A BRIEF GUIDE
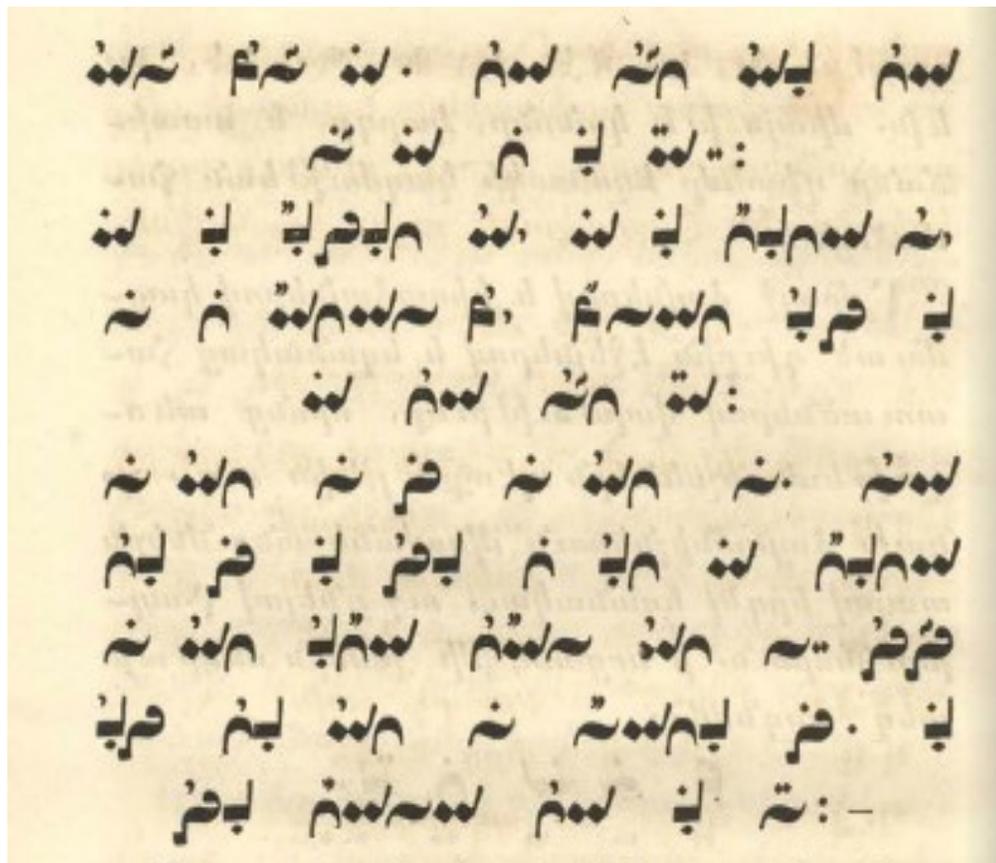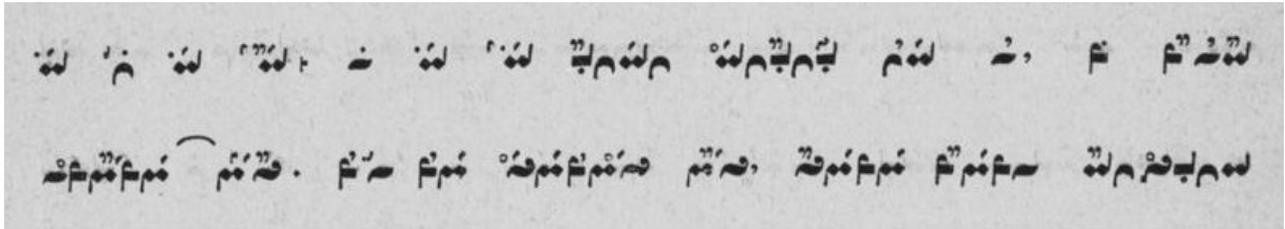# TO ARMENIAN
MUSICAL NOTATION

**This e-book is accompanied
by the LimonjianNotation font and keyboard layouts**

Yerevan

2019

A BRIEF GUIDE
TO ARMENIAN
MUSICAL NOTATION

Armenian Musical Notation

Armenian musical notation was created in 1813-1815 in Istanbul. Hampartsum Limonjian, an Armenian musician and reader of the Armenian Church, is considered to be the creator of this notation, for which he used the images and names of Armenian medieval *khazes* (neumes), giving them completely different musical values, following the principles of European notation. That is, the notes and different symbols used in Armenian musical notation are not *khazes*, despite the outer resemblance to them.

