Izaly Zemtsovsky

M.F. Gnesin on the Modal System of Jewish Music (Based on the Composer's Archival Materials)

***Nauchnyi Vestnik Moskovskoi Konservatorii* 2012, 6-25**

Translated by Anya Shatilova, edited by Mark Slobin

Editor's Note

The following article is a valuable predecessor to the basic work of this website: to introduce analytical methods into the study of the Yiddish folksong, and eastern Ashkenazic music in general. Izaly Zemtsovsky, who has contributed significantly to our knowledge, ran across a fascinating 1929 essay among the manuscripts of Mikhail Fabianovich Gnesin (1883-1957), a major figure in early Soviet music life, active as a composer and influential teacher of people like Aram Khachaturian. Zemtsovsky has kindly made available an article he wrote about Gnesin's theories, which he published in 2012 in the Moscow Conservatory's journal *Nauchnyi vestnik moskovskoi konservatorii*. We are grateful for his intervention.

Gnesin's thoughts could only have been written in the 1920s, when an open approach to music theory was still an option, before Stalin clamped down on ideas he thought were dangerous to the evolution of a socialist society. 1929 would have been the last moment, perhaps, and it's probably not accidental that Gnesin did not complete the essay for publication. Gnesin's writing fell into the category of research on the "national" musics of the hundreds of peoples of the vast Soviet Union. It was around this time that Viktor Mikhailovich Beliaev published a seminal book on Uzbek music that posited the existence of a microtonal scale system, for which he was banned from publishing for decades. So Gnesin's suggestion that Russian Jewish music might have complex intonation issues would probably have been unacceptable as well. What's interesting for us is that he brought up that subject at all, given the reluctance--still today--to take intonation seriously as a performance parameter in "Yiddish" music.

The other still unformed approach that stands out from the essay is to view eastern Ashkenazic music holistically, whether the material is liturgical, paraliturgical, folksong, or instrumental, by assuming a generalized aesthetic and cognitive template. This is a position some of us lean towards, but it goes against the grain of the usual looking for "influence," e.g. cantorial on klezmer, klezmer on nign, etc.

Regarding transliteration, we are using YIVO style for Jewish terms, as in the rest of this website, including for the Jewish "modes," which in any case don't have standard spellings across the literature. We fully recognize the difficulty of translating Russian terms for sound and tonality--*zvuk, zvukoriad, lad, stroi,intonatsia*--as used in complex ways by both Gnesin and Zemtsovsky, who points out that Gnesin did not provide clear definitions of terms. We hope this article will spur lively discussion on many issues it raises. For this case, we are using "tone" for *zvuk*, "scale" for *zvukoriad*,

"mode" for *lad*, "tuning" for *stroi*, and "intonation" for *intonatsia,* though usage of that term is somewhat variable.
The bibliography retains Zemtsovsky's citation and reference style, leaving the Russian items in the original.
Mark Slobin

The Russian State Archive of Literature and Art in Moscow holds the largest repository of the works of Mikhail Fabianovich Gnesin (1883-1957). I am focusing on excerpts of only one of his manuscripts, dated May 1929 (catalog info p.35-63). Along with a brief historical outline of Jewish music (especially in Russia) and other materials on the topic of Jewish music, the present article contains a number of Gnesin's theoretical observations, the value of which can hardly be overestimated even today, more than eighty years later, when Jewish music studies have been significantly enriched by truly outstanding discoveries.

Noting that "Jewish music presumably had its *ancient flourishing*" and that "the history of Jewish music has the same unique features as the history of the Jewish people," Gnesin focuses on "the history of the *new flourishing* of Jewish music," when it "acquired a new vitality and activity with the strengthening of the national identity of the Jews at the beginning of the twentieth century." Gnesin immediately acknowledges the efforts of Russian activists such as Yoel Dmitrevich Engel (1868-1927), "the pioneer of the new movement among Jewish musicians; Ephraim Shkliar (1871-1943?), the first author of songs in a "Jewish style;" Zinovii [Zusman] Aronovich Kiselhof (1878-1939), whose "song transcriptions served as material for the work of the activists who founded The Society of Jewish Music in 1908 in St. Petersburg." Among "prominent scholars of Jewish music in the West," Gnesin mentions "the ethnologist and researcher of Jewish folksong Zvi Idelsohn" (Abraham Zvi Idelsohn, 1882-1938).

Then Gnesin characterizes the types of traditional music making that are currently being studied (Biblical cantillation, synagogue compositions, and varied folklore, attention to which is "a completely new phenomenon") and gives a brief overview of different aspects and genres of Jewish music, starting with previous attempts "to express the chants of Biblical declamation in the European notation system." His generalizations in this area, although transparently laconic, still deserve attention.

According to Gnesin, the "traditional chanting" of the Bible is produced in "the *tonal* modes." He formulates three main observations: "1) the system of cantillation is a typical example of *accentus*[1] since all the surviving chants do not present themselves

[1] It is very interesting that in the use of this term Gessin seems to follow Komitas (1869–1935), an outstanding Armenian composer and researcher whom he met in Constantinople in 1913. In any case, in his memoirs of 1946 about a meeting with Komitas, he clearly paraphrases the words of the latter: "Jewish traditional melodic formulas of purely speech origin. That is the surviving example of genuine accentus" This is not referring to Jewish cantillation accents, but about simple forms of

as melodies, but rather are clearly adapted for a logically convincing demonstration of syllabic and verbal groups; 2) the arrangement of neumes in the Biblical books reveals a subtle analysis of a logical process and, when compared with surviving chants, provides rich material for the parallel study of speech and musical structures; and 3) Biblical verse is inseparable from music, put into practice sonically, from the metrorhythmic standpoint, with the wide use of prolongations and pauses." Moreover, "regarding intonation, various versions of the cantillation system (Polish-Lithuanian, Sephardic, etc.) represent significant differences."

Singling out *nigunim* (*nigun'y* in the manuscript)— "extremely expressive songs without words"—as a specific genre of Jewish music of oral tradition, Gnesin formulates their "main stylistic features: the stressing of strong beats with appoggiaturas, various kinds of ornamentation, and breaking up of strong beats into small parts by means of leaps (descending) in large intervals (sixths, octaves). In the overall construction, the same emphasis on singular moments is manifested in repetitions. A favorite move, a set of several tones, is often repeated immediately. Repetitions of prominent beats or groups of beats are not uncommon. Frequent intonational shifts *within the syllable* are characteristic, reflecting the flexibility, deep logic, and emotionality of the turns of Jewish speech."

Characterizing "synagogue music, that is, the material of cantorial and choral singing," Gnesin doesn't overlook its colorfulness, immediately pointing out that "this material, consisting of a mix of internal elements and those borrowed from various peoples at different times, contains the core that served as a basis for the initial research of Jewish music from the modal point of view." Here, even before proceeding to a review of extra-synagogical musical creativity, Gnesin mentions the famous [1882] *Dictionary of Music* of Hugo Riemann. He refers to an article about Jewish music added to the Russian edition of the Dictionary. As is commonly known, this article was published anonymously, but Gnesin clearly had no doubt about its authorship, which he unconditionally and convincingly ascribes to Yoel Engel.[2]

"The scales of Jewish songs," writes Gnesin, "have been very poorly studied to this day, both from its *modal* and, in particular, from its *tuning* characteristics" (the emphasis is mine—I.Z.). Here, Gnesin again refers to Engel's text in the *Dictionary*, the

---

choral recitation. *Accentus* is the part of the Catholic liturgy that is chanted only by the priest or his representative, while concentus is performed by all parishioners or the choir At least since the beginning of the 16th century, the concept of *accentus* was defined by the simplest forms of the Gregorian chant and was contrasted with the more developed genres (*concentus*), which included antiphons, responsory, etc. In 1970, Georg Olms, Hildesheim published a facsimile of the three volumes written by Peter Wagner.

