

## Section 2. Museology

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### ABOUT SOME TYPOLOGICAL FEATURES OF LULLABIES

*H. H. Harutyunyan*<sup>1</sup>

<sup>1</sup> Shirak Center for Armenological Studies of NAS RA

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#### Abstract

**The purpose of the research:** The subject of study of this work – a lullaby – is semiotically complicated familiar and one of the archaic genres of folk song. With the expressiveness of the text and the uniqueness of the rhythms, folk songs convey in the best possible way what the people want and what they strive for. It is no coincidence that folk songs are called the beginning of poetry and verbus of literary creativity.

**Research methods:** The characteristic expressive formulas of a lullaby have been studied using a historically critical method.

**Research results:** The lullaby is one of the most nationally characteristic and complex folk songs. Here, more than in any other song, there are noticeable changes taking place within the genre, lines of gradual development, genre penetration.

**Practical application:** Familiarization with traditional genres of folk art in the context of modern culture.

**Keywords:** *folk art, lullaby song, genre features, poetic text, musical language, Armenian lullabies*

#### Introduction

As a special layer of spiritual culture, folk song is a source of rich information about history, geography, social life, life, ethical and aesthetic ideals of the co-creator tsium. The connection of a folk song with various aspects of social life forms the basis of its genre differentiation and identification within the invariant genre of such options as labor, lyrical, historical, ritual songs. A special place in this series belongs to the lullaby song.

Lullabies, as an ancient cultural phenomenon, are a treasury of ethical and aesthetic cultural values, customs and traditions of a particular people, which are connected by various threads are involved with all elements of ethnoculture. Despite the value and importance of lullabies as truly important source for the development of literature of any people, they are not equally studied in different linguistic cultures. Moreover, despite the universal archetypal structure, the lullaby in every culture is distinctive and has

unique features in terms of verbal and non-verbal organization of the communicative space of the text. It is from the point of view of multilayer textuality, the lullaby is an interesting object of study, suggesting actual aspect of its study as a complex semiotic system, as a creolized text.

At the same time, the culture of childhood is one of the channels of human self-identification in a multicultural environment, allowing an individual to more confidently position himself as an ethnophor, a bearer of ethnic consciousness in the context of globalization.

The study of the phenomenon of childhood and its role in the process of inculturation has so far been within the sphere of interests of various sciences – philosophy, psychology and pedagogy, ethnology and ethnography, folkloristics and, to a lesser extent, cultural studies. Each science studied its own aspect of the problem using special approaches.

Children's folklore is one of the most important channels of inculturation, which is carried out through the reproduction of ethnocultural stereotypes. The functional significance of children's folklore is explained by the content in it of the main block of ethnocultural stereotypes (Freud, 3., 1990).

Children's folklore also obeys the principles of consistency: the older the genre and the ideas embedded in it, the earlier it is introduced into the repertoire. Thus, by comparing the chronology of the use of genres of children's folklore and the psychological characteristics of the child's development, it turned out to be possible to trace the formation of a system of stereotypes and prove that it is in childhood that this system is laid down to the extent necessary for identification. Prose children's folklore contains a huge block of ideas presented in metaphors. It reveals not only the essence of phenomena and concepts, but also establishes connections between them. The wealth of epithets, the versatility of metaphors, the principle of repeatedly presenting an idea in different ways make it possible to transmit such a large mental volume to children in an indirect way. In prose genres, stem stereotypes are objectified into ethnopsychological ones.

Thus, children's folklore contains a system of ethnocultural stereotypes and con-

sistently transmits them, thereby forming a certain mentality, and, as a result, a representative of the culture. This proves that children's folklore is the main means of transmitting the system of ethnocultural stereotypes, i.e. the main means of early inculturation in traditional society.

According to the degree of complexity, Mari lullabies, as well as lullabies of other Finno-Ugric peoples, can be combined into three large groups. For lullabies of the first group, melody is important, they are characterized by the repetition of certain sound combinations that lull the child to sleep. The second group consists of lullabies with more complex lyrics.

