Shaping the periphery: Emergent architectures in Latin America

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ABSTRACT: In an age that has become interested in urban issues at the planetary scale, it is advantageous for architectural design research to bridge the micro, meso and macro scales of the built environment. This article addresses the macro by comparing metrics of global urbanization, and then outlines the disparities between 'the urban condition(s)' found in North and South America. A more nuanced description of the uneven conditions of geographical development found in formal and informal constructions in Latin America sheds light on the context of this study, which sets the stage for a presentation of research that investigates several socially disjointed environments that represent the spatiotemporal conditions present in much of the contemporary Latin American urban landscape. This work has involved the participation of undergraduate students, graduate architecture students and faculty at Universidad Piloto de Colombia. The design research addresses the conditions of the emergent conditions of Latin American cities through participatory action research. Aspects of this research have been introduced into a design research studio setting where students have mapped the urban conditions and levels of forced displacement. Over the past 4 years, a network of private and public institutions and a NGO have worked with a vulnerable community located at the southern periphery of Bogota, Colombia to articulate alternative visions for future development than what has been scripted by the local planning department. The physical transformation of several strategic points of their neighborhood has begun through processes of 'autoconstruccion'. This paper outlines these processes and the observed impact that the transformation of the built environment has fostered in the community.

KEYWORDS: Participatory Action Research, Emergent Architecture, Insurgent Architects, Co-creation, Post-Conflict Architecture

INTRODUCTION

In an age that has become interested in urban issues at the planetary scale, it is advantageous for architectural design research to bridge the micro, meso and macro scales of the built environment. This article addresses the macro by comparing statistics, then by outlining the disparities between 'the urban condition(s)' found in North and South America. A more nuanced description of the uneven conditions of geographical development found in formal and informal constructions in Latin America sheds light on the context of this study, which will set the stage for a presentation of research that investigates the socially disjointed environments common in the spatiotemporal conditions of the contemporary Latin American city. This work has involved the participation of undergraduate students, graduate architecture students and faculty at X University. The design research addresses the conditions of the emergent conditions of Latin American cities through participatory action research. Aspects of this research have been introduced into a design research studio setting where students have mapped the urban conditions and levels of forced displacement. Design models and prototypes have served as important artifacts to develop consensus among several stakeholders. Over the past 4 years, a network of private and public institutions and a NGO have worked with a vulnerable community located at the southern periphery of Bogota, Colombia to articulate alternative visions for future development than what has been scripted by the local planning department. The physical transformation of several strategic points has begun through processes of 'autoconstruccion'.

1.0 PROJECTING URBANIZATION

"Space and time, the material foundations of human experience, have been transformed,
as the space of flows dominates the space of places." (Castells, p. 1)

The rate of urbanization across the globe reached an important milestone on May 23, 2007 when urban dwellers surpassed rural inhabitants. The United Nations Department of Economic and Social Affairs estimates that urbanites reached 55% of world population in the decade that followed and will be 68% of the global population by 2050. The sheer numbers are daunting when milestones of the past century are situated next to current numbers. For example, in 1950, 750 million people lived in cities and now there are over 4.2 billion urban inhabitants. In many regions of the world it has become nearly impossible to create accurate projections necessary for the infrastructural planning to accommodate such rapid growth.

The numbers are consistent across the Americas and demonstrate similar levels of urbanity at just above 80%. However, looking beyond the numbers it is clear that the similarities stop there. The qualities of urban life are quite different in the global north when compared with the global south. In 1934, Thompson and Whelpton of the Scripps Foundation for Research in Populations Problems presented their findings to the Natural Resources Board. This study indicated the projected linear growth that would maintain a level of constancy for US citizens due to the careful appropriation of resources. Though simplified and not predictive of the impact that other major world events had, the growth of the United States has followed the predicted pattern. The patterns of urban growth and the conditions of the built environment in Latin America are starkly different.
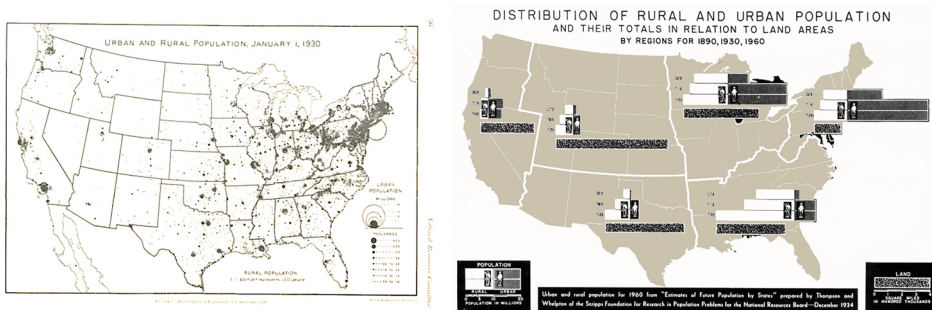
Figures 1 and Figure 2: Maps from a 1934 report by Thompson and Whelpton of the Scripps Foundation for Research Source: (Original by Thompson and Whelpton and modified by Author 2018)

