DIRECTIONS OF DEVELOPMENT SPACE AGROTOURISM DEDICATED TO CHILDREN

Farms are developing their agrotourism offer. One of the directions of development is their educational profile, which is implemented mostly on educational farms. It is necessary to adapt farm space for specific users, who are mostly children.

Research has been conducted to determine the needs and requirements of land users. The objective of the research was to identify solutions for the educational and recreational functions of farm space.

Keywords: development planning, farm, agrotourism, children;

INTRODUCTION

The environment where the agrotouristic business operates is called agrotourism space and it is defined as an area of farm consisting of: buildings, natural terrain and anthropogenic elements. Agrotourism space includes the farm and its neighborhood and it means more than a rural recreation space in countryside. Main elements of agrotouristic space are: the landform of surrounding architecture (e.g. architecture of rural areas), landscape created as a result of human production activity, but also the characteristic atmosphere (e.g., air quality, noise, etc.) (Ostrowska-Dudys, 2011).

During the evaluation of parameters describing agrotouristic space one cannot ignore such elements of space as: specific ethnographical values, landscape, clean air and water, which are crucial for proper assessment of the space. Agrotouristic farms are more attractive for visitors when the space is varied and when the guests can observe the process of manufacturing local goods.

Proper and aesthetical development of agrotouristic area increases the economic and cultural potential of the farm.

A THEMATIC REVIEW OF LITERATURE
Properly designed space should be human-friendly and motivate tourists to visit. The main potential of agrotourism space is related to land configuration of green zones dedicated to recreation and tourism.

Mahe and Ortalo-Magné (1999) define agrotourism space as land with special predispositions for agrotourism, e.g. landscape park or protected landscape. High quality of agrotourism space is related to the proper composition and good condition of landscape resulting from human activity (Sznajder, Przezborska, 2006).

1. Spatial development for a particular user

In the development process of space shaping it is necessary to consider basic anthropometric data of the potential user. The use of such data imposes a specific type of human activity and the predicted use of the given object, space or item, according to the user's needs. The design analysis should include the determination of functional limitations and recommendations in connection with the objectives imposed by the actions of the author of the offer and the defined recipients. The result of design assumptions is the adaptation of space and technological facilities to a specific group of users, taking into account potential barriers resulting from human activity. (Nowacka, 2008).

Skillfully creating space requires landscape architects to understand how people with other conditions of perception perceive the world. Adapting space to the needs of specific groups of people means the creation of a qualitatively different environment that will be characterized equally by aesthetic and visual values and the phenomena of sound, smell and touch. Space that involves all human senses is becoming more friendly and safe (Wysocki, 2012).

Knowledge of the nature of psycho-social space users has always been an essential aspect of the work of the architect and urban planner, including landscape architect. As a result, workshop design methods require them to be interested in environmental psychology trends and to appreciate the value of field studies (especially qualitative ones). These methods allow to work out a middle ground in design, especially when encountering conflict situations. Users of a given place should have an impact on the shape of their environment by imposing the necessary constraints because their expectations are essential for the formulation of guidelines needed to achieve spatial order. As a result, there is a chance to form a long-lasting, beautiful and useful space for all users (Jelenski, 2010).

1. Purpose of the designed space - complementing the agrotourism offer

Supplementing the agrotourism offer by means of spatial design is associated with a reference to the educational function inside buildings. Arranging space from the points of
view of the transmitted substantive content, the method of communication, using techniques of communicating knowledge and information is not sufficient to ensure full reception of its content. An important factor is the practical use of data specified by the anthropometric ergonomics. Therefore, space planning and design for educational purposes and for a specific recipient is a challenge, and it requires an understanding of the interaction between three main elements: the personal characteristics of the inter-individual participant / user; characteristics of the object in technical and operational terms, and the environment. The design process is based on the assumption of who will be the main recipient of the offer and also the participant in educational activities. This assumption allows us to specify the choice of topics and the offered program, its substantive content, educational activities and venue. The expectations of modern man require to approach the problem of shaping space through maximum focus on the user, even if the space is associated with leisure and learning (Nowacka, 2008).