[2] The relationship between Gnesin and Engel is a special topic. I emphasize that they experienced great respect for each other. "I ask you to believe in one thing," Engel wrote to Gnessin in an unpublished letter to him from Tel Aviv dated March 29, 1925, "in my deep sympathy for you and your music and in my readiness to help you in every way and in everything—as much as I can" (ф. 2954, op. 1, ед. хр. 804, p. 2).

critical commentary on which, accompanied by Gnesin's own clearly deeply independent conceptualization, constitutes the content of the following.

Let us immediately pay attention to the author's terminology. A certain correlation of the basic categories of the modern theory of the modes, such as *scale*, *mode*, and *tuning* is clearly introduced. This extremely important and still relevant correlation is introduced without any detailed definition of each term.[3] It is possible this manuscript was a draft not intended by Gnesin for publication, but rather was some sort of a memo, an avenue for the ideal research that he envisioned at that time. Unfortunately, it was not given to Gnesin to expand these theses to monograph format due to the strenuous years of the unprecedented intervention of the state into the life and work of Soviet artists.[4]

Nevertheless, the significance of Gnesin's manuscript goes far beyond commenting on the position of Engel. However, in order to fully appreciate the exceptional inventiveness of Gnesin as a theorist (or, as he described himself, a "reflecting musician") it is worth recalling the position of Engel as theorist, even if only to the extent that it is expressed in the dictionary article cited by Gnesin. In this case, it is fundamentally important that both Engel and Gnesin were not only musicologists, but also composers, and both—as theorists and practitioners—were brought up in the traditions of the Russian school (Engel in Moscow, Gnesin in St. Petersburg). The analytical comparison of their work in the field of Jewish music at the level of their theorization on that topic could be of extreme interest, but such a comparison is completely beyond the scope of the present publication.[5]

The generalizations proposed by Engel in the Riemann Dictionary were quite logical in the light of Jewish thinking about music at the end of the nineteenth century. He wrote[6]: "...the music of the modern Jewish liturgy consists of three elements: the traditional rite (*nusekh*[7]*)* as a core; a mixture of heterogenous chants as a product of Arabization; and modern melodies in the Western style. The most important is nusekh, which is believed to contain the remnants of music from the time of David. Its melodies are built on four modes, which are named after the corresponding prayers: 1) ahova-rabo *gust* (gustus—"taste"): ascending—E, F, G sharp (!), A, B, C, D, E; descending—the same pitches with the same augmented second, which is absent in both Greek and church modes; 2) yishtabakh-gust: ascending—A, B, C, D, E, F, G, A;

---

[3] It should be admitted, however, that a variety of opinions in this area of music theory still exists

[4] See more about what M. F. Gnesin himself had to endure in those years in two articles by Ekaterina Sergeevna Vlasova, based on documents from the composer's archive [3; 4].

[5] It is worth noting that while Engel, as a Jewish author, was only at the beginning of his focused compositional path during his work on the Riemann's Dictionary, Gnesin published several significant works related to Jewish topics in 1929 alone: "Pesnia o Ryzhem Motele" (op. 37), a suite " Evreiskii Orkestr na Balu u Gorodnichego" (op. 41), "Na Vysiakh" (op. 38), and "Sonata dlia Skripki i Fortepiano" (op . 43).

[6] I preserve the spelling of the author but correct the obvious typos (e.g. in the ascending scheme of the 3rd mode, the missing tone "A" is restored).

[7] In modern publications, other spellings of this term are accepted—*нусах*, *нуссах* или *носах*. See, for example: [14; 25; 29; 33, *14*; 36, *208*; 37, *1017*].

descending—A, G, F, E, D, C, B flat, A; in other words, ascending Aeolian mode and descending in Phrygian church mode; 3) yekum purkon-gust: ascending—G, A, B, C, D, E, F, G; descending—G, F, E, D, C, B flat, A, G; in other words, ascending Mixolydian mode, descending in Dorian church mode; 4) misheberakh-gust: ascending—A, B, C, D, E, F, G sharp, A; descending—A, G, F sharp, E, D sharp, C, B, A. This mode is of especially mixed origin: even in one direction (descending), it consists of two different tetrachords: A, G, F sharp, E (Mixolydian) and D sharp, C, B, A, which is reminiscent of Hungarian and Caucasian melodies.

Based on the characteristics of the four modes (sic!) given by Engel, Gnesin reaches a conclusion of fundamental importance: "These scales (sic!), covering only one of the areas of Jewish music, have not been analyzed in terms of tuning (sic!) and can be of value only as a starting point for further research." In this way, Gnesin rather rigorously describes his fundamental premises: the need to cover not one, but *different* "areas of Jewish music", as well as the necessary analysis of "modal scales" (we will adopt this as working terminology), taking into account their *intonation*, since they may turn out to be—and indeed do turn out to be—in non-equal tempered intonation.

As far as I can judge, in the studies of musical scales, nothing similar to Gnesin's ideas was expressed at that time (the late 1920s[8]). Meanwhile, as it is now becoming known, it was in the 1920s when Gnesin already insisted on fixing and taking into account the slightest deviations from equal temperament. In the same Moscow archive, I found a letter to Kiselgof dated January 13, 1927, and addressed to Gnesin, in which an outstanding collector of Jewish folk music wrote: "Your instructions regarding paying special attention when decoding ambiguous tones (correct tones of unclear pitch) will be taken into account ...".[9] Therefore, Gnesin's cited exploration of the issue of scales, which considers the real *intonation* of musical intoning, should be evaluated extremely highly—especially since Gnesin not only called to action, but, as

---

[8] Although A. V. Nikolsky (1874–1943) in a special and, in its way, outstanding article noted that "traditional pitch does not know modern temperament" [13, *49*], he did not introduce non-tempered intonation into his theory of modes and did not attach any *systematic* significance to it. Moreover, explaining the scope of the term "scale", he included, along with the "range" and the number of tones, "intonation *or* mode" [ibid., 9], i. e. he did not distinguish between tuning and mode at all, which is unacceptable from today's point of view. The pioneering formulation of the question by Y. N. Tyulin (1893–1978) about the need to study precisely the intonation of music of the oral tradition (on Russian material) dates back only to 1937 [17, *85–87*]. Acoustic measurements of intervals made at the request of Tyulin were first published only in the third edition of the book. [18, *113–120*].

[9] RGALI, ф. 2954, оп. 1, ед. хр. 504, p. 2. The letter refers to the work of deciphering the phono-cylinders from the Kiselhof collection. The words in brackets are noteworthy—they sound like a quote from Gnessin's clarification. In another letter, dated May 26, 1926, and addressed again to Gnesin, Kiselhof cites an important document in full related to the question raised here. I am quoting a fragment of it in Kiselhof's account: "At a meeting of the Museum Commission of the Jewish Historical and Ethnographic Society, chaired by L. Y. Sternberg on January 24 it was decided: 1) To accept your proposal for deciphering the cylinders with the participation of a commission from Milner, Streicher, and me, checking already deciphered phonograms and bringing the rest of the material into the system..." (ibid.)

we will see shortly, but also proposed something radically new and realizable in both musicology and, ideally, composition. Moreover, an excellent knowledge of living Jewish (primarily Ashkenazic) material in all its varieties and genres, both sacred and secular, as well as a wide range of sources, allowed Gnesin to be the first to see and characterize the original modal *system* of Jewish music.

Finally, let us examine the full text of the fragment of the Gnesin's manuscript, which is devoted to the problem of Jewish modes.

"The study of the modal structure of Jewish music as a whole (Biblical cantillation, synagogue chants, folksongs, and instrumental music) leads to a rather distinctive system, albeit related to both the ancient Greek system and the scales of other eastern peoples. Here, I would like to propose an attempt to theoretically embrace the modal possibilities of the Jewish song on the basis of the known modes of synagogue music and to highlight, at least in an elementary way, the intonational features.