The history of the study of lullabies has its own tradition. The problem of lullaby has been especially actively developed since the end of the 19<sup>th</sup> century and until our time. The genre of lullabies is characterized by a certain poetics and a number of images. Lullabies have specific composition and classification, unlike other folk genres. Over time, lullabies have undergone historical evolution, which is manifested in the loss of similarities with the charm tradition. The problem of the national identity of the lullaby is still open today. Lullabies of different nations have both distinctive and similar features. Lullabies carry a certain functional load: they promote calm, the accumulation of sensory impressions, the perception of the human voice as a signal of communication, the perception of words, and the understanding of language. The lullaby performs a pedagogical function, or rather, an ethnopedagogical one (Folklore and ethnography. 1977).

The communicative space of a lullaby unfolds not only from the performer to the listener (child), but also vice versa, from the child to the performer. This is especially evident in the acquisition of pre-speech skills in the early period of human development, when, not yet being able to say a word, the baby hums the melody of a lullaby in order to let adults know that he wants to sleep.

Essentially, the lullaby ideally corresponds to the optimal development of the child's communicative behavior in the future, training the mechanisms of the little person's future oral speech: one of which provides the output, and the second – the input of the

human communication system. We believe that when a lullaby is perceived as a kind of verbal-non-verbal-musical unity, the speech-motor and auditory analyzers are united into a common auditory-speech-motor analyzer, which serves as the psychophysiological basis of oral speech. At the same time, there is no doubt that the functional connection between the motor and sensory mechanisms of speech is dynamic. With the psychophysiological development of the child, "the nonverbal-pictorial protosign system is internalized, goes deep into the child's linguistic consciousness, forming the basis for the emergence of a new symbolic (semiotic) function.

The simple nature of the lullaby (both musical and verbal) contributes to the infant's self-learning of language based on imitation and imitation. And the suggestive orientation of the lullaby contributes, in our opinion, to the fact that by the age of six months, the phonetic features of the language spoken by the adults around the child are already well represented in the babble of babies. In addition, we believe that it is no coincidence that in the choruses of lullabies of different nations, various onomatopoeic words are used, imitating the creaking of a rope on which the cradle is tied, or the creaking of a wooden swing on which the cradle is installed. Traditionally, it is believed that orientation toward words in adult language begins to manifest itself by the age of one year. Therefore, the singing of a fragment of a lullaby by a baby (as a rule, either the first word or an often repeated chorus) denotes both the lullaby itself, and the desire to sleep, and the desire to be rocked to sleep (Man and culture: Individuality in the history of culture. 1990).

The communicative space is a set of various forms of communications with the help of which people interact in the process of their cognitive and labor activity, the transfer of one or another content from one consciousness (collective or individual) to another occurs through language and other sign systems recorded on material media.

The communicative space of a lullaby song is special because it is formed at the intersection of non-verbal, musical and verbal communicative subspaces. The communicative space of a lullaby is special due to the inclusion of music and physicality. It is music, the

mother's voice, timbre, tone, touch, rhythm, i.e. nonverbal means constitute, as a consequence, a nonverbal communicative space.

The communicative space of a lullaby unfolds not only from the performer to the listener (child), but also vice versa, from the child to the performer. The lullaby ideally corresponds to the optimal development of the child's communicative behavior in the future, training the mechanisms of the little person's future oral speech: one of which provides the output, and the second – the input of the human communication system (Chistov, K.V., 1976).

When a lullaby is perceived as a kind of verbal-nonverbal-musical unity, the speech-motor and auditory analyzers are united into a common auditory-speech-motor analyzer, which serves as the psychophysiological basis of oral speech.

Verbal coding occurs at the level (vocabulary) of characters in lullabies. The emotive code of a language is implemented in vocabulary marked with emotive semantics. The musical code focuses on the values of the spiritual culture of the ethnic group. Elements of paraverbal space come to the fore in terms of the way they influence the child, especially at an early age. A child, starting from a very early age, is an active participant in the communicative space of a lullaby through the use of proto-language, imitations and psychophysiological reactions of an approving or protest nature.

Nonverbal means of constructing the communicative space of a lullaby are voice, intonation, and touch. Touches convey an attitude towards the child's body as a bearer of the qualities of the archetypal body inherent in a given ethnic group, enhancing the suggestive effect of the influence. Voice and intonation are specific ways of influencing the psyche. When performing a lullaby, the psychological state of the performer is of great importance, which is transmitted to the child at the emotional and somatic level (Erikson E., 1996).