1. Determinants of shaping space dedicated for children

From a very young age, a child develops through the influence of various social groups, institutions and non-school factors that create the environment of his or her life. The environmental impact gives the child an opportunity to explore unknown facts and phenomena in different fields of social life, science, technology and culture. The whole living space of a child is varied in its structure and the strength of interaction, creating a specific educational environment (Bazan, 2012). Non-school environment is also used to carry out education integrated into the curriculum, using the available elements and resources of space. The curriculum of elementary grades emphasizes the use of local environment as a site where children can experiment and carry out observations. Didactic space is created from a set of potential possibilities of the child that are characteristic for the given age range (Lazar, 2012).

When creating a space for children, even if it is to be an educational space, one should aim at the creation of a "fun landscape". Individually designed space should be based on the materials and structures that are typical for the environmental context, including infrastructure and, optionally, equipment for play and education, as components of the space. Creating such a space that is well integrated with the landscape and the overall context of the place offers an opportunity to play in a creative, constructive way, taking into account the thematic integration function of the given location. The use of such space stimulates the development of the child, while at the same time creating the possibility to conduct teaching activities (Czałczyńska-Podolska, 2010).
Subject literature provides few guidelines on the ways to create a space dedicated to children in early school age, as recipients of the agrotouristic offer. The issue of space design for the purposes of planning the offer of agrotourism farms is not discussed in national literature. The only sources describing the operations of such facilities refer to economic issues and tourism.

In discussing the factors influencing the tourist product designed for children and young people, Głąbiński (2012), notes that the values of natural and cultural environment of the given area of a holiday, sightseeing or specialist nature are the background for the creation of high quality children's tourism product. The most important factor in the development of tourism products for children and youth is to create such products basing on the existing potential of the land (Głąbiński, 2012).

AIM AND SUBJECT OF RESEARCH

The aim of the research was to establish guidelines to help identify development trends and to find solutions to support the needs and expectations of users of land, which is the agrotourism facility "Chlebowa Chata" in Górki Małe. Guidelines were determined with use of statistical and qualitative research. The collected data were used to define the main group of users of the analyzed space and to recognize their needs and expectations. This research was carried out for the purposes of the thesis by Ostrowska-Dudys (2011, manuscript).

The main subject of the paper is the adaptation of the spaces of an agrotouristic farm for a specific user, who is a child.

In this article we discuss the subject of the spatial adaptation of agrotourism to the needs and requirements of the user, i.e. the child. In view of presentations of research, the article does not discuss all analyses related to spatial design and programming, and only focuses on the major determinant that is the user.

The subject of the study is the agrotouristic facility "Chlebowa Chata" located in Górki Małe in the Silesia province. The farm is situated in Cieszyn County, in the municipality Brenna. Valuation of the agrotourism space was performed with use of the Drzewiecki method (Drzewiecki, 1992: Sznajder and Przezbórska, 2006). The method is based on the assumption that the municipality, which has at least three qualities important for practicing rural tourism, meets the criteria for rural agrotourism. It was determined that the county Cieszyn and Brenna municipality where the land is located, is characterized by the second
degree of concentration of beneficial qualities for recreation. The second degree corresponds to the recognition of 4-5 advantageous features (Ostrowska-Dudys, 2011).

The analyzed location, of a surface area of 75 acres spans across the river valley, as shown in Appendix 1. Its scope covers the residential and service plots number 562 and 583 at 113 Breńska Street and the residential and recreational plot at 54 and 47 Stara Droga Street. The residential and service plot is separated from the recreation plot by an inner street called Stara Droga, which runs parallel to the bank of the Brennica river. The working farm currently includes: a table tennis room, children's playground with swings and a sandbox, a seating area with benches for outdoor dining and a parking lot for 6 cars, located next to a residential building.

The study was conducted on a representative group of customers and offer recipients to define user requirements. Therefore, the first step was to define the main groups of users of the existing farm, through the designation of types of user groups and defining their number. The study used the farm agenda, with the booking data for the years 2008-2011. The study included such data as the age range of the group, the tour operator and the number of participants. Individual records were divided by days of the week, which allowed us to determine the periods during which the farm is visited most frequently. These data were divided into seven groups: schools, kindergartens, rest homes, tour guides and travel agents, clubs, circles, associations and parishes, individual trips, and others (unclassified). The percentage distribution of specific groups of visitors was determined and the results are presented in the pie chart (Figure 1).