These modes are shown in capital letters in the examples below: A, I, J, M, labeled by the names of the prayers: ahova rabo, yishtabakh, yekum purkon, misheberakh).

Basically, it is most natural to align the whole system in its main form to the Phrygian (Greek Dorian) three-octave scale[10]:

E F G A B C D E F G A B C D|E F G A B C D E
(#) (#) (b) (#) (#) (#) (#) (b) (#) (#)| (b)(#) (#) (b) (#) (#)

Fig. 1. The overall Jewish modal system; the accidentals represent alternate options for pitches.

from which [from this composite scale—I. Z.] six different octachords of the whole system can be extracted [octachords are constructed respectively from E, A, D, G, C, and F—I.Z.]. However, we must immediately qualify: only a few tones of this scale are stable. Stability here is understood in two ways: in the sense of coincidence with the sounds of the generally accepted [European] system, and in the sense of invariability in ascending or descending melodic motion. Sounds satisfying these conditions constitute reference points in this system of modes.[11] Mode 6 [built from the pitch F—I. Z.] should be considered primarily as modulating.

Only two sounds within each mode are stable in *the sense of tuning*—the lower tetrachord and the octave to the lower tone that encloses it.

It is not by chance that the Phrygian is chosen as the central mode for the system, since Phrygian cadences, currently understood as a conclusion on a dominant

---

[10] Gnesin explains the musical schemes attached to the manuscript (see examples 1–4 below) and makes a note: "Possible changes in steps in different modes are shown in small font" (цит. ркп., p. 47)

[11] Here (p. 47) Gnesin refers to the schemes given below (see examples 1–4). Gnesin gives all mode-scales in a letter-based solfege notation. For greater clarity, I allowed myself to "translate" them into musical notation.

chord in minor, are the most typical for Jewish music. There's also major third in a Phrygian cadence, but not as the major third of equal temperament, but as a slightly tightened "unstable" intonation between the minor and major third.

The first three of these modes (from E, A, and D) are minor-like; the next three (from G, C, and F) are major-like.

Each mode can exist both in an unchanged form with ascending and descending melody and in a variable form.[12] In the first case, non-tempered tuning can be heard especially clearly on the unstable degrees of those modes, which could be called *tonal* modes:

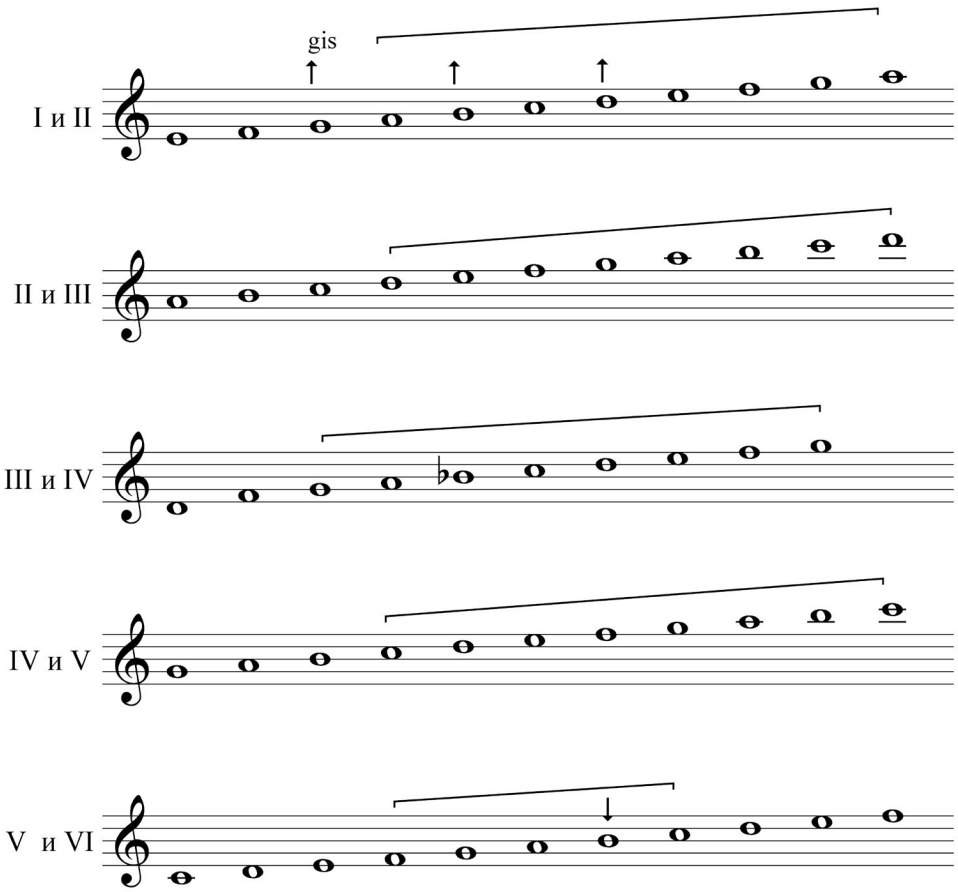

Fig. 2. The Tonal Modes

[12] In the modern literature on Jewish music, there is also a denial of this thesis. See, for example: [32]. The electronic publication of this article can be found at http://geoffreyshisler.com/Knapp2.html.

In the second case, the tuning is somehow tightened, so that the permutations in semitones can be perceived more acutely in the movement of the melody upwards and downwards. These modes can be called *modulating*:

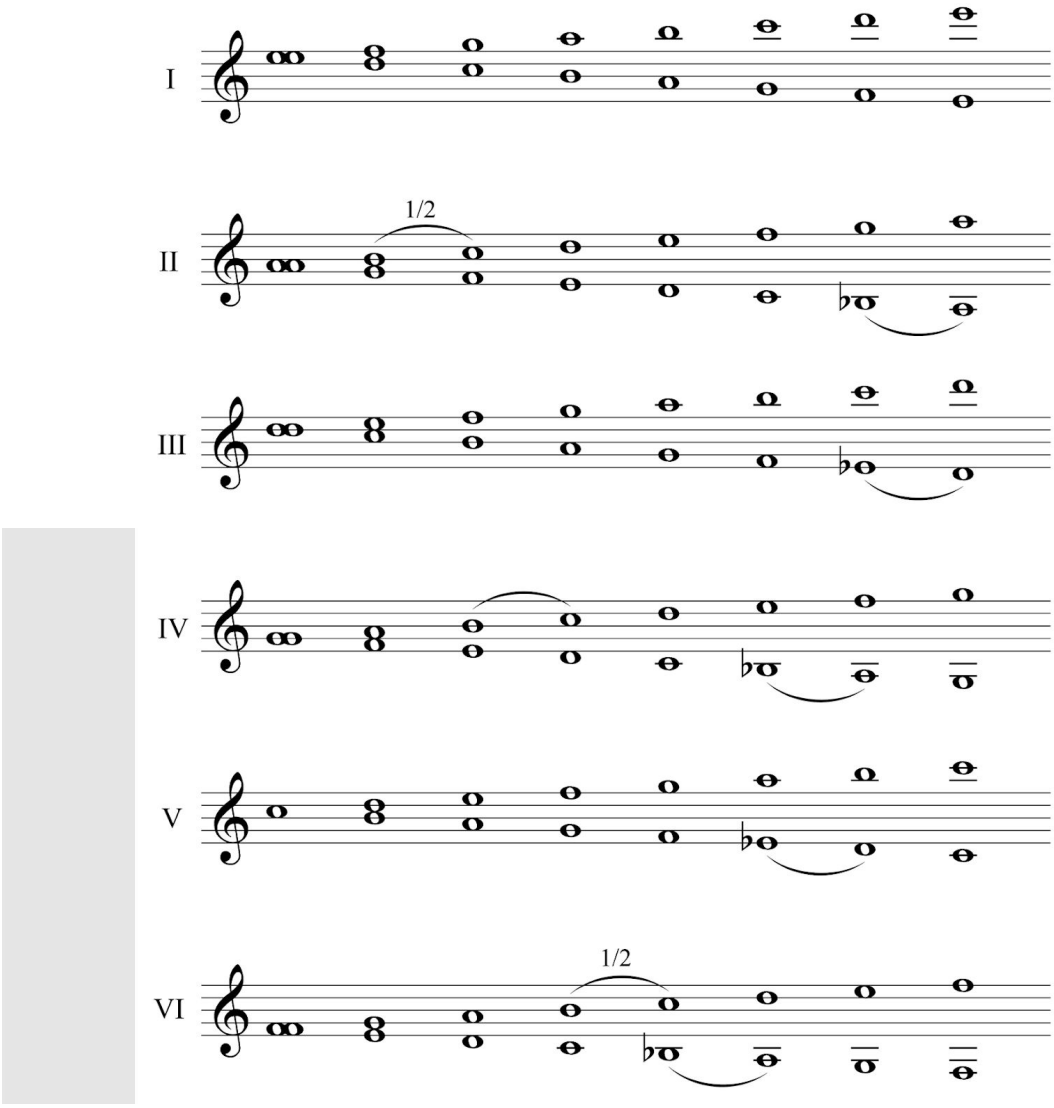

Fig. 3. The Modulating Modes

As a rule, in the descending scale, semitones are transposed to one step lower. It is characteristic that these phenomena almost exclusively concern the lower tetrachord—in contrast to the melodic minor, where changes, although of a different type, are made in the upper tetrachord:

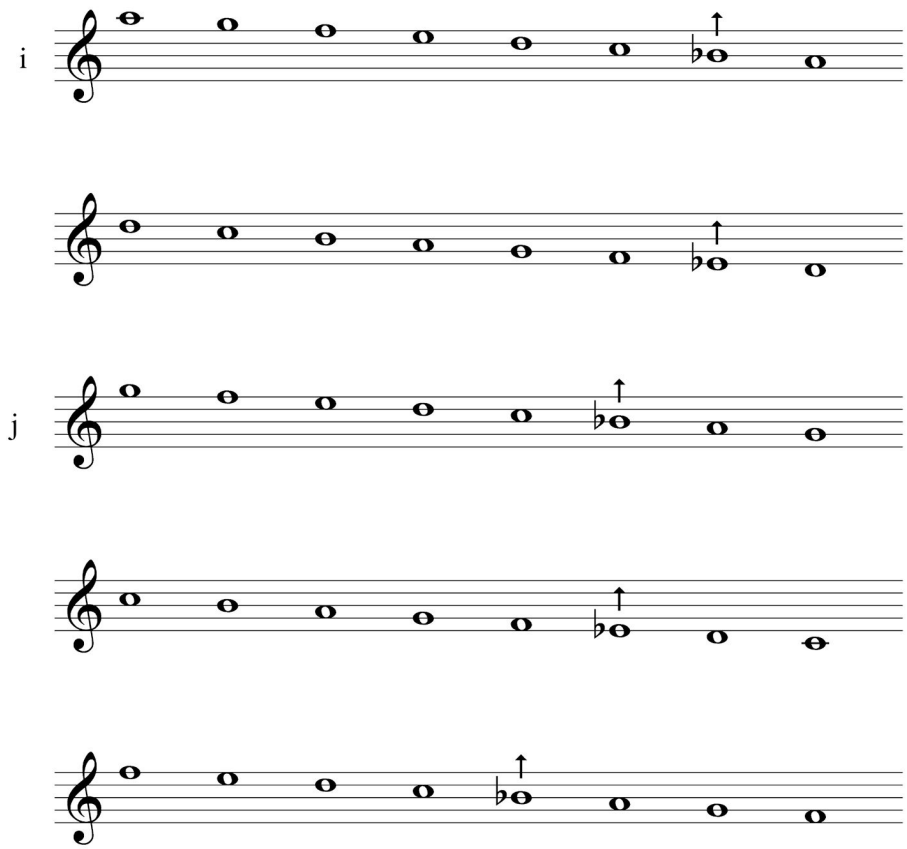

Fig. 4. The Modulating Modes-- Descending

The acuteness of differences between the modes in this system is significantly smoothed out due to the fact that the lower sounds, which form semitones, are not tuned as high as in the equal temperament system, so the difference between the minor and major seconds and thirds is not as acute.

Only the pitch G in the first mode is intermediate between G and G sharp; this mode can be felt as having the augmented second in the lower tetrachord (minor from the dominant). For the same reason, that is, due to the instability of the pitch D, this mode is sometimes interpreted as having two augmented seconds.

The system features a very distinctive modulating mode[13] with an augmented second:

[13] In minor (as indicated in the diagram in the manuscript—I. Z.). See the above diagram of the modulating mode marked by Gnesin with the letter "M," that is, belonging to the type of misheberakh shteyger. (Gnesin's note regarding the modulating modes: "The V [mode] goes into the III of this tonality, that is, into the second minorized or parallel mode.").

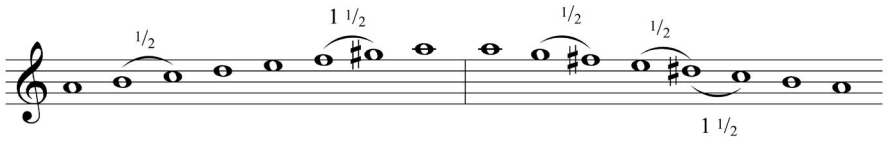

Figure 5. The Modulating Mode with Augmented Second

In the ascending scale, this mode is a divided octachord, while in descending, it is a merged octachord with an additional tone below. Moreover, the tetrachords that constitute the mode change places[14]:

при движении вверх	a	h	c	d	e	f	gis	a
при движении вниз[18]	a	h	c	dis	e	fis	g	a

Figure 6. Octachord Structure

Thus, in the Jewish modal system the inversion of the characteristic intervals of a semitone and a one-and-a-half tone serves as a means of modulation m as connected to the direction of the melody.

Another modulation technique is the deviation toward the "majorizing" modes IV, V, and VI, which are constructed by a simple move on the major second down from the tonic of the II, III, or IV modes with the lowered third. Reverse modulation is easily executed by the basic modulation technique, with the changing direction of the melody.

We can consider the "tonal" modes of the Jewish modal system to be *diatonic within a non-tempered tuning.*

The "modulating" modes, which are closer to equal temperament, seem to rely on the chromatic capabilities of unstable degrees, although there is *no direct comparison of degrees with different chromatic signs*. But Jewish music is not a stranger to extended enharmonicism or ultrachromaticism when the modulation from

---

[14] Let me explain: Gnessin compares—in ascending scale—two separate tetrachords, which do not have a common tone, within the octave "A–A^{1}," followed by intervals in the first ascending tetrachord—*tone–semitone–tone*—and in the second ascending tetrachord—*semitone–trihemitone–semitone*—and, in the descending scale—two fused tetrachords connected by the common tone "E", within the seventh "A^{1}–B" with an additional tone below (it would be more accurate to say that this is not a merged octachord, but a septachord with an additional tone at the end). In the descending scale, the succession of the intervals that make up the tetrachords inverts: now it is *tone-semitone-tone* in the first descending tetrachord and *semitone–trihemitone–semitone* in the second descending tetrachord.

mode to mode is made by shrinking unstable steps to a distance less than a semitone."

