

DISLOCATION OF THE EXISTING RAILWAY AND BUS STATION IN THE CITY OF KUMANOVO AND THEIR INTEGRATION INTO A TRANSPORT HUB WITH ADJOINING CONTENTS

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ABSTRACT

The modern way of life is conditioned by fast transportation. This in turn requires integration of many additional contents that opens the opportunity to the passengers for quick access to their target - food, accommodation, entertainment, communication.

Considering the above, the Transport hub transforms into a new type of transformative megastructure which in itself should contain all these functions and also be an attractor for the local population as well as try to help the modern city in the pursuit of constant development.

The distance of the existing railway station (3.7km from the city centre) makes it hardly accessible to the population, therefore it is neglected and the rail traffic in the city of Kumanovo is minimized. On the other hand, the bus station has a good location, but the building is in poor condition, which impedes the functioning of the city and intercity bus service. A segment of the railroad from the proposed "Corridor 8" transits adjacent to the existing bus station, which opens the question of the importance of rail transport and its impact in the further development of the city. These considerations clearly indicate the need to establish an integrated transport hub, whose proposed location touches the downtown area, but is still in the zone between the city and the suburbia, which includes adjoining contents such as: retail, hospitality and culture, which will help achieve the goal of the transport hub as a starting point of development of a new city nucleus, a new point in the city.

Keywords: transportation, megastructure, integration, mixed-use, nodes

INTRODUCTION

The state of changes of societies in transition such as the Macedonian society appears in objective reality in a very obvious way. This transformed concrete urban situation cannot be explained rationally. Unexpected conditions encounter situations and create ambiguous feelings.

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The emergence of new lifestyles inherent to the socio economic and cultural changes in transitional society, creates new programmatic demands or change the existing ones in the present buildings. The realization of the new program has been prevented in the existing buildings which are: "honest in response to their surroundings and programmatic requirements, without insisting on architectural aesthetic and form" (Kajijima & Kuroda, 2001), due to the fact that the new function has been captivated in the established typology. Therefore the conventional typologies of modernism can no longer accommodate the latest human needs.

The research hypothesis presented in this paper is the inadequacy of the established modernist paradigms to define the terms of the latest architectural transformations in emerging societal changes. Furthermore, the objective of this research is to reassess the modernistic functional typologies of their capacity to accommodate the new growing population needs. Since the established design paradigms and knowledge are no longer applicable, a further elaboration and research will present the architectural concept with capacity to accommodate the requirements of new program.

The purpose of this paper is to present the architectural concept as a possibility of accommodation of a new program. The necessity of this research is obvious, considering the fact that a huge number of existing buildings are transformed. This research attempts to define new architectural concepts of programmatic integrated buildings based on previously recognized program from the transformed buildings.

SOCIAL TRANSFORMATIONS AS ARCHITECTURAL GENERATOR

The theoretical research presented in this paper is to re-define architectural phenomenology related to the new cultural presence of the existential space. In that sense Paul Virilio will state that: "We live today in a dramatic addiction to the urban metastability and no one seems at all disturbed that we will probably never encounter the person we see in the street again ... the neighbourhood being no longer anything more than a brief encounter." (Virilio, 2005).

Transformations of urban and architectural concepts have social significance for the cultural context they are emerging from. According to Hartman in the process of building, the new object possesses a cultural meaning, "developing gradually during longer tradition," (Hartman, 2004) and becomes a part of the cultural identity. However, usually transformations are influenced by geopolitics, global economy and foreign cultural identity.

There is no dispute that most of the European and the cities in Balkans have cultural and urban heritage. It is obvious that most of the cities have historical urban fragments and buildings from the different eras. Considering the rapid transformation of societies, especially post socialist countries and overpopulated cities, a new aspect is introduced besides the historical reading of city codes. Therefore, Rem Koolhaas will state: "But there is emergent cities teach us about what is in the midst of happening, even though we may not be able to extract a theory from it. After Aldo Rossi, we are unable to imagine that a city can exist without history. This observation should led us to revise a certain number of dogmas or theories of architecture and urbanism, and perhaps to re-examine the validity (or not) of one of the twentieth century's most important devices: tabula rasa, the idea of starting from scratch, without which modern architects in the twenties like Le Corbusier believed nothing was possible." (Koolhaas et al., 2001).