The largest groups of users were "school trips" of students aged 6-10 years. School and pre-school groups visited the farm once or twice a year, to conduct classes that implement curriculum elements associated with the offer of an agrotouristic facility. Based on the results, the authors selected the main group of users, i.e. children of the age group 6-10 years to conduct further tests.

To define the objective of research the following question was set: How should agrotourism farm space be customized in order to support the development of children and to complement the existing range of agrotourism space programme?

In view of the specificity of the subject, which is the issue of the development of children through the design of educational space, qualitative fieldwork was used as the primary method. It allows for the observation of a part of social life in the natural environment for the given phenomenon. This method requires the examiner to stay in the place where the analyzed process takes place and to watch it. This kind of social research
allows for in-depth understanding of many phenomena, in contrast to other methods of observation (Ostrowska-Dudys, Lis, 2013).

Among the various techniques of qualitative field studies the following were selected:

- not-structured in-depth interview;
- interviews in focus groups;
- recording observations.

Considering age group being tested, i.e. children, the in-depth interview included drawings, along with a discussion of their content. Items on the drawings were then analyzed, especially those that had previously received attention.

**ANALYSIS AND RESULTS OF RESEARCH**

In-depth interview: The drawings of first-graders most often expressed the thrill of staying on the farm "Chlebowa Chata", or proposed additional activities associated with the interior of the building such as: throwing beets. Few children have suggested certain activities that may be done outside the objects: milking cows, riding a tractor, playing with blocks and other toys. Mostly, the children expressed a desire to experience the presence of animals and the need for the presence of fauna (insects, birds) and good weather conditions. The only plants that appeared on a few drawings were green grass and trees, sometimes flowers.

On the other hand, third grade students were more focused on the environment of Chlebowa Chata, sometimes even omitting the object itself in the drawn space. The kids wanted the cottage to be surrounded by fields of grain, farms with animals, fruit trees and bushes, wind and water mills, tractors, outdoor furnace, beehives, a pond or fountain and flowers. Their memories from a trip to the "Chlebowa" featured mountains in the background and tractors around the facility. Talking about their drawings the children suggested that many of the attractions should be located outdoors, including: grinding grain, horse riding, competitions of tractors, baking potatoes, baking wafers, farm equipment. Third grade students felt that they needed a friendly environment. They wanted to have a joyful space with sheep, bees in the apiary, butterflies and sunshine. One of the interview participants noted that there would be no bread without fields, so meadows and fields near the hut were necessary; he knew what plants grow in the fields, such as linen. Another participant wanted to grow common flowers, occurring in the natural environment, such as daisies and poppies.

Some examples of the analyzed children's drawings created for the purposes of in-depth interview are shown in Figure 2.
Focus groups: Tour participants willingly took part in the discussion, answering questions. For children the most important aspect was the presence of animals in the farmyard, followed by a playground and other elements that may be used for playing, such as straw to jump. First graders imagined life in the old times, by what they were doing, because it was the only way for them to feel the atmosphere of the village. On the other hand, third grade students noticed the lack of positive external components, i.e. the weather, buildings, and animals that enrich the space. The ideal "Chlebowa Chata" for third graders would be surrounded by vegetation, nice environment, small fields of cereals and other crops, and information signs on them (like in parks). They wanted to spend more time on the farm, riding horses, milking cows and this would be the biggest attraction for them.

Recording observations: Children do not know what past life or customs looked like. However, they were willing to ask about it, make guesses and respond to questions and work while listening. For example, they saw making butter, milling flour or separating cream from milk in centrifuges as fun and a great attraction. The activity and involvement increased with the time of the stay, which could be seen at work, for example, when they were singing to liven up the task. They demonstrated courage and creativity while learning about the past by looking at the exhibits and touching them. During the visits no one was seen loitering or complaining, and afterwards they had nice memories of the time spent on learning the offered program. They checked their knowledge and skills, while behaving well and not causing any trouble to the animators of the program.