The availability of resources and technology has become comparable, yet differences in the accessibility and level of development of the infrastructure demonstrate the disparity. Manuel Castell's conceptualization of information networks and their impact on urbanism established a useful framework to understand the impact of the "Spaces of Flows" on the urban conditions late in the twentieth century. Several decades into the 21 century, however, it has become necessary to reframe this argument. Castell's account of ubiquitous computing and digital platforms for the transmission of information raised questions about how physical infrastructure would be transformed when information moves without the need for the physical manifestation of this exchange. However, the volatility of climatic conditions, violence and political turmoil have actually caused the forced displacement of over 68 million people.

The design research included herein addresses the question of architectural agency in contexts where the "flow" of people has not ceased. This paper introduces a shift in inquiry that addresses the instability of urban centers and seeks to understand the implications of the accelerated growth that has occurred due to the reception of people who have been the victims of forced displacement. The invitation of this conference asks for narratives that illustrate the role of academics and researchers to apply design research and how this has affected praxis. The research of this paper will outline how the author is mapping and confronting the precarious conditions associated with forced migration in Latin America.
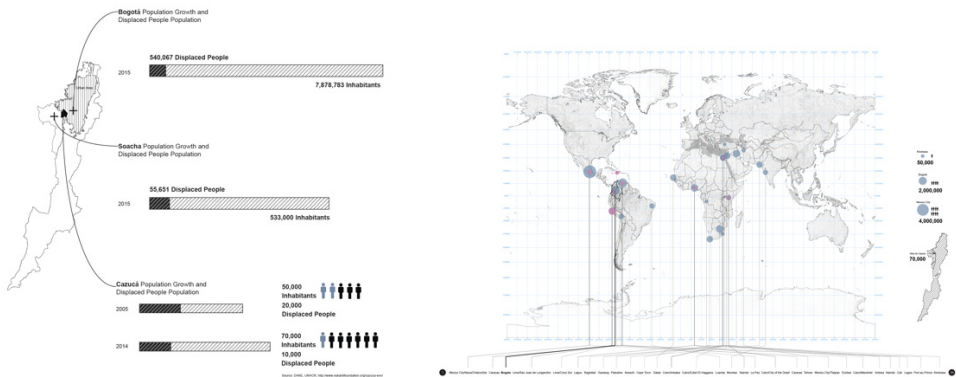
Figures 3 and Figure 4: Data visualization of displaced citizens inhabiting Cazuca and Map of Slums across the world.

2.0 IMPACT OF INTERNAL DISPLACEMENT ON LATIN AMERICAN URBANIZATION

Architectural histories have presented Latin America development through descriptions of the uneven socio-politico circumstances found in many territories. This is categorized as formal and informal constructions and the tensions between these dimensions. In Colombian cities, such as Bogota and Medellin, the informally settled periphery has become a point where citizens (many who have been displaced due to the armed conflict) have inhabited spaces where sovereign power and bio-power coincide. Moreover, the role of the designer and the agency of the object of the constitutive entanglement of the material and the social are charged conditions, as the built environment becomes a tacit artifact embedded with these tensions. (Knorr-Cetina 1997, Latour 2005, Orlikowski and Scott 2008).

