "The Art of Grammar..." also turns out to be a supplement to the treatise of Reuchlin. The art of cantillation was well known to Zamora. He knew about the role of marks and could easily have included the relevant sections

in his work. It is known that the writings of Zamora were based on the works of the medieval biblical commentator and grammarian David Kimhi (Qimhi, 1160–1235), who considered the Masoretic signs in his treatise "Et sofer" ("Pen of the Scribe"). However, the scholar confined himself to brief remarks that do not give a thorough idea of te'amim and, if we do not consider them as additions, seemed to be fragmented.

The remarks of Zamora, who did not point directly at his opponent and did not emphasize the inaccuracies in his work, are similar to those of the Talmudic commentaries, where sometimes opposing opinions are placed side by side. In this juxtaposition, which kept the entire integrity of the information from the opponent, Zamora was a worthy heir to the centuries-old tradition. The scholar did not refute the position of Reuchlin, did not specify that only one version of chanting of the signs was presented in "De accentibus," and did not criticize the four-voice arrangement, inapplicable in synagogue practice. He only pointed out that te'amim sounded differently when various Scripture books were read. As for the melodies, he limited himself to a remark about the need for living hands-on experience, apparently keeping in mind that musical notation was not enough for their mastering.

Zamora gave a list of signs, as if correcting Reuchlin. Both scholars spelt the names of te'amim in Hebrew. Reuchlin placed the names in red above the text (fragments from Book 2 of *Divrei Yaamim*/Chronicles, 24:5).<sup>23</sup> So, instead of tiny icons that do not distract from the text of Scripture, we see an additional line highlighted by a bright color. Most of the names in it are longer than the words that were intended to accompany these marks. The signs themselves are attached to both the main text and to their own names.

Zamora listed only the names of te'amim (each with a corresponding graphic symbol). He deleted their repetitions, which Reuchlin inevitably had used when quoting text fragments. At first, the sequence of the signs in two lists is the same, but then Zamora compiled other constellations. The signs are distributed on the sheet in such a way that at the end of each line there is a more or less significant separating one. Their whole sequence ends with the sign that marks the end of the verse: *sof pasuk*. (Unlike Zamora, for Reuchlin there was no importance in the arrangement of signs on the page.)

The title of Zamora's treatise must have been a part of this hidden "dialogue." Reuchlin's grammatical work is just a "basis," a "beginning" ("de rudimentis"). The most famous of his works was "The Art of Kabbalah" ("De Arte Cabalistica"). Zamora titled his work "Introductiones Artis grammaticae Hebraicae" (literally: "Introduction to the Art of Jewish Grammar"). This title contains references to both works by Reuchlin. We see that Zamora

indicated his higher (compared to Reuchlin's) "artistic" level of knowledge of grammar and at the same time noted the auxiliary (introductory) character of his own treatise. The mastery of Zamora could be seen in the thoroughness of the details, including the location of the names of the te'amim on the page.<sup>24</sup>

Unlike the Jewish tradition, in the Christian culture of Spain in the sixteenth century, the polemics did not imply the presence of equal, complementary points of view. In the editions of that time, we more often meet a denial (or apology). It was not a surprise that contemporaries did not see in Zamora's treatise a response to Reuchlin's writings.

### Echoes Through Generations: Two Views of Te'amim

Both scholars left a bright trace in European culture.

Reuchlin's works were widely recognized by his contemporaries (one of those who glorified Reuchlin was Erasmus of Rotterdam, 1466–1536). They inspired many to learn ancient languages and awakened a burning interest in Jewish mysticism. Researchers note the huge influence of his works on scholars, public figures, and writers over several centuries, meaning, primarily, his Kabbalistic treatises.<sup>25</sup>

Despite the fact that Zamora is much less known, the significance of the Complutensian Polyglot, creation of which he took part in, is undeniable. Zamora initiated an uninterrupted five-century-long tradition of Hebrew learning in Christian Spain; he also was an expert Hebraist (see: de Prado Plumed 2014; de Prado Plumed 2019). Researchers study his work with treatises by David Kimhi and other manuscripts copied by him and consider his activities from the point of view of the self-determination of the baptized Jew (with the probable partial preservation of the internal identity)—as a person in a non-free society.

