

## RESEARCH ON THE POWER OF THE FORM OF THE "CITY OF PAIN - PURGATORY" ARCHITECTURAL PROJECT

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With the aim to consciously evoke society's reaction, an architectural object is inserted into the main recreational zone of New York peninsula – the Central Park area. Moreover, social and cultural phenomena inspired by the innovative form are discussed. The aim of the article is to analyze the process of the form modelling and consequently perform a research of the form power, based on an experimental project carried out by the author. The article aims to establish the influence of the volume deficiency formed or shaped in the city's planning system on the suggestibility of the building's form. In the project concerned, the term volume deficiency is used to describe the stress environment in the city structure, formed on the artistic, planning, volume, stylistic, value or historical base, and programming continuity of the above processes after integration of the newly proposed object into the environment mentioned. The artistic value of the volume influenced by the stress environment and adapted into it provides the characteristic of suggestibility of the object of mass attraction to the form. The form designed in such a space obtains all the characteristic features of an architectural sign, the city's dominant. The form of the "City of pain" project is created as a connective bridge between a narrow city system and a large area of artificial recreational space. The building as a sign is formed as a corridor for social provocation and a laboratory for the modern society's behaviour.

**Keywords:** building as a sign, form, form modelling, transformation, formed and/or shaped deficiency, experiment, process, recreational space, relation, suggestibility, power of the form.

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**I**ntroduction. The article provides a description of the research on the power of the form based on a concrete architectural experiment, as well as on overview, in terms of art criticism, of social and cultural phenomena inspired by the innovative form. For the purpose of provoking and evaluating society's reaction on the issue concerned, the architectural object is inserted on the draft level into the main recreational zone of New York peninsula – the Central Park area. The aim of the article is to analyse factors determining suggestibility and power of the volume, based on a form modelling process of the experimental project carried out by the author. The article offers to analyse a dependency of the form of the building as a sign chosen for the project on the chosen location for the object, as well as to establish its determining influence on the power and suggestibility of the form.

According to the author's data, the level of research carried out on the problem concerned is insufficient in the scientific literature. No mentioning of a concrete object or raising a problem is observed in the literature on art criticism or in that dealing with the problems of the object type. The *City of pain - purgatory* designed by the author of the article is presented as an innovative theme and a pioneering idea. *Purgatory* is a symbol used in studies of art, treated in this study as an "intermediate station of the person's existence". In terms of functional attitude, it is a separate block for spiritual and psychological support – pastoral care for patients in the entire mega-structure intended for oncological

and AIDS patients who cannot live without painkillers. The *City of pain - purgatory* architectural project serves as the main element of research in this article. Its artistic expression of the form is hereinafter called the building as a sign, whereas its morphological solution is used as a means through which the mentioned problems are analysed.

Analysis of the context of the object's location, spaces and their relations, performed prior to the project, serves as a theoretical base for the project.

### 1. Location of the building as a sign: formed (or shaped) volume deficiency in the city's planning system.

Two main problems are raised in this part: first, the location of the project draft as an unexplored zone or a part of the district in the city's system; the second – influence of the proposed project solutions on the existing architectural code. Location of the experimental project is the Central Park territory in Manhattan, New York. First of all, historical and architectural development of the project location, i.e. stages of the city planning, scale and relation of the existing volumes, are discussed in the article. The article provides a consideration whether the Central Park is formed appropriately with respect to the surrounding intensive expansion of built environment and a visual *volume deficiency* in this territory caused by it. In this article, the author uses the term *volume deficiency* to describe the stress environment formed on the artistic, planning, volume, stylistic, value or historical base.

Formed (or shaped) *volume*

*deficiencies* in the project location selected are indicated and their influence on the building as a sign's form modelling levels and layers is evaluated. The article describes factors determining the need for and appearance of a suggestive sculptural form in the unique relation of the Central Park and the surrounding areas.