Latin America has a violent history that has been punctuated with war and governmental turmoil. In the case of Colombia, the nation is entering a new phase after a fifty-year civil war against guerilla rebels. The Revolutionary Armed Forces of Colombia (FARC) and the Colombian National Government reached a peace agreement in 2016, which established a clear route for the demobilization of this left-wing guerilla group. The bilateral cease-fire has permitted a certain level of settling to occur, yet a great number of afflicted citizens have sought refuge in urban centers and have populated the informal developments found at the periphery of cities, such as Cali, Medellin and Bogota. Colombia is the country of the highest number of internally displaced people (IDP) in the world. According to the Internal Displacement Monitoring Centre more than 6.5 million Colombian citizens have been displaced. There was an estimated deficit of one million housing units in the urban environments in 2011. The Colombian government allotted 583 million dollars in 2013 for the construction of low-income housing to help alleviate the stress of this tremendous influx of urban residents. These funds have been injected into new housing projects, which are beneficial to some extent. However, the existing favelas have also absorbed the problematic without the proper tools or resources to navigate this situation in a satisfactory way. Most of our work has been under the pretext of "insurgent architecture" and with the methodology established by Orlando Fals Borda's "Participatory Action Research." We have built co-creation projects that have provided us with valuable insight. Our current focus, however, takes a step back to understand how the contemporary issue of exacerbated levels of human migration is affecting urban centers.

3.0 RESEARCH QUESTIONS

What agency does design have when enlisted for the service of these people? Can the co-creation of the built environment strengthen vulnerable communities? What tactics are worth replicating? The content herein focuses on architectural responses that I have been involved with as a way to study and engage Colombian communities that have been affected by violence and displacement both directly and indirectly.
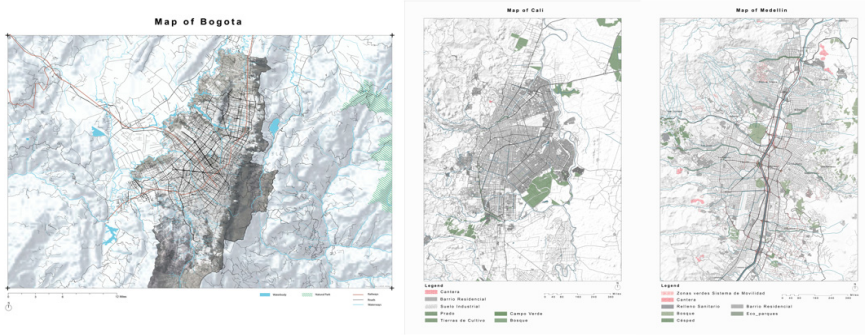
Figure 5: Maps of Bogota, Cali and Medellin. Source: (Author 2018)
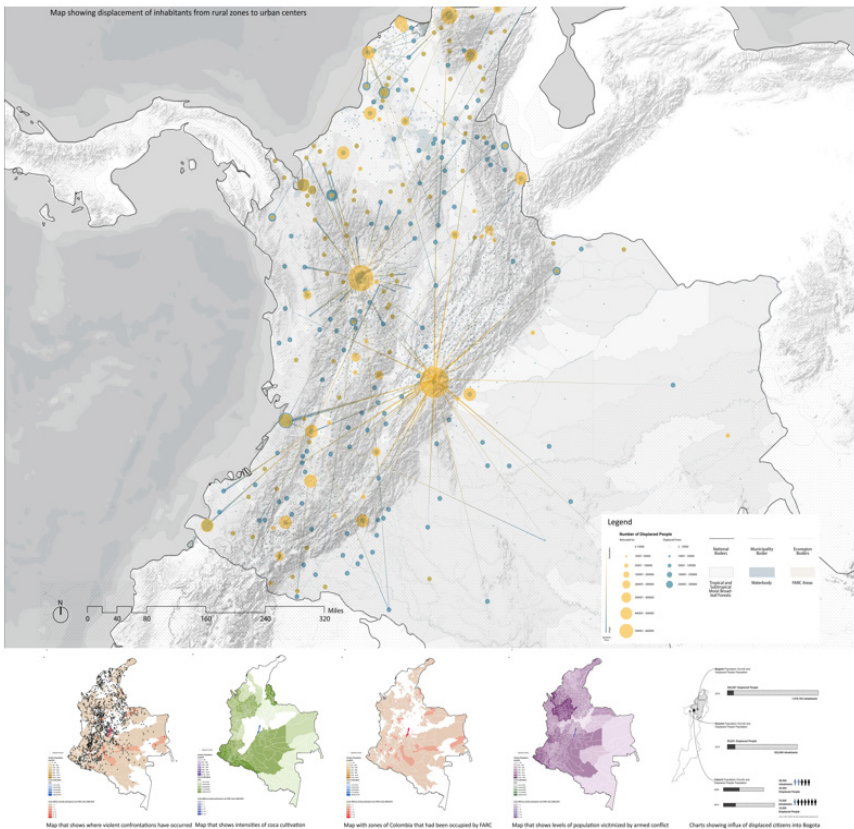
Figure 6: Data visualization maps that trace expulsion and reception of forcibly displaced citizens. Source: (Author 2018)