Information about the cantillation transmitted by te'amim first appeared in the writings of these two scholars and subsequently determined two directions of Jewish music research that had been developing separately from each other. The scholars did not correlate materials that appeared in the same epoch and related to the same subject.

The book "De accentibus" opened the te'amim for research. Reuchlin considered cantillation marks in a number of other Masoretic signs, as Jewish authors had done before him, but he offered a new perspective on the intonation of the marks. This was the first step towards the separation of the melodic function of the te'amim from other ones. Previously demanded only within the Jewish congregation, these intonations were absorbed by its members from early childhood; they were heard not only in synagogues, but also in homes where men learned Holy Scripture on a

daily basis. In that period there came a demand for learning the cantillation marks by adults with a different auditory experience. Knowledge of the te'amim was required not to participate in the rituals, but to understand the text of the Pentateuch. They were also attributed with special mystical properties.

More than a century and a half later the treatise of the theology professor Michael Beck, "Using the musical significance of accents and its abusing interpretation," was published (Beck 1678).<sup>26</sup> It contained an analysis of various approaches to the research of te'amim and testified to the enduring relevance of the approach proposed by Reuchlin. On the last two pages of this work a musical notation from the treatise of Reuchlin was given, but only for one voice (not for a choir). However, Beck made a mistake choosing the tune of the discant; he was obviously convinced that the main melody was in the upper voice.

In the works on the music history until the end of the nineteenth century, like an echo, the exclamation was repeated: "Fuisse artem Satanæ, quando christianis persuasit accētus esse musicales!"<sup>27</sup> These words were attributed to Bolius (Samuel Bol, 1611–1639), who was allegedly desperate from the unclear meaning of the te'amim.<sup>28</sup>

It is a kind of irony to see the mention of the Alfonso de Zamora in the same musicological works. He was called there "Rabbi Zamora."<sup>29</sup> Several key sentences from the fragment we cited above were also repeatedly quoted, moving from century to century, from one work to another. The quote, taken out of context, got a different meaning: it was used to describe the music of the distant past that had lost its relevance, and the reference to the "rabbi" gave it undeniable authority. In "Typikon" by Mikhail Skaballanovich, the information became faceless: "by the characteristics of rabbis," (Skabalanovich 1910: 14) and in this form passed into the works of contemporary Russian musicologists.<sup>30</sup>

Studies that developed the direction indicated by Reuchlin and related to the transmission of intonation of the te'amim in notes, on the contrary, led to more and more elaboration. The transcription variants were multiplied. The hierarchy of te'amim proposed by Samuel Bol allowed their alternation to be represented as an ordered system and created the basis for assigning them rhythmic characteristics. In particular, the breaks between words began to equate to pauses—from a quarter to thirty-second (Maggid 1911: 226) and even to sixty-fourth one (Rosowsky 1957: 23ff). Later, European scholars arranged the signs "in order of precedence" rather than following the logic of their interrelationships. The order of accents was changed as early as Beck's treatise: first, the melodies of the most "noble" "emperors" and "kings" were written.

At the beginning of the nineteenth century, these principles were accepted by the representatives of the emerging

Jewish Enlightenment (*Haskalah*). The new order, along with the titles of lords that were not used among Jews, was adopted by Jewish researchers through the works by the writer and lexicographer Yehuda-Leib ben Zeev (1764–1811).

Abraham-Zvi Idelson (1882–1938) aimed to identify the melodies preserved since the time of the Temple by comparing the intonation formulas of te'amim within different Jewish communities. His work became one of the high points in the study of the te'amim as cantillation marks. In the tables compiled by Idelson, the music lines were compared with no reference to the text, which defines the sound of melodic elements. The scholar, perhaps consciously, disregarded the differences in the real sound of formulas that looked similar on the paper. The signs were arranged in a different order. For example, the row was started with the last mark in the verse and followed by a mark dividing the verse into two parts. Hence, it was impossible to recognize the outline of tunes.

Solomon Rosowsky (1878–1962) in his book “The cantillation of the Bible” reached the highest level of concretization. He had isolated and analyzed each of the signs in all its positions throughout the Pentateuch. His research is entirely devoted to reading the Torah only on Saturdays and holidays, and only in the tradition of Jews of Lithuanian origin (audio recordings were made in Palestine) (Rosowsky 1957: 19). At the same time, based on recordings from several informants, Rozovsky created a generalized version of the cantillation tune, actually having deprived it of a lively individual manner of performance.

