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Entertainment Landscape Planning

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The entertainment society can not imagine the life without entertainment. It is not enough to a human just to come to an amusement park. He/she wants a theme park which is guided by the need not only for extreme experiences but also the environment that must be formed in such a way that satisfies all the five senses. Sensory stimulators that accompany the experiences have to maintain and enrich its theme. The more senses, the more effective and more memorable experiences, then the bigger part of society will be satisfied. To have such experiences there should be a suitable environment – the entertainment landscape.

The article deals with the features of entertainment landscape planning, analyzes the performances of entertainment park and theme park design items; it contains the rules of specific landscape plan used for the entertainment landscape design and the entertainment landscape design techniques.

The article is illustrated with the examples of entertainment landscape theme parks and analyzes the significance of entertainment landscape creation in modern experience society.

Key words: *entertainment landscapes*, *theme parks.*

1. Introduction

In a modern and mobile society the entertainment landscape is not only a social but also economic necessity. It creates a global experience market, which brings to cultural landscapes a new functional type – the entertainment landscape. It is an attractive multi-thematic entertainment venue for attendance satisfying the maximum human needs for hedonistic experiences. Various entertainment theme parks are not spontaneously created and regulated. The entertainment landscape concept and its development of theoretical and methodological means that ensure managerial and regulative entertainment landscape planning and design are particularly relevant to the rapid changes in the context of landscape use. Nowadays an experience design industry is rapidly growing. In Lithuania the first steps are taken towards creation of adventure venues or one-experience parks. However, people want multi-thematic parks and failing to find them here leave for other countries.

The aim of this article is to present the entertainment landscape planning methodology on the results of the adaptation options analysis.

The review of attendance rates of the most visited theme park in 2010 (Tables 1 and 2) shows that people still want to attend them, and their number is increasing, whereas the supply of parks is rising as well. Attendance of theme parks in Europe is slightly declining. But this is more due to the fact that a lot of theme parks are opened in Asia where the development of this market is huge. Theme park attendance indicates that even an economic crisis does not work in this region. Experience design areas can be varied. In most cases when we talk about the experience, we mean the theme park and such areas may be different.

Table 1. World theme park attendance assessment 2010 (Source: TEA / AECOM)

Theme park	*Place*	*Visits*	*Change*
Magic Kingdom	Lake Buena Vista, FL USA	16,972,000	-1.50%
Disneyland	Anaheim, CA, USA	15,980,000	0.50%
Tokyo Disneyland	Tokyo, Japan	14,452,000	5.90%
Tokyo DisneySea	Tokyo, Japan	12,663,000	5.50%
EPCOT	Lake Buena Vista, FL USA	10,825,000	-1.50%
Disneyland Paris	Marne-La-Vallee, France	10,500,000	-2.60%
Disney's Animal Kingdom	Lake Buena Vista, FL USA	9,686,000	1.00%
Disney's Hollywood Studios	Lake Buena Vista, FL USA	9,603,000	-1.00%
Universal Studios Japan	Osaka, Japan	8,160,000	2.00%
Everland	Gyeonggi-Do, South Korea	6,884,000	11.60%
Disney's California Adventure	Anaheim, CA, USA	6,278,000	3.00%
Islands of Adventure	Universal Florida, USA	5,949,000	30.20%
Universal Studios	Universal Florida, USA	5,925,000	6.10%
Lotte World	Seoul, South Korea	5,551,000	22.40%
Hong Kong Disneyland	Hong Kong, S.A.R.	5,200,000	13.00%
Sea World Florida	Orlando, FL, USA	5,100,000	-12.10%
Ocean Park	Hong Kong, S.A.R.	5,100,000	6.30%
Universal Studios Hollywood	Universal City, CA, USA	5,040,000	26.00%
Walt Disney World Studios	Marne-La-Vallee, France	4,500,000	-2.60%
Nagashima Spaland	Kuwana, Japan	4,500,000	-5.00%
Europa Park	Rust, Germany	4,250,000	0.00%

Table 2. Europe theme park attendance assessment 2010 (Source: TEA / AECOM)

