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## Change of the image of the city in process of using traffic infrastructure

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**Abstract.** Unique urban image cannot be experienced without moving within its structure. This paper deals with phenomenology considering changes of images of the city and influential factors closely related to it. Infrastructure gives basic structural scheme of every city, so its planning requires a high level proficiency. Some changes in these images can be observed during longer period of time. Sometimes it includes rapid changes of temporal layers, generated by building new urban elements on the exact same place where the old ones existed; while lighter change during the time passing is a regular occurrence. Creating completely new urban frames, caused by expanding the city, represents its dynamical variant. Topography is a significant factor, giving distinctive feature to the urbanity. This paper considers factors identified as generators of the change of the urban image, based on research so far. The structural elements are considered with the utmost attention. The importance of the city landmark, monumental complexes not possessing these features but having the importance in image of the city stability (as well as the inhabitants' memory) are crucial elements of identifying its picture. Another significant factor is related to individual personal experience. However, there are also certain factors of significance features, but not considered within this paper. One such factor is change in coloring, being the special topic itself. The purpose of this work is to indicate that urban planning requires special attention in order to keep continuous nature of the urban image for the city to preserve its visual identity.

### 1. Introduction

Changing the observing of image of the city as a term comprehends configuration change of constitutive integral elements of it. Doubtless, topography is a factor permanently determining image of the city. From this point of view it is very hard, almost impossible, to change because the image of the city is already determined by terrain configuration, watercourses, sea appearance, climate. The space structured by topography represents the basis multiple times defined by the image of the city features. [3] Changes of the images of the city can be drastic sometimes, not uncommon appearance in history. [4] Cataclysms such as earthquakes, wars, floods, wind blows and water damages are reminders that these changes can be dramatic,



having as consequence a dramatic change of image of the city. However, contemporary cities are prone to quick transformations, both of permanent and temporal nature, which affects re-definition of their image. Fast living rhythm does not leave out the image of the city untouched.



**Figure 1.** Cataclysms changing the image of the city, caused by earthquake and tsunami. Budva, Tokio and Indonesia.

It is common for most urban areas to be identified with certain visual notion, observed and memorized as a typical silhouette or their result. Disappearing of such capital image of the city significantly questions visual defining the city. That is not easily re-created because it significantly depends on time as crucial factor. Many cities depend on domineering and indentifying landmarks in their visual identification. Such examples are numerous, but the most recent example is City of Mostar and its notion. The famous bridge, that ceased to exist during war years (1992-1995), submits factor of disappearing of one typical image, having the trademark of the city without alternative (figure 2).



**Figure 2.** Mostar bridge after the reconstruction, at the moment of destruction, and just before the reconstruction.

Some other changes of the image of the city, beside cataclysms, occur considering its expanding and changing the element of urban core. Thereby, elements appearing to be structural features and city landmarks on macro urban plan are considered. However, within the environment people live in, work and go out on daily basis, every change of the surrounding elements represents perceiving target and redefining of image acquired.



**Figure 3.** Statue of Liberty in New York harbor. Bridge towards Dubrovnik port Gruz. New bridge Millenium in Podgorica.

Such changes, beside structural nature, can be emotional ones, because people are firmly attached to facilities, streets, parks or some other places. [5]