Limonjian's pupil Aristakes Hovhannissian supplemented this notation system with marks of duration; other musicians, including Komitas, also made minor additions, while the Istanbul printer Hovhannes Muhendissian created the printing types and molds for this notation, and it was effectively used throughout the 19th century and in the early 20th century.

Armenian notation was used to record and publish huge volumes of Armenian musical culture — almost all hymns, chants and melodies of the Armenian Church —

those of the *Zhamagirk* (Breviary), the Divine Liturgy, the *Sharakan* (Hymnal) (in two versions, published in Etchmiadzin and Istanbul), and other collections of Church music. One of the variants of the Limonjian notation was also used by the Turks to record and publish many volumes of Turkish melodies, thereby saving an important part of Turkish musical culture from loss. This is why Hampartsum Limonjian is considered to be one of the founders of Turkish professional music. Some details on the variant of the Limonjian notation used by the Turks are given in this Guide later.

It was the Armenian notation that Komitas used to record Armenian folk songs; not because he did not know the European musical notes, of course, but because Armenian notation is more convenient for quick recording. This is the advantage of this system over the European notation system. Armenian notation has continued to be used (especially in the Armenian churches of Istanbul) up to the present day, but, unfortunately, it no longer has the widespread use and significance that it had in the 19th century. But it is useful to know that Armenian notation can be used to record virtually any vocal music, and, if desired, also instrumental works, despite the fact that this notation was created mainly for recording vocal music.

The main advantage of this notation over the European one is that it doesn't need a special set of lines (the staff), which means it can be used on any paper just like the letters. In the same way, now when we can use an appropriate font (LimonjianNotation by Ruben Tarumyan is a free font) and keyboard layout, this notation can be used in almost any text editor software (though there are preferable editors that will be mentioned in this Guide later). While to record music with European musical notes, it is necessary to have a special computer software; the ordinary text editors are not useful for this task, and learning and mastering a special music software require enough time. But the one who uses Armenian notation can learn to fluently record melodies with it in just a few hours.

As has already been mentioned, Armenian notation was created using the principles of European musical notation; that is why those who know the latter can learn Armenian notation very easily.
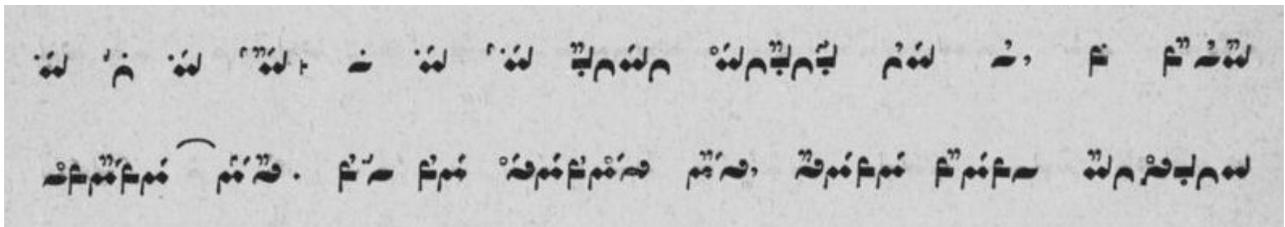
Musical Notes

The main notes of Armenian musical notation are the following: **Poosh, Ekorch, Vernakhagh, Benkorch, Khosrovayin, Nerknakhagh** and **Parooyk.**

Poosh

Ekorch

Vernakhagh

Benkorch

Khosrovayin

Nerknakhagh

Parooyk

Since the 19th century, these notes have been read in two different ways, which we will call *Etchmiadzin reading* and *Istanbul reading*. Music scores with Armenian musical notes published in Istanbul are read a little bit differently from those published in Etchmiadzin. Komitas used the Armenian notes according to the Etchmiadzin reading. In the Istanbul reading, the note *Poosh* corresponds to the European D (this is the musical sound that was given to this Armenian note from the beginning), and the subsequent Armenian notes are read, respectively, as the European E, F#, G, A, B, C. Later, in the books published in Etchmiadzin, *Poosh* was given the sound value of the European note C, and the subsequent Armenian notes are read, respectively, as D, E, F, G, A, B♭.
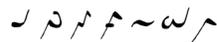
Notes		Etchmiadzin Reading	Istanbul Reading
Poosh (*short* Po)		C	D
Ekorch (E)		D	E
Vernakhagh (Ve)		E	F#
Benkorch (Be)		F	G
Khosrovayin (Kho)		G	A
Nerknakhagh (Ne)		A	B*
Parooyk (Pa)		B♭	C