On page 52 of the manuscript, Gnesin finishes the description of the modal system of Jewish music that he discovered, after which he formulates the following principal conclusion of a more general nature:

"As mentioned, this system, from the point of view of its intonational characteristics, covers all types of Jewish folk music—vocal and instrumental. Biblical cantillation is performed mainly in the 'tonal' modes, partly using the modulating modes," while synagogue chants[15] and traditional vocal and dance music widely use all the modulation capabilities inherent in the system.

Further research should establish the exact acoustic relationships and modal significance of unstable tones in various Jewish modes.

The paths for those modern composers who are currently taking the first steps toward creating the so-called Jewish school in music[16] include the use of elements of long-standing traditional music, the creation of independent melodic constructions in the spirit of Jewish song, the intuitive and conscious following of folk modes and their further development—all are attempts to *find means to reflect traditional intonation* in harmony and polyphony within twelve-step temperament to give a sharper profile of various folk musical elements and for their cultural and artistic elevation."

---

[15] Regarding the synagogue chants, I cannot help but cite at least a fragment from another remarkable manuscript stored in the same archive (ф. 2954, op. 1, eд. xp. 112, p. 32–33) and dated the same year 1929—the terrible "Year of Great Break," as it was then called. M. F. Gnessin posed the question: "... is there a place for the pathos of truly synagogue cantorism in the emerging paths of traditional culture?" And he gave a surprisingly profound answer: "It seems to me that the 'era of the great cantors' is now ending. This memorable moment when the stream of common and musical culture for the first time merges its waters with not yet dry waters in the lake of naive faith. Moreover, it seems that the people of the 'era of all sorts of turning points,' rightfully turned away from the synagogue with its unnecessary and already significantly withered cult, with its apishness that had been stratified for millennia in relation to all the 'nobles' and neighbors of the Jewish people, that we did not notice in it, due to an unforgivable error, the phenomenon of rare beauty and significance— the color of genuine lyrical creativity in the personalities and expressions of the great cantors!'

[16] There is Gnesin's important remark about those composers and primarily of his colleagues in the Society of Jewish Music: "... at least, we came from songs to sonatas, symphonies and operas and, to a certain extent, what Jewish composers write on ethnic grounds really differs from the works of Jewish composers who did not recognize themselves as Jews" (see ibid., ф. 2954, op. 1, eд. xp.. 124, p. 85 об., from the text of the interesting speech of Mikhail Fabianovich at a meeting of the Moscow Society of Jewish Music).

I give a copy of one page (f. 2954, inventory 1, unit xr. 124, p. 33) of Gnesin's manuscript, containing a fragment of his discovered modal system as described in letters.[17]

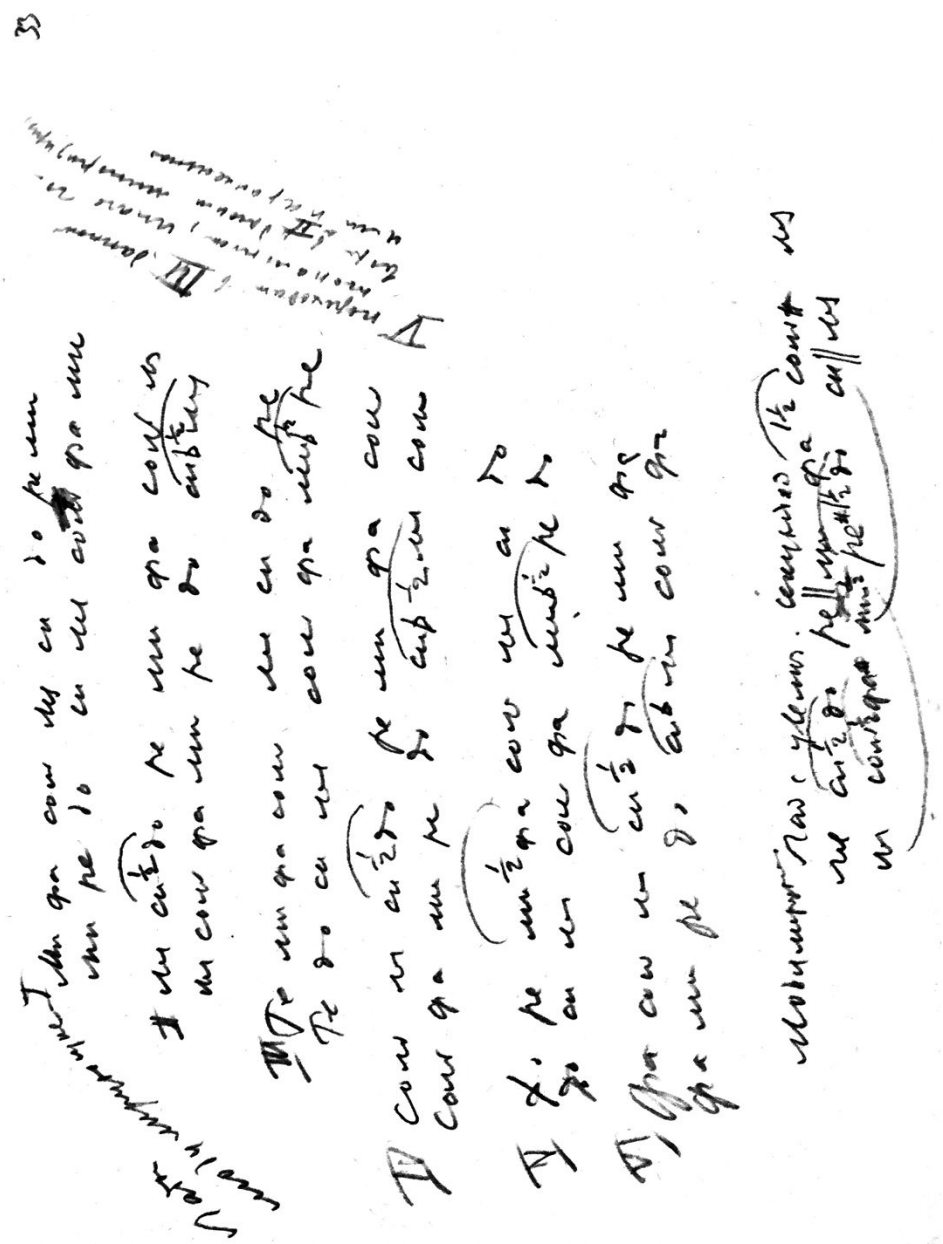

Figure 7. Sample Page of Gnesin's Manuscript

[17] I thank V.N. Yunusov and V. Nedlin for prompt assistance in obtaining an electronic copy of this precious archival document.

The next page of the manuscript (p. 54) provides a musical example—a biblical chant (*И*с. 35: 1-2) notated by Gnesin himself and accompanied by his brief modal analysis:

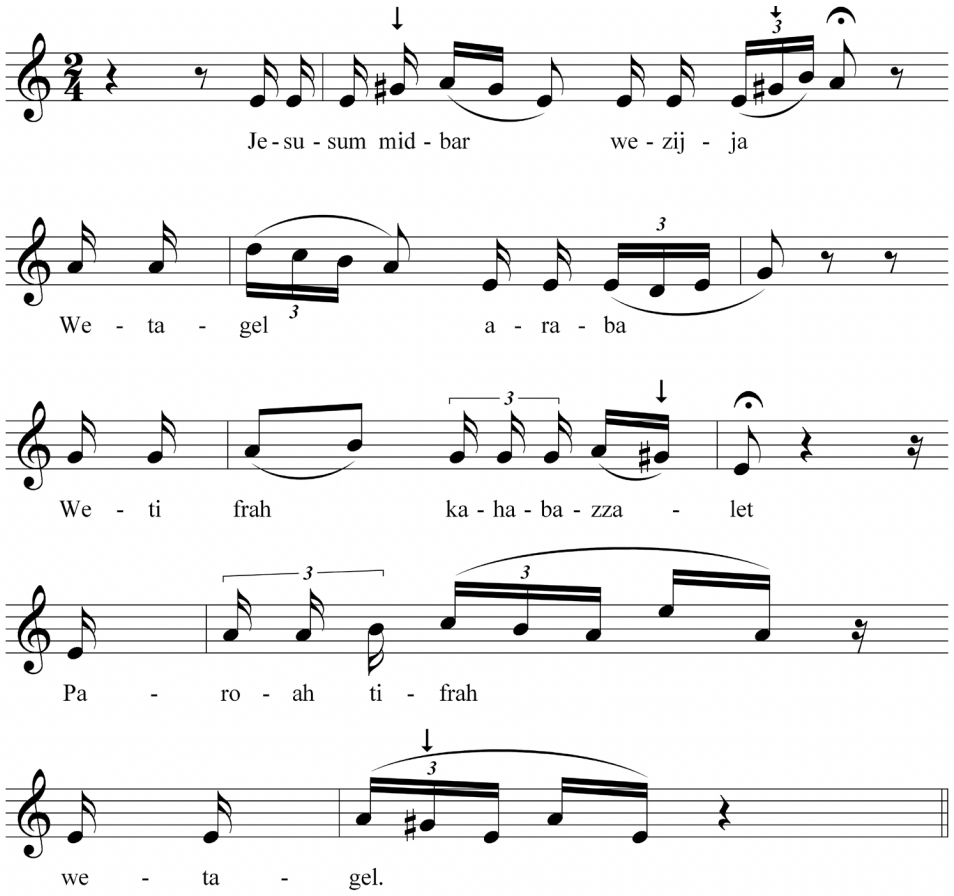

Figure 8. Gnesin's Notation of an Excerpt of Cantillation

Then (p. 55) Gnesin gives a Russian translation of the Hebrew text of the cited fragment and offers an original interpretation (in his terminology) of its modal formation.[18] I quote: "Given the specifics of 'G sharp,' this is not A minor with the natural seventh and the Phrygian [i.e. on the dominant of A minor—I.Z.] cadence in the middle of the melody, but the first tonal mode (I), which is replaced by the majorizing fourth (IV) and, further, by means of the 'enharmonic' pull of G, returns to the original [i. e. the first tonal—I. Z.] mode."

This is the main content of the manuscript I have discovered.

This text is of outstanding interest from several points of view. First of all, it presents the original concept of the modal system of Ashkenazic Jewish music, taken in all its striking imagination, and reduces the *six* main mode-scale structures to a

[18] "Let the desert and the dry land rejoice/let the steppe rejoice/and blossom like the narcissus/flourish and rejoice," etc.

uniquely condensed form.[19] As a reminder, Engel wrote only about four modes. Four modes are also indicated in the monograph of the Israeli musicologist Amnon Shiloah.[20]

Second, Gnesin clearly did not consider that the system did any violence to specific material. He allowed for the variation of degrees and modulations, that is, it (the system) reflected the *vibrant life* of the mode without the slightest hint of dogmatism.[21] Despite its abstractness, his theoretical hypothesis arises from real sonority and so leaves room for the constant mobility of intonational practice. Hence, Gnesin pays innovative, special attention to the natural, *non-tempered tuning* of Jewish music-making, which essentially relates to the world of oral tradition, and formulates his initial methodological premise: "The modal *possibilities* of the Jewish song" (46) should be connected with the "peculiarities of *intonation*" (47). Gnesin maintained this position even afterward. For example, in his response to the American musicologist Renée Breger Fisher[22] in 1945: "... augmented seconds are no more typical for Jewish music than for musics of a large number of other nations, and they are not actually augmented. These are the *major* seconds in *non-tempered tuning*" [8, *200*].[23] But what is important is that he introduces into the system those tones that are defined in Kiselhof's cited letter as "correct tones of unclear pitch." Thus, Gnesin takes essentially a revolutionary step by proposing, for the first time, to legitimize irrational tones (from the point of equal temperament) as fully legitimate tones of the modal system and asserts this on the basis of Jewish traditional music.

Third, this concept is in line with the best theoretical achievements of Russian thought about the music of its time (I mean the works of B. L. Yavorsky, B. V. Asafiev, Yu. N. Tyulin and others). In any case, it is presented such that today it does not sound anachronistic and therefore is not only of historical interest but can also be included in

---

[19]This system could be called the Jewish hexaechos. The word "hexaechos" (in Greek ἑξάηχος) means "six-voiced." Y. N. Kholopov used this term to refer to the system of six modes of Medieval Russian music based on the obikhod scale (обиходный звукоряд)—a system that he considered unique on a global scale. "Nowhere else among the great modal continents of antiquity does such a system exist" [20].

[20] However, there are indicated other modal scales named after the first words of prayers,the shtaygers *adonay molakh*, *magen avot*, *ahavo raba,* and *selikhot* [39, *126*]—i.e. only the *ahavo raba* mode matches Engel's list.

[21] Later, frankly speaking about his attitude to the mode system of B. L. Yavorsky, Gnesin said: "I was afraid, perhaps unfairly, that this system could replace one dogma with another; and dogmatism in art, and not only in art, is difficult for me to endure" [6, *74*].

[22] Renée Breger Fisher (1918–1976) was an American composer, double bass player, organist, pianist, and music publisher. She defended her Master's thesis on humor in music at Columbia University under the direction of Curt Sachs. In 1977, an independent foundation named for her was established with the aim of helping young American musicians and conducting competitions for young pianists.

[23] In the original text, the author uses spacing for emphasis—I.Z.; see: [ibid. *205*].

the context of current discussions.[24] Among Russian writings directly devoted to Jewish modes that were published after Gnesin's death are the articles of M. Y. Beregovsky, A. A. Gorkovenko, M. I. Weinstein, and E.V. Khazdan cited below (10, *15*).[25]

Fourth, Gnesin's observations are comparable to the achievements of non-Russian scholars of Jewish music, although there are no bibliographic references in the text itself. The year in which this concept was written—1929—is itself very significant. For Soviet Russia, that was a year of a sudden menacing right-wing turn[26] while in the USA, in October, the Great Depression (1929-1933) began. That year turned out to be extremely unsuitable for serious work in the field of the history and theory of Jewish music, at least in Soviet Russia. But it would still have been possible to publish what was completed, albeit in the USA. Also in 1929, contrary to any extra-musical logic, the international Jewish music community was enriched by the publication of a groundbreaking fundamental work—the monograph by Abraham Zevi Idelsohn, *Jewish Music in its Historical Development*. Undoubtedly, this book was unknown to Gnesin at the time he thought about the discussed modal system. However, he was, of course, familiar with the first five of the ten volumes of the fundamental *Thesaurus of Hebrew Oriental Melodies* that Idelsohn collected and published (1914-32).

Fifth, last but not least, is the fact that Gnesin's discovery, if I am not mistaken, in fact, turns out to be the first attempt in the history of musicology of formulating the *system of modes* of a particular musical culture. In any case, his observations were recorded long before C. S. Kushnarev (1890–1960), who built "a complex, ramified, and multi-tiered modal system of the highest order" in his theoretical masterpiece on Armenian materials.

I am absolutely convinced that the main reason that prompted Gnesin to take up his pen for writing these few, but so informative, pages was precisely because the system *revealed* itself to him. He could not help but admire such non-primitive symmetrical beauty: the paired nature of three minor and three major modes existing

---

[24] For more details about the latter, see the detailed article by the Israeli colleague Edwin Seroussi, marked by truly encyclopedic coverage: [38].

[25] Let me remind you of some facts: on November 7, 1929, the newspaper *Pravda* published an article by I. V. Stalin on the "Great Break" in agriculture, and on December 27, 1929, Stalin announced the beginning of complete collectivization and the transition to the policy of "eliminating the kulaks as a class." 1929 marked the beginning of the personality cult in the USSR. The all-union anti-religious campaign (the "autumn anti-religious campaign") that began in the same year dealt a severe blow to Jewish religious life in the country, and in June 1929, the Jewish religious community in Leningrad was liquidated for being "bourgeois" and "nationalist."