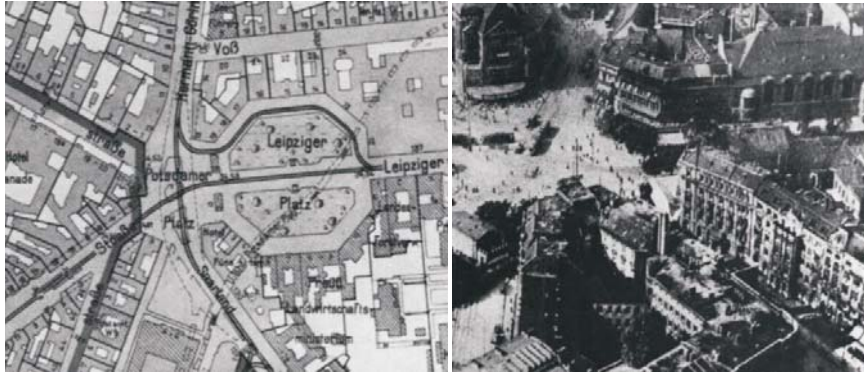
## 2. Defining Important Factors

Topography is an inherited value, not only significantly affecting image of the city forming, but also successfully resisting changes. Qualities of the particular place encourage building a settlement, and this influence directly leads to forming of spatial concept. The sea, river, lake, plain or hill, as well as the combination of these factors, present the most active visual material that subordinates everything built on that space. Both pragmatic and creative reasons support this discovered space by planning procedure. [6]

Special effect on forming and redefining image of the city, have the buildings carrying the feature of the spatial landmarks. [7] Landmarks, as previously stated, redefine the center of wider area when observing the city. These buildings become its carriers. Typical example is Statue of Liberty in New York or Eiffel Tower in Paris, having profoundly symbolic meaning beside quantitative landmark features. Considering the notion of Dubrovnik and being accustomed to alike urban core of port Gruz, the question imposes what effect is produced by a suspension bridge recently built over Dubrovnik's Port. Anyway, it has become a landmark, also bringing the question of possibility of their coalescence within the existing urban core (figure 3, the middle). Orthogonal urban development of Podgorica, possessing no old urban core within its image, didn't have any facility establishing control of the whole space by its dynamic until bridge Millenium was built. Alike, even monotonous urban image of cubical forms, this bridge established the central position of perceiving Podgorica because of its structure. Without any doubt, it became a proper landmark, as well as the most drastic and most positive spatial change within last 50 years.

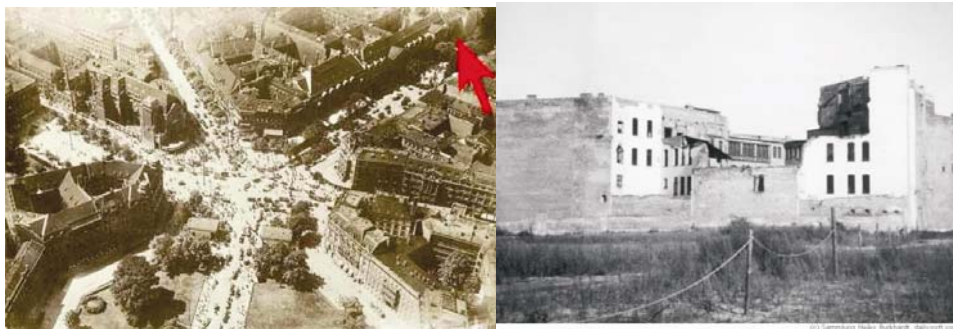
Last two examples are severely different from the starting points, because Dubrovnik, because of its tight visual image, represents riskier place for accepting a strong spatial landmark. It is clear that, capital changes perceived on the level of structural urban features, are connected to pragmatism of its basic function, and that is moving and spatial orientation. Redefining the existing urban matrix to the level of creating repeated scheme, modified by different perception, represents the change in urban features because the process of orientation succumbs to changes. It sometimes has the result of repeated learning, and then remembering spatial city schemes, which is never comfortably performed. [8] More significant and faster changes, logically, are the modus considered to be important for every category of city residents and from the point of view of those introduced to it. Gradual changing process, not happening faster after all, enables more comfortable pre-compensation of images memorized of the city landscape. Thereby, certain previously established images experience "crystallization" for the time passing, further alienating from the previous ones. The best way to prove it is the case of residents' memory comparing, when asked about certain facilities or districts. No matter what changes occurred, history of the cities shows that the continuity of the city structure is very tough, often constant, and that the city is only adjusting to the currencies. For the image like this, credits go to strong structural schemes, making the urban planning frames.

Important places are also historic cores which are succumbed to transformation in such way they become just a new temporal layer over the existing one. It never happens by accident, because certain values are imposed as quality the city urges to maintain - most commonly out of pragmatic reasons, sometimes even out of feeling the values of certain urban components. They made themselves candidates as a sequel of their role within the urban core. [9] Recent example of this is Postdamer Platz in Berlin, having the continuous traces for more than 150 years having exactly the same grid city plan. In order to observe this more precisely, this example will be used.



**Figure 4.** Map. Postdamer Platz in 1902(left) and in 1920(right)

Total development of the city, based on new requirements and technologies considerably affects the space alone. [10] However, it resists on its own, remaining permanently present category to many generations. Someone, a witness of that space at the end of the 20<sup>th</sup> century wouldn't recognize contemporary facilities, but the fact they are situated on Postdamer Platz alone would create a notion about its position in relation to the whole city. That is the essence of some spaces inside urban matrix duration.



**Figure 5.** Postdamer Platz image just before WWII and right after bombing in 1945

When significant changes appear considering image of the city, it affects mostly its silhouette, as visible on photos of contemporary Postdamer Platz. Thus, the city represents a kind of “living” body constantly moving. [10] Historic features of the image of the city are sometimes concurrent, pretty legible and painfully remarkable. Such effect was caused by a barbed wire wall, being in the middle of Postdamer Platz during the cold war (figure 6 – middle).

Silhouette of the facilities of modern Postdamer Platz is different, thereby the image of Berlin in total is different. But the space itself, the “genius loci” is the same and it generates the space and physical structures, besides new requirements, by parameters affecting by driving force. Those forces participate in the resultant consisting of new requirements, technologies, traffic systems and social occasions. It is wrong to adjust urban science to the historic one, because the life span of the city does not transfer all continuity of urban units in its original features. Lasting of the urban units are perceived through the monuments existing, as well as “marked directions and urban designing”. Cities remain significant marks on historical development line. [11]

By the time, being residents of some city, people become immune to preserving the image of the city they got used to and almost mechanically pass next to the facilities that are integral parts of the built environment. “Losing the sensibility” theory has to be taken into consideration for sure, according to which

perceptive organ loses its sensibility due to frequent repetition of the same lure. [12] According to this theory, the thing that is too frequently seen has no effect at all, so the numb feeling for norm requires new encouragement. Just after the familiar urban image lets some new physical structure “move in”, and having the Gestalt unit disturbed, new relations are supposed to be redefined. The unit composition is not compact or the same anymore, so it provokes our perception. Therefore, this “exhaustion” of constant perceiving of urban image makes us indifferent as time goes by. Such attitude is present in Andrew Ballantyne when saying that the most important thing is that “my home is the notion of knowing and not thinking of it. As a matter of fact, I notice it only when something is changed.” [13] Modern urban structure of the cities has been through some considerable changes.

Architecture is reduced to geometry forms, having some big companies signs hung on them. [14] Thereby, there is a strong fight among facilities considering self-remarkable features, not respecting the unit at all, neither context, continuity nor Gestalt harmony. “Spatial excess” becomes the purpose from marketing point of view. However, architecture is not present there, so it cannot be remembered. What is remembered is this excess in space, and that is obviously the purpose. Such feeling, among those who really see it, presents “inside layer” of urban structure. [15]

The art of the relations of the constitutive elements of the city should be taken into the consideration, being implemented just like the art of architecture. Its purpose is to surround each consisting element: buildings, trees, nature, water, traffic, advertisements and so on and entangle them in a dramatic way. [16]

It is clear that the deal is about the urban image as a whole and its parts. It should be considered that the totality of the city can never be encompassed. When perceiving, the sequences representing material for establishing the final experience as a kind of conclusion are the most important ones. The total picture that eye encompasses will depend on spatial correlation of the constitutive elements, being buildings, districts, topographic elements in this case.

Once established spatial relation, remembered as a preserved unit, the typical image is made. Each change of any elements, buildings in this case, building of new ones, demolishing the existing ones or important intervention on them, will provoke our attention to trace back the previous memory and to redefine it. It does no harm to remember the music and melody tunes, because it is the easiest way to comprehend composition of the architecture. Each change of tone leads to the new experience of melody. Or even better, let’s involve the linguistics in all this. Logical and harmonious union of architectural facilities is the same as suitable or meaningful order of letters giving the word, for example S U N. If we remove a letter, we get S N, meaning nothing, or if we add two of them K S L N. If we use the same letters and put them in different order, there is a decomposition effect S N U. This comparison is usable indeed, so the perceiving is an element to be reactivated because of the “excess in space”. In this case, a new memory and adopting it o recently altered picture and image perceived is required.



**Figure 6.** Stavanger-Norway; Copenhagen and Stockholm; façade main street made of different structures. As such, they are memorable existing image resistant to changes.

Intensity of change of urban image does not have to be identical, but it's been constantly perceived in perceiving adequately. Changes more drastic and less defined in spatial frame cannot be the reason for more significant changes in a wider spatial picture. That means that the change in image in one street doesn't have to influence the urban frame. Otherwise, the opposite would occur if changes are of such nature to overgrow the importance of the street frame in spatial image of district or even the city.

The conclusion can be achieved, that changes in quantity, as well as changes in traffic structures, are the strongest generators affecting the change of larger spatial collections. For example, the building of one high facility in a street won't affect only relations of spatial ratios within the street itself but also, depending on possibility of their perceiving from the distance (out of the street), requires redefining of existing cognitive schemes among all those people who have a memory of them. Also, the change of direction of dominant movements in cities as well as their way (underground lines introduction) represents totally different quality of inherited image of the city.

Each city possesses facilities of memorial characteristics in its structure, having the meaning that is wider than primary reasons of their implementation. They are both the meeting points and points that the city is marked by no matter to its quantitative category. Those places are parts of the memory with specific accentuation on space. Their disappearing or the change of their context represents a significant moment in redefining the image of the city.

### **3. Conclusion**

The fact that the image of the city is not a constant but a living organism, changing during the time because the people necessarily customize it to match their needs, should be embraced. The changes are the essential part of comprehending the city as a follower of life. Two types of changes are essential for final urban image, both quality and quantity ones, as well as their speed. Being stable and continuous, the conclusion can be based on favoring urban structure, and making the most stable elements of the city beside its topography. The placement of establishing and building the city, with its overall characteristics, significantly determines it. Topography produces the image of a city on the river, sea, desert, or somewhere else. Climate features alone determine immensely architectural expression of the facility, being in synergy of other elements creating the units that are recognizable.

Structural scheme, consisting of communications, is a cohesion element around which urban core is being formed. It significantly generates the urban image because the moving inside the city is a basis of the existence in it. Structural scheme is specially emphasized by streets, squares and parks, as meeting points and the goals of the moving process. These movements are not intrusive as an experience of a wider picture, but are also important on the level of experiencing and perceiving of visual sequences making the whole. As places of intensive occurrences and meetings, they mark the memory of the city. City landmarks are marking urban structure creating powerful orientation factors, so they and their continuance must be taken care of. Monumental, especially ones complemented with previous information, through cognitive processes represent significant points of marking the city and meeting point, because, in collective memory, it represents important spatial point. Even with no information about the purpose of its existence, it represents the element of directing the attention because those who seeing it are aware of the fact that there is a reason for placing it. On both individual and collective plan, what is in no way insignificant factor for residents, are the places where factors of emotional nature (positive or negative) represent the part of urban mental picture, having the change in perception stability identified in so many ways. For the purpose of image of the city persistence, changes of important elements, being the subjects of observing in this paper, need to be treated very carefully during planning. Each change should be observed in a wider context and with the sensibility to preserve the image of the city as a unit, which should be recognizable for the purpose of permanent forming the identity of city.

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