A lullaby contributes to the formation of a child's gender identity. Masculinity and femininity, produced in a traditional lullaby, as cultural concentrations of social consciousness, are an integral part of the conceptual part of the personality. A traditional lullaby acts as a special semantic space formed by the interweaving of various codes. The emotive

code of a language is implemented in vocabulary marked with emotive semantics. Verbal encoding occurs at the level (vocabulary) of lullabies. The musical code focuses on the values of spiritual culture.

The lullaby implements basic communicative strategies: introducing the child to the world around him; an attempt to give the very first ideas about the world, preferable in a given particular enical community. The primary strategy is to put the child to sleep, this is done through sleep verbs, suggestion, and also by the very structure of the lullaby. The main communicative strategy of lullabies is to embed a model of a prosperous life in the child's subconscious.

The spatial aspect of lullabies has never been taken into account, while the semantics of the elements of space for these texts is obviously significant, as evidenced by at least the many constant motifs associated with spatial images. But consideration of their symbolism and semantics without taking into account the cultural context is impossible (V Spitz, 1979).

The lullaby is genetically closely connected with the primitive syncretic ritual-mythological complex, as clearly evidenced by its functional field and formulaic-motivic fund. Ritual (initiatory) meanings, clearly preserved in many texts of the genre (just remember the motive of killing and slaughtering an animal), make it possible to attribute its origin to ancient times. Analysis of the corpus of texts in their relationships with other genres led us to the conclusion about the independent emergence of the genre, and not its development from another, for example, from a conspiracy. The utilitarian nature of the use and the transitional status of the addressee of the lullaby also determined its functional content (the function of soporific, protective, prognostic and epistemological functions). The lullaby contains the entire worldview complex of traditional ideas about its recipient – a baby. The traditional cycle of ritual actions “ensuring” the normal development of the baby from the liminal newborn to homo traditionalis is included in the content of almost every lullaby (for example, washing, baking, opening organs, up to the testament). A lullaby becomes a constantly reproduced song-verbal ritual, which every

day, at the moment of a cluster of transitional states, consolidates, defines and “stimulates” the correct and safe, in the ideas of traditional society, development of a new person. At the same time, we observe how the everyday life of the genre begins to hide its ritualism. At the level of consciousness of even a traditional performer, it is felt as utilitarian. Ritual and functional meanings are below the threshold of consciousness and are revealed only through scientific analysis.

The literary lullaby experienced a freedom that was not required in the functional system of the traditional lullaby. The genre is part of the system of aesthetic functions, reproducing traditional functional pragmatics only at the figurative level. The literary hypostasis of the genre determined the desire for originality in the author's “genre embodiment.” The author's stylizations, focused on the model of the traditional genre, appeared quite late, only in the middle of the 19<sup>th</sup> century, and mainly related to children's literature, where the reader's address (the child) “provoked” this form of the poem.

But the literary development of the lullaby does not indicate a loss of genre unity. For two centuries, folklore and literary genres exist in parallel, in close interconnection and interact at different levels (Huizinga, Y., 1992).

The human voice is the most ancient natural musical instrument, with the help of which you can convey intonation, feelings, experiences, and mood. Through singing, a person expresses his feelings, thoughts, and attitude towards the world. Modern singing can be considered as one of the types of musical culture of our people. The lullaby as a musical genre has been known to everyone since ancient times. It carries not only a calming, emotional element, but also an educational, cognitive function for the child, and also strengthens the close maternal bond with the child, and forms child-parent relationships.

Created in distant centuries, passed on from generation to generation, lullabies have reached our time. They affirm the highest value of the place occupied by the child, because for full mental development it is important for the child to establish that the place occupied by his “I” in this world is the best, his mother is the best, and home is the dearest. Tenderness, affection, warmth, sincerity, re-

laxation, and calmness are conveyed by lullabies. They relieve anxiety and excitement. A lullaby is like a mother's hands closed around a child, preventing the penetration of evil (Man and culture: Individuality in the history of culture. 1990).

Lullabies have an emotional impact on the child and establish a close bond between mother and child. At its core, the lullaby is very close to children; they vividly perceive its calm, affectionate character. The images of the characters in lullabies are connected with the surrounding world and the way of life of people, so the norms and rules of life are revealed to the child in an accessible form, semantic attitudes towards relationships with parents and other people are formed, warnings about possible dangers are formed, and the image of adult life is laid on a subconscious level.