[26] For some other experiments of "systemic" coverage of modal-scale structures performed on the most diverse bases, see, for example: 11, 15, 16. The author of the last two works, Edward Pasjimjan (1923–2004), proposed the original hypothesis of "universal triandaexaphonic [thirty-six tone, from the Greek numeral τριάντα ἑξι, 36] supermodal system." In general, the idea of "modal constants" and the relevance of recognizing the "periodic system" of modes (more precisely mode scales) in international scope was quite popular in the 1960s and 1970s. See, for example, 22

on the basis of non-tempered intonation. Only six modes, but possessing an inexhaustible richness of intonational possibilities. Depending on the melodic movement, that is, taking into account the variability of the modes with ascending and descending melody, the "tonal," diatonic, and "modulating modes" with chromatic possibilities had been revealed to him. Two characteristic intervals—semitone and the one-and-a-half tone—found their specific function, modulating. The modal system turned out to be also a system of intonation, as if radiating all the charm of its ethnic distinctiveness. It is no coincidence that Gnesin specifically emphasized such a striking conclusion: "this *system*, *in terms of intonation*, covers *all types* of Jewish folk music" (p. 52. Italics are mine—I.Z.).

Maybe I am mistaken, but it seems to me that, subjectively, Gnesin experienced at that time a sensation that was, although incommensurable, somehow comparable with the creative fascination of D.I. Mendeleev, to whom his periodic system of chemical elements was once *revealed*.

The similarly unrivaled monograph by Idelsohn, seemingly chronologically matched to Gnesin's text, is marked by an uncommonly wide coverage of comparative material. It offers an attempt at a unique description, classification, and comparison of almost all the scales and modes (*shteyger*) found in Jewish music (both Ashkenazic and Sephardic). Nevertheless, Idelsohn's book is lacking a basis for the *systematic nature* of Jewish modes. This circumstance in no way diminishes the significance of his outstanding work. It just indirectly testifies to the independence and originality of Gnesin's thinking.

The experiments known to me of creating modal systems of various ethnic traditions became a subject of research only in the last half-century. First of all, the name of Aleksandr Aleksandrovich Gorkovenko should be mentioned here. In his Ph.D. dissertation, he proposed "a diatonic-chromatic, and not just a diatonic mode-scale system for Ukrainian folksong." He managed to convincingly describe it with enviable elegance and clarity.

In the field of Jewish liturgical and paraliturgical music, modern theorists name the three main modes, traditionally (starting with Joseph Singer, 1886) referred to from the first words of the corresponding prayers and arranged according to their structural complexity: (1) *magen avot*, (2) *adonai molekh* (or *adoshem malakh*) and (3) *ahavo raba*, plus a few additional ones (such as *yishtabakh shteyger*, *misheberakh* or *av harakhamim shteyger*), At the same time, they do not take up either the problem of intonation or the hypothesis of the systematic quality of modes, even in the framework of liturgical music. Eliyahu Schleifer, the author of the most authoritative article to date on the modal practice of East European synagogue music, argues that a comprehensive theory of Ashkenazi synagogue modes still does not exist (ibid., *56*).[27]

---

[27] Ibid.—see a review of the scholarly literature on the issue. Let me remind you that, chronologically, the first experiment in the systematization of the scales of the main synagogue modes, undertaken back in the nineteenth century, is attributed to the Viennese cantor Joseph Singer (1841–1911), see 40; with abbreviations (without musical examples) it is reprinted in 28, *90–100*. The so-called Joseph Singer music table, most likely designed by Edith Gerson-Kiwi on the basis of the 24 musical examples of the Singer brochure, consisted of six modes: 1) Adoshem

Malakh; 2) Magen Avot; 3) Ahava Rabo; 4) Av Harakhamim or Misheberakh; 5) Yishtabakh; 6) Yekum Purkon. It is reproduced in two editions of the German encyclopedia *Die Musik in Geschichte und Gegenwart* (24, *244*; 27, *1551)*. Singer himself did not have such a six-mode table. He was talking only about three main modes in his writing: ishtabakh, magen avot, and (3) adonoy malokh.

REFERENCES

WORKS IN RUSSIAN

1. Beregovski, M. Измененныи͡ дории͡ скии͡ лад в евреи͡ском музыкальном фольклоре (к во- просу о семантических свои͡ствах лада) // Проблемы музыкального фольклора народов СССР: ст. и материалы / сост. И. И. Земцовскии͡. М.: Музыка, 1973. С. 367–388 (Фольклор и фольклористика. Вып. 3).
2. Vainshtein, I. M. Ранние элементы евреи͡скои͡ (ашкеназии͡скои͡) музыкальнои͡ традиции на примере напевов праздника И͡ом-Кипур // Традиция в истории музыкальнои͡ культуры: Античность. Средневековье. Новое Время / сост., отв. ред. В. Г. Карцовник. Л.: ЛГИТ- МиК, 1989. С. 136–152. (Проблемы музыкознания. Вып. 3).
3. Vlasova, E. Венера Милосская и принципы 1789 года // Музыкальная академия. 1993. No2. С. 154–160.
4. -----. Проповедь жизни Михаила Гнесина // Музыкальная академия. 1993. No 3. С. 178–185.
5. Gnesin, M. F. Из встреч с Комитасом // Гнесин М. Ф. Статьи. Воспоминания. Материалы / сост. и общ. ред. Р. В. Глезер. М.: Советскии͡ композитор, 1961. С. 192–195.
6. -----Мысли о Яворском // Б. Яворскии͡. Т. 1. Воспоминания, статьи и письма / сост., ред. и предисл. И. С. Рабиновича, под общ. ред. Д. Д. Шостаковича. М.: Музыка, 1964. С. 71–77.
7. -----О природе музыкального искусства и о русскои͡ музыке: заметки размыш- ляющего музыканта // Музыкальныи͡ Современник. 1915. Кн. 3. С. 5–32.
8. -----Статьи. Воспоминания. Материалы / сост. и общ. ред. Р. В. Глезер. М.: Со- ветскии͡ композитор, 1961. 321 с.
9. Gorkovenko, A.A. Ладовые основы евреи͡скои͡ народнои͡ песни (1963) // Песенная лирика устнои͡ традиции: науч. ст. и публ. / сост. и отв. ред. И. И. Земцовскии͡. СПб.: РИИИ, 1994. С. 223–231. (Серия «Фольклор и фольклористика»).
10. -----Переменность диатонических ладов в украинских народных песнях. Автореферат дисс. на соискание ученои͡ степени кандидата искусствоведения. Л.: ЛГИТ- МиК, 1970. 26 с.
11. Guliashvili, A. A. Периодическая система ладов // Сообщения АН ГССР. 1976. Т. 82. No3. С. 753–756.
12. Kushnarev, K. C. Вопросы истории и теории армянскои͡ монодическои͡ музыки. Л.: Госму- зиздат, 1958. 626 с.
13. Nikol'ski, A. Звукоряды народнои͡ песни // Труды Гос. Института Музыкальнои͡ Науки. Сборник Работ Этнографическои͡ Секции. Вып. 1. М.: Муз. сектор гос. изд-ва, 1926. С. 9–51.