Rozovsky sought to convey the logic of alternation of the marks and not to lose connection with the Biblical text: all his examples were taken from the Torah. However, each time he considered a melodic sequence from its end, from its last sign, gradually adding the previous ones.

Some researchers at the end of nineteenth and during the twentieth century believed the main function of te'amim was the transmission of some musical content which was considered by such factors as scale, harmonies, and modulations. Composers of the Jewish Folk Music Society in St. Petersburg searched the sources of national melody in cantillation tunes.

## Conclusion

The orthodox Jews still read the Torah by te'amim.<sup>31</sup> The transition from sign to sound—the conversion from a silent line into an audible text—is repeated each time. For the people brought up out of Jewish tradition but aspiring to learn about cantillation or even to master it, Zamora's remark is still relevant. However, out of context—without

regard to the time of writing and apart from the text, to which it, most likely, was an addition—it loses its lucidity.

At the same time, by the twenty-first century, we have gained an experience in transcribing and classifying the te'amim and understanding them both with regard to prosody and musical structure. Some contemporary researchers are dissatisfied with the methods used before and have been encouraged to search for new ways of studying Masoretic signs. Perhaps it is not enough to establish the connection between the phonetics, intonation, and rhythm of a phrase. New approaches are required to take into account other components of this process.

## Endnotes

- <sup>1</sup> Masoretic signs—Hebrew: *ta'ame ha-Miqra'* or *te'amim*. Researchers called them accents, tropes, musical marks, or cantillation marks. The choice of the name did not depend on the priority of particular function of the signs.
- <sup>2</sup> The difficulties encountered in systematizing the Masoretic signs are discussed in: Khazdan, Evgenia. *The Cantillation Marks in the Liturgical Tradition of European Jews* (In Russian. Moscow, in print).
- <sup>3</sup> “Ner Elohim” (*hebr.*). In different sources its author is considered to be Joseph Solomon Rofe (XVII) (Gintsburg 2003: 129, No. 571), Abraham Abulafia (1240–after 1291) (see, for example: Din, Sharon 2007), or an anonymous student of Abulafia (Idel 1976: 72–75).
- <sup>4</sup> The Russian translation is taken from: (Materials for the lecture by Moshe Idel).
- <sup>5</sup> By that time, a significant experience of publishing texts of Jewish books with Masoretic accents had been gained. But all of those books were addressed to Jewish readers (see: Schenker 2008: 276–286).
- <sup>6</sup> As we know, the Greek text of Polyglotta was also presented with inaccurate accents and without diacritical marks of rough and smooth breathing (see: Metzger, Ehrman 1996: 94).
- <sup>7</sup> Historical books in the Jewish tradition include the Book of Joshua, the Book of Judges, the Books of Samuel, and the Books of Kings. In the Christian Church the Books of Ruth, Esther, Ezra, and Nehemiah as well as the Books of Chronicles are also considered historical.
- <sup>8</sup> The transcriptions were made by the Catholic priest Johann Boeschenstein (Böschenstein, 1472–1539), and the melodies were harmonized by Christophorus Sillingus (Schilling) from Lucerne, a student of Reuchlin (see: Reuchlin 1518: LXXXIII).
- <sup>9</sup> David Price supposes that the study of the Hebrew language was began by “a tiny number of Christian scholars... seeking Hebrew and Jewish scholarship” in a hope “to acquire new methods for theological education and research” (Price 2011: 4). However, this movement was initiated by the Catholic Church and covered many European countries.
- <sup>10</sup> Reissued (bilingual): (Reuchlin 1993). Moshe Idel points out that the publication of Christian Kabbalistic treatises preceded the printing of the Jewish Kabbalah, which until then had been mostly transmitted orally or in manuscripts (to avoid its falling into the hands of men unworthy of teaching) (Idel 2010: 409, footnote 27).

