## PROCEEDINGS OF THE YEREVAN STATE UNIVERSITY УЧЕНЫЕ ЗАПИСКИ ЕРЕВАНСКОГО ГОСУДАРСТВЕННОГО УНИВЕРСИТЕТА

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## SUBJECTIVE ASSESSMENT OF AESTHETIC FEATURES OF THE LANDSCAPES OF SYUNIK REGION

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The aesthetic assessment of the landscape is one of the important problems of aesthetics. The analysis of the work accomplished in different periods shows that there are two directions of the methodology of aesthetic assessment of landscapes in science: physical-geographic, which is based on the "objective" approach of aesthetic assessment of landscapes, and socio-geographic, in which the "subjective" approach is dominant. Combining subjective and objective approaches an attempt was made to estimate the aesthetics of the landscape of Syunik Region.

In case of a subjective approach, the researcher relies on the subjective opinion of people on the impressions received from a particular landscape of the aesthetic attractiveness. The was carried out with a social survey through questionnaires prepared by M.Yu. Frolova. In order to obtain the most reliable results, the principles of selecting pictures and survey participants have been developed. Most of the pictures were taken during our tours. The survey involved 80 people, where more than 40 pictures were presented. The respondents highly appreciated those landscapes, where there is a combination of different components of the given landscape. Autumn landscapes of forested areas were rated higher than spring ones. The results of the subjective correspond to the results of the objective made by us for the landscapes of Syunik Region by 83%.

Comparing the average results of the subjective with the results of the objective, we have obtained a map of the aesthetic attractiveness of the Syunik Region. The most attractive and attractive areas occupy 9.5% and 22.4% of the Syunik Region territory, respectively, unattractive areas occupy 0.2%. Obtaining a reliable result, it is recommended to use the methods of objective and subjective estimations together.

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*Keywords:* subjective assessment, landscape aesthetics Syunik Region, social survey, questionnaires.

**Introduction.** Aesthetic assessment of the landscape is one of the most important problems of aesthetics. There isn't any single, unified and accepted version of the assessment in science, yet. That is due to the paradoxical nature of subjective and objective approaches to aesthetic perception and, of course, the peculiarities of the explored area.

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The analysis of the work carried out in different periods shows that there are two directions of methodology for the aesthetic assessment of landscapes in science: physical-geographical, based on the "objective" approach to the aesthetic assessment of landscapes, and socio-geographical, in which the "subjective" approach prevails [1].

Since 1960s' "objective" and "subjective" approaches to the aesthetic assessment of landscapes have been formed. The first approach involves the discovery of objective standards of aesthetic attractiveness, the physical characteristics of the landscape, and the second – the exploration of the landscape-aesthetic background of various groups of people, their characteristics [1, 2]. The case of subjective approach the researcher relies on the subjective opinion of people, on the impressions received from a particular landscape aesthetic attraction [1–3].

Within the framework of the subjective approach, the most common method is the social survey (particularly, the polling). It has a number of advantages. First of all, the large amount of received information allows to use mathematical statistical methods. Secondly, there is an opportunity to identify and compare the features of aesthetic perception characteristic of different social, national, age and other groups and compare. However, implementarion of this method is laborious and requires high financial costs [4, 5].

Surveys usually involve 50 or more people, and as a rule, should be taken into account their ethno-cultural, educational level, height, etc. [3].

The aim of the paper is to study the features of the subjective perception of the aesthetics of the landscapes of Syunik Region through social surveys. And it's necessary to compare the results with the objective results.

**Materials and Methods.** A social survey was conducted in order to find out the features of the subjective perception of the landscapes of Syunik Region and compare them with the results of the objective assessment, which has been already carried out by us, a social survey was conducted.

For a subjective assessment 40 different photographs of the landscapes of Syunik Region were selected, on the basis of which a questionnaire was worked out. The selection of photographs was made according to the following principles:

- 1) the photographs maximally reveal the orographic, hydrographic, vegetation characteristics of the landscapes of Syunik Region;
- 2) the collection of photographs includes landscapes which are typical for all landscape zones of Syunik Region;
  - 3) different combinations of landscape components are present in the photographs;
  - 4) the photos represent the seasonal colour diversity of Syunik Region;
- 5) the collection includes both natural and man-made landscapes (slightly modified, altered and modified landscapes);
  - 6) there are frontal, spatial and deep spatial landscapes in the photographs.