The lullaby was intended not only to calm the child and put him into a state of sleep – it was also a form of introducing the baby to the world of the people around him. Lullabies were sung gently, quietly, the motive was monotonous, but kind, soothing, lulling. When rocking, the cradle makes smooth and rhythmic movements in the directions “up – down”, “right – left”, “back – forward”. Similar to the rhythm of a rocking cradle, the sound “swinging” occurs during the performance of a lullaby. The voice moves up and down: “kach-kach-kach”, “bayu-bayu-bai”, “lyuli-lyuli-lyuli”, etc. Lullabies were performed simultaneously with the rocking of the cradle – in time with each other. In addition, the regularity of lullabies coincides with the pulse rate and breathing, having a calming and soporific effect on the child (Freud 3., 1990).

***Thus, lullabies are the greatest achievement of folk pedagogy, filled with folk wisdom, awakening in the child a feeling of his native land, native language and maternal love.***

The lullaby, acting as a talisman, protected the baby from the evil eye, problems, troubles, and illnesses. And therefore, the main motives of lullabies are wishes for sleep, health, a good life, charms and charms. People believed that the lullaby had special magic. It was not without reason that various ritual things that performed a protective function were placed in the cradle: a bear's claw, a loaf of bread, an iron object, grains of barley, rye.

It was believed that they would help the baby grow up strong, strong, healthy, and successful (Chistov K. V., 1976).

Ethnographers have shown that the texts of lullabies developed gradually; at first they consisted of chains of interjections and encouraging words, repeated in time with the movements of the cradle. They were also joined by the rhythmic creaking of its wooden parts. Gradually the verbal component developed and lullabies themselves appeared.

Lullabies are what unites all people. The role of lullaby songs in the modern world is undeniable and I think that work on the collection is not yet finished; it is necessary to add and update the texts of lullabies. And the theoretical material of our work, we think, will find application in literary reading lessons when studying the topic “Oral Folk Art” (Erickson, E., 1996).

Lullabies accompany a person throughout his life: first they are sung to the baby, then he begins to sing them to his children. They appeared a long time ago and will exist forever. All or almost all children listened to them from their mothers, grandmothers or nannies. To the sounds of a lullaby, the baby falls asleep, plunging into the world of dreams.

The structure of a lullaby has been formed over many centuries. Something left, something remained. For a newborn baby, the text of the lullaby was not the main thing. After all, in early childhood the baby was not yet able to understand words; he perceives only sounds and intonations. Therefore, in a lullaby, an even rhythm and a monotonous, calm melody are important. In addition, the text of such songs should include words with a large number of hissing and whistling sounds, as if putting the baby to sleep (V. Spitz 1979).

Lullabies consist practically of nouns and verbs, so the child can actually perceive the object and its movement. The lullaby is characterized not only by a swaying rhythm, but also by a monotonous melody. Birds in the ancient Slavic worldview are messengers of God. They are the ones who help take care of the growing baby.

Often, humming a lullaby, the mother told the child about the past day, about the events that had happened, about how the child would grow up and what he would do. The ancients attached great importance to lulla-



bies, because for them it was not just singing, but a kind of sacrament, magic, through which the baby's connection with the entire world around him is maintained. The ancestors believed that the baby was lonely and uncomfortable in the world of adults, and the lullaby was an indicator that everything was in order, mommy was nearby and loved him very much (Dijk T.A., 1997).

Lullabies have been sung for many centuries to all children, regardless of nobility or wealth. Each nation has its own lullabies with its own "secrets": its own philosophy and its own outlook on life.

***Thus, folk lullabies are the greatest achievement of folk pedagogy, filled with folk wisdom, awakening in the child a feeling of his native land, native language and maternal love.***

It is known that singing a lullaby is accompanied by rocking child, which causes calm and immersion in sleep. Lullabies of different cultures contain the same parameters: elementary poetic forms, dreamy motive and appeal to a child (Spitz 1993).