- <sup>11</sup> The discussion, especially in the second treatise, is mostly external, since its participants do not so much argue as they complement each other. The first treatise, “Miracle-Making Word,” ends with the decision of a Greek (a Pythagorean) and a Jew to be baptized.
- <sup>12</sup> The last letter in the name Yeshua is not *hei*, but *ain*. Even Reichlin’s contemporaries drew attention to his insufficient knowledge of Hebrew.
- <sup>13</sup> For details, see: (Idel 2014).
- <sup>14</sup> Quoted by: (Idel 2010: 154). Cf. the description of meditation in the tradition of the Jewish mystical group of “Merkava” (“Chariots”) preceding the formation of the Kabbalistic doctrine: “A man endowed with many of the virtues described in the books, and eager to see the Merkava and the Palaces of angels in heaven, must follow a certain procedure. He should fast for several days, put his head between his knees and sing in low voice hymns and chants, which verses are known from the tradition. Then it would be disclosed for him what is inside.” Hay ben Šerira, Ga’on (939–1038). Quoted by (Scholem 2004: 86).
- <sup>15</sup> For example, Moshe Idel characterizes such Kabbalistic practices as a dangerous way of ascent onto the Empyrean Heaven for the sake of extraordinary and exciting experience, which threatens an unworthy mystic with complete annihilation (Idel 2010: 178–186).
- <sup>16</sup> See also: (Kuzmin 2005: 72). On the relationship of Kabbalistic practices and music, see: (Idel 1997).
- <sup>17</sup> Lloyd Jones indicates the wrong date: 1522 (Jones 1993: 12).
- <sup>18</sup> See, for example: (Mesguich 2008: 258; Price 2011: 75). Two years earlier, Konrad Pellikan (1478–1556) had published his version of the textbook (Pellikan, 1504). For a brief description of his work see: (Schwarz 1955: 66).
- <sup>19</sup> According to the Jewish hermeneutic tradition, there is nothing accidental in the text of the Torah. Not only the text, but all the elements associated with its transmission are endowed with a hidden meaning. This principle was adopted by the Christian kabbalists, and Pico della Mirandola was the first to published it.
- <sup>20</sup> Francisco Siller, analyzing this edition, stresses that its author is likely to have been influenced by Reuchlin (Siller 2013: 160).
- <sup>21</sup> See: (Secret, 1957: 41; Secret 1959; Wilkinson 2007: 20, and footnote 5, 6; Siller 2013).
- <sup>22</sup> Gikatilla, Joseph ben Abraham (1248–1325?), a Spanish kabbalist, a student of Abraham Abulafia, sought to reconcile philosophy with mystical knowledge. The title of his treatise “Ginnat Egoz” (גִּנַּת אֵגוֹז) alludes to the “Song of Songs” (6:11). The word “*ginnat*” (“garden”) is read as an abbreviation of the names of the three main Kabbalistic techniques, while “*nut*” is the emblem of hard to achieve knowledge.
- <sup>23</sup> Perhaps Reuchlin needs the Hebrew text because it already has the signs arranged according to internal rules, in the right combinations that are not quite clear to him.
- <sup>24</sup> The skill of *sofer* (*sopher*), a scribe of sacred books, is highly esteemed in Jewish society. Proper design of the page and harmonious arrangement of all the necessary elements are mandatory requirements for a professional.
- <sup>25</sup> See, for example: (Zika 1976; Kuzmin 2014). The latest paper provides a structured overview of sources.
- <sup>26</sup> The treatise was republished in a monumental collection of theological and philosophical works (Beck 1701).
- <sup>27</sup> “This was the trick of the devil — to convince Christians that accents have a musical significance!”
- <sup>28</sup> See: (Beck 1678: 6; Beck 1701: 564; de La Fage 1844: 381; Olesnitsky 1871: 394–395).
- <sup>29</sup> Neubauer believed that the researchers had added to the name of Zamora the status of rabbi, since he had called himself the son of the wise (Rabbi) Juan de Zamora (Neubauer 1895: 398). But there is no word for “Rabbi” in the treatise. Here, in the “Divrey ha-mekhaber” section, Zamora called herself the son of a wise man (*khokhem*) (Zamora 1526: 433). He could not call himself or his father a Rabbi because they had been both baptized.
- <sup>30</sup> For more information see: (Khazdan 2018). See also: (Khazdan 2020).
- <sup>31</sup> On the reasons of the resilience of this tradition, see: (Khazdan 2015).