The research results can constitute a basis for formulating guidelines for the design and development of the programme and landscape. The most important aspects of research demonstrate the value of economic activity and the environment. There is a possibility to enrich the programme offer and the landscape by elements that allow to expand knowledge, support development and make the trip more enjoyable, at the same time increasing the attractiveness of the area. The following table lists the conclusions of the research, which will allow for the adaptation of the space and environment to the needs of users. One should add to the conclusions of qualitative research that space is always an important factor in the perception of offers of agrotourism farms; therefore it should be adapted, improved and modified, provided that free space is available.
Table 1
Applications of qualitative research detailing the needs and expectations and recommendations for the project

<table>
<thead>
<tr>
<th>SN.</th>
<th>NEEDS</th>
<th>CHILDREN</th>
<th>EXPECTATIONS</th>
<th>RECOMMENDATION FOR THE PROJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dedicated space</td>
<td>Adapting to have fun</td>
<td>Create a place for fun</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Filling the knowledge gap</td>
<td>Information signs</td>
<td>Plan educational plant beds</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Arrangement adapted to the age of the users</td>
<td>Natural plants, simple elements</td>
<td>Arrange compositions with rural plants</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>The desire to have fun and play-recreating work connected with life in the old times</td>
<td>Historical (traditional) equipment available to have fun</td>
<td>Arrange the layout of the old toys and equipment</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Exploring through touch</td>
<td>Touching all the equipment</td>
<td>Allow access to exhibits</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Contact with nature</td>
<td>Tasting products, contact with animals</td>
<td>make the rabbits' cage accessible, suggest other products</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Relaxation, calming, soothing nerves, relieving emotions</td>
<td>Singing, rhythmic movements</td>
<td>Arranging a quiet, harmonious space</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Using of space elements</td>
<td>Role-play relating to life in the old times</td>
<td>Designate a space for the new program</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Satisfying the curiosity about the world</td>
<td>Natural plants, colorful flowers, fruits, vegetables</td>
<td>Proposing ornamental plants and food</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Returning to the natural behavior</td>
<td>Place to run and roam freely</td>
<td>Designate a space for recreation</td>
<td></td>
</tr>
</tbody>
</table>

Source: Dissertation (Ostrowska-Dudys, 2011) - study based on research.

All the guidelines allowed us to define the program, which will be implemented in the design concept development. In this publication, we quoted only guidelines related to user survey (some other guidelines are discussed in the thesis by Maria Ostrowska-Dudys, MSc, written under the supervision of Aleksandra Lis, Assoc. Eng. Arch - Chapter 8 of Section Three of the work - the manuscript available from the author). The condition of space before the analysis and the proposed arrangement after verification of the conclusions of the research and analysis is provided in Appendix 1 In order to determine the components of land infrastructure, a development program was prepared, allowing to meet all the criteria and requirements of the site. The Spatial and Landscape Development Directions are summarized in Table 2 with a sample implementation presented in Appendix 1.

Table 2
Guidelines for program – landscape development of agrotourism farm "Chlebowa Chata" in Gorki Małe with a sample scope of implementation

<table>
<thead>
<tr>
<th>Lp.</th>
<th>Guidelines</th>
<th>Program</th>
<th>ZAKRES REALIZACJI</th>
<th>Landscape</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Designate a peaceful and harmonious space for recreation</td>
<td>Shaping the spatial sense through play in the labyrinth</td>
<td>Cornrows in the field and in the meadow;</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Stimulate the senses; Allow access to the exhibits</td>
<td>Stimulation of the senses of children with different needs - to familiarize them with various plant materials;</td>
<td>Paths covered with different surfaces, stimulating children's feet;</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Design educational plant beds; Propose ornamental plants and food plants</td>
<td>The role of plants in human life; events related to rites and cultural traditions; use of plants on the farm depending on the season.</td>
<td>Small fields of cereal plants, beds of herbs and spices, plants (oilseeds, plants that are beneficial for the bees, those that attract butterflies and economically useful insects: flax and hemp) for educational purposes;</td>
<td></td>
</tr>
</tbody>
</table>
4. Integrate natural and regional materials, with historical references; Familiarization with regional natural resources as finishing materials; Details and small architecture made from willow, local stone and wood; 