Theme park	*Place*	*Visits*	*Change*
Disneyland Paris	Marne-La-Vallee, France	10,500,000	-2.60%
Walt Disney World Studios	Marne-La-Vallee, France	4,500,000	-2.60%
Europa Park	Rust, Germany	4,250,000	0.00%
De Efteling	Kaatsheuvel, Netherlands	4,000,000	0.00%
Tivoli Gardens	Copenhagen, Denmark	3,696,000	-4.50%
Port Aventura	Salou, Spain	3,050,000	1.70%
Liseberg	Gothenberg, Sweden	2,900,000	-7.90%
Gardaland	Castelnuovo del Garda, Italy	2,800,000	-3.40%
Alton Towers	Staffordshire, U.K.	2,750,000	3.80%
Legoland Windsor	Winsdor, U.K.	1,900,000	0.00%
Thorpe Park	Chertsey, U.K.	1,850,000	3.40%
Phantasialand	Brul, Germany	1,850,000	-5.10%
Futuroscope	Jaunay-Clan, France	1,825,000	-8.60%
Parc Asterix	Plailly, France	1,663,000	7.40%
Legoland Billund	Billund, Denmark	1,650,000	0.00%
Mirabilandia	Savio, Italy	1,505,000	-7.30%
Slagharen	Hardenberg, Netherlands	1,464,000	-6.90%
Flamingoland	Malton, U.K.	1,400,000	-1.30%
Heide Park	Soltau, Germany	1,350,000	-3.60%
Parque De Attracciones	Madrid, Spain	1,347,000	-10.20%

In the country of a size of Lithuania a theme park which occupies a large space and a significant market share should be only one. However, it does not mean that there could not be a big variety of other areas (see Table 3), where one could design experiences and could satisfy the needs for hedonistic environment.

The object of the study is entertainment landscape. To obtain necessary findings, theoretical and practical research and empirical analysis into the landscape design have been carried out. Methodology of an entertainment landscape design is developed by evaluating the basic principles of hedonistic environment and applying multi-factorial models of a choice, such as an importance model; and capabilities of neural network simulation while highlighting the priority in economic terms with the PowerSim program.

Table 3. Oportunities for Expierence Design (Tuch et al., 2008)

PUBLIC VENUES	EDUCATIONAL VENUES	OTHER VENUES
Entertainment Centers	Museums	Libraries
Shopping Malls Collections	Heritage Facilities	Church Campuses
Mixed-Use Urban Centers	Cultural Attractions	Hospital Children's Wings
Restaurants	Science Centers	Healing Gardens
Hotels and Resorts	Nature Sites	Cancer Treatment Centers
Visitors/Hospitality Centers	Brand Lands	Senior Centers
Gaming Centers	Museums of Industry	Auto Malls
Sports Parks/Franchises	Factory Tours	Alzheimer's Facilities
Music Halls (House of Blues)	College Campuses	Housing
Community Recreation Centers	Medical Campuses	Daycare Centers

2. Theme Park Development Aspects

Theme parks require specialized planning of tourism and land use. Turnover, entertainment, catering and other services require cooperation of designers, engineers and economists. To obtain benefits from theme parks and at least to reduce the problems that might cause a threat, the theme parks should be planned under the control, integration and promotion of sustainable development in response to the market needs. Their planning consists of a theme park product (result), a theme park environment and a theme park market.

Theme parks are developed according to three basic criteria:

1. Substantial investment resources required for a relatively large plot of land, for construction and special equipment.
2. Permanent continuity of construction and operation - the project is split up into segments, in which work is being carried out at different time or in different places according to a chain-work program. Reservoir operation revenues are allocated to financing the equipment of other sectors.
3. Assessed risk factors of variables which may have an impact on the overall business plan, its individual parts and experience segments. Risk factors are boating, recreation on water and other outdoor activities which depend on the weather

Tourism planning, as well as spatial planning takes place at three levels: national, regional and local (Kemperman 2000):

At the national planning level tourism policy is developed. There should be decided in which region a theme park should be set up (especially in regard to the major theme parks). E. Inskeep (1991) presents a few planning elements at the national-level which are: *the plan of physical structure, including the identification of the main tourist attractions; basic infrastructure, accommodation and other tourist services; links of the most important travel destinations in the country and region; tourism organizational structure; legislation and investment policy; joint tourism marketing and promotion program; educational and training programs; facility development and design standards; socio-cultural, environmental and economic issues and their impact.*

Analysis at the national level helps to resolve planning issues - transport policy (roads to the theme park and distribution of load in the adjacent areas); while the noise level, trade, etc. may be limited by legal acts.

