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# **Resiliency: It Goes Beyond the Hair**

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In the January article of The Guardian News 'How Hurricane Maria forced Puerto Ricans to change their hair', author Norbert Figueroa reflects on the devastating effects of the category four storm in the US territory. Besides the aftermath caused by floodwaters, massive electric shortage, and structural damages, Figueroa revealed how Hurricane Maria forced adaptations to everyday life, including the way Puerto Ricans styled their hair. Extreme conditions of heat and humidity, exacerbated by the lack of electric power, lead to the acceptance of natural hairdos, to the creation of sidewalk barber shops, and to the formalization of an underground economy where haircuts in the form of currency, were exchanged for power generators. Figueroa's simple but complex observation is critical in the revelation of creative self-organizing assemblages at the face of concealed realities. If the simple act of hair restructuring convokes taxonomical categorizations, ingenious adaptabilities, spatial re-conceptualizations, and the creation of new underground economies, why isn't architecture transcending its heteronomous condition to achieve 'resilient' solutions? If resilience is defined as 'the ability of objects to spring back into shape' after being deformed,' does it exclude the notion of 'predictability'? This paper does not bring to the fore the discursivity that the resilient discourse entails, but it is an attempt to question its interpretations and trivial meanings within a 'utopian' model that fails to come to terms with the constitution of the physical realm.

## INTRODUCTION

In the January 2018 article of The Guardian News 'How Hurricane Maria forced Puerto Ricans to change their hair,' author Norbert Figueroa reflects on the devastating effects of the category four storm in the island of Puerto Rico (figure 1). Besides the aftermath caused by floodwaters, massive electric shortage, and structural damages, Figueroa revealed how Hurricane Maria forced adaptations to everyday life, including the way Puerto Ricans styled their hair.¹ Months without power nor clean water meant that long, blown-straight hair was no longer possible. The evident results were transformed into humorous taxonomies that entailed the categorization of new hairstyles: the "messy bun," the "dirty braid," and "el moja'ito" or the wet one.²

Heat and humidity, exacerbated by the lack of electric power, led to creative alternatives regarding the hair. The acceptance of natural hairdos, the creation of sidewalk barber shops to avoid unventilated spaces, and the formalization of an

underground economy where haircuts in the form of currency were exchanged for power generators, were some of the creative solutions generated by the dreadful circumstances. For many, haircuts contributed to the 'self-esteem increase' and to a 'more resilient attitude.' The term resilience, 'resilire' or 'resaltare,' is worthy of a moment's attention in lieu of its fashionable use and the many issues it raises. If resilience is defined as 'the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions' and as 'the ability of objects to spring back into shape' after being deformed,' does it exclude the notion of 'predictability'? Does resiliency only enter the equation once a crisis has occurred? The concept of resiliency becomes more complex by the fact that it is understood in terms of natural ecosystems and their capacity to respond to disturbances by resisting damage and recovering quickly at the aftermath of an event. The term 'resilient' cannot but arrive at political dimensions in the island when the central powers demand responsibilities on its 'resilient citizens' imposing on them futile short-term solutions to long terms problems. Puerto Ricans are not resilient; they are survivors that exceed the expectations of new realities while adapting to daily inconveniences. This paper does not bring to the fore the discursivity that the resilient discourse entails, but it is an attempt to question its interpretations and trivial meanings within a 'utopian' model that fails to come to terms with the constitution of the physical realm.

Similar to the hair, the domain of architecture has also been the most visible marker of the island's 'resilience' even before Maria, yet, its presence has been the most ignored. Figueroa's simple but complex observation is critical in the revelation of creative self-organizing assemblages at the face of concealed realities regarding government incompetency, institutional negligence, and a consensus of societal impotence. If the simple act of hair restructuring convokes taxonomical categorizations, ingenious adaptabilities, spatial re-conceptualizations, and the creation of new underground economies, why isn't architecture transcending its heteronomous condition to achieve 'resilient' solutions? While we can marvel at the integration of ecological systems to overcome continual changing environments, why isn't architecture a material component that interacts across multiple nascent materials – bodies, surfaces, everyday objects, geographies, infrastructure, social inequalities and urban forms- to achieve equilibrated assemblages?



Figure 1: The Guardian article 'How Hurricane Maria forced Puerto Ricans to change their hair.'