Here we use the letter B with its musical sound used in English-speaking countries. That is, B here = Si♮ (not Si♭).

As you probably noticed, *Vernakhagh* in the Istanbul reading corresponds to F#, not F♮. And in the Echmiadzin reading, *Parooyk* is not B♮, but B♭, which would be the letter B in the German version of the European letter notation. Thus, the Armenian notes in the Etchmiadzin reading repeat the correct sequence of the German letter notation, which is also used in some other European countries and in Russia (where Si♮ is the letter H, which breaks the correct sequence of the letters).

If we carefully compare the two readings of Armenian notes, we can see that in both cases, the sequence of the tonic distances of the scale is the same (1, 1, 1/2, 1, 1, 1/2). This means that whatever reading is used, the result will be the same melody. For example, if you have learned and use Armenian notes according to the Echmiadzin reading and want to read melodies recorded and published in Istanbul (that is, music scores where *Poosh* means D and not C, and so on), you can sing these melodies according to the reading you are familiar with; that is, you can read *Poosh* as C instead of D, or *Nerknakhah* as A instead of B, and this will not result in distortion of the melody; it will still be the same.

The Limonjian notation used in Turkish musical culture is slightly different from the Armenian one. The printed forms of its musical notes are more similar to their handwritten forms. It uses other marks of duration (e.g., the mark for 1/8 duration is a double acute, 1/4 is a straight acute, 2/4 is a dot, *soogh* is used instead of *tsoonk*, etc.). Though the sound values of the notes are in line with the Istanbul reading (i.e., *Poosh* is D, etc.), *Nerknakhagh* is not B♮, but B♭. For this variant of the Limonjian notation, the font Hamparsum Nota was created years ago, but we cannot use it because of the above-mentioned differences.

Notes of the Turkish variant of
the Limonjian Notation
(Hamparsum Nota font)

Here we present Armenian notation according to the Etchmiadzin reading, because that reading is used in most of important collections of Armenian music published with Armenian notes (the Breviary, the Etchmiadzin publications of *Sharakan* and of the Divine Liturgy, *Tagharan*, other collections, as well as all the records of Komitas Vardapet with Armenian notes).

The musical notes presented above are the first seven notes of **the 1-line octave.**

The notes of **the 2-line octave** are the following:

ﻣ ﻟﺴﺴ ﺳ ﻒ ﺳ ﻤ ﻟﺒ

As you can see, a dot is added under each note (this dot is merged with the ending of the note, except in *Poosh*), and the number of the cogs in *Nerknakhagh* is increased by one. This dot is called *bartsranish*.

The notes of **the 3-line octave** are the notes of the 2-line octave with an additional *bartsranish*. In the *Nerknakhagh* below, the number of cogs should also be increased by one, but for technical reasons, a dot is placed under *Nerknakhagh* as well. Most of the notes of this octave, including *Nerknakhagh*, are almost never used in books with Armenian notes.

ﺟ ﻟﺴﺴ ﺟ ﻒ ﺟ ﻤ ﻟﺒ

The notes of **the small octave** are the main notes with a small horizontal line under them. This line is called *storanish*. If notes of a lower octave are necessary (in this notation system they are not necessary, as the possibilities of human voice are limited), then another *storanish* will be added (that is, there will be two or more lines in lower octaves).

ﻟﺒ ﻊ ﻤ ﻒ ﻊ ﻊ ﻣ

Accidentals

Armenian notation has only one accidental — ***kisver* (=sharp)**, which raises the pitch of the note by one semitone. This notation system does not need other accidentals. *Kisver* is placed above the note, after the duration mark.