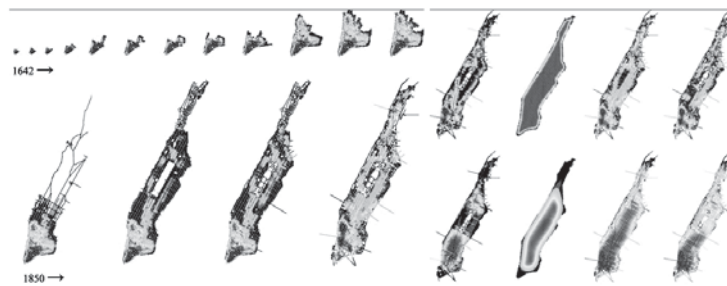
The experimental research starts from analysis of the location of the object designed and the composition of the surrounding spaces, which deals with self-other relations of existing architectural spaces and the nature of their formation. Architectural solutions of Manhattan spaces and social phenomena influencing them are considered additionally. In the research, the author follows the statement by Morris Massey (1993) that "location is an inseparably entwined knot of spaciousness and sociability," thus there is no need for them to be separated. "Space is practised, a matrix of play, dynamic and interactive, its forms and shapes produced through the situational performance of self-other relations" (Gillian Rose 1999:248). Based on the above statement by Massey, the *City of pain - purgatory* project includes certain main structures of space, related to the models of the socium behaviour observed, which in their turn "create a generative or reproductional social function" (Peponis and Wineman: 272). Society's exceptional features can be expressed in spatial systems, whereas social generation is created by designing spaces of the *City of pain - purgatory* and establishing their self-other relations. Thus, spatial configurations of

the *City of pain – purgatory* project not only generate social interaction, but also express a social and cultural message.

The form of the *City of pain – purgatory* does not aim at visually adapting to the existing context, yet it is in part created by applying the mirror principle – through architectural artistic means as a response to, as the author sees it, a problematic point in the city structure. Formed (or shaped) volume deficiency in the city system is considered the main factor influencing design in this project.

Formed (or shaped) volume deficiencies in the Manhattan Central Park’s surroundings, identified and analysed during this experiment and having influence on the article author’s solutions, can be discussed in more detail. According to the study “*Cities as emerging models. The morphological logic of Manhattan and Barcelona*” by Kinda Al Sayed, Alasdair Turner and Sean Hanna (Fig.1), the author calls architectural plan of Manhattan an urbanistic 3D logarithm ( the process of creation from the object’s two dimensional plan to a modelled form) with a spatial error determined by an early planning stage of the city. Manhattan’s Central Park is treated as the city’s undeveloped space. In the above study on the development of Manhattan and Barcelona spaces, the Broadway street and the Central Park are removed from the New York plan, which, according to the author, determine an unexplored gap in terms of volume in a geometrical city plan. After removing the Park space and filling it with an ordinary geometrical grid, the structure of spaces remains unchanged (Fig.1). Thus, the importance of formed (or shaped) volume deficiency with respect to the city and individual objects, described in the article, is correct. Expansion of the built environment in the Central Park space would not change New York city’s planning system.

The above statement can be corroborated also by analysing a 3D prospect of the New York City. The built environment density efficiency, which is called the code of Manhattan city structure in the article, means an implemented and explored space. Based on the statement above, the Central Park



**Fig.1. “Cities as emerging models. The morphological logic of Manhattan and Barcelona” studio research scheme**

imitating a recreational environment is considered an empty gap in the city’s structure. A relation of built and non-built spaces can be considered the *volume deficiency* in the city plan. It looks challenging and attracting visually, strong enough for a dominant form to appear and integrate into encirclement of the elements caused by it.

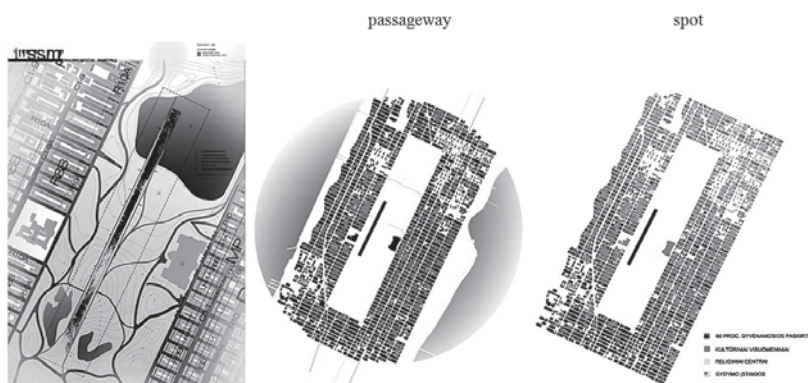
When it comes to surprises in Manhattan’s architectural planning, it needs to be mentioned that the system of rectangular grid of New York streets approved by the general plan on 22 March 1811 coincides, at the time of its designing, with the Central Park established in 1857. An evident quarter-based plan of built spaces was being created together with a free-planning subcultural dominant – recreational zone of Manhattan. The first paradox lies in the dates above, as urbanistic solutions of pre-revolutionary period determined clear and easily forecast architectural development of the city. It is easy to notice that this creation imitating the period of artificial romanticism planning provokes a visual conflict in a mathematically calculated and logical

system (Fig.2).