The popular and famous questionnaire compiled by M.Yu. Frolova was selected for the surveys [2].

Tables of aesthetic, ecological features of the landscape, emotional estimation on a scale of 1 to 7 points are attached to each photo in the questionnaire.

Thus, the 1<sup>st</sup> column means "extremely negative impression", the 7<sup>th</sup> column – "quite positive", the 4<sup>th</sup> column – "neutral", the rest occupy an intermediate position.

So, the impressions received from the ecological and aesthetic state of the entire landscape (same-diverse, disharmonious-harmonious, ordinary-exotic, ugly-beautiful, etc.) and emotions (fear-joy, depression-admiration, etc.) generated by the respondents were estimated during unpointing [3, 6].

The questionnaire given to the respondents looked like this:

#### Landscape Aesthetic Questionnaire

Dear survey participant, please take some time to conduct a subjective assessment of the landscape aesthetics. Thanks in advance.

1) Fill in	
,	Name, Sur-name
	/Family name
	Age Nationality
	Profession
2) C 1	
2) Gender	Male
	Female
	1 chiaic
3) Education	C11
	Secondary school
	High
	Other
4) Where do you li	
	Village
	Town/City
	Village, town
5) Have you been t	
	Yes No
	No
6) How many cour	ntries have you been to?
7) Mark, what land	lscape do you prefer?
a)	
<i>,</i>	Mountainous
	Plain
b)	
0)	Forest
	Meadow
	Steppe
	Their combination
c)	
	Riverside
	Lakeside
	Far from coastal area
d)	
	Native landscapes
	Appropriated by man

8) Your favourite	season
	Summer
	Winter
	Spring
	Autumn
9) Have you ever b	een to Syunik Region?
•	Yes
	No

Now, we present to your attention several landscapes of Syunik Region. Please, fill in Table 1 and Table 2 for each one.

- 1) How do you estimate the aesthetic and ecological features of the landscape in general? Put a cross in the corresponding box of each row of Table 1.
- 2) How do you rate your emotional reaction towards the landscape? Put a cross in the appropriate box for each line in Table 2.

Table 1

#### Assessment of aesthetic-ecological characteristics of the landscape

Duomontri	Rating scale						Property	
Property	1	2	3	4	5	6	7	
Identical								various/diverse
Disharmonious								harmonious
Ordinary								exotic
Ugly								beautiful/nice
Dangerous								harmless/safe
Violated/broken								not-infringed

Table 2

### Emotional evaluation of the landscape

Emotional		Rating scale						
Impression	1	2	3	4	5	6	7	Impression
Sense of fear								joy
Irritation								peace
Depression								enthusiasm
Sadness								admiration

80 people participated in the survey. In order to get the most accurate results, the survey participants were selected as:

- people with different professions (geographers, foresters, ecologists, artists, guides, biologists, engineers, linguists, etc.). Most of the respondents (68 people) have higher education;
- residents of different regions of RA, residents of Syunik Region (those living in the researched area have a different perception of their place of residence) and foreigners (Czech, Russian, Turkish, Ukrainian, Chinese, Egyptian, German, etc.);
- people, who have visited different countries, 63% of survey respondents have been to 5 or more countries;
- people of different ages: the youngest of the respondents is 16, and the oldest is 53 years old;

• people of different genders: 49 were female, 31 were male.

The photographs were presented to respondents in casual order. Data from the social survey were analysed using SPSS and Excel software packages. The obtained results were compared with the results of the objective and the map of the aesthetic attractiveness of the landscapes of Syunik region was obtained.

**Results and Discussion.** 53% of respondents prefer summer, 80% – mountain landscapes, 46% – different combinations of vegetation, 44% – areas near the riverbank, and 80% – natural landscapes.

The colourful autumn riverside landscape of the Nature Reserve of Shikahogh was highly appreciated in (6.3 points). The landscape rated 6.2 points is a beautiful combination of natural landscape and human influence. Vahanavank's red dome gives an unusual look to the combination of vegetation and rocks. The landscape of the meadow-steppe with violet flowers received the same number of points (Fig. 1).

The analysis of the average results of the aesthetic-ecological characteristics of landscapes and the emotional perception showed the following picture. The participants of the survey rated with the highest points scale of Zangezur lakeside panorama (6.4 points), where the mirror symmetry created by the lake gives special harmony to the landscape (Fig. 2).