At the regional planning level regional problems are solved through the land use control addressing the environmental issues. E. Inskeep (1991) presents a few planning elements at the regional-level which include: *regional and urban tourism policy; access to regions and the national transport network; facilities and services; attractions; environmental safety, socio-cultural and economic aspects at the regional level; impact analysis, marketing strategies and incentive programs.* Tourism planning at the regional level is more specific than that at the national level. Planning at the regional level can be used to optimize tourism products.

At the local planning level the whole theme park and its components are planned; accommodation, catering and other centers are provided. The catering and accommodation items must be based in respect of time and distance.

The first step in the theme park development process is the government order prepared in agreement with the suggestions of tourism experts on the possibility of planning a theme park in a certain place. In the studio a joint team is to be assembled, in which landscape planner, theme parks planner, architect, marketing specialist, infrastructure engineer, tourism economist or any other financial officer should work (Kemperman 2000, Inskeep 1991). Project manager should be theme park planner. Depending on the theme park business the specialists of other spheres may be needed.

The second step poses the theme park aims which have to be consistent with the legal documents. Tourism objectives should reflect the government's policy and strategy on overall tourism development

The third step is the research carried out in order to find out all the possibilities of developing a theme park. Analysis and synthesis of the findings follow. A theme park occupies a significant share in the market, thus making it necessary to assess an economic impact followed by a comprehensive environment assessment.

The theme park planning is based on six core principles (Pine et al. 1999; Boswijk et al. 2010) (see Figs 1 and 2):

- *Theme* - the concept should have a theme, the history should clear it up and then the theme can be based on the history;
- *Harmony* – the whole view, the emotions experienced by a human should be consolidated and positive;
- *Elimination of negative cues*- even in a well – arranged environment there may be negative images which should be eliminated (e.g. rubbish);
- *Memorabilia* - the elements to be easily remembered and people should want to take them home for memories of good experiences;
- *Engagement of all five senses* - all five senses should be exploited to create a greater effect;
- *Authenticity* - the environment should look natural and familiar to a human, the human should feel to be welcome in this environment.

a) b) c)

Fig. 1 *Theme* (a - the concept should have a theme), *harmony (b – of the whole view), eliminate negative cues (c - day or night view is no difference)*

a) b) c)

Fig. 2 *Memorabilia (a - can be Disneyland without Mickey Mouse), engage all five senses (b – great effect by all five senses), authenticity (c – you are welcome in this environment)*

3. Application of Landscape Special Plan to Theme Park Design

The theme park project is preparation of a special landscaping plan.

The aim of the landscape plans (Kraštovaizdžio tvarkymo specialiųjų planų tengimo taisyklės 2004) is to provide by planning the formation of the standards of a landscape (based on scientific evidence and established by competent authorities corresponding to the features and particularities of general public aspirations). The rules of landscape special plans are used in the preparation of landscape management plans. Entertainment landscape plan is a special plan which should also apply those rules, however, not all indicators are suitable due to their benefits.

The phase of landscape plan preparation consists of three stages: current analysis, priorities identification and solutions preparation. It is proposed to supplement this document and assess the need for adjustment of Lithuanian landscape management practices according to the pleasure and joy received by providing the landscape vision.

At the first stage of analysis of the current state of planning, feasibility of the site development of entertainment landscape is estimated, development trends and problematic situations are identified.

At this stage of analysis the following items are important:

- venue assessment;
- determination of the concept;
- local market analysis and evaluation;
- assessment of potential tourist assistance;
- characteristics of similar performance venues;
- identification of potential market penetration;
- visitors estimation;
- pre- identification of physical planning;
- income and cash flow analysis;
- investment level based on cash;
- two-way analysis of internal metrics.

At the second stage - a concept development stage the priorities of spatial development of territories and the principles of management are

determined, and, if necessary, strategic environment estimation is done.