ﻟﺒ   ﻛﻢ

=C♯   =D♯ (with a duration mark)
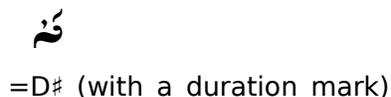
Duration Marks

The duration marks also mostly have forms and names of Armenian medieval khazes. There are 12 duration marks.

Ket (dot)	ּ	1/4
Zooyk ket (two dots)	ֺֺ	2/4
Yeraket (three dots)	ֺֺֺ	3/4
Soogh	°	4/4
Stor (comma)	'	1/8
Yerkstor (two commas)	''	1/16
Ket-stor (dot-comma)	�	1/4 + 1/8 (3/8)
Tsoonk	ɔ	1/32
Tsnkner	ɔɔ	1/64
Tav	ⵁ	1/8 + 1/16 (3/16)
Kisatav (half-tav)	ⵔ	1/16 + 1/32 (3/32)
Karatav (quarter-tav)	✦	1/32 + 1/64 (3/64)

A duration mark is placed above the note like a diacritic mark. If the note also has a *kisver*, the latter is placed *after* the duration mark, as has been already mentioned.

$$\text{ﻙ ﻙ ﻙ ﻙ ﻙ}$$

A duration mark is placed only above the first note in a group of notes of the same duration — no need to place the same duration mark on the other notes as well. It can be placed on the rest of the notes of the same duration in a group if each of those notes is for a separate syllable or if they should be sung with an accent but, for some

reason (for example, technical), they are not separated.

ܢܩ ܩܘܣܦ ܫܠܡܩ

A duration mark is not usually placed above the last note in the group (if that note is not used for a separate syllable), because the duration mark above the first note in the group indicates the duration of the last note. This is so especially in the notes with durations corresponding to European dotted notes (3/8, 3/16, 3/32, 3/64): the duration mark above the note following those "dotted" notes is not necessary.

ܦܩ ܫܩ

In the following group of three notes, the duration mark (1/8) is placed only above the middle note, and this means that the other two notes have 1/16 duration.

ܣܫܩ

Triplets and other tuplets consisting of an odd number of notes of the same duration are written as follows: the number is written in the center and the notes are joined under the slur, but in most cases only the slur is enough.

ܣܩܫܣܫ
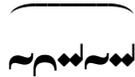
The same duration marks become **rest marks** if they are placed *after* the notes, in a lower position.

ܒ ܀   ܩܘܫܢ ܆

Other Symbols

Hatats (= bar line) is a big colon. **Karaket** is a finishing mark that is put at the end of the recorded melody. None of these marks is used in most of the published books with Armenian musical notes (Breviary, Divine Liturgy, *Sharakan*, etc.) — they are not necessary. They are used in the *National Song Book* by Fr. Eznik Erznkiants and in the *Series of Akn Folk Songs* published by Komitas, but are not used in the 13th volume of Komitas's works that presents his records of folk songs with Armenian notes. Thus, these marks can be classified as optional marks in Armenian musical notation.

Khagh is for the trill or vibrato. It is placed before the note in a raised position.

Antsanish (tie) is used to join two adjacent notes.

The dashed line in half-brackets is used both as a **joining symbol** and as **volta brackets.** The European slur is also used as a joining symbol.

Hatats (= bar line)	:
Karaket (finishing mark)	: :
Khagh (= trill or vibrato)	
Antsanish (tie)	
Note joining symbols	
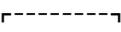
However, in most books with Armenian musical notes, sound groups are seldom joined with joining symbols (more often the tie is used), because the syllabic division of words in the lyrics shows which syllable should be sung with certain groups of notes.

Thus, Armenian musical notation has the following principle: Do not overload the recording of the melody with marks or symbols whose meaning is obvious without them.

For the repeated parts of the melody and for indicating the places where they should be repeated, various symbols (called *dartsanish*) are used:

※ ※ *ff* ℅ ✳

Grace notes are written in Armenian notation almost in the same way as in European notation, that is, much smaller in size and in a raised position, before or after the main notes.

Armenian notation also uses the symbols of fermata, crescendo and decrescendo borrowed from European notation.

Keyboard Layout for Armenian Musical Notation

To write down a melody with Armenian musical notes on a computer, you need to install the **LimonjianNotation** font (created by Ruben Tarumyan for the Vem Educational and Cultural Foundation) and the corresponding keyboard layout.