Fig. 1. Panorama of Vahanavank.



Fig. 2. Panorama of Lake Gogi.

Landscapes used for industrial purposes received a low score, such as the image of the Geghanush tailing dump (2.2 points) (Fig. 3), image of Zangezur copper-molybdenum mine (2.5) (Fig. 4).



Fig. 3. Geghanush tailing dump.



Fig. 4. Zangezur copper-molybdenum mine.

The pictures taken in autumn were rated higher than the spring landscapes that include the same and similar components. The clear proof of this is the estimated average score of the photos taken in the summer and autumn in Shikahogh Reserve. The picture made in autumn with colour diversity was rated 6.3 points, and the picture with only green shade -6 points

The landscape with violet flowers was rated higher than the landscape with yellow flowers. Landscapes of volcanic mountains (3.5–5.3) were rated lower in difference to pictures of folded blocked mountains (5.7). The same applies to lake landscapes. It is true that the lake landscapes common in folded block and volcanic mountains were highly rated (5.8 points and more), but the pictures of lake landscapes, which were spread in the near-peak areas of folded block-mountains (6.4 points) were rated higher.

Among two similar forested landscapes, the picture with the snow-covered mountain was rated higher in the background (5.8 points up to 6 points).

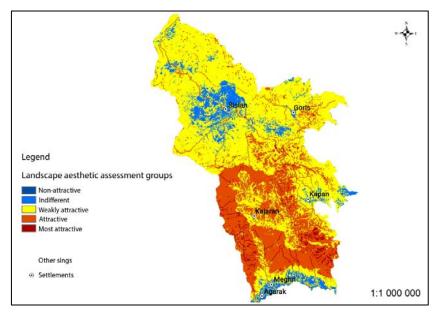


Fig. 5. Maps of aesthetic attractiveness of landscapes of Syunik Region.

Comparing the results of the subjective assessment of the landscapes of Syunik Region with the results of the objective assessment of the landscapes of Syunik Region [7], we obtained 83% compliance.

In order to obtain a reliable result, subjective and objective assessments were combined and a map was obtained for assessing the aesthetic attractiveness of landscapes in Syunik Region (Fig. 5).

The obtained results are quite similar to the objective assessment results. Only the areas occupied by urban settlements are differed. As a result of subjective assessment, urban settlements received average points (4–6 points), as a result of objective assessment, urban settlements were considered unattractive from the point of view attractiveness. As it is seen from photo 5, as a result of combining subjective and objective assessment urban areas are not considered unattractive.

The most attractive and attractive areas respectively occupy 9.5% and 22.4% of the territory of Syunik Region, unattractive areas occupy 0.2%.

#### Conclusion.

- 1. Respondents appreciate landscapes more highly, in which various components of the landscapes are combined. The only exceptions are landscapes covered with flower carpets.
- 2. The presence of high ridges with folded block-mountains in the background of the landscape was highly appreciated by 91% of the respondents, but the landscapes in which the parts of the mountains are visible in the foreground, created a sense of danger in people.
- 3. Autumn landscapes of forested areas were rated higher than spring landscapes. It shows that people like multi-coloured more.
- 4. The results of the objective developed by us for the landscapes of Syunik Region correspond to the results of the subjective by 83%.
- 5. The most attractive and attractive areas occupy 9.5% and 22.4% of the territory of Syunik Region respectively, unattractive areas occupy 0.2%.
- 6. The application of the proposed objective and subjective's methods together gives a reliable result.

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## ՍՅՈԻՆԻՔԻ ՄԱՐՉԻ ԼԱՆԴՇԱՖՏՆԵՐԻ ԳԵՂԱԳԻՏԱԿԱՆ ՀԱՏԿՈՒԹՅԱՆ ՍՈՒԲՅԵԿՏԻՎ ԳՆԱՀԱՏՈՒՄԸ