At the stage of the entertainment landscape development concept, the planning parameters based on the experiences incorporating the five senses satisfaction, the entertainment, and the landscape formation are identified.

At the third stage - a concrete definition stage the decisions on protection of a landscape are made, the regulations corresponding to the levels of territory management planning are determined. This part should be applied to the preparation of the entertainment landscape project, which is as follows:

- desirable socio-ecological optimum parameters are presented in the plans of the entertainment landscape; regulations on the management of territories, corresponding to the levels of planning and zones of the landscape divided by experiences, and the system of territorial restrictions are determined; the measures to improve the ecological condition of the landscape, and safety of the nature and cultural heritage are determined; suggestions are presented on the landscape information i.e. an increase in aesthetic potential, formation of architectural spatial composition, green development system, improvement of living environment quality;
- desirable parameters of natural, rural (agrarian) and city (urbanized) landscape structure optimization (quality) in local and district landscape management plans are differentiated according to the types of the landscape design;
- entertainment landscape plan contains solutions (the graphical part - drawings and the textual part - an explanatory note) and procedure documents prepared during the planning.

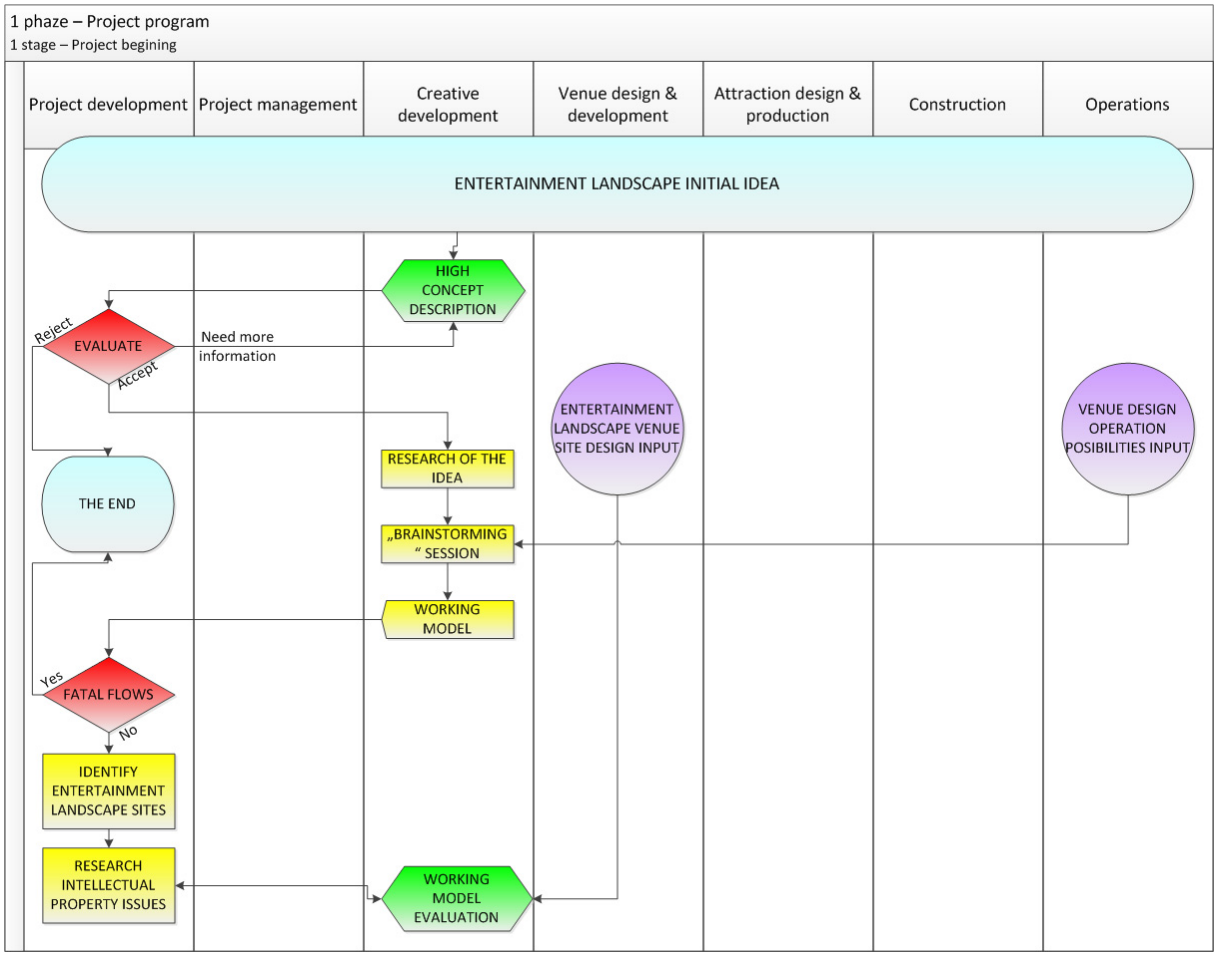

Fig.3. Entertainment landscape planning 1 phase 1 stage – The project beginning (by The TEA's project..., 2007, compiler J.Kučinskienė)

4. Entertainment Landscape Design Techniques

Theme park is formed according to the experiences. Therefore, first of all, the basic drawing is made in the concept, the planning parameters mentioned above are identified.

The second step- the main drawing is being formed :

- general ideas and ideological drawings of each part are presented - a common theme of the park and sub-themes with conceptual drawings are formed; it is planned for how many attractions, what and where they are needed

- Design elements - colors, shapes and other elements selection according to the proposed topic.
- Idea estimate calculation - a preliminary calculation.
- Work schedule.
- Interior design - an ideological drawing.

The third step - a preliminary presentation of the concept - details of the main drawing are worked out; at the stage of planning the economic calculations and the whole process of management are involved;

The next step is the final presentation of the concept which is the drawing with all engineering solutions and the calculated budget. The schemes - the layout of premises in the buildings, vertical plans are presented. Development of details includes where and what performances will take place, the specifications of buildings.