5. Compose plants of a rural nature; Restoring the character of an old farmstead - an example; Meadows and ornamental flower beds around the buildings; 

6. Design a safe and functional space; Adaptation to users with disabilities; Parking lot along the county road, parking space near Chlebowa Chata 

7. Create a place to play; Plan the location of old-fashioned toys and equipment; Activities supporting development and relating to children's space in the old times; Location of a playground with natural elements: wooden equipment, ground slope, mud lake; 

8. Designate an area to play a new program; Conducting educational activities: traditions and habits, rituals and holidays; rural life and the role of plants; A place to rest: benches, tables, an arbor or a shed; and an area to carry out outdoor activities; 

Source: Dissertation (Ostrowska-Dudys, 2011) - study based on research.

DISCUSSION, CONCLUSIONS

Subject literature, discussing agrotourism farms as a place of education for children in the preschool and school age, presents several studies on the issue of adapting the offer of farm tourism to the needs of children. A study published by the Organization for European Young Farmers shows that many European children believe that milk comes from the factory, and that a hen has four legs (Szuber, 2004; quot.: Graja, Spychała, 2007). 

The perception of farms among Polish children is no better. In an interview with the owners of the agrotourism farm "Chlebowa Chata" they quoted some examples of children's responses during the trip: "milk comes from the store", "butter is made from milk" and "cows are purple like the cow in Milka commercial." Similar information was obtained by Graja and Spychała (2007). 

Other studies indicate that the educational offer of agrotourism farms has become increasingly popular among kindergarten groups. Approximately 75% of tour leaders visit the farm once a year, usually in May and June (about half of the trips), and, to a lesser extent in the early autumn and early spring months. As far as the most popular attractions are concerned, the carriage ride, fireplace and elements of livestock farming received approx. 15 per cent of votes each. It is worth noting that caregivers notice the care about the order in the farm environment and creating playgrounds for children using elements of rural landscape. It was found that it is less necessary to increase the number and composition of livestock (Graja, Spychała, 2007). 

For primary schools, the stay on the farm is almost always associated with the consumption of the products offered by the farm and mandatory sausages from the fire. As numerous demonstrations of old crafts are organized, the service providers (more than half of the facilities), this type of attraction is the most popular and causes satisfaction in almost all the participants of the programs. In general, most of the schools caretakers would not change anything in the offer or in the surrounding of the farms, although about 20% of the
respondents call for the improvement of infrastructure and for the construction of new facilities, especially for children's recreation, such as playgrounds, sports fields. Half of the surveyed teachers declare that they visit the farm twice a year, more than 60% in the months of May and June, and only 20% in the autumn months. During the holiday season no school trips are booked, although the farms are visited by groups from day camp and clubs, taking over the care of children during the holidays (Graja, Spychała, 2007).

The study by Graja and Spychała (2007) was carried out in the Wielkopolska province, but also it concerns the agrotourism facility "Chlebowa Chata" because it matches the observations of the farm owners and tour leaders. The results of the aforementioned research also comply with the insights from qualitative research conducted in this study, and therefore confirm its credibility.

**Percentage share of groups of visitors at the Agrotourism Farm "Chlebowa Chata"**

- School: 37%
- Kindergarten: 13%
- Holiday homes: 17%
- Tour guides, travel agencies: 7%
- Clubs, associations, parishes: 11%
- Individual: 11%
- Other: 4%

*Figure 1. Percentage share of groups of visitors at the agrotourism farm „Chlebowa Chata”.  
Source: Dissertation (Ostrowska-Dudys, 2011) - study based on the analysis of agendas from years 2008-2011.*
Picture 2. Children's drawings made for the purposes of in-depth interview.  
Source: Dissertation (Ostrowska-Dudys, 2011) - study based on research.
BIBLIOGRAPHY


Appendix 1.
SAMPLE PROGRAMME AND LANDSCAPE DEVELOPMENT CONCEPT OF THE AGROTOURISM FARM "CHLEBOWA CHATA" IN GORKI MAŁE