Lullabies are usually divided into ***narrative imperative*** and ***imperative***, describes the functional, contentual and typological features of lullabies. In narrative songs there are clearly expressed emotions, they tell about the world around them, about the mother's worries and worries. A feature of imperative songs is their emphasis on consumption of constructions with verbs in the imperative mood. In the imperative. In these songs there is clearly a monologue addressed to a child, animals or mythological creatures. Other classifications distinguish between traditional and improvisational new songs. The lullaby is quite normative, improvisations appear when deviation from traditional performance, in the replacement of epithets or rearrangement lines.

Based on the theory of dynamic synchrony, which reveals deep parallelism between the historical evolution of language and typological differentiation of languages, we compiled a classification of lullabies Sen, including: plotless; traditional (folk); copyright (lit. ratio); works of other genres performed as lullabies; fastfolk lullabies.

Initially, lullabies did not have a specific plot and captive verbal formulas, the baby's rocking was accompanied by humming mel-

odies. The first verbal formulas woven into the melody were the words wa tenderness, care and affection.

Based on folk lullabies with the development of writing, books printing, literature in general, literary lullabies appear, which some are perceived as poetic works.

***We examined the musical component of lullabies using the example of Armenian folk songs.***

The lullaby is one of the oldest and at the same time one of the most vibrant genres of the Armenian folklore song heritage. It can be argued that throughout the ancient Armenian history, the lullaby has always been played as the most important expression of the emotional world and sensibility of the Armenian woman. In Armenian folklore studies, and especially in the genre system of lyrical folklore, the interest in this genre does not decrease. The reason is both the variety of genre characteristics and the abundance of means of expression (Folklore and ethnography. 1977).

Time is a very complex and influential factor in the survival and preservation of any manifestation of traditional, non-material culture, especially folk song. In the context of changing the living environment of the folk song and some issues threatening the cultural ecology, we have tried to consider the special manifestations of the "living" song folklore in a number of rural communities of Shirak.

XXI century at the beginning, despite the influence of modern processes of globalization (television, Internet, other means of communication), folk songs with a predominance of local samples are played in any village of the Shirak region. The bearers and performers of the material are mostly elderly people who treat the song samples they inherited from the older generation like sacred relics (Huizinga, J., 1992).

Thus, a large group of songs that interest us should be seen as a heritage passed down from previous generations to the next. Therefore, these songs mostly live and survive as memories. This is what determines the transformed image of the genre system of songs selective, preferred genres are preserved.

Classical heritage in folk art is not a selection of songs, but a unique musical expression genetic fund, which is instinctively protected in the conditions of active inter-ethnic

interests and interactions. A written, recorded folk song can survive for quite a long time. However, the tradition, the creative mechanism of songwriting, which is based on centuries-old genetic memory and experience, can survive only if there are conditions for the creation and performance of new songs (Matikyan, H., 2015).

In the modern folklore of Shirak, although few, there are samples of songs created by the living tradition of songwriting. They are certainly the product of individual songwriters' talent. It is important that these songs, being created in the community micro-environment, are performed as traditional classical samples.

The vital interrelationship and artistic depth of the inventor's sudden fictional abilities and their equivalent means of expression are especially important. It is because of these characteristics that the lullaby has retained its vitality in Shirak's modern musical folklore as well. Even today, lullabies are remembered and invented anew, preserving the fundamental principles of composition of Armenian monodic songwriting in the best possible way.

Lullaby has had and has a stable function in Armenian musical folklore. In Shirak it is called nanik. As we know, the author of the song is the child's mother, sometimes the grandmother. As a work, the lullaby has been highly appreciated by both collectors

and composers. Studies have shown that this genre has mostly preserved the composition and structure of the melody, form and general stylistic features. Still characteristics from the pagan past (Hakobyan, A., 2022).

Stabilized lullabies, having been created by some talented linguist in time immemorial, have been accepted, loved, spread to take on a finished form. And the fact of many versions is characteristic of any genre of folklore. Their antiquity is undeniable and is expressed in the melodic composition, as well as in the poetic text, by the formulaic thinking coming from archaic times, typical image perceptions.

In terms of the musical element, these samples generally have a low volume, sometimes at the limit of a trichord or tetrachord, probably due to the function of lulling a child to sleep: a monophonic melodic line, infrequent jumps, repetition of rhythmic images. The melody of the lullabies, as it is traditionally, the folklore samples that have come down to us from ancient times, completely corresponds and, one can say, arises from the poetic speech. The song stands out with a bright seal of traditional thinking coming from ancient layers and a unique, formulaic structure so specific to the novel genre (Janikyan, H., 1895).