Keyboard Layout for Windows

In Windows, the keyboard layout *Armenian Musical Notation* is installed in the list of keyboard layouts for Luxembourgish.

The duration marks are in the top row of the keyboard. To use them as **rest marks**, press them *two spaces after* pressing the note key. In most text editors, these characters are not correctly placed; therefore it is better to use applications in which these marks work correctly. They work correctly (in the programs tested in Windows) in LibreOffice, Microsoft Publisher, FocusWriter, and InDesign. The samples at the end of this Guide were created in LibreOffice.

Keyboard Layout for Linux and Mac

To install the keyboard layout for Linux, you need to download the archive created to install additional Armenian language layouts for Linux. For the Mac OS, you need to download *ArmNotation.keylayout.*

The notes of **the 2-line octave** are in the second row from above, from left to right, or are placed when you press the main notes with *Shift*. The key for the Latin letter **i** is for **bartsranish**.

To place notes of **the 3-line octave**, you need to press the keys in the second row from above and the key for the **Latin letter i**.

To place notes of **the small octave**, you need to press the keys of the main notes and the key for the **Latin letter k**.

That is, to type ⅃ in Linux and Mac, you should press **q** and **i**;

~ -- press **w** and **i** (and so on);

⅃ -- press **a** and **k** (and so on).

The duration marks are in the top row of the keyboard. To use them as **rest marks**, press them *two spaces after pressing the note key*. In most text editors, these characters are not correctly placed; therefore it is better to use applications in which these marks work correctly. They work correctly (in the programs tested in the Linux OS) in LibreOffice, Calligra Words, and CherryTree. In the Mac OS, they work correctly in Pages. The samples at the end of this Guide were created in LibreOffice in Linux.

Some Pointers

1) Before typing the notes of the song's melody, first type the lyrics of the song (choosing, for example, the 9 or 10 pt font size). This will allow you to correctly arrange the notes in the line, as they need to be arranged so as to match the size of the syllables of the words.

2) Leaving an interval of one paragraph above the words and choosing a larger font size (14 pt is good), enter the Armenian notes (do not forget to choose the font Limon-jianNotation and change the keyboard layout).

3) Each line should be a new paragraph (that is, at the end of the line, press Enter, taking the continuation to the appropriate line-paragraph).

4) It may happen that when you press the space bar, the mark placed above the previous note may slip out along with the space and be out of place (this can happen, for example, when you press the note and the tie (*antsanish*) or when you divide already grouped notes — here you need to be more careful). In this case, undo the last action to correct the misplacement and press *the right arrow key*. Only then should you press the space bar.

5) During work, often export your records to PDF, that is, after one or two pages and checking your work, export the work to PDF (for security reasons).

6) When copying a record from a file to another one, you should first format the pages of the new file exactly as in the older file, so that the lines are not broken (i.e., make sure that the left and right margins of the page in both files are the same, or if it turns out that in the older file you compressed the interval between characters, then in the new one you also need to do the same, etc.). Otherwise the lines will be broken.

7) To avoid broken lines, you can use a separate text box (frame) for each line. However, experience has shown that it is not very convenient to work this way, despite the stability of the lines. But try it; maybe it will be more convenient for you to work in text boxes. The following samples were created in LibreOffice Writer according to the above principles, without using text boxes.
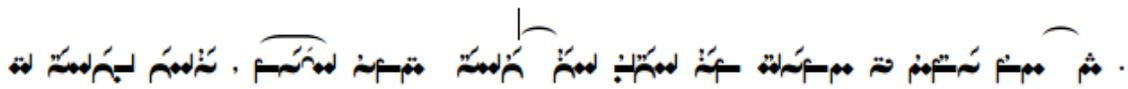
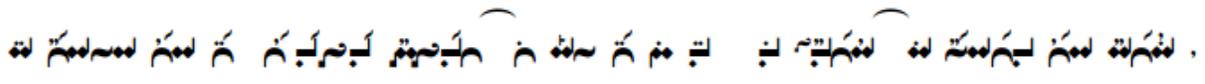# Samples Created with Armenian Musical Notes
on a Computer

Below you can find two samples of transcription from European notes to Armenian ones, one sharakan and one Aria by J. S. Bach, which can help you better understand the possibilities of Armenian notation and of its font and keyboard layout (the transcription is by the author of this Guide). Links to the same songs with European notes are also provided so that you may compare both versions. You can find countless songs with Armenian notes in the books of the "*Literature for Download*" list at the end of this Guide; therefore such music scores are not presented here.

