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<http://www.cumulustomumbai2015.org/>

Water and architecture for social and environmental reconciliation in Colombia

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Abstract: This Paper refers to an investigation that identifies certain aspects of the complex social and environmental problems that take place in Colombia and intertwines them trying to find spatial solutions. The investigation thus seeks theoretical and spatial proposals in which nature, water and the population affected by conflict meet and reconcile through architecture. I pose, as hypothesis, that such reconciliation may take place in distant and exuberant regions of Colombia through a participative approach to an architectural project that derives in a congregational location such as a public bath and water treatment facility that may offer therapeutic treatment to trauma, promote the development of the community through tourism and an adequate use of water and that may also stimulate and facilitate equal and transparent encounters between human beings and between them and nature recovering concepts from traditional and popular global cultures that enhance the therapeutic benefits of this natural resource.

Key words: *water, architecture, environmental reconciliation, social reconciliation, Colombia.*

1. Introduction

If the contemporary refurbishment of traditional thermal facilities, these days no longer based on the therapeutic virtues of 'taking the waters', entails a welcomed rescue of the bath for the collective realm, it is at the same time a sign of the extension of the cult of the body in our opulent societies. This healthy hedonism, which leaves behind ages of negation and repression, is at the same time a reflection of golden decadence, and also a mark of the prosperity and leisure of the West, which contrasts with the hygienic and sanitary shortages in many destitute regions of a world whose horizons already herald the new water wars (Fernández-Galiano, 2009)

Colombia possesses exceptional natural potential. Out of all its diverse geographical areas, those with the most startling landscapes and water sources are usually found in the most forgotten and distant regions in Colombia. These regions, despite their environmental wealth, are scenarios for violence and forced displacement. That is why these places and their population require special attention and vindication. They must be reconstituted as spaces for interaction and reconciliation between human beings as well as between humans and nature. Architecture (understood as a mediator and facilitator in the coexistence of human beings and nature) presents itself as the ideal space for this encounter to take place.

This investigation aims to identify certain aspects of the complex social and environmental problems that take place in Colombia. It presents, based on what is studied, theoretical and spatial proposals in which nature, water and the population affected by conflict meet. Water is understood as an element that can benefit a community through its adequate use, treatment and promotion; that is also necessary for therapeutic healing of physical and emotional trauma, and for collective reconciliation and reparation; likewise, the therapeutic capacities of architecture are explored when it deeply interacts with water and with the natural and social habitat in which it is placed.

It has been necessary, for the development of this investigation, to gather, analyze and confront documentary and cartographical information of sites that exhibit water abundance and of those that have been scenarios of violence and of forced displacement. The coincidence in space between both phenomena is alarming as may be observed in figure 1. Most locations that present critical social conditions present water abundance as well. Water abundance in Colombia is usually found in remote areas that are far away from populated centers and that have been forgotten by the central government; and this is partially due to their abrupt topographic conditions, vegetative density or great physical distance that results in the lack of access roads. These areas therefore lack state presence and development investment and are thus more vulnerable to criminal presence or actions. In these areas that are rich in water sources and rain there is a historical and natural propensity to find illicit crops, criminal presence and illegal mining activities and are therefore areas where violence has occurred and has left an impact on the population and its relation with nature.

But this same water abundance that unfortunately favors illegal coca crops and mining and thus leads to violence and forced displacement, may also contribute to social, economical and environmental reparation. The question is how to enhance water wealth in these remote places and communities that have been neglected and have experienced forms of violence, so that it may help restore and revitalize their social and economical

balance, repair their human synergy and the connection with nature and the territory they inhabit?