Modernistic paradigms became abstract with lack of national narratives in architectural creations, therefore obsolete for common people. Cities gradually become metropolis overpopulated and shrink with enormous land values. Architects began to investigate new heterogenic forms either in the program or building structure: "The old conditions of linear perspective (from planimetric projection) disappear behind us as modern urban life presents multiple horizons and multiple vanishing points. The further affirmation of the diagonal and the vertical in new spatial experience is the challenge of 21st century metropolitan density." (Fernandez, Mozas & Arpa, 2011). New

theories appear researching the way to incorporate new architectural concepts in existing cities: "Yona Friedman is interested in processes and the mutability of the program. In this way, functions are not separated on a physical level, but on a level of ideas, as their structures are mental, they are processes which build the world." (Fernandez, Mozas & Arpa, 2011).

In the Soviet Union and United States architects Moisei Ginzburg and Starrett & Van Vleck and especially new skyscraper style developer in Manhattan, Raymond M. Hood, introduced the correlation of architectural concept with the emergence of transforming society. In the Soviet Union the ideological premises of the Communist party recreated the social and economic life style of workers, introducing a completely new prototype of dwelling: "The constructivist movement brought about the social condenser. It was described by MoiseiGinzburg as a building designed to transform relationship among citizens in the three areas of the new socialist state: collective housing, clubs and factories." (Fernandez, Mozas & Arpa, 2011). Tall buildings in the United States possessed integrated disparate program with different generic concept from the collective form of dwelling: "It is crucial to stress that hybrid buildings stand differentiated from other multiple function buildings by scale and form. The scale is determined by the dimension of a city block within the orthogonal grid. The form is direct result of the late Nineteen Century technological innovations such as structural framing, the elevator...Increased mobility of the population, due in part to the streetcar and labour intensive production systems, encouraged the growth of population in the urban centres. The hybrid type was a response to the metropolitan pressure of escalating land values and the constraint of the urban grid. With horizontal movement restricted, the city fabric moved skyward."(Fenton, 1985) During the Second World War in the United States another model based on economy was introduced. Newly erected towns had a necessity for a downtown. The new shopping malls were *simulacrum* of real city downtown for the emerging neighbourhoods during the Vietnam War. They were more real than the real ones. They were full of people and program to satisfy the social life, but significantly different from the hybrid skyscrapers: "On the contrary, malls represent the escape from the economic conditions that centrality imposes and the rigidity of the grid does not appear...They could be defined as multi-use complexes related with consumption, but are morally separate from the urban heartbeat that carry hybrid processes." (Fernandez, Mozas&Arpa, 2011). These three phenomenological examples represent how a particular political ideology, economy and consumerist society, as Niclas Luhman will define them as operative closure, influence the whole autopoietic (Zinoski, 2015) system of architecture.

The second example differs from the first and the third one. Ideological concepts nowadays disappear as soon as they fulfil their enjoyment. The buildings which possess integrated disparate program emerged from events in objective reality, represent the architectural concepts - autopoietic system that creates sustainable conditions: "In the Downtown Athletic Club each 'plan' is an abstract composition of activities that describes, on each of the synthetic platforms, a different 'performance' that is only a fragment of the larger spectacle of the Metropolis," (Koolhaas, 1994). This skyscraper became an actual prototype of unexpected juxtaposition of its activities. Rem Koolhaas will conclude: "Each of the Club's floors is a separate instalment of an infinitely unpredictable intrigue that extols the complete surrender to the definite instability of life in the Metropolis." (Koolhaas, 1994). This transcript of metropolitan program within a single building gives a possibility established on techno-psychic apparatus for fulfilment of person's desires.

THE CITY AS A SERIES OF ACTIVITY NODES

Living in a city has its own benefits, but does it fully meet the expectations of its citizens? Does it offer enough activities, green, reasons to get outside? The need of socialization is inscribed in the cognitive map of people, not just the ones we see on a daily basis, but some other, new, unfamiliar faces.

In nature elements tend to a centre, creating a group, which tends to a larger centre, the larger to an even larger, and so on... That is the case with urban tissues as well, represented by the smaller centres, which are local and serve the people in the near surrounding and shorten the distance to the "main" centre. Christopher Alexander (1977) further elaborates this phenomenon and refers to them as "eccentric nucleuses", which are noticeable in every smaller urban development, and they are eccentrically faced towards the "main" city centre. (fig.1).

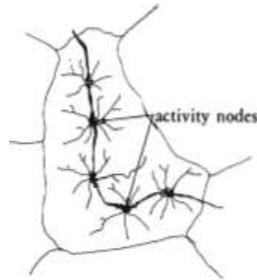


Figure 1: "Activity nodes", Christopher Alexander, A Pattern Language

An important aspect, which makes the city humane, is the people who actively use it, manifested by walking, cycling etc. This is a common characteristic, so if the city does not offer that possibility, the dwellers will not recognize the opportunity for active participation in the city mosaic. The activity nodes create seemingly reduced distances. So if in the different spots in the city, within a walking distance no greater than 10minutes, different activity nodes are located, people are offered a reason why they would walk to their final destination, which is located at a distance greater than what they would originally consider a walkable distance.

EMERGING OF THE TRANSPORT HUB AS A NEW IMAGE OF THE CITY

The railway station as an activity node introduces the new metropolitan character in a city. What happens when this activity node on a greater level connects the city with other cities and states? The railway station becomes more than infrastructure, it changes the way of life and direction in which the city has been developing since the 19th century. This period can be divided into three stages in terms of positioning of the railway buildings in the scale of the city:

- 19th century – the railway traffic is dominant and the most contemporary way of transport - the railway station is located in the centre of events.
- 20th century – people start to realize the danger from pollution and the car appears as a new way of transportation, which is significantly "cleaner" and it provides quick transportation to the suburbs - the railway station is pushed towards the borders of the city
- Second half of 20th century, beginning of 21st century – the railway station gets towards the city centre, pollution and noise is reduced, new technologies enable positioning above and below ground.

The new railway station is not a barrier as it appears; on the contrary, it brings together the separate parts of the city as well. It is not only a facility where passengers arrive and depart, it is an attractor, something that citizens identify with and aim in the Sunday walks. According to Kevin Lynch (1960), railway lines are the dominant elements that form the image of the city and the best way of observing and perception of the city.

The physical expansion of cities is largely conditioned by the development of the railways. The length increase of railway lines allows the emergence of suburbs by facilitating transportation to

city centres. The station appears as a necessary element in the city that becomes a hub of activities which adjusts urban development around it. The railway stations are becoming strategic places in the city or "nodes", as Kevin Lynch names them, which are intense focus points towards which the passenger moves. They are entities themselves, but operated by the city.

NEW PROGRAM AS A FRAGMENT OF THE CITY

The change of political establishment in a society changes the structure of the state. This leads to transformation and disbelief in everything that previously was an ideology, which is profoundly expressed in architecture; consequently it becomes a subject of transformation, along with the general progression of thought. As a result of this change, significant numbers of buildings change their purpose, factories transformed into cultural centres; royal palaces open for visitors as museums etc.



Figure 2: a) Craftsman building b) Elementary school and theatre c) "Kasapski Krug" Multipurpose urban block

The craftsman buildings consisted of four main functions: commercial use, ballroom, administrative and housing. (fig. 2a) The school embodied the city theatre in the heart of the building. (fig. 2b) This multifunctional urban block is composed of an art gallery, restaurants, commercial units, an embassy and the city municipality. (fig. 2c)

These buildings were transformed and gained new functions different from the initial ones, because of their location in the focus of the urban transformation and hybrid processes. This new example differs from the previous examples. In this case we recognize the same principles of hybridization but in existing buildings in the city of Kumanovo.

TRANSPORT HUB AS TRANSFORMATIVE TYPOLOGY

Modern lifestyle needs hybrid processes which become a new symbol and image of the city. By integration of multiple interdependent contents they respond to the complex way of life that has been promoted by the development of mobility, and tend to appear in new "activity centre" – transport hub. The city no longer allows appearance of independent functions that occupy too much area and require infrastructure. It is now seeking for integration of disparate programmes creating new unexpected encounters.

This new typology reconfigures the city and opens new questions. It requires complex infrastructure and services that surround it. What initially was just a train station, now transforms into a transport hub, which has different requirements. All bus and metro lines must link to it. With its growing space requirements, the transportation hub penetrates deeper into the urban fabric and it turns into a megastructure. Today, such infrastructure works do not constitute a barrier to the cities, but tend to be injected within the urban tissue and enable connection of urban areas in the immediate vicinity. At the same time, besides as being transportation centres, they become places for socialization, recreation and perfectly fit into the consumerist society.

INTEGRATING OF DIVERGENT PROGRAMS

The current position of the train and bus station in the city of Kumanovo reflects the exact opposite of what buildings in the field of transportation are supposed to represent - connecting the city at regional and international level. The distance of the train station from the city centre of 3.5 km, in a city which develops in diameter of 3km without the surrounding neighbourhoods, indicates the illogicality and the problem the city is facing with. The position of the city in relation to the borders of Macedonia, its position relative to the rail and road corridors, offers the possibility of creating an integrated transport centre that will be in the focus of hybrid processes and will meet the demands and needs of the citizens of Kumanovo. New transport hub will become a new gate for the passengers that transit daily or arrive in the city.



Figure 3 "Trans-European Transport Corridors"

"After the fall of Berlin Wall, the project of "Trans-European Transport Corridors" has been emerged between Europe and the Balkan countries. The main aim of the project was to make trade relations easier among the countries in the region and to develop ties on oil and other energy supplies, and telecommunication. Although, this was a complex infrastructure network, for Europe it had a strategic importance in the sense that these Corridors will also improve the stability in a region which has always been troubled" (Muzaffer, 2008).

Corridor 8 is one of the ten Trans-European corridors, which is a link between the Adriatic and the Black Sea. In this matter the Corridor has a huge significance for Macedonia from geo-political and geo-economical point of view.

The proposed location, which is subject of research in this paper, is located in the north part of the city, 0.8km from the centre, near the Memorial Ossuary and the existing bus station, between the downtown area and suburb "Karposh". The transport hub as an activity node should help connect the city with its suburbia, which now seems to be completely isolated.

The transport hub, with the integration of diverse contents aimed at meeting the needs of users of different categories, has grown into a kind of transformative type of megastructure which should contain: transportation, shopping, accommodation, public services, rent a car, restaurants, bars, cafes etc. At the same time there are also other types of contents that are disparate by nature and create possibilities of unexpected processes.

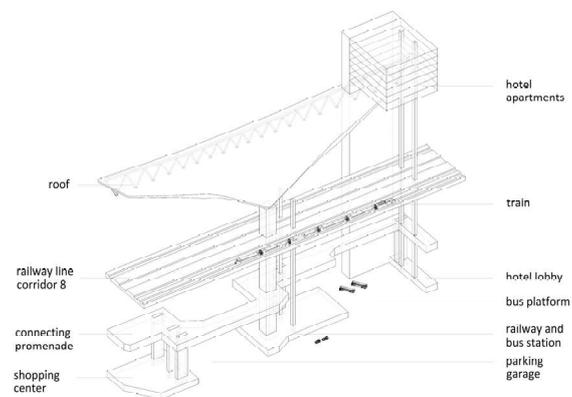


Figure 4

CONCLUSIONS

These opposite concepts represent particular examples how architecture in modern and transforming societies becomes generator of social life: "The social condenser was born of the State, while the hybrid is the offspring of the capitalist system. It is commercial result of a sum of private interests and subtraction of urban determiners." (Fernandez, Mozas & Arpa, 2011). Final considerations are expected to realize that a new nomenclature of buildings emerges in transforming societies: "Hybrids are characterized by a mix of uses in the same project. It integrates different programs which also have different developers, different management and, obviously, different users. A hybrid can be as diverse as a city in users, use times and programme." (Fernandez, Mozas & Arpa, 2011). In the research presented in this work a particular conditions are presented relevant for the possible architectural concept. In most of the cases opportunistic in their character one can consider that there is a necessity of a constant re-examination of the role of architecture.

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