Bats mez, Ter (Open to Us, O Lord) (sharakan)

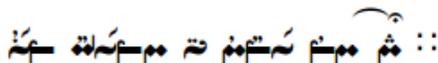## Բաց մեզ, Տէր (Դռնբացէքի շարական)

Բա - - - - - - - - g մե - - - - - - - - - q, Տէ - - - - - ր:

Բա - - - - g մեզ, Տէ - - - - - - - - ր դզ-դուոն ո- որ - - ր մու - - - - թեան,

որ ո - - - - դ բա - - - - լով կա - ր դա - - - - - - - - Մբ ա - - - - - -
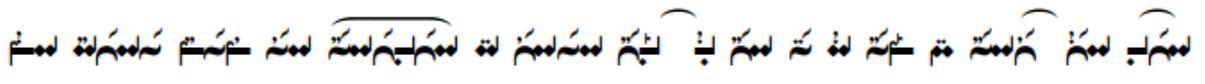
- - - - - - ր բե - - - - - q:

You can see this sharakan with European musical notes here.

12

BACH
CANTATA NO. 51

Aria

Jauch - - - - - zet, jauch - zet Gott in al - len Lan-den,

jauch - - - zet Gott in al- len Lan-den, in al - - - -

len Lan- den.

Jauchzet, jauch - zet, jauchzet, jauch - - - - - -

- - - - - - - - zet, jauch - - - - - -

- zet Gott in al- len lan- den, in al- len Lan - - - - -

- - - - - - - den, jauch - - zet Gott in al - -

- - - - - - len Lan den, in al-len Lan- den!

Was der Him-mel und die Welt an Ge-schöp-fen in sich Hält müs-se des-sen Ruhm er-

hö - - -

hen, müs-se des- sen Ruhm er- hö - - - - - - hen, er- hö – hen,

und wir wol-len un- serm Gott Gleich-falls jetzt ein Op-fer brin-gen, Daß er uns in Kreuz und

Noth, in Kreuz____ und Noth, in Kreuz und Noth__ al - - le - zeit hat bei- ge -

stan-den, al- le- zeit hat bei-ge - stan - den, al - - - - - - - - -|-

- - - - - - - - - - - le - zeit hat bei-ge-stan-den. Jauch- zet

Gott in al - len Lan-den, jauch - - - - - - - - - - -

- zet! Jauch - - - - - - - - -

Bach's Cantata No. 51 is here.

Literature for Download

Books with Armenian Musical Notation in the Internet

The books in this list that were published in the 19th century and early 20th century (all in Armenian) have been digitized by the National Library of Armenia (except one). Most of the books with URLs starting with *greenstone.flib.sci* open in an online reader that doesn't provide the books in PDF format. But if you make a change in the URL address (replace **_index.html** with **.pdf**), the PDF version of the book will open. The 13th volume of Komitas' works presented in the list below opens in a different type of reader, where to download the PDF, you need to click on the upper right letter *i* of the reader and then click on the PDF icon in the pop-up window.

This list is from the Grahavak blog and will be updated there periodically if new digitized publications with Armenian notation appear on the Internet.

Collections

◈ [Recorded Songs from the Breviary of the Holy Armenian Church. Vagharshapat*, 1877] Երգք ծայնագրեայք ի ժամագրոց Հայաստանեայց Ս. եկեղեցւոյ, Վաղարշապատ, 1877

*** *Vagharshapat = Etchmiadzin***

◈ [Recorded Songs from the Breviary of the Holy Armenian Church. Yerevan, 2017] — **With European Musical Notes.** Երգք ծայնագրեայք ի ժամագրոց Հայաստանեայց Ս. եկեղեցւոյ [եւրոպական նոտագրութեամբ], Երեւան, 2017

◈ [Recorded Songs of the Divine Liturgy. Vagharshapat, 1874] Ձայնագրեալ երգեցողութիւնք Սրբոյ Պատարագի, Վաղարշապատ, 1874

◈ [Recorded Songs of the Divine Liturgy. Vagharshapat, 1878] Ձայնագրեալ երգեցողութիւնք Սրբոյ Պատարագի, Վաղարշապատ, 1878. or here

