

Nature reactive architecture – water research centre

[Design](#), [Architecture](#)



Nature Reactive Architecture - Water Research Centre

Abstraction

In the procedure of Reconstruction of damaged environmental systems the human activity that chiefly causes the harm is overlooked. This attack consequences in superficial solutions which normally fail in the long tally.

The chief aim of this thesis is to happen new attacks of environmental solutions through architectural intercession which would reenforce both human and environmental activity and besides achieve spacial reawakening of such barrens. For this intent the theoretical constructs of a boundary line presented by Lebbeus Woods will be used to suggest a alone architectural intercession particular to the marginal status.

The features of boundary line conditions are built-in at the Bankss of Rawal Lake. The adult male made reservoir is being threatened by unbridled development engendering near its Bankss. The job of sewerage being disposed straight into the lake has surfaced. The imbibing H2O modesty is quickly being polluted and similar human activity is damaging the environmental systems of the country. The lake has a great potency for development of new and bing systems. For this intent a H2O research Centre is being proposed for the site which will besides integrate plans that will be developed from the systems working on the site.

Keywords: Borderline, Ecotones, Water Architecture, Hybrid Architecture, Integration of

Systems

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Terminology

Ecotone: An ecotone is a passage country between two biomes. It is where two communities meet and incorporate. It may be narrow or broad, and it may be local (the zone between a field and forest) or regional (the passage between wood and grassland ecosystems) .

Graves, R. (2011) . Ecotone. Retrieved from hypertext transfer protocol:
[//www.eoearth.org/view/article/152345](http://www.eoearth.org/view/article/152345)

Boundary line: Borderline is the natural infinite for transmutation, where systems of all sorts collide and abrade, as the universe breaks up, not into pandemonium, but instead into new forms of order. (Woods 1998, 35)

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1 Introduction

Harmonizing to Tadao Ando: “ The presence of architecture: regardless of its self-contained character - necessarily creates a new landscape. This implies the necessity of detecting the architecture which the site itself is seeking” .

The undertaking will research the possibility of mixing nature and architecture which will ensue a intercrossed solution for a landscape which has lost its character of infinite and clip. Every landscape requires a alone architecture that suits its being and which reinforces its built-in character. In the instance of the Bankss of Rawal Lake, the area’s whole being and character is based upon its multiple marginal conditions.

1. 1 Theoretical constructs

“ The natural infinite for this transmutation is the boundary line, where systems of all sorts collide and abrade, as the universe breaks up, non into pandemonium, but instead into new forms of order” (Woods 1998, 35)

The undermentioned thesis description will use the word boundary line as was defined and explained by Lebbeus Woods. The boundary line identifies the bing status when the superimposition of assorted systems takes topographic point, responding and clashing to supply a new landscape (Woods, 30) .

These systems emerge from a broad scope of human and biological activity, they can be anything from societal conditions to ecological and biological conditions and more specifically trade with environmental phenomena,

disused or turning substructure, and fluctuating economic activity. It is apparent in the biological phenomena such as cell membrane and ecotones that most of the growing and development occurs in the boundary line conditions. Such infinities are a natural land for transmutation and version with interacting systems. These overlying systems create landscapes that can incubate architectural redefinition and crave an architectural idea or as suggested by Forests, *provides the evidences for the development of a new 'mode of culture.'*

This thought has generated the cardinal thesis proposition. By designation of overlying systems and an appropriate reaction, new antiphonal architectural typology can emerge. Basically the thesis challenges the traditional attack of architectural intercessions in the instance of an interesting boundary line scene. The purpose is to research new originative responses to overlying conditions in countries which do not by and large welcome development. In other words, an architecture that not merely embraces overlapping systems but enhances their being. This will be achieved after comprehensive research of the systems the chosen site embodies.

1. 2 Site Description

The boundary line under scrutiny for the thesis exists at the Banks of Rawal dike in Islamabad. The bank is a boundary line of two ecotones (H₂O and land) and besides it lies at the urban periphery of Islamabad and is a average land between planned and unplanned development.

Rawal Lake is an unreal lake constructed in 1960s. It is one of the two chief H₂O beginnings for the duplicate metropoliss of Rawalpindi and Islamabad. The H₂O is fed into the lake through Korang River and natural watercourses emerging from the Margallas. It serves as the chief beginning of imbibing in add-on it besides beginnings H₂O to the nearby agricultural land. However what is of greater involvement sing this thesis is the clashing systems bing on its Bankss, some triggered by human colony and activity and some ensuing from evolutionary procedures.

The unreal reservoir has become a great supplier of life in the part. It is a sanctuary for legion ecological systems and has become a survival land for the vegetations and zoologies of the country. It has besides facilitated diverse human activity. Its Bankss are today being used for recreational activity which is bring forthing noteworthy economic growing. With recent outgrowth of unbridled building the job of sewerage disposal into the lake has arisen. Sing that it serves as the chief supply of imbibing H₂O of Rawalpindi, it is a serious concern.

Taking these parametric quantities in consideration, the undertaking will develop within the interplay of human activity and environmental system tied with the H₂O of the reservoir.

2 Statement

Spatial reawakening at the Bankss of Rawal Lake through development of a new architectural typology from interacting systems.

2. 1 Sub statement:

Borderline is a natural infinite for transmutation. It hosts covering systems and have great originative potency. An ecotone is an illustration of a state of affairs where different systems collide. From these superimposed systems a H2O research Centre will emerge with plans derived from interacting systems, composed of a filter house and a life park for worlds and wildlife.

3 Aims

The thesis aims to accomplish the aims set out below:

- Development of an architectural typology which integrates and emphasizes the relationship between natural and human systems on the Bankss of Rawal Lake
- Spatial reawakening of the country associated with Rawal Lake through societal, economic and environmental upheaval
- Proposing new systems to heighten the bing substructure
- Create an architectural typology which may direct hereafter development tendencies

4 Rationale

Rawal Lake has become a great supplier of life within the bounds of its being. It is a sanctuary for legion ecological systems and has become a survival land for the vegetations and zoologies of the country. It has besides facilitated diverse human activity. Its Bankss are today being used for recreational activity which is bring forthing noteworthy economic growing. It besides has the potency of bring forthing electricity. With recent outgrowth of unbridled building the job of sewerage disposal into the lake as arisen.

Sing that it serves as the chief supply of imbibing H₂O of the country, it is a serious concern.

Its place and map can show great chances of development which can travel beyond the map of merely diversion. It exists on the urban periphery of Islamabad and can supply interesting province of personal businesss mediated in planned and unplanned development.

5 Scope

The range of work outlined for the undertaking is as follows:

- The undertaking will see the full entity of the lake. Different ecological and human systems associated with the H₂O organic structure will be considered, but the proposed architectural solutions will be confined to the country of the selected site. The undertaking will non research the urban impact of the solution. It will bring forth a paradigm of an architecture that enhances and regulates the environmental systems of Rawal lake

6 Strategic Plan

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