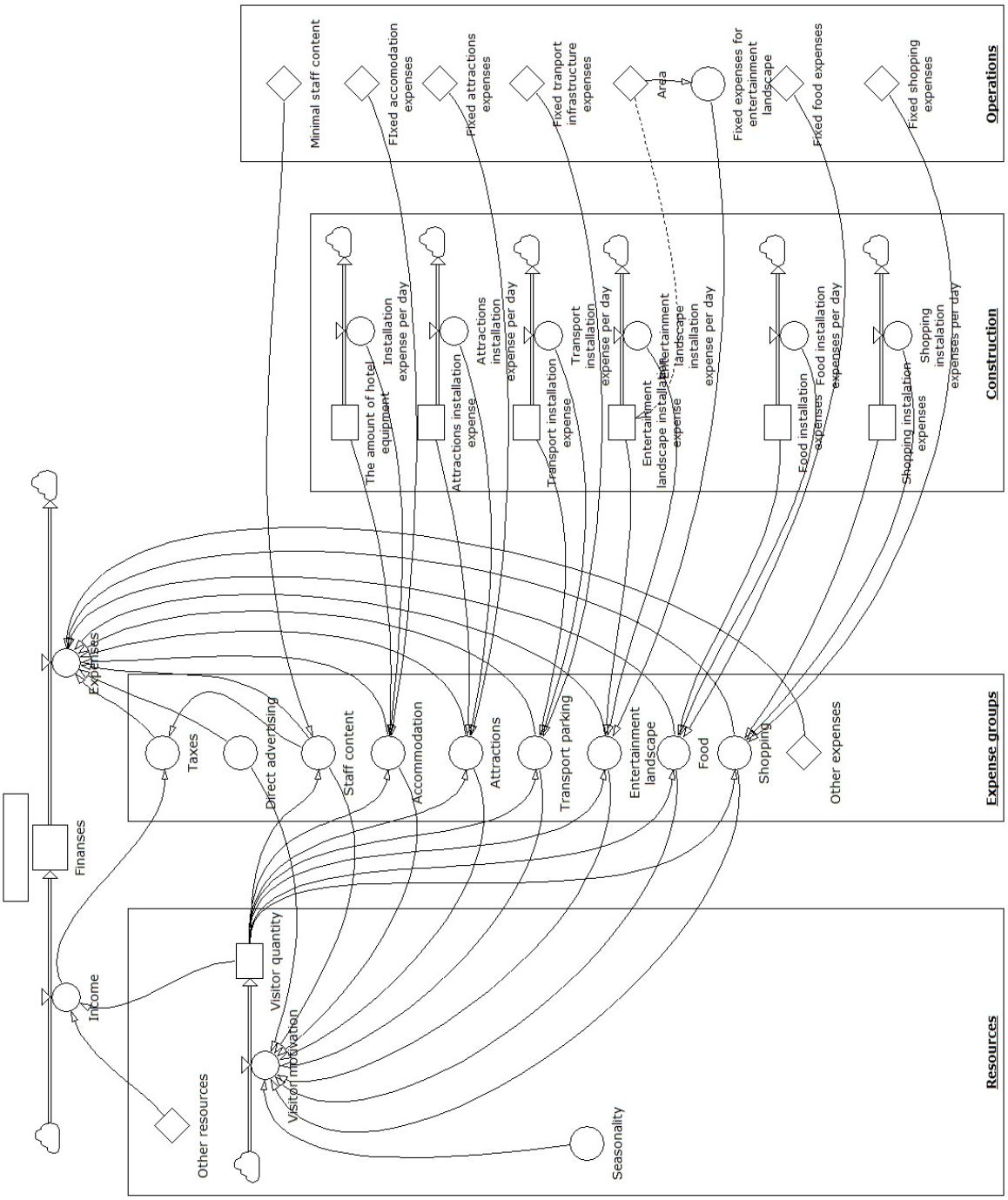

Fig.4. Theme park planning – the economic aspect (simulation by PowerSim)

5. Conclusions

Entertainment landscape is a multi-thematic park providing a possibility to gather the experience of the five senses.

1. Theme park planning includes an economic environment, physical environment, transport communications and infrastructure, socio-cultural environment, accommodation services and other activities. The success of theme park depends on its integration into all three levels: national, regional and local planning.
2. When developing entertainment landscape techniques it is pointed out that the development process in the experience area consists of four phases: *project program, design process, implementation process and opening*, and eleven stages, where all the information is detailed. Elaboration of design techniques distinguishes seven groups (areas), which when combined give the final result. These groups are: *project development; project management; creative design and development; venue design and development; the experience elements (attractions) design and production; construction; operation.* Each group is responsible for specific activities and is involved in the process at a proper time.
3. Making economic decisions on the entertainment landscape design, a pre-simulation activity helps to identify the priorities and check up one's solutions. Simulation can be used for assessing the individual items of activities, as well for calculating the overall economic benefit.

