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Nuevo Parque Central de la Emergencia Nacional, Para las Ciudades de Tegucigalpa y Comayagüela

by

Ernesto Alfaro

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

Master of Architecture

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PARA LAS CIUDADES DE TEGUCIGALPA Y COMAYAGÜELA

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ABSTRACT

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In the aftermath of 1998’s Hurricane Mitch, the republic of Honduras faces imposing obstacles in its reconstruction. The capital city of Tegucigalpa visibly bears the stress marks caused by collapse and flooding. The axial Choluteca River grown beyond the means to contain it, swept several city blocks, even whole neighborhoods, into its waters, forever changing the urban landscape. In response to this exacerbated ecological condition, a new hybrid urban intervention aims to suture the physical and psychological damage suffered by the twin cities of Tegucigalpa and Comayagüela through a new urban park/waste water treatment facility.
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In June of 1997, I traveled to Honduras to begin a summerlong stay at the Centro de Diseño, Arquitectura y Construcción, located in the capital city of Tegucigalpa. Situated in the south-central region of the country, Tegucigalpa was founded near the now empty silver mines which brought so much attention to this area in the late 19th century. Lying in the heart of the Choluteca valley, the city sits some 900 meters above sea level, settled amidst a hilly, rocky terrain that results in a fragmented urban fabric. The haphazard layout of the downtown region, with narrow streets and high density affords the pedestrian a single-scale trajectory experience of high ground and air pollution so typical of a post-colonial urban situation.

In this heart of city, cleft into by the emergent Choluteca River, the city is composed by the mushroom settlements of the most recent arrivals to the city: the landless farm workers whose livelihood in rural areas is no longer viable and who are drawn to the attractor of city life and the promise of work and a better life. Precarious, perched atop the most seemingly inhospitable landscapes, these communities are the largest new residential constituents of this city whose population increase since the middle of the 20th century has experienced a surge far greater than for the city leaders to whom the American image of the city appears, where a distinct strata of terrain extends, folds in on itself, hinges into the fragmented pathology of power and extreme class differentiation.
On October 21, 1998, a Category 5 hurricane named Mitch settles onto the Honduran mainland, creating significant problems for the residents of the northern coast. The island of Roatan was hit hard as was the port city of La Ceiba and further inland, the industrial capital of San Pedro Sula. Infrastructure was rendered useless as airports closed, bridges collapsed, neighborhoods flooded, etc. Whole season’s worth of crops was destroyed by the storm, but the real damage did not occur until later. Trapped as the hurricane was by the rugged landscape, its energy diminished rapidly enough and soon dropped in intensity from category 5 hurricane to tropical storm. But the rains and warm weather persisted as miniature tropical storms ran amuck across the nation, saturating the landscape and generating additional damage to the already costly hurricane. Numerous roads and bridges were destroyed by collapse or by debris from collapse. Nearly 6,500 persons lost their lives during the time of the hurricane and thousands others were left without resources and/or shelter.
It is at this point that one of the first problems emerges to show us the exacerbated condition of this marginalised terrain. Natural disasters are seen as such because of the damage they pose to the world created by men and women, against them, on top of the originary or natural world, the world, in some sense, that existed before people. This wild landscape comes under the rationalizing imperative of a civilized society and thusly does a city come into being. As human change, therefore, affectively alters the physical immediacy of the natural landscape, the distinction between "the natural" and the man-made begins to blur. By an large, however, and as in the current case of Hurricane Mitch, environmental change is still conceptualized through the deployment of discrete event-types such as deforestation, flooding, etc, which produces, as a result, nature removed from its immediate realm as a "recipient" of such activities. In this sense, "nature" is represented outside the political and economic context within which it exists.
Working against this, it is important to consider the site of operation, the physical terrain itself, as wrapped ineluctably from the totality of the world, existing in multiple interacting dimensions as numerous as the workers that conceptualize it every day. So better than to analyze the situation, for example, by looking at the different ways in which the physical world is changed by disasters or other such conditions, it is more useful to consider the ways in which peoples' lives are palpably altered by these situations. As a result, considering this hurricane, for example, which was a unique event with particular variables and immediacies, we have to consider the impact it had on individuals who contest with the natural world on an everyday world: the rural proletariat. These are people whose livelihood is solely dependent on the world that they tender everyday, which means that “natural” occurrences, such as storms or floods, are a matter of fact. But when the other world to which they connect, the support world of capitalist enterprise, crumbles under the strain of vast-scale environmental change, these individuals are hardest hit and thusly does concern over the natural world enter the dimension of the everyday. The impact of a hurricane-type event is perceived to affect all persons evenly, connected as we presumably all are, but this can hardly be the case when the presence of the aforementioned marginalised actors places them in an exacerbated destitute condition.
the IMF and World Trade Organization.