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## Santrauka

*Te'amim* (kirčiavimo arba kantiliacijos ženklų) istorija siekia daugiau nei pusantro tūkstančio metų. Šie ženklai yra sudėtingos masoretinių ženklų sistemos dalis, būtina Toros studijoms, įskaitant pasirengimą viešai skaityti šventuosius tekstus. Viena jų funkcijų – perteikti melodinę intonaciją, kuri daugumoje XVIII–XX a. tyrimų laikyta muzikos reiškiniu. Atitinkamai kantiliacijos ženklai laikomi tam tikra neumų (muzikinės notacijos ženklų) forma. Šio tyrimo tikslas – požiūrio į *te'amim* kaip į muzikinės kultūros elementus formavimosi proceso analizė.

XVI a. pradžioje *te'amim* pirmą kartą pasirodė tekstuose, skirtuose ne žydams, dviejuose skirtinguose leidiniuose beveik vienu metu: Kompliuto poliglote („Biblia Polyglotta Complutense“, 1514–1517, 1522, Ispanija) ir Johaneso Reuchlino traktate „De accentibus et orthographia linguae Hebraicae“ (1518, Elzasas). Kompliuto poligloto gramatiniai paaiškinimai buvo parengti dalyvaujant Alfonsui de Zamorai, kuris pažymėjo, kad akcentai (t. y. *te'amim*) yra artimesni kalbėjimui nei dainavimui. Jis niekaip nekommentavo jų intonacijų.

1526 m. Zamora parengė naują gramatikos leidinį. Ketvirtajame traktato skyriuje mokslininkas išvardijo tris *te'amim* funkcijas:

- 1) žymėti kirčiuotus skiemenis,
- 2) perteikti giedamą melodiją (*canto*),
- 3) žymėti pauzes.

Jis palygino kantiliacijos ženklų intonavimo funkciją su natomis ir atkreipė dėmesį į skirtingus *te'amim* garsus Penkiaknygėje, Psalmyne, Jobo knygoje, Alegorijose ir Giesmių giesmėje.

Mokslininko atskleista nauja informacija apie ženklų muzikinį pobūdį tampa geriau suprantama, jei antrąjį jo gramatikos leidimą laikome atsaku į Reuchlino traktatą, kur melodijos pirmą kartą užrašytos natomis.

Reuchlino traktatas buvo skirtas masoretiniams ženkliams (balsiams žymėti ir *te'amim*). Jis išleistas praėjus metams po to, kai paskelbtas pagrindinis mokslininko veikalas apie kabalą „De Arte Cabbalistica“. Traktatas plėtojo *Hebraica veritas* judėjimo idėjas. Reuchlinas buvo įsitikinęs, kad *te'amim*'u perteikiamos melodijos suteikia galimybę susisiekti su angelų pasauliu.

Abu mokslininkai paliko ryškų pėdsaką Europos kultūroje ir nulėmė dvi žydų muzikos tyrimų sritis, kurios vystėsi lygiagrečiai, nepriklausomai viena nuo kitos. Vėlesnių kartų tyrinėtojai nebandė susieti medžiagos, pasirodžiusios tuo pačiu metu ir skirtos tai pačiai temai.

Reuchlinas pirmasis atkreipė krikščionių mokslininkų dėmesį į *te'amim* kaip vieną iš priemonių, leidžiančių perteikti taisyklingą šventojo teksto tarimą. Jo knyga tapo pirmuoju žingsniu siekiant išskirti melodinę *te'amim* funkciją iš visų kitų. Kai kurie XIX a. pabaigos ir XX a. tyrėjai manė, kad pagrindinė kantiliacijos ženklų funkcija yra perteikti muzikinį turinį, kuris buvo toliau nagrinėjamas garsacilių, dermės, moduliacijų ir kitais aspektais.

Zamora apsiribojo trumpomis pastabomis, kurios išsamiai neperteikė *te'amim* esmės ir atrodytų gana fragmentiškos, jei nelaikytume jų savotišku Reuchlino veikalo papildymu. Keli pagrindiniai jo traktato teiginiai buvo ne kartą cituojami, jie ėjo iš šimtmečio į šimtmetį, iš vieno veikalo į kitą. Iš konteksto ištraukta citata įgavo kitokią prasmę: ja buvo apibūdinta tolimes praetis muzika.

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