4.0 FORMS OF PRACTICE - PARTICIPATORY ACTION RESEARCH

> "The freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights." - David Harvey, The Right to the City

There is a fundamental role of practice in this research. We have been working with a community in the neighborhood Altos de Cazuca of Comuna 4 of Soacha. This community is involved in this research because they have acknowledged sub-levels of development in their local infrastructure which they seek to address proactively. Their involvement with this investigation is conditional: they have agreed on the premise that the academic expertise

offered will be translated into tangible results. Recognizing the importance of understanding displacement from rural areas, we have also worked with a community of peasant farmers and indigenous groups.

The research methodology that has been chosen for this work is classified as Participatory Action Research(PAR). A Colombian sociologist, Orlando Fals Borda, provided a framework that we have opted to respect. According to Fals Borda, the use of PAR has "grown worldwide due to its pertinence to the initiation and promotion of radical changes at the grassroots level where unsolved economic, political and social problems have been accumulating a dangerous potential. PAR claims to further change processes in constructive non-violent ways due to its emphases on awareness building processes." At the intersection of this research, civic engagement and teaching, we are working to further understand the role of design activism and how it can affect communities facing the complexities of displacement.

Two projects are used herein to demonstrate how we are working with displaced peoples and fragile communities in Colombia. The first is a park and the second is a gathering place. These projects have engaged students and community members with whom we have sought to analyze symptoms, identify cracks and take action at the scale of urban/rural acupuncture. The use of tactics, as described by Michel de Certeau, is used to exploit gaps in the playing field and to form projects of co-creation that have the potential to generate novel and inventive outcomes.

The first case study is being developed with a community in the periphery of Bogota. One particular example with them is the work of co-creation being done on a lot that had become a deposit for demolition waste. Before actually starting to think about landscape architecture, the challenge was to activate the community and to catalyze discussion and action. Several years of workshops with inhabitants of every age group helped change the paradigm of what it means to be an empowered citizen. Interaction with local authorities has led to mixed results which has meant that the inhabitants have assumed active roles in the planning and construction of public space. Thus the park shown here became a project that was designed and built with the San Rafael neighborhood in Cazuca.

Figure 5: Image on the left is a rendered plan of park and was developed with my students after several meetings with the community. Image on the right is a photograph of the park in development.

At the other end of the spectrum is a project that I have been involved with in Santa Rosa de Cabal in the coffee region of Colombia. The project is called MinkaLAB and the name is derived from the word minga which signifies collaborative work to the indigenous communities of the Andes Mountain Range. My main contribution has been the design and construction of a Maloca, a ceremonial dwelling common to many of the indigenous tribes of the Amazon and in the Andes mountain range. This has become the gathering place for cultural encounters, including the annual minga, a collaborative exchange, between a diverse population that