The course of development deployed by dominant economic entities such as
the IMF and World Trade Organization has been to exploit the "natural resources" displayed by the dis-
in the historical traditions that have given rise to these economies. It is significant that the first
result of this exploitation is the emergence of new landscapes. The rubber plantations, for example,
are now more than ever drivers of economic development. The rubber plantations have been
transformed into rubber-processing plants, and the raw rubber is now a major export commodity. This
transformation has had a profound effect on local economies, as the demand for rubber has
increased, leading to higher prices and increased employment opportunities. The rubber
plantations have also provided a source of income for local farmers who have been able to
profit from the increased demand for rubber. However, these benefits have not been
equally distributed. In many cases, the benefits have accrued to the large companies that
own the plantations, while the local farmers have received little in return. This has
led to a growing sense of inequality and frustration among the local population.

In addition to the rubber plantations, other landscape changes have been
seen in the region. The conversion of forested areas into agricultural land
has had a negative impact on local biodiversity, as many species of plants and
animals are lost in the process. The destruction of natural habitats has also
led to a decline in the population of many wildlife species. The region
is also vulnerable to natural disasters, such as floods and landslides,
as the forests provide a natural barrier against such events. The
construction of roads and bridges has also resulted in
environmental degradation, as the construction
process has led to deforestation and
the flooding of rivers. These developments
have had a profound impact on the region,
leaving many communities
struggling to adapt to the
evolving landscape.
But how do we define the slippery terrain of "Development"? The Second World War could be seen as a catalyst for the shift in the economic (and thereby political) balance of nations. The industrial base of the United States was ready for an increase in production and the emerging multinational corporations were bent on expansion of their market. Since its colonization, Latin America has existed as a basin of natural resources to be extracted at will by its masters. But in the postwar world, a growing surge of nationalist tendencies emphasizing economic and social equality impeded the continuation of former exploitative practices. There emerged the conception that this equality would be attained when Latin America achieved industrialization. This set up a very simple paradigm of comparison, based on the Western standard: if we have what they have, we will become modern and prosperous. Moreover, the West was more than eager to help these nations in their endeavor by "providing" the economic resources that they would need so as to be able to implement the necessary reforms. This was the initial mission of the World Bank/IMF. However, at the moment of its instantiation, development discourse simultaneously created the very agents (and the agencies) of its focus. In this way, poverty was posited as a "problem" that development sought to combat. The objects of poverty (i.e. the peasantry) came under a process of study so as to determine the best course of action for their economic advancement. These were conducted by numerous newly created bureaucratic consortiums, which were mostly comprised of various development "experts." In contemporary parlance, these are sometimes termed Non-Governmental organizations (NGOs).

But we're moving away from the main problem that some of you may have already noticed: development discourse establishes its own framework of operation and can be said to act as a means of further state control over: not nature, but rather its own proper term for it: the environment. This too, becomes an object of development's focus insofar as the management or engineering of nature further consolidates the power, ultimately, not of the state, but of the Westernized Latin American elites, over the terrain that they arrogate.
So the process of inciting a regime of development involves the peasantry insofar as providing presumably sound agricultural information for the newly economically minded farmers. Crop specialization, modern fertilizing techniques and the introduction of insecticides were among the many new agricultural devices used to bring the farmers up to date. But also, new organizational techniques, such as farming cooperatives, were “taught” so as to maximize production levels. The problem arose when farmers proved resistant to these programs. Many of these techniques proved to benefit a small percentage of the rural population, causing widespread unemployment and subsequent proletarization of the future urban masses. It is important to remember that prior to 1950, a great percentage of the overall Latin American population lived in rural areas, and had been there for quite some time. Nature, then, could be said to be the intelligence with which humans interacted in self-interested, rational, but symbiotic ways, i.e. harnessing the necessary information for their survival and propagation, while simultaneously perpetuating the natural processes that allowed for their very existence. Development, as the state tool of examination, census, and control, can be seen as another form of intelligence, whose unique composition was at odds with this previous, older model.

