Landscape perception and the teaching of it in Poland

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ABSTRACT: A preliminary assessment of the state of knowledge of landscape perception is contained in this article. A survey was carried out of students of architecture and urban planning during the rural design course in the academic year 2017/2018. The pilot project involved the initial establishment of categories of the countryside image. It was assumed that the results represented students' knowledge of the landscape characteristics and indirectly reflected the level of social knowledge. The results of the study revealed general spatial incompetence and the causes of it. Education in landscape perception is a support for local societies in land management and landscape protection. The Council of Europe in the European Landscape Convention from 2000 advised EU countries to engage the population in spatial and ecological policy. In Poland, the rapid degradation of rural landscapes means systemic remedies would be particularly desirable. Outlined in this article are the principles for change in social education.

INTRODUCTION

…you are only able to act upon the problems that you can see…

- Richard Feynman, 1996

…in order to perceive, you must be able to see, and need to know what you are looking at…

- Olga Tokarczuk, 2007

The aim of the study was to assess the perception of the rural landscape in Poland based on the results of a pilot study of students of architecture and urban planning. As well, the study is an attempt to outline a landscape education model that will meet the social challenges defined in the European Landscape Convention.

In 2004, Poland ratified the European Landscape Convention (ELC), thereby committing to the identification of local landscapes, as well as education and dissemination of knowledge of the perceived landscape to involve the population in its protection, management and planning [1]. The ELC is based on the conviction that the landscape is a common good, and its sustainable development is the responsibility of all citizens. It was assumed that knowledge shapes expectations of the quality of the landscape and involvement in the spatial planning process.

In Poland, implementation of the ELC faces institutional and social barriers. State authorities are responsible for adopting legal acts [2] and regulations implementing the acts [3]. However, limited social capital results in collective indifference to the threats from the incorrect management of spatial resources [4]. The current education system, along with spatial planning and design procedures, are not effective carriers of social knowledge in the area of landscape perception.

Rural areas in Poland are a vast area of imbalance, since they have been experiencing the effects of accelerated socio-economic transformation since 1989. The spatial manifestation of the transformation is represented by chaotic urbanisation, which leads to the excessive dispersion of housing development, the loss of open landscapes and, finally, to the disappearance of rural specificity [5].

Landscapes and the cultural background of them are the subject of many courses in the Faculty of Architecture at Gdańsk University of Technology [6-8]. The rural landscape is the subject of the course on the theory of rural design, delivered in the third semester of the first-degree studies in architecture and urban planning. During the course, students usually, for the first time, encounter the problems of the rural landscape in a systematic way. An analysis of their competence may be indirectly used to identify collective knowledge. The deficits then could be reduced to increase

the perception of the population in the management and protection of local landscapes in connection with the ELC requirements.

ASSUMPTIONS, METHODS AND MATERIALS

The landscape, as defined in the ELC, is a *perceived area* that represents a multidimensional phenomenon that results from the interaction of tangible and intangible factors [1]. Landscape images are a synthesis of individual signs and complex symbols recalled from memory, as well as the impressions, emotions and judgements assigned to them. They form an individual's attitude towards the space [9][10]. What is imagined has an impact on the spatial decisions the observer makes. An image, similarly to an aesthetic experience, is formed under the influence of two types of factors [8]:

- remembered perceptions, i.e. sensual sensations in real space (direct factors);
- acquired knowledge (indirect factors).

The acquired knowledge has several sources:

- institutional, related to education and science;
- public, i.e. mass media;
- local, which provides traditional, native and local beliefs.

The sum of individual images and experiences creates social knowledge. Management and shaping of rural areas also depend on a socially grounded image [12][13]. The identification of its features was the subject of a study conducted in the 2017/2018 academic year among students of the third semester of architecture and urban planning studies in the Faculty of Architecture at Gdańsk University of Technology (FA-GUT). It was planned to identify research categories and working theses that could be subject to verification by research.

The study involved two pilot surveys carried out during the course; these were anonymous questionnaires that included open questions. A total of 250 students filled in the questionnaires, 110 in the first survey and 140 in the second.

The first survey examined the frequency and length of countryside stays during the year and how time was spent during these visits. It was expected that the role of direct spatial experiences in shaping imagination increases with the frequency of visits and the amount of time spent in the countryside.

The second survey examined the image of an ideal countryside, considered as the sum of direct and indirect experiences, i.e. the result of remembered, personal sensations and emotions experienced in the countryside, along with associations of images and general judgements, formed in the course of social interaction.