### Ամփոփում

Լանդշաֆտի գեղագիտական գնահատումը լանդշաֆտային գեղագիտության կարևոր խնդիրներից է։ Տարբեր ժամանակաշրջաններում կատարված աշխատանքների վերլուծությունը ցույց է տալիս, որ գիտության մեջ գոյություն ունի լանդշաֆտների գեղագիտական գնահատման մեթոդների երկու ուղղվածություն` ֆիզիկաաշխարհագրական, որի հիմքում ընկած է լանդշաֆտների գեղագիտական գնահատման «օբյեկտիվ» մոտեցումը և սոցիալաշխարհագրական, որում գերակա է «սուբյեկտիվ» մոտեցումը։ Փորձ է արվել իրականացնել Սյունիքի մարզի լանդշաֆտների գեղագիտության գնահատում` համադրելով սուբյեկտիվ և օբյեկտիվ մոտեցումները։ Սուբյեկտիվ մոտեցման դեպքում ուսումնասիրողը հիմք է ընդունում մարդկանց սուբյեկտիվ կարծիքի այս կամ այն բնապատկերի գեղագիտական գրավչությունից ստացած տպավորումթյունները։

Գնահատումն իրականցվել է սոցիալական հարցմամբ՝ Մ.Յու. Ֆրոլովայի կազմած հարզաթերթիկների միջոցով։ Առավել հուսալի արդյունք ստանալու համար մշակվել է նկարների ընտրության և հարցման մասնակիցների ընտրության սկզբունքներ։ Նկարների մեծ մասը ստացվել է մեր կողմից կատարված երթուղիների ժամանակ։ Հարցմանը մասնակցել է 80 մարդ, որոնց ներկայացվել է 40 բնապատկեր։ Հարցվողներն առավել բարձր են գնահատել այն բնապատկերները, որտեղ առկա է լանդշաֆտի տարբեր բաղադրիչների համադրություն։ Անտառապատ տարածքների աշնանային բնապատկերներն ավելի բարձր է գնահատվել, քան գարնանային բնապատկերները։ Մյուբյեկտիվ գնահատման արդյունքները 83%-ով համապատասխանում են Սյունիքի մարզի լանդշաֆտների համար, մեր իսկ կողմից, կատարված օբյեկտիվ գնահատման արդյունքներին։ Սյուբյեկտիվ գնահատման միջինացված արդյունքները համադրելով օբյեկտիվ գնահատման արդյունքների հետ՝ ստացել ենք Սյունիքի մարզի գեղագիտական գրավչության քարտեզը։ Առավել գրավիչ և գրավիչ տարածքները համապատասխանաբար զբաղեցնում են Սյունիքի մարզի տարածքի 9,5% և 22,4%-ը, անհրապուրիչ տարածքները՝ 0,2%-ը։ Հուսալի արդյունք ստանալու համար առաջարկվում է օբլեկտիվ գնահատման և սյուբյեկտիվ գնահատման մեթոդիկաները կիրառել միասին։

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# СУБЪЕКТИВНАЯ ОЦЕНКА ЭСТЕТИЧЕСКОГО КАЧЕСТВА ЛАНЛШАФТОВ СЮНИКСКОЙ ОБЛАСТИ

#### Резюме

Эстетическая оценка ландшафта является одной из важных проблем ландшафтной эстетики. Анализ работ, выполненных в разные периоды, показывает, что в науке существует два направления методов эстетической оценки ландшафтов: физико-географическое, в основе которого лежит "объективный" подход эстетической оценки ландшафтов, и социально-географическое, в котором доминирует "субъективный" подход. Нами сделана попытка оценить эстетику ландшафтов Сюникской области, сочетая субъективный и объективный полходы.

При субъективном подходе исследователь опирается на субъективное мнение людей о впечатлениях, получаемых от эстетической привлекательности того или иного пейзажа. Оценка проводилась путем социального опроса через анкеты, подготовленные М.Ю. Фроловой. Для получения максимально достоверных результатов были разработаны принципы отбора фотографий и участников опроса. Большинство фотографий были сделаны во время наших туров. В опросе приняли участие 80 человек, им было представлено 40 пейзажей. Респонденты высоко оценили те ландшафты, в которых наблюдалось сочетание различных компонентов ландшафта. Осенние пейзажи лесных массивов оценивались выше, чем весенние. Результаты субъективной оценки соответствуют результатам объективной оценки, выполненной нами для ландшафтов Сюникской области, на 83%.

Сопоставив усредненные результаты субъективной оценки с результатами объективной оценки, мы получили карту эстетической привлекательности Сюникского области. Наиболее привлекательные и привлекательные районы занимают соответственно 9,5% и 22,4% территории области, непривлекательные районы занимают 0,2%. Для получения достоверного результата рекомендуется использовать методы объективной и субъективной оценки совместно.