The breadth or extensivity of the deployment of development was/is vast, encompassing problematizations in terms of women, nutrition, health standards, to say nothing of power and visibility. What this leads to is the awareness of the constructed condition of the Third World. Posited in its condition of alterity, or Otherness, the problems endemic to this world can be safely contained and treated (or not) within parameters agreeable to the West. But this presents a prison scenario that is not at all the case: for just as farmers locally resisted these international measures, techniques are available to the marginalized for alternatives to development. There is no grand movement that is going to replace development, because that would simply re-occupy an entrenched space of power. Rather, hybrid resistance techniques operating on local fronts are a viable means towards a disruption in the uneven hegemonic strata. This brings us to a conceptualization of resistance by means external to the framework, which it seeks to rupture. Unweaving, if you will, the macroscale techniques of control via multiple nodes along the network. In this sense, by undermining the goal of development through removal of that very goal, the game is transformed from an end-intensive scenario to a scenario of intensity. A brief digression: In terms of the theory of games, the standard model presents self-interested parties seeking strategies whose benefits would be reserved for themselves. There are, however, alternate models where smaller benefits can be guaranteed for all through a process of collaboration (altruistic behavior). However, these still do posit a desirable end condition and thus still operate within a common end-oriented framework, whose selection or relevance of means is rather arbitrary. There is another possibility that moves the “end condition” to exist along the length of the game, such that the intensity with which the game is played has more consequences than the specific strategies chosen. Transformation, then, is possible in direct relation to the extent of engagement.
With all of this information safely tucked behind my ear, I began my intervention into this zone by giving special consideration to the Choluteca River and the downtown region of Tegucigalpa/Comayagüela. The river divides not only the cities, but also the cultural forces acting upon the city. The presidential palace, national congress, and Justice department all reside north of the Choluteca, whereas the south supports minor players in the vast expanse of its industrial landscape. The region under consideration spans from the Bridge 12 de Julio to the bridge Mallol, some 500 meters in length and between 80 – 130 meters in breadth. The river gully had an average depth of 20 meters at this region. The site can thus be considered as two segments, east and west, cleft by the middle Puente Soberania Nacional.
Program:

Considering the immediate ecological problems facing the city, the need for a cleaner, healthier river was clearly apparent. The best way to approach this would be to cease the illegal or extra-legally inflow of black waters into the river by the implementation of an all-encompassing, legitimizing sewage system for marginalised neighborhoods that would be channeled to a large waste water treatment facility that would treat the water not so as to become potable, but rather to produce effluent cast into the river such that through time and the river’s own natural processes, the river cleans itself out. Tucking this program into the gully produces problems of smell and appearance as no one is too excited by the sight of raw sewage being treated. The only real toxic situation, however, occurs well before the primary treatment of the influent, where a preliminary separation process removes toxins for shipment to a handling facility or landfill. In any case, drawing from the example of the North River Treatment Plant on the West Side of Manhattan, a parkscape surface could be deployed allowing for the creation of a new public space as well as a cover for the treatment plant.
Wastewater Treatment Plant

Using a biological process known as sludge-activated management, the plant would pass water through its process in approximately three hours. Influent is pumped into a preliminary filtration mechanism that removes large solids and toxins and thereafter the water is placed in contact with the microorganisms that would perform the majority of the work. Having passed into the primary settling tanks, solids would settle to the bottom and water would pass on to an aeration basin, a secondary settling treatment and thereafter to the final step of chlorination before it becomes effluent for the river.
Wastewater Treatment Plant: View of primary settling tanks
The parkscape above the plant is a fragmented milieu of pathways, viewing areas and specific event-instances that self-organizes as a suture between the divided twin cities. Forested by conifers on the sides, the wide ramps stretch out to the middle, above the river, in an attempt to meet each other, but doing so only at discrete instances. A soccer field sits in the east segment, next to the presidential palace, as an attempt to reterritorialize the politicized landscape for its own needs. Moving west, the park rises to meet the roof surface of both the administrative building for the plant as well as the reconstructed annex to the Ministry of Public Education/Visitor's Center. Here, a landbridge emerges and rises over the middle bridge to meet the west segment. Walking down to this section, the amphitheater sits to the north while the public swimming pool is situated just south. Further west, the southern portion rises and disconnected from the north as viewing ramps rise and a fragmented plaza emerge at the westernmost district. To the north, the Transportation Relay center touches the streets, pulling in microbuses, taxicabs, colectivos and private vehicles for dispersion, day parking, etc. Commuters stop here and can walk directly to their jobs or other destinations from the depot, or, if parked in the sublevel surface, through a dip in the park can rise to the edge of the city. Severed as it is formally and programmatically from the plant, the park aims to reveal the plant and the workings of its underbelly, through slippages resulting from raised rampways and viewing areas.
Transportation relay zone: View to the south ramp to sub-level parking
Park Bridge: View to northwest (Tegucigalpa)
Park Market and Viewing areas: Notice the pools and changing rooms to the south; View of Comayaguela
Pool Waiting Area: View of downtown Tegucigalpa
Ministry of Public Education/Visitor Center: View of vehicular entrance ramp
North Park: View of Visitor Center and Waste Water Treatment Plant
Park Bridge Area: Partial view of basketball court and Visitor Center's Parking
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