Since education leads to acculturation and equalisation of cultural differences, it was initially assumed that the main factor differentiating the answers in this survey was the intensity of *rural* experiences, measured by the time and frequency of stays and the type of activity performed in the countryside. It was also assumed that the results of the study of students of architecture and urban planning would indirectly allow the level of public awareness to be determined in terms of the rural landscape, since the level of public awareness would correlate with the knowledge the students acquired during the course. The results of both surveys were subject to comparative analysis and assigned to pre-selected categories.

RESULTS CLASSIFICATION

Comparative analysis of the results of the first survey identified six types of student experience, depending on the nature of visits to the countryside. Countryside stays were divided into the following (see Table 1):

- frequent and regular: meaning weekend and holiday returns to the family home;
- fairly regular: this category includes minimum several-hour stays, made at least once a month, most often associated with visits to a distant relative;
- long and irregular: this category includes visiting several times a year, irregular (on weekends, holidays or holidays), lasting from two days to several weeks;
- long and occasional: this group includes visits of minimum two days, at least once a year, during the holidays;
- short and occasional: this group includes rare stays whose length does not exceed one day;
- first time: describes the situation when the only visit to the countryside was caused by a mandatory student visit.

More than half of the surveyed students (62.5%) experienced regular, year-round encounters with the countryside landscape (I - III in Table 1), while holiday and occasional contacts were shared by 34.5% of students (IV, V in Table 1). For 91% of respondents, outdoor rest is the main form of spending time in the countryside (I - V, column 2

in Table 1). All of the students who have a family home or visit the countryside on holidays and weekends (I and III in Table 1) declared active forms of spending time there.

Table 1: Categories of student experience.

Sign.	Visits	Number of responses (%)	How time was spent		
			Work and rest	Open air rest	Banquet
I	Frequent and regular	27 (24.5)	5/27*	27	-
II	Fairly regular	21 (19.0)	2/19	19	2
III	Long and irregular	21 (19.0)	-	21	-
IV	Long and occasional	17 (15.5)	4/16	16	1
V	Short and occasional	21 (19.0)	2/17	17	4
Total I - V		107 (97)	13/100	100	7
VI	First time visit (several hours to several days)	3 (3)	Student rural tasks		
Total I - VI		110 (100)			

* Notation - in row I: 5 of those in column 2 (27) were also in column 1.

The second survey allowed the main components of the countryside image to be identified. These are perceptive expectations (Table 2), as well as the socio-spatial and aesthetic values attributed (Table 3) to the ideal countryside. This division reflects the duality of the image, i.e. its perceptive and representation, as well as mental and evaluative characteristics.

Table 2: Perceptive expectations of the ideal countryside.

Perceptive expectations (138/140)			
Visual (135/138)		Non-visual (39/138)	
Forms (130/135)	Patterns (97/35)	Smell (34/39)	Sound (9/39)
e.g. barns, cowsheds, fields, hen houses, meadows, low-rise buildings	e.g. large green spaces, natural landscape surroundings, layout of street lights, outlets, arrangement of fields, focused layout of buildings, dominant in the panorama	e.g. clean, fresh air, the smell of nature	e.g. nature sounds, water noise, rustling leaves

* Notation e.g. - expectations 138 responded out of 140, visual 135 responded of 138, forms 130 responded of 135 etc.

Table 3: Expected values for the ideal countryside.

Expected values (138/140)				
Socio-spatial (138/140)			Aesthetic (114/138)	
Functionality (107/138)	Tradition (53/138)	Community (51/138)	Harmony (65/138)	Tranquillity (90/138)
e.g. having a cultural centre, organising games for residents, good access to the city, grocery store	e.g. preserved historical buildings, old buildings, wooden buildings	e.g. integration of society, lack of anonymity	e.g. orderly layout, clear layout coherence, harmony, balance, order, picturesqueness, beauty, diversity, charm	e.g. distant from the hustle and bustle, complete separation, quiet, calm, no traffic (cars), direct contact with nature

Visual and non-visual impressions were distinguished among perceptual expectations. Visual were divided into two types; namely, forms and patterns. Forms are various types of physical object, while patterns are their geometric features and relations, such as size, density or location. In the category of non-visual impressions, only smells and sounds were distinguished. Only one of the descriptions, which was somewhat ambiguous, was the tactile sensation of *contact with animals*.

The socio-spatial expected values (Table 3) were assigned to three categories: functionality, tradition and community. The aesthetics expected values include harmony (in relation to the features of spatial composition) and tranquillity, as well as community, shared with socio-spatial values.

Table 4: Results by category for the ideal countryside.