In contrast, the location for a sculptural form of the building as a sign is selected by considering two functional trends of the *city of pain - purgatory* theme. First, the need for a visually separated zone, yet not alienated from the city. Secondly, choice of an unexpected space not intended for building and expansion. In this experiment, the park is treated as the meeting space – a target meeting point of flows, with no classical division zones, where different social layers mix. To create a versatile integration of the form and challenge a reaction to this insert with the help of architectural expression, the meeting point of particularly large flows is selected.

**1. City of pain - purgatory: the building as a sign**

The problem of the patient’s integration into an ordinary life, raised in the experimental study, is solved through an artistic suggestibility and organization of the park’s spaces. The concept of the project object consists of two notional elements – *city of pain* and *purgatory*. Each of them metaphorically



**Fig. 2. Situational scheme of the City of pain - purgatory object**



**Fig.3. City of pain - purgatory project architectural expression.**

describes a different segment of the project. The concept of the city can be treated in two ways: as an urbanised part of antropogenic environment, or, in this case, as a concentration of necessary functional knots in one point (Fig.3). The title of *city of pain* defines a new functional type of the building created in the experimental project. A module of hospital – pain clinic is multiplied and designed into the city-inside-the city structure, considering a large volume of New York scale. The manifest of this model of experimental type is an integrational laboratory in an ordinary recreational surrounding. A mega-structure is offered, i.e. the city with its own system for providing service and allowing existence, somewhat limiting itself from the external world visually. The aim of the research is to create a stable autonomous polar point, the place of attraction for incurable patients, without retracting them from the city's social and physical structure.

The aim is to challenge a discussion and society's reaction to the problem raised with the help of the proposed architectural form and artistic expression of the object. Suggestibility of the form – the sign - is an important artistic value of the building, having a quality to attract people flows, be a connective corridor between a narrow city system and a large area of artificial recreational space (Fig.4). Blending of this type of an architectural object into the New York structure would accelerate the local social development.

Spatial solution of the building as a sign and a new system of flows and their trends offered by it reorganize the nature of the surrounding environment. Corridors of park visitors' flows, designed additionally, would create a new occupation program for people (Fig.4). The project's functional solutions re-form an ordinary concept of the park and supplement its purpose which is exceptionally recreational nowadays. The study offers a new morphological trend for this space's development. Through an artistic expression of the form, the *City of pain - purgatory* creates a supplementary function of the Central Park - a space for protest.

## **2. Power of the form of the building as a sign**

The development of the model of the *City of pain - purgatory* form passed three levels. Constant change during formation is the first and the main level of the form modelling. Thus, transition from one stage of form to another is characteristic of the volume formation. The form was being created separately from the context, therefore its open process of creation enabled the volume to gain unexpected transformations. Sana Murani's essay "*Re-thinking architectural form*" reveals the form through the stages which are natural and complicated, yet smoothly transiting from one level to another, and through the course of development (e.g. embryo formation, drop's division into spatter, social structures of insect colonies).

Organization and adaptation of spaces

is the second level of form modelling. There exist two types of spaces – artificial and natural. Manhattan's architectural setting is mentioned in this article as an artificially shaped environment. The form is generated and adapted through perimetrization and simulation (imitation, reconstruction) in artificial surroundings.

On the third level, form modelling is influenced by concrete elements of an artificial surrounding's context: spaces of the Central Park, landscape and the current system of flows. In each of the volume transformation stages, the form is inserted in relation with the environment designed. This highlights further trends of its variation and aims at a recurrent adaptation of the form. "There is nothing more important in systems than a recurring process of adaptation" (Alexander, 2004). Such a recurring contact with the environment emits new information based on which it continues to transform. The city's formed or shaped volume deficiency selected for the object's development has the greatest amount of various encoded information (historical, artistic, planning, volume, stylistic) in itself. According to the author, it would be correct to mention a geometrical form as a "frame" – stopped segment of volume change- in different stages of modelling. This is how the change of the form from the past to the next level of transformation is called in this article. Presumably, variability is a temporary form by itself. The above conclusion is corroborated by the statement of Alexander (2004) that "the process of form gaining is the transformations from moment to moment which govern its order in a system". The above statements reveal that the form modelled during many stages best adapts in the location of a formed volume deficiency.