Following Deleuze and Guatari's concept of assemblage provides a theoretical lens, and in many ways, a predictable perspective for understanding dynamic ensembles formed and informed by the interconnectivity and flows of constituent parts (figure 2). According to the authors "as an assemblage, a book has only itself...we will ask what it functions with, in connection with what other things does or does not transmit intensities, in which other multiplicities its own are inserted and metamorphosed, and with what bodies without organs it makes its own converge."4 Jane Bennet in her book Vibrant Matter a political ecology of things, sustains that assemblages contain a sequence of ever small ones-functioning groupings of actants in a series of larger, more complex congregations.5 Projects like the Parque Luis Munoz Marin (2016) by architect Andrés Mignucci; the Student Center (2014) and the Faculty of General Studies II (2009) in the University of Puerto Rico by Mignucci and Jose Javier Toro, respectively, and the proposal for the new Aeronautical and Aerospace Institute of Puerto Rico (2016), also by Toro, attempt to transcend the narrow directives of the discipline and its Tafurian 'sublime uselessness' in order to move beyond their condition of autonomous function. These assemblages respond to a bigger context, becoming non-hierarchical critical pieces in the re-transformation, re-structuring and re-purposing of fractured assemblies and urban discontinuities. While the Luis Muñoz Marin park attempts to weave its function to the surrounding urban context allowing for public transportation, relegated neighborhoods, and pedestrians to work as a unit,

the campus projects executed at the University of Puerto Rico as well as the Ramey Airforce Base intervention, reveal an intention to unify the existing context by re-purposing abandoned structures and unifying its open spaces to the surrounding region.

## FIRST ASSEMBLAGE: LUIS MUÑOZ MARÍN PARK

As part of the 1956 Regional Plan for Metropolitan San Juan proposed by the Uruguayan urbanist Eduardo Barañano, the Luis Muñoz Marín Park, also known as Parque de las Américas, emerged as part of an extensive system of open public spaces and recreational and sports parks that attempted to organized the city of San Juan. Re-capturing the original intentions after its closure and abandonment in 1992, Mignucci proposed in 2013 the rehabilitation of the park, taking into consideration the urban, the regional, and the project scale to integrate disconnected existing urban materials (figure 3).

At the urban scale, the project connects the north and south areas of the park; opens its main access from the peripheral avenues; includes the new Contemporary Cultural Center as a main threshold and cultural counterpoint to the existing Plaza las Américas Shopping Mall and integrates public transportation as a unity. At a regional scale, the park intends to connect the Botanical Garden and the natural system of parks, boulevards, river and pedestrian walks with the intention of extending the path to the Old City of San Juan. At a project scale, Mignucci reorganizes the park in order to establish a

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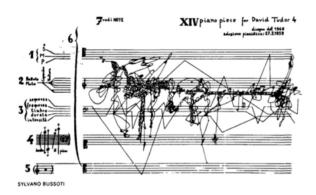


Figure 2: Gilles Deleuze and Felix Guattari assemblages,' diagram, from A thousand plateaus: capitalism and schizophrenia.

multiplicity of organized functions and activities that respond to the peripheral housing context while salvaging the interior systems containing existing vegetation, the Rio Piedras river, and the new structures that house recreational areas, educational components, and business zones, integrating all levels of society and fomenting alternative economies. Unfortunately, only half of this park has been developed, making this successful project an autonomous piece with no urban relevance to the rest of the city.

# SECOND ASSEMBLAGE: THE AERONAUTICAL AND AEROSPACE INSTITUTE OF PUERTO RICO AT THE FORMER RAMEY AIRFORCE BASE

Located in the deactivated Ramey Airforce Base, in the northwest municipality of Aguadilla, the base is presently owned by numerous public and private agencies operating the Rafael Hernández Airport and the Aeronautical and Aerospace Industry. The latter is the cradle of technological innovations propelling in the island and is one of the most important industry assemblages focusing on scientific research and technical developments. The institute profits from its existing context: a current airport, memorable landscape, historic military housing facilities', existing abandoned structures, and an efficient infrastructure resistant to hurricanes, earthquakes and tsunamis. The project responds to the scope of new industry collaborations with the University of Puerto Rico Aguadilla campus, the neighboring aerospace companies and potential partners around the region, making this municipality a new and dynamic aerospace business community (figure 4).

The proposal for the new Aeronautical and Aerospace Industry campus is an attempt to utilize past history as a nascent material, by repurposing the neglected existing historic buildings. Using Toro's existing main building as a hierarchical beacon, the new campus organizes along a central meandering boulevard that connects existing facilities and their new programs with the surrounding existing structures. The new landscape will bolster an ecosystem of

research and commercial facilities in order to promote collaborations, initiatives, and entrepreneurships within and outside the municipality of Aguadilla. Moreover, the project brings the possibility to rehabilitate the existing Club Naútico, an important modern structure designed by architect Jesus Amaral, as part of the project's recovery intentions.

# THIRD ASSEMBLAGE: UNIVERSITY OF PUERTO RICO RIO PIEDRAS CAMPUS

Originally established in the 1900 at the eastern side of the island, the University of Puerto Rico relocated in San Juan around 1904, becoming the first public university and the largest of the University of Puerto Rico System's campuses. Organized around a main quadrangle marked with the iconic university tower and the theater, the campus later developed into an open modern scheme under the patronage of chancellor Jaime Benitez and the design of German architect Henry Klumb between the years of 1946-1966.