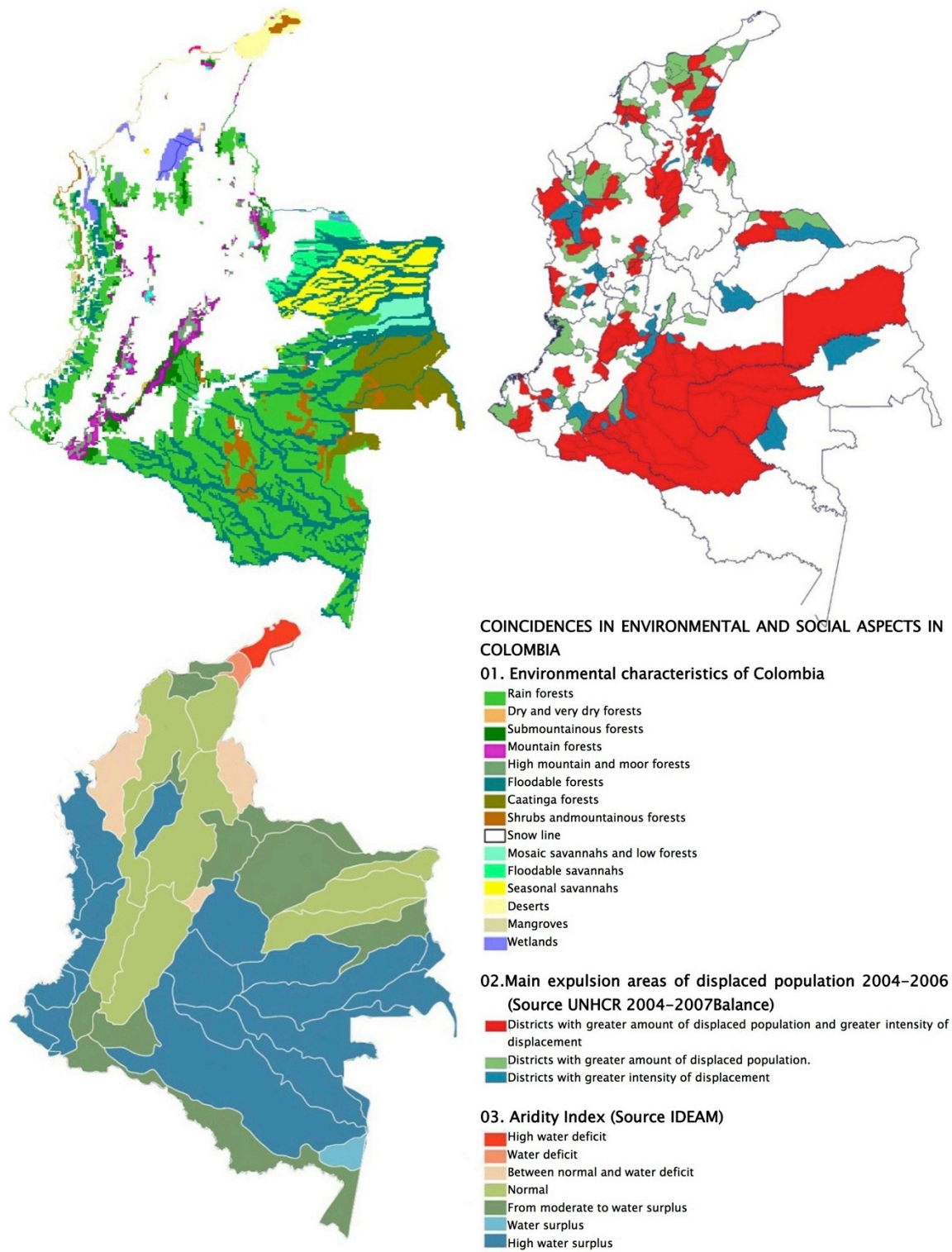


Figure.1 Coincidences in environmental and social aspects in Colombia

As the question just posed, many other questions that lead the investigation appear once case study locations are chosen and studied. These case-study locations derive from the shocking coincidences already exposed in the previous paragraph when confronting natural and social cartography and data. How should these public baths/water treatment facilities for meeting and reconciliation be? What type of community facility are we talking about, and what economic and participatory model can make them viable? How can architecture help face the severe conflicts that take place in Colombia when taking into account environmental issues?

Architecture, in general, and thanks to specific public policies, commonly delivers spatial solutions to social initiatives coming from areas such as education, sports or health. Government or non government organizations identify needs and absences in communities, develop community based initiatives and later call architects to give spatial and formal expression to their proposed solutions. But we are lacking spatial initiatives that are initially thought, conceived and developed by architects interacting with other disciplines, and that can contribute to physical and emotional reparation and that may, at the same time, promote reconciliation with the environment and with population at risk. This investigation suggests attempting a reflection on the meaning of corporeal encounters with nature and our congeners. The hypothesis is that such reconciliation may take place in a congregational location such as a public bath and spa, that also serves as a water treatment facility, a touristic destination and a space to promote water awareness, and that by means of its construction, constitution and management may stimulate and facilitate equal and transparent encounters between human beings and between humans and nature. It should be noted that the design and construction of spa and bath buildings is becoming more frequent in the international contemporary scene promoting exceptional, often expensive touristic destinations and that these spaces are conceived to benefit privileged social groups in social and cultural contexts that are generally exclusive. But these recent high quality architectures, developed under refined parameters and by well-known professionals, may serve other purposes as spatial references for the design, in situations of crisis, of public and free facilities that are environmentally sensible and socially responsible and that may benefit the most marginalized and disadvantaged groups that live or have been displaced from rural areas. On the other hand, water treatment facilities may benefit communities but usually lack any architectural or touristic interest, do not provide any educational or awareness program, and are thought as industrial facilities rather than eco and touristic friendly infrastructures that promote awareness. In this investigation