Perceptive expectations	99%	Visual	96.4%	Forms	93%
				Patterns	69%
		Non-visual	28%	Smell	24%
				Sound	9%
Expected values	99%	Socio-spatial	99%	Functionality	76%
				Tradition	38%
				Community	36%
		Aesthetic	81%	Harmony	46%
				Tranquillity	64%

Almost all students indicated both perceptual expectations, as well as synthetic values, associated with an ideal village (Table 4). Significant differences in the number of responses occurred only within the main categories of the image. Visual (96.4%) and form-related (93%) images predominate among perceptive images, while patterns were described by only 69% of participants. Just 28% of people noted non-visual impressions. The expected values are dominated by those related to functionality and aesthetics, mentioned by 76% and 81% of students, respectively. The features of the spatial composition were considered significant by 46% of respondents, while tranquillity was important for 64% (both features were simultaneously indicated by 29%). Historical values associated with the countryside were mentioned by 38%, while the importance of the community was relevant to 36% of respondents.

The most commonly mentioned physical forms included greenery, lakes and rivers, building development and field roads, as well as farm animals. General references to greenery and forests, fields, meadows and pastures were noted 122 times in 140 descriptions. Farm building development was indicated 18 times as typical of the village image. Sounds were referred to as either sounds of nature or those of farm animals. In one case, both of these types of sound were associated with silence. The issue of air purity was raised 22 times, while the entries on specific smells in the countryside appeared 15 times; a simultaneous reference to both air purity and specific smells was noted three times.

Issues related to functionality, such as accessibility, basic services, meeting and recreation facilities, were considered important. The agricultural nature of the village was pointed out directly or indirectly 26 times. Tradition primarily is represented by old buildings, including those of wood. Community is characterised by close neighbour relationships. The desired impression of harmony arises when the landscape is picturesque and diverse or orderly and unified. This phrase group also includes three definitions referring to colours and facture. Tranquillity constitutes a complex aesthetic experience associated with experiencing silence, closeness to nature, slow passage of time or nostalgic and idyllic nature.

All students' responses were classified into categories. However, ambiguous phrases required confirmation and analysis. These are, for example, phrases related to meeting places that are not clear, regardless of whether they relate primarily to functional needs or characterise community. Similar uncertainty applies to records with a small number of inhabitants. In this case, it should be clarified whether the declared comment on demographic scale also refers to the level of social integration. The synthetic category of tranquillity also requires further identification.

ANALYSIS

Patterns are the most important element of the image for designing and planning. They translate imagined socio-spatial and aesthetic features into technical solutions [14]. It was noted that students described the patterns far less frequently than they did physical forms, and most often in a highly general way. The ability to visualise the structure of space (i.e. landscape elements and their organisation) and associating this model with value terms seems to be a key feature of creative imagination, which is a condition of design competence in architecture and urban planning, as well as landscape architecture (Figure 1). The lack or inaccuracy of the patterns indicates the dysfunctionality of the design process. It can be assumed that a passive image consists only of images of isolated forms assigned to impressions without an indirect spatial pattern.

The weakness of creative image proves that students are not yet prepared enough to critically recognise the space and to consciously shape the impressions and associations of its users. If future professionals have a problem with linking the indicated elements of the countryside image, the issue certainly must be more common. It may be the basic reason for the lack of social criticism regarding the low aesthetic quality of architectural and urban projects, as well as the reason for widespread acceptance of them. In addition, it is worth noticing the conventional nature of the image of the countryside is represented by harmony, greenery, agriculture, traditional buildings and tranquillity. At the same time, the aspect of social production of rural space and the share of agricultural land use in it remains underestimated. Removing this kind of obstacle requires comprehensive actions in the sphere of public education.

A comparison of the results of both surveys may indicate a correlation between the quality of the countryside image and the quality of aesthetic experiences that depend on the nature of the activities undertaken in the countryside. However, this thesis requires confirmation in further studies. Frequent and regular, and occasional work-related stays in the countryside were declared by 62.5% of students, which roughly corresponds to the percentage of responses related to spatial patterns (69%). Only 28% of respondents referred to the aspects of sensual non-visual perception that are desirable in the countryside, which obviously confirms the dominance of the sense of sight in the cognitive process, yet may also indicate the superficiality of students' *rural* experiences.

The availability of services (in the category of functionality) and the specificity of life in a small community were considered important components of the ideal countryside image by a relatively small group (38% and 37% of respondents, respectively), which may be due to the burdensome lack of a local shop and transportation, as well as the fact that close neighbours were not recognised empirically by 34.5% respondents (categories IV and V, in Table 1).