◈ [Recorded Song Book for Children. Ed. by Fr. Eznik Erznkiants. Vagharshapat, 1880] Ձայնագրեալ մանկական երգարան. երգեր եւ պար երգեր ի հրահանգ եւ ի պէտս հոգեւոր դպրոցաց հայոց, իմբ. Եզնիկ քհն. Երզնկեանց, Վաղարշապատ, 1880

◈ [Recorded Sharakan of Spiritual Songs of the Holy and Orthodox Armenian Apostolic Church. Vagharshapat, 1875] Ձայնագրեալ շարական հոգեւոր երգոց Սուրբ եւ ուղղափառ առաքելական եկեղեցւոյս Հայաստանեայց, Վաղարշապատ, 1875

◈ [Recorded Tagharan for the Servants of the Holy Armenian Church. Vagharshapat, 1900] Ձայնագրեալ Տաղարան ի պէտս սպասաւորաց Հայաստանեայց սրբոյ եկեղեցւոյ, Վաղարշապատ, 1900

◈ [Recorded Excerpts from Orhnutyun Sharakans; Hetevaks of Orhnutyun Sharakans of Dominical Feasts, As Well As Sharakans of the Rite of Repose and of Andastan. Vagharshapat, 1882] Ձայնագրեալ քաղուածք օրհնութեանց, հետեւակք օրհնութեանց տէրունական տօնից, այլ եւ կարգ հանգստեան եւ անդաստանի շարականաց ի լրումն ծայնքաղի, Վաղարշապատ, 1882

◈ [Recorded National Song Book for Armenian Schools. Compiled by Fr. Eznik Erznkiants. Vagharshapat, 1882]   Ձայնագրեալ ազգային երգարան հայ դպրոցների համար, ժողովեց եւ ձայնագրեց Եզնիկ քհն. Երզնկեանց, Վաղարշապատ, 1882

◈ [Series of Akn Folk Songs. Recorded by Komitas Vardapet. Holy Etchmiadzin, 1895] Շար Ակնայ ժողովրդական երգերի. ձայնագրեց Կոմիտաս Վարդապետ, Սբ Էջմիածին, 1895

◈ [Komitas. Collection of Works. Volume 13: Armenian Folk Songs; Book V: Collection of Folk Songs (Facsimile Edition). Yerevan, 2004] Կոմիտաս, Երկերի ժողովածու, հտ. 13. Հայ ժողովրդական երգեր, Գիրք Ե. ժողովրդական երգերի ժողովածու («Ձայնակարգային»). ֆաքսիմիլային հրատարակություն, Երևան, 2004

There are samples with Armenian music notes here also:

 ◈ [Muradyan, P., Musheghyan, A. Armash Seminary. Yerevan, 1998] Մուրադեան Պ., Մուշեղեան Ա., Արմաշի դպրեվանքը, Երեւան, 1998

Manuals of Armenian Musical Notation

◈ [Tashjian, Nikoghayos. Manual of the Armenian Church Notation. Vagharshapat, 1874] Թաշճեան Նիկողայոս, Դասագիրք եկեղեցական ձայնագրութեան հայոց, Վաղարշապատ, 1874

◈ [Erznkiants, Eznik. Manual of Armenian Notation. Vol. I. Vagharshapat, 1880] Երզնկեանց Եզնիկ, Դասագիրք հայկական ձայնագրութեան, հտ. Ա, Վաղարշապատ, 1880

◈ [Atayan, Robert. Manual of Armenian Notation. Yerevan, 1950] Աթայան Ռոբերտ, Ջեռնարկ հայկական ձայնագրության, Երևան, 1950

◈ Kerovpyan, Aram. Manuel de Notation musicale arménienne moderne, Musica Mediævalis Europæ Orientalis, no 2, Ed. H. Schneider, Tützing, 2001

On Armenian Musical Notation

◈ [Hisarlian Aristakes, The History of Armenian Notation and Biographies of Compatriot Musicians 1768-1909, Istanbul, 1914] Հիսարլեան Արիստակէս, Պատմութիւն հայ ձայնագրութեան եւ կենսագրութիւնք երաժիշտ ազգայնոց 1768-1909, Կ. Պոլիս, 1914

Seda Stamboltsyan

2019

Yerevan