14. Nosakh. Электронная еврей˘ская энциклопедия. URL: http://www.eleven.co.il/article/15304 (дата обращения: 15.11.2012).
15. Pashinian, E. R. Универсальная суперладовая тональная система в армянской˘ музыке // Историко-филологический˘ журнал АН Арм. ССР. 1973. No3 (62). С. 194–212.
16. -----Универсальная суперладовая тональная система как основа ладовой˘ классификации народной˘ музыки // Искусствоведение: межвуз. сб. науч. тр. / отв. ред. И. Г. Бру- тян. No 4. Эстетика — подрастающему поколению. Ереван: АГПИ имени Х. Абовяна, 1980. С. 81–86.
17. Tiulin, Iu. N. Проблема строя народной˘ музыки // Тюлин Ю. Н. Учение о гармонии. Т. 1. Основные проблемы гармонии / под ред. проф. Б. А. Фингера и А. А. Адамяна. Л.: Музгиз, 1937. 192 с.
18. -----. Учение о гармонии. 3-е изд. испр. и доп. М.: Музыка, 1966. 223 с.
19. Khazdan, E. Модальные основы идишского фольклора // Еврей˘ская традиционная музыка в Восточной˘ Европе: сб. ст. / ред. Н. С. Степанская. Минск, 2006. С. 85–116. .
20. Kholopov, Iu. N.. Гексаих: ладовая система древнерусской˘ монодии // Musica theorica-4: сб. ст. М.: МГК, 1998. С. 4–8. Электронная версия: URL: http://www.kholopov.ru/hexa.html (дата обращения: 15.11.12).
21. [Engel, Iu. D.] Еврей˘ская музыка // Риман Г. Музыкальный˘ словарь / Перевод с 5-го немецкого издания Б. Юргенсона, дополненный˘ русским отделом, составленным при сотрудничестве П. Вей˘марна, В. Преображенского, Н. Финдей˘зена, Ю. Энгеля, Б. Юргенсона и др. Перевод и все дополнения под редакцией˘ Ю. Энгеля. М.—Лей˘пциг: Издание П. Юргенсона, [1901–1904]. С. 1512–1513.
22.Iusfin, A. Нужна «периодическая система» ладовых форм // Советская музыка. 1970. No3. С. 105–107.

WORKS IN OTHER LANGUAGES

23. "Accentus." The New Grove's Dictonary of Music and Musicians, ed. S. Sadie, Vol. 1, 50.
24. Avenary, H. "Jüdische Musik, Geschichte der jüdischen Music." *Die Musik in Geschichte und Gegenwart* vol. 7, 225-61.
25. Avenary H. Nusah // Encyclopaedia Judaica. Vol. 12. Jerusalem: Keter, 1972. Col. 1283–1284 [2nd ed.: Vol. 15. Detroit: Thomson Gale, 2007. P. 351].
26. Bohlman, Philip. Jewish Music in Europe // The Garland Encyclopedia of World Music. Vol. 8. Europe / ed. by T. Rice, J. Porter, Ch. Goertzen. N. Y. and L.: Garland, 2000. P. 248–269.
27. Braun J., Avenary, H.., Gerson-Kiwi E. und Cohen J. "Ju¨dische Musik" *Die Musik in Geschichte und Gegenwart,n*1511–1569.
28. Dem Andenken Eduard Birnbaums. Sammlung kantoral-wissenschaftlicher Aufsa¨tze / hrsg. von A. Friedmann. I. Teil. Berlin: C. Boas Nachf., 1922. 226 S.
29. Frigyesi J. Preliminary Thoughts Toward the Study of Music Without Clear Beat: The Example of "Flowing Rhythm" in Jewish *Nusah* // Asian Music. Vol. XXIV. No2 (Spring/Summer 1993). P. 59–88.
30. Idelsohn, A. J. Hebra¨isch-orientalischer Melodienschatz / zum ersten Male gesammelt, erla¨utert und herausgegeben von A. Z. Idelsohn. 10 Bde. Bd. 1. Gesa¨nge der jemenischen Juden. Lpz.: Breitkopf und Ha¨rtel, 1914. XI, 158 S. Bd. II. Gesa¨nge der babylonischen Juden. Bd. III. Gesa¨nge der persischen, bucharischen und daghestanischen Juden. Bd. IV. Gesa¨nge der orientalischen Sefardim. Bd. V. Gesa¨nge der marokkanischen Juden. Berlin [u. a.]: Benjamin Harz,

Philip Bohlman, a well-known American specialist in the field of Ashkenazic music, believes, not without being categorical, that "the destruction of the European Ashkenazic population makes it impossible to determine if, in fact, the *shteyger* formed an underlying system for all of Ashkenazic musical culture" [26, *253*]. As we can see, Gnesin did not doubt that, and offered his attempt at creating such a system.

I do not think that my qualifications allow me to determine whether the Gnesin's hypothesis is true in relation to all the types and genres of Jewish music of the Ashkenazi tradition. My task is more modest—to introduce his discovery into scholarly discourse and make Gnesin's system of Jewish modes a fact of today. Time will tell what place this conception will take in the research of the near future.

1922; 1922; 1923; 1929. IX, 140 S.; VIII, 68 S.; XV, 280 S.; 119 S. Bd. VI. Der Synagogengesang der deutschen Juden im 18. Jahrhundert. Bd. VII. Die traditionellen Gesa¨nge der su¨ddeutschen Juden. Bd. VIII. Der Synagogengesang der osteuropa¨ischen Juden. Bd. IX. Der Volksgesang der osteuropa¨ischen Juden. Bd. X. Gesa¨nge der Chassidim. Lpz.: Friedrich Hofmeister, 1932. XXVII, 234 S.; LVIII, 181 S.; XXXIV, 143 S.; XLI, 211 S.; XXVIII, 72 S.

31. Idelsohn A. Z. Jewish Music in Its Historical Development. N. Y.: Henry Holt and Company, 1929. 535 p.

32. Knapp A. The Ashkenazi Prayer-Modes: A Commentary on Their Development and Practice. Part 2 // The Cantors' Review. The Magazine of the Association of Ministers Chazanim of Great Britain. Issue 27 (1981).

33. Levine J. A. Toward Defining the Jewish Prayer Modes with Particular Emphasis on the *Adonay Malakh* Mode // Musica Judaica: Journal of the American Society for Jewish Music. Vol. III. No1 (1980–1981). P. 13–41.

34. Schleifer E. Jewish Music. (III) Liturgical and para-liturgical. (3) Ashkenazi. (iii) The 17th and 18th centuries // The New Grove's Dictionary of Music and Musicians: 2nd ed.: in 29 vols. / ed. by S. Sadie. Vol. 13. L.: Macmillan, 2001. P. 56–57.

35. Scholes P. A. The Oxford Companion to Music. Tenth Edition Revised and Reset / ed. by J. O. Ward. N. Y.: Oxford University Press, 1992. 1189 p.

36. Sendrey A. Music in Ancient Israel. N. Y.: Philosophical Library, 1969. 674 p.

37. Seroussi E. Israel: An Overview // Garland Encyclopedia of World Music. Vol. 6. The Middle East / ed. by V. Danielson, S. Marcus and D. Reynolds. N. Y. and L.: Garland, 2002. P. 1013–1022.

38. Seroussi E. Music: The «Jew» of Jewish Studies // Jewish Studies. Yearbook of the World Union of Jewish Studies. Vol. 46 (2009). P. 3–84.

39. Shiloah A. Jewish Musical Traditions. Detroit: Wayne State University Press, 1992. 274 p. (Jewish Folklore and Anthropology Series).

40.Singer J. Die Tonarten des traditionelles Synagogengesanges (Steiger): ihr Verha¨ltnis zu den Kirchentonarten und den Tonarten der vorchristlichen Musikperiode. Erla¨utert und durch Notenbeispiele erkla¨rt. Wien: Em. Wetzler, 1886. 19 S., 11 S. Notenbeilagen.

41. Wagner P. Einfu¨hrung in die gregorianischen Melodien: ein Handbuch der Choralwissenschaft. 3 Bde. Dritter Teil: Gregorianische Formenlehre. Eine choralische Stilkunde. Lpz.: Breitkopf und Ha¨rtel, 1921. XI, 590 S.