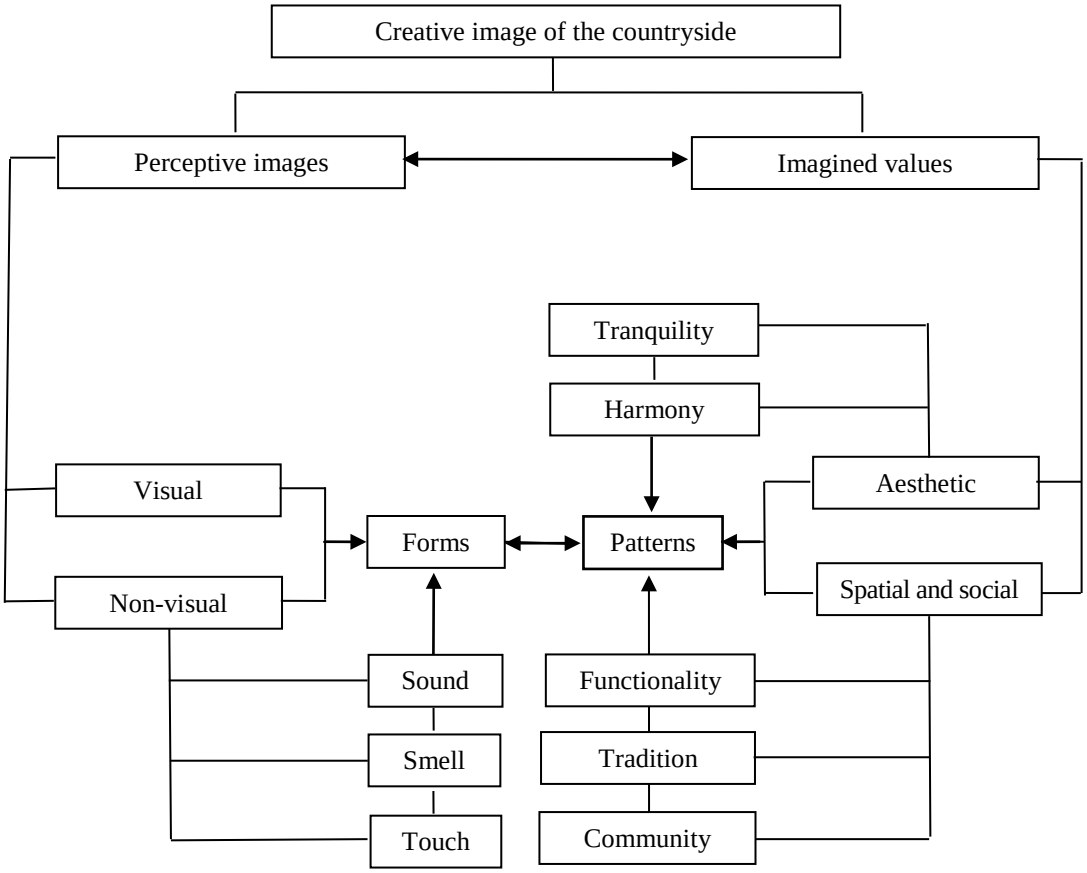

Figure1: Structure of the creative image of the countryside.

The analysis may prove that both factors shaping the image of the countryside, i.e. direct aesthetic experience and knowledge, require strengthening. If the rural landscape is to become an element of social involvement, public education towards its perception should include:

- initial education (early school and school);
- professional education (vocational, academic);
- civic education (social participation).

Additionally, it is important to use appropriate teaching methods to guarantee actively acquired aesthetic experience during field exercises [15]. Compulsory lessons in school gardens, city or forest parks or in open landscape should be provided at all levels of the initial stage of landscape education. During classes, students would learn of elements of the natural and built landscape and the importance of their mutual relations, in a way adapted to their cognitive abilities.

An obligatory component of the professional education of future architects and urban planners should be field practice. The acquired experience would contribute significantly to their design learning. The stage of civic landscape education assumes preparing the population to participate in the process of identifying, classifying and assessing local landscapes, and also in developing strategies and land management plans. In this phase, acquiring competence by local actors would take place under the guidance of experts (e.g. during field studies and discussions defined by the landscape identifying procedure).

CONCLUSIONS

The subject of the study was the intensity of experience in the rural landscape and the image of the ideal countryside among Polish students of architecture and urban planning. It was assumed that their *image*, consisting of both personal countryside experiences and images gained during their education, is representative of society. The study allowed the features of the collective image of the countryside to be identified and their quality to be assessed.

The comparative analysis led to the distinction between two types of image: creative and passive, where only the first can be involved in the process of architecture design and urban planning. The functionality of a creative image lies in the use of a spatial pattern, the aim of which is to translate generalised impressions into geometric spatial relations. It was concluded that the collective creative image needs reinforcement. The development of it is possible provided the model of continuous social education in the field of landscape perception is used. This model should include teaching methods based on field activity and observation.

Featured image categories and stated theses require verification in the course of further, detailed studies. The pilot study has raised new questions and revealed interesting research perspectives. The results also have current value and may be used to improve the methods and content of academic teaching of design. It is particularly important, because in the near future students of architecture and urban planning will have a direct, professional impact on spatial change.

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