Connected to its surroundings by strong axial relationships and physical access, the new interventions to the existing structures of Henry Klumb's Student Center, by Andrés Mignucci; and the intervention to Toro and Ferrer's Faculty of General Studies I and the design of the new General Studies II by José Javier Toro, presents a unique reading of the campus organization and a new understanding of its fluid connections. Mignucci's intervention to Klumb's deteriorated structure assumes the original scheme where programmed functions in the form of floating pods organize around a mass of fluid space. This type of solution allowed for the introduction of contemporary programs without destabilizing nor affecting the original scheme and its structure. Moreover, the architect took into consideration Klumb's intention of creating a physical contour building where sectional sequences connect with the rest of the campus at various levels. This strategy opens the opportunity to create a clear connection with Toro and Ferrer's Faculty of General Studies. Toro's daring intervention to his father's building maintains the integrity of the original structure allowing for the introduction of alternative materials to enhance the original modern scheme. Moreover, Toro's new General Studies II building, with its open ground floor vestibule and internal courtyard, attempts to create a new quadrangle that, similar to the original one, establishes an axial connection with the surrounding context. While the original quadrangle addresses the town of Rio Piedras through its main axis and grand green space, Toro's new intervention connects with Klumb's faculty residences located outside of the campus through its playful metallic brisoleil and a green promenade (figure 5).

The opportunity of addressing this kind of interventions brings to the fore the institutional negligence regarding the abandonment and deterioration of significant modern pieces in the campus. While the original and new quadrangles of the campus address the iconicity of the university from both



Figure 3: Parque Luis Muñoz Marín by Arch. Andrés Mignucci.

avenues, the center of the campus remains incomplete with the possibility of intervening and re capturing significant pieces such as Klumb's abandoned Faculty Center and the deteriorated Women's Residence Building. This would allow for the internal re-activation of the campus while cultivating internal as well as external economic resources.

### **CONCLUSION**

The discourse of resiliency has certainly raised numerous questions. How can the discipline become more attentive to the affects and effects of human and non-human activities? How can we understand predictability as a source of architectural and urban investment? Even though resilience is an old term with multiple meanings generated throughout times since Pliny the Elder and Cicero to Francis Bacon, among others, it is through the iconicity of the Canonbury Tower (built under the predictions of the Universal Deluge in order to store two months of food supply),6 that resiliency manifests itself. Different from any ecological system, humans are capable of predicting chaotic events in order to resist, accommodate, and recover timely and efficiently, avoiding the aftermath of an unpredicted event. The aforementioned projects are models that respond to a bigger context, becoming critical pieces and the locus of nascent materials within the assemblage and re-structuring of existing fractured economies and un-built realms. The need for repurposing what already exists, while reinforcing strategies of transformation and reuse, are some of the multiple ways in which architecture may seek, if not illusory resiliencies, significant transcendence.



#### **ENDNOTES**

- Norbert Figueroa, "How Hurricane Maria forced Puerto Ricans to Change their Hair," The Guardian News, January 24, 2018.
- 2. Figueroa, "How Hurricane Maria forced Puerto Ricans to Change their Hair."
- See definition of the term utilized by David E. Alexander in the essay, "Resilience and Disaster Risk Reduction: An Etymological Journey," Natural Hazards and Earth System Sciences 13 (2013).
- 4. Gilles Deleuze and Felix Guattari, A Thousand Plateaus: Capitalism and Schizophrenia (Minneapolis: University of Minnesota Press, 2005).
- 5. Jane Bennett, Vibrant Matter: A Political Ecology of Things (Durham: Duke University Press, 2010).
- 6. Alexander, "Resilience and Disaster Risk Reduction," 1264

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Figure 4 Above: Proposal for the Aeronautical and Aerospace Institute of Puerto Rico at the former Ramey Airforce Base by Arch. José Javier Toro

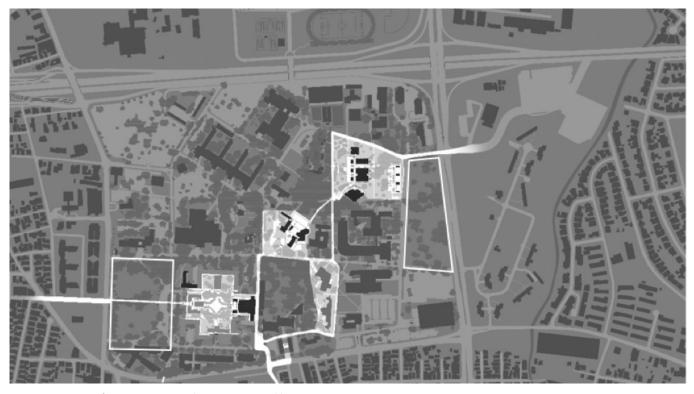


Figure 5: University of Puerto Rico Rio Piedras campus assemblage