References

BOSWIJK, A., THIJSSEN, T., PEELEN, E. 2010. A new perspective on the experience economy. [Interactive]: http://www.experience-economy.com/wp-content/UserFiles/File/Article%20Lapland5.pdf

GILMORE, J., PINE, J. 1999. The Experience Economy: Work is Theatre and every Business a Stage. Paris, Harvar Business School Press.

HAAHTI, A., YAVAS, U. 2004. A multi – attribute approach to understanding image of a theme park . The case of SantaPark in Lapland. European Business Review, Vol. 16 No.4: 390-397. http://dx.doi.org/10.1108/09555340410547026

HEO, C.Y., LEE, S. 2009. Application of revenue management practices to the theme park industry. International journal of hospitality management, 28: 446-453. http://dx.doi.org/10.1016/j.ijhm.2009.02.001

INSKEEP, E. 1991. Tourism Planning: an Integrated and Sustainable Development Approach, Van Nostrand Reinhold, New York.

KEMPERMAN, A. D. A. M. 2000. Temporal aspects of theme park choice behavior. Nyderlands.

Kraštovaizdžio tvarkymo specialiųjų planų tengimo taisyklės, 2004 m. gegužės 5 d. patvirtintos Lietuvos Respublikos aplinkos ministro įsakymu Nr. D l-246.

TEA / AECOM, 2010 (2011). Theme index: the global attractions attendance report Publisher. [Interactive]: http://dlrpfan.files.wordpress.com/2011/06/2010report.pdf

The TEA‘s Project development guideline book, 3rd (Digital) edition, 2007.

TUCH, L., MAYER, J. (editors) 2008. Architecture and placemaking.

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