includes, but is not limited to; members of various indigenous tribes, designers, farmers, urbanites and collectives, architects, psychologists, medicine men, chefs, etc. This gathering has created a platform for exchange between a diverse group of participants who share the common goal of keeping ancestral knowledge alive and promoting healthy ways of living. In this case, the development of the event/platform is a tactic that is part of a larger strategy that involves heightening levels of consciousness through the sharing of knowledge. While this has traditionally served as a vehicle to perpetuate one's own culture, our collaborative work together resituates the idea of 'norm' and asks what it could be. This is particularly timely in the context of Colombia as the government is currently navigating the paths with the most potential to meet the needs of displaced citizens. One particular observation is that though many have fled to urban centers, rural life is actually preferred and desired.
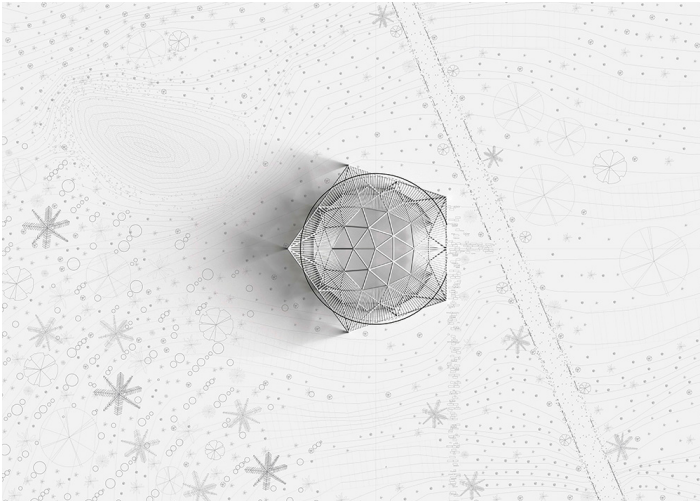
Figure 6. Image is a site plan of the Maloca that was constructed with MinkaLAB by author's design firm

5.0 INTERFACE WITH THE "NON-STANDARD" DESIGN STUDIO

The pedagogical aspect of this work has served is an exploratory space for architecture students to become aware of issues that lay outside standard scope of architecture. The series of studios has developed narratives that address the strange nature of our reality that is anything but standard: The prompt for the students stated, "We are situated on planet earth in an epoch unofficially known as the Anthropocene. We reap the benefits of an industrialized, technologically advanced and connected society; however, we also inherit the consequences, which include political instability, de-territorialization, accelerationism and environmental catastrophe. Confronting these truths means that we must question the "standards" which regulate service and industry and the "standard" modes of architectural practice." Students who chose the Nonstandard Studio were challenged to think critically about the role of design amidst volatile global conditions. Participants were encouraged to think outside of the box and create hypotheses about what agency design and architecture have to address these conditions. Digital tools were used to probe these conjectures and take projects a step further. Modelling, simulation, visualization and fabrication served as iterative procedures that were vital for a rigorous and revealing design process. Mapping with GIS and analyzing the data available were two of the activities that allowed students to trace displacement, analyze the relationship to territorial occupation and visualize this phenomenon through geographical notation. This part of the design research shed light on the way that instability of forced displacement has influenced the cultural production of the built environment in Latin America.

CONCLUSIONS

This research is on-going and has yet to be conclusive. Up to this point, one lesson worth sharing and discussing is the degree of difficulty that developing these projects entail. Places in such a state of flux do not easily permit strategy to be planned, enacted and studied.

Maneuvering changes in politics, economic conditions, zoning and trade agreements are but a few of the variables that will affect the building industry in the post conflict era. As these issues are outside the control of a designer, it is futile to develop a strategy that is obsolete before it can be carried out. Therefore, the focus must be on tactics. In The Practice of Everyday Life, Michel de Certeau explains that a tactic is set up "on and with a terrain imposed on it and organized by the law of a foreign power." As architects, we understand that we "must vigilantly make use of the cracks that particular conjunctions open in the surveillance of the proprietary powers. It poaches in them. It creates surprises in them."

The case studies included in this article shed light on several ways that acts of co-creation are being developed in Colombian communities. It is premature to offer conclusions and so in lieu of results; this paper articulates how we are probing dis-junctions in the post-conflict context of Colombia that has left a massive amount of people displaced and living in precarious habitats. The tactical acts being undertaken in both urban and rural areas are used to illustrate innovative forms of developing stronger communities through conversation, collaboration, co-creation, design and construction. The provocation is that the dissemination and debate of this work will lead to another level of articulation that would be of benefit for architects confronting design problems for populations that have been displaced.

ACKNOWLEDGEMENTS

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