Let's take one of the lullabies recorded nowadays:

0-րոր, 0-րոր, 0-րոր, 0-րոր, 0-րոր է-նեմ, 0 րոր, 0-րոր, է-նեմ, 0-  
 րոր է-նեմ 0-րոր րո-ցին, քուն կը-տա-նի ա-նուշ քա-լին, նա-նիկ  
 է-նե ա-նուշ քա-լես, քը-նի, քը-նի, շուտ մե-ծա-նաս, մե-զի պի-տա-նի մարդ  
 դառ-նաս, 0-րոր է-նեմ, 0-րոր-րո-ցին իմ ա-նուշ  
 քա-լին, նա-նիկ, նա-նիկ նա-նիկ:

The song clearly shows those formulas of exposition, which are very specific for traditional lullaby songs. This is improvisational musical-speech thinking, monotonous rhythmic figures, syllabic singing (Harutyunyan, H., 2022).

### Conclusion

Thus, each version of a lullaby song of lyrical folklore becomes an expression of the state of mind, mood, emotions and feelings of a certain person performing it, or his environment at the moment. Hence the persistent musical and poetic living feeling and perception that always accompanies the traditional lyric poem in every performance. The lullaby is one of the most nationally characteristic and complex folk songs. Here, more than in any other song, there are noticeable changes

taking place within the genre, lines of gradual development, genre penetration.

Expanding the boundaries of thematic content, of course, leads to a change in the sound structure, balanced phrases, and principles of constructing a melody in the field of musical thinking. In them, the traditional folklore text appears the same or abbreviated, sometimes in combination with other motives, in different types of songs and, regardless of the melodic interpretation, in most cases ensures the genre affiliation of a given song. It also happens that a verse characteristic of a lullaby is added to the lines of a song, creating the false impression of a lullaby. Here the couplet has only a rhyming meaning. Such songs do not correspond to the laws of the genre and are beyond the scope of our interest.

### References:

- Hakobyan A. Armenian traditional Lullabies. A dissertation submitted in partial satisfaction of the requirements of the degree Doctor of Arts. Yerevan, 2022. (in Armenian).
- Harutyunyan H. The Lullaby Genre in Shirak's Contemporary Musical Folklore // "Historical and Cultural Heritage of Shirak: Contemporary Issues of Armenology" Dedicated to the 25<sup>th</sup> Anniversary of Shirak Center for Armenological Studies of NAS RA, Gyumri-Yerevan, 2022. – P. 232–235. (in Armenian).
- Janikyan H. Antiquities of Akn. Tiflis. Printing of M. D. Rotinyants. 1895. – 516 p. (In Armenian).
- Matikyan H. The personage of lullaby singer in England and Armenian folk lullaby texts. "Scientific works" of SCAS NAS RA. Gyumri. 2015. – V. XVIII. – P. 204–209. (in Armenian).
- Folklore and ethnography. Connections between folklore and ancient ideas and rituals. – Leningrad. Science, 1977. – 200 p.). (In Russian).
- Huizinga J. Homo Ludens. In the shadow of tomorrow. – Moscow. Progress, 1992. – 458 p. (In Russian).
- Man and culture: Individuality in the history of culture. – Moscow. Science, 1990. – 240 p. (In Russian).
- Chistov K. V. Folk traditions and folklore: Essays on theory. – Moscow. Science, 1976. – 304 p.). (In Russian).
- Freud S. Psychology of the unconscious. – Moscow. Education, 1990. – 447 p.). (In Russian).
- Erickson E. Identity: youth and crisis. – Moscow. 1996. – 336 p.). (In Russian).
- Dijk T. A. van Discourse as Structure and Process. – London, 1997. – 113 p.
- V Spitz 1979 Spitz Sheryl A. Social and Psychological Themes in East Slavic Folk Lullabies // Slavic and East European Journal. 1979. – № 23.
- Spitz 1993 Spitz. Sheryl A. Additional Thoughts on East Slavic "Dirge" Lullabies: The Hunting Song // Children Literature. 1993. – № 21.

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Contact: hasmik.har@mail.ru