The volume transformed in several levels can be called the process, as well as its own product. In other words, the form is a relation of spatial structures and its result. Physical or moral change of the environment (location, composition of spaces, society's habits, culture, etc.) since the form's appearance is called *the power of form* in this article.

With the help of the form suggestibility, the project *City of pain -*



*purgatory* acts as a global-scale public integration place (the problem of the point of impact of the park visitors' flows is evaluated and their scheme is rearranged on an experimental level). The *City of pain* is formed as a corridor for social provocation and a laboratory of the modern society's behaviour. Because of the reason above, the author suggests evaluating the project's volume and its spatial systems as interactive and influencing the environment (city).

A city is also the whole of forms, where society integrates. Moreover, it generates the city model. According to Sonit Bafna, "social structures are inherently spatial, whereas inhabited spaces have a fundamentally social logic" (Bafna, 2003). Thus, spatial structures of the *City of pain - purgatory* project experiment can be perceived as one of the many sources of the city's generation.

### Conclusions

1. Formed or shaped volume deficiency in the city's planning system, with a potential of causing mutual stress, is necessary for modelling the building as a sign's form and for suggestibility.

In the article concerned, the author uses the term volume deficiency to describe the stress environment formed on the artistic, planning, volume, stylistic, value or historical base. The Central Park selected for the architectural experiment should be treated as "stress" necessary for the process. The environment selected for the research determines a challenging visual expression of the object and vice versa. The place of the *City of pain - purgatory* is the central location where insertion of any sculptural form provokes a response and the process of reacting.

2. The form of the building as a sign created during the project is suggestive not only in the visual sense, but also in the process of modelling. The form of the *City of pain - purgatory* is created through many modelling stages and in each of them the form is inserted in relation with the environment designed. This highlights further trends of the form's variation. New York's formed or shaped volume deficiency selected for the experimental project development has the greatest amount of various encoded information in itself.

3. Physical and moral change of

the environment (location, syntax of spaces, society's habits, culture, etc.) since the form's appearance is called *the power of form*. The form of the *City of pain - purgatory* created in the stress environment and adapted in it increases the stress of the location. The stress characteristic of the object of mass attraction is provided for the volume. Location of the formed or shaped volume deficiency programs the course of cultural, artistic, social and other processes after integration of the object into the parcel. The building as a sign is formed as a corridor for social provocation and a laboratory for the modern society's behaviour.

### References:

1. Beesley Philip, Bonnemaion Sarah. OnGrowth and form.Organic Architecture and beyond. Tuns Press and Riverside Architectural Press. - Canada, 2008., 54-60p., 114-124p.
2. Bill Hillier. 2011. Is Architectural Form Meaningless? A Configurational Theory of generic Meaning in Architecture, and it's Limits. The Journal of Space Syntax, West Sussex, 2., pp. 125-153.
3. Hillier, B., Hanson, J., Peponis, J., 1984, "What do we Mean by Building Function?" in Powell, Cooper, Lera (eds.) Designing for Building Utilization (Spon, London)
4. J.A. Powell, I. Cooper, S. Lera (Eds), Designing for Building Utilization, E & F N Spon Ltd. - London, pp. 61-72.
5. Hillier, B., Hanson, J., 1984, The Social Logic of Space, University of Cambridge Press, Cambridge.
6. Cherulnik Paul D. 1986. Symbols

of Status in Urban neighborhoods. Environment and behavior. September., Vol. 18., 604-622 p.

7. Dara-Abrams Drew. 2005. Architecture of mind and world: how Urban Form influences Spatial Cognition. Citeseer, Carleton College Northfield MN, February Issue., pp. 4-11.

8. Dovey Kim. Becoming Places. Urbanism. Architecture. Identity. Power. Routledge, Oxon. 2010., pp. 103-110.

9. Lally Sean, Young Jessica. Softspace: from a representation of form to a simulation of space. Routledge, Oxon. 2007., pp. 52-86.

10. Miller, Cedar Sara. Central Park, An American Masterpiece. Harry N. Abrams, inc. China 2003

11. Steiner Hadas. The forces of matter. Journal of Architecture, 10(1). - 101 p.

12. Murrani Sana. The Behaviour of Architectural Forms, Roy Ascott (ed) Technoetic Arts: A journal of speculative research. Intellect Publishers. 2007., Vol 5. No. 3.

13. Murrani Sana. 2007. The emergence of self-organized architectural form. The Altered States Conference Proceedings, Liquid Press. Plymouth, UK.

14. Rapoport Amos. Vernacular architecture and the cultural determinants of form. Routledge, Oxon. 1984. - 294 p.

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