

Urban As Infrastructural Landscape

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ABSTRACT

The main objective of paper was to analyze and understand the working of landscape with urban form and also how the natural landscape which has been neglected consequently, can be enhanced by using the available infrastructure. This paper explains the glory, denial and revival of nature in two parts; the first part i.e. "landscape as urban infrastructure" explains about the natural heritage of a place, how it used to function as infrastructure of city and how it functions as an artifact; it also includes the criticism on denial of the natural system and how it is being used presently. The next part i.e. "urban as infrastructural landscape" deals with the rejuvenation of the disrupted nature and how it can work well and utilize the constructed infrastructure as its potential. Concluding that both infrastructure and landscape are integral part of the city and both are equally important; if infrastructure leads to the development of the city, then nature was the first reason to develop. The concept of paper has been supported through case study of Bhopal city.

Keywords : Urban, Landscape, Infrastructure, Infrastructural landscape.

Research Questions : How can an urban environment integrate both the infrastructure and natural landscape? Can infrastructure act as a boon for existing landscape?

I. INTRODUCTION

Cities were once a beautiful integration of nature and basic infrastructure, rather nature served as an infrastructure and reason for the development. Landscape used to serve as an artifact of the city; it had beautiful vistas and scenic beauty of its natural heritage. But with the advent of industrial revolution, the population increased and city started expanding; naturally then grew a need for more sophisticated infrastructural systems. So, ruthless construction practices were followed to fulfill the need; on the namesake of development and urbanization, the brutal tyranny of people on nature is evident. The forests have been encroached for holding highways and railway tracks, wild life is destroyed, streams and rivulets have been converted into nallas and rivers have been concretized or neglected.

The increasing demand of infrastructure and development cannot be questioned, but that cannot be fulfilled on the verge of nature. In hunt for urbanization and development the natural ecosystem was disturbed, the nature which was once catering to city is now facing back of the built forms or is getting neglected or encroached. The city is now left with fragmented natural spaces, with a jungle of infrastructural services. The architecture of city has evolved into a complex mechanical system; in which everything is remote controlled. The urbanization now is showcasing the shallow development strategies. There is a need to look into the development policies again and revive the existing available natural landscape.

Nature is the most beautiful and important treasure that a city can have. Destroying the existing wealth

and hunting for another is not at all wise and affordable. Today a number of cities which were having resources earlier are now borrowing the same from other cities (for example: water is the highlight now days). If these effects were thought earlier and if the development strategies were sensitive towards nature, the situation would not have been the same. The infrastructural systems if developed in coordination with natural landscape have a tremendous potential of evolving in a great urban form. These can be used to connect the fragmented spaces via green corridor, green grid, pathway etc. in such a way that the sense of fragmentation is not there. The infrastructure should cater to landscape in a way that residents are connected to it and have a sense of belonging. Landscape and infrastructure should not be taken as two different fields; rather the planning of both must be done by assessing the impact of one on another. A number of cities for example: Los Angeles, North Texas, Philadelphia etc. are now adopting ways to enhance landscape through infrastructure and vice versa.

II. URBAN AS INFRASTRUCTURAL LANDSCAPE

CASE STUDY: BHOPAL

Banganga and lower lake forms an important part of the whole ecosystem of Bhopal. They are the part of whole cycle of waterway connection; if one part of it is disturbed, ultimately the whole chain will get disturbed. Today, neither Banganga, Lower lake nor Patra river is functioning the same as it did; none of the water body has clean and potable water. Moreover, these water bodies are so much neglected that city is not even using them as artifacts. But, the fact is the interconnection of these waterways is still working and can be revived through certain design interventions and through certain development control policies. The interrupted landscape can be brought back to the city by increasing the visual and

physical permeability and by bringing it to the part of daily life of people.



Encroachment over catchments

It is very much evident that the destruction of Banganga catchments started after 1950, as city started expanding. The rivulet is not getting water because of the building activities around it. But the water in Banganga is still flowing its not stagnant, so there is a opportunity to revitalize the stream.

First of all, all the sewage connections which are made directly into the river should be removed or regulate. The slum houses should not be allowed to drain directly into the stream. The sewage treatment plants

should not be allowed to throw untreated effluents into the stream.

Secondly, all the buildings which are showing their back to the stream should be regulated for not throwing their garbage and sewage into the stream.

The next step should be of treating the catchments; the site near NTTR campus is empty and forms a beautiful cascading elevation of stones and also directs its surface water towards Banganga. But the problem is the road in between is the obstruction for water to reach. Some measures should be taken to direct the water from the catchments directly into the stream. Also, no building activities should be allowed in the valleys of stream. Also, water from the catchments of T.T.Nagar hill has been modified completely, so those can be treated to direct their water.

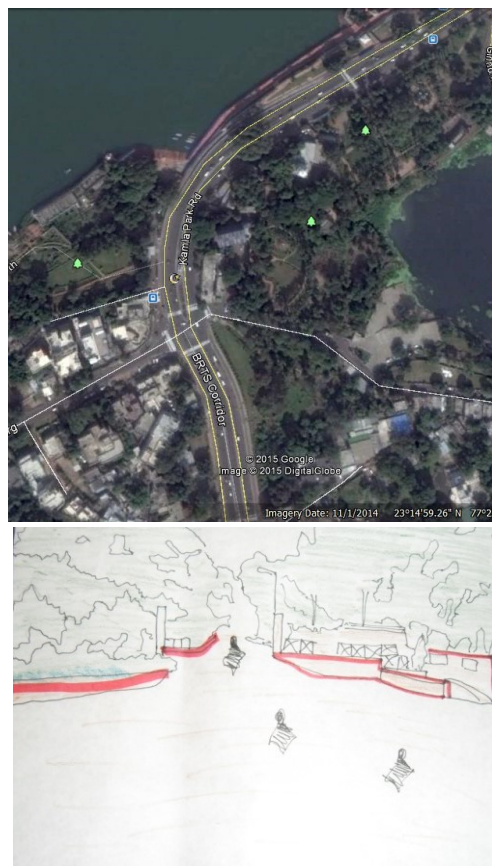
The proposals can also be made to rehabilitate the slum, if the stream is rejuvenated. Its physical and visual permeability should be increased to connect it with the users. Just, between the edge of the road and edge of the valley is going a thick sewerage pipe, which itself acts as a visual and physical barrier for entering into the site.

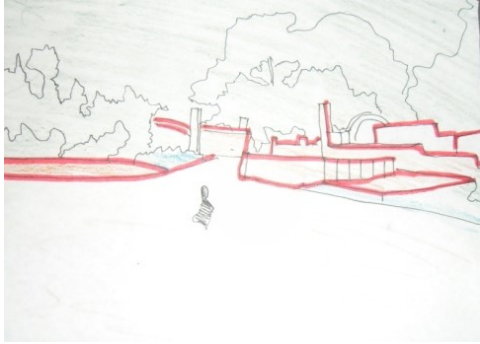


These pipes should be concealed, and visual connectivity of stream from the road should be enhanced. Viewpoints can be created from the road;

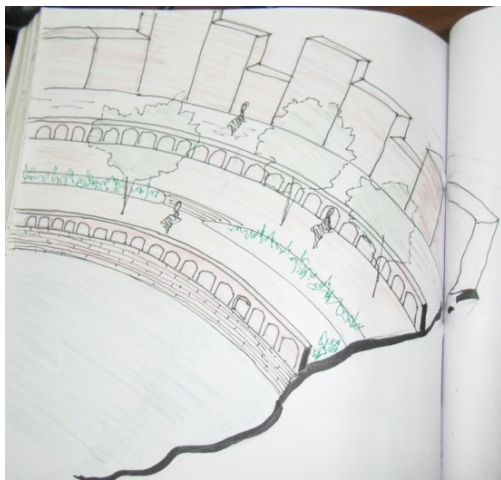
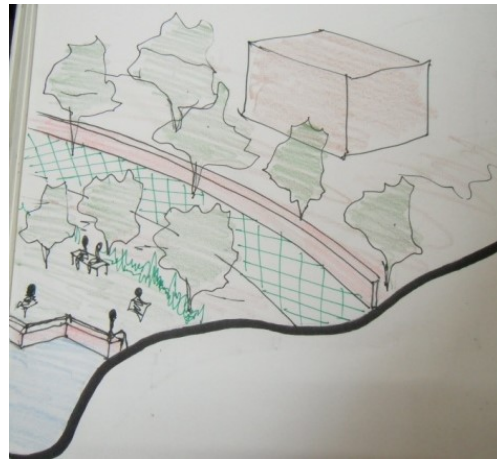
some activities can be inserted to enhance the interface between the road and stream. A waterfront can be proposed on the other side of the hill, which will help in reviving its flood bed and bring it back to the city.

If the Banganga is revived fresh water will reach to lower lake. Lower lake is surrounded by physical infrastructure along its periphery. The physical infrastructure involves sewerage treatment plants also, the drainage of sewage into the lake should be strictly stopped and no resident should be allowed to throw garbage into the lake. The permeability of lake should be enhanced to bring in more people. The entry nearby kilol park can be enhanced; also the periphery around this area can be enriched by running a waterway along the street adjacent to it, and by inserting some public activity. The overall design should be comprehensive and cater to the city in such a way that people are connected to it and have a sense of belonging.





To enhance the entry point of lower lake, the boundary walls marked in red can be removed and the space can be used extrovert activities inviting people.



Before



Before

Periphery around Kilol Park

III. CONCLUSION

The planning practices of treating landscape as a buffer or residual or left over spaces are hindering the functioning of a city. Infrastructure and development cannot sustain alone without landscape; and vice versa. As the urbanization is increasing the rules of landscaping have been changed. It has to be merged with the infrastructure in form of public urban open spaces, on an inter-city scale, as a social or urban infrastructure composed of facilities and alternative connections. Thus, it can be concluded that if landscape go along with infrastructure then it may become acquire some of the characteristics of infrastructure.

Along, Raj Bhavan the visual permeability can be enhanced and the dead street can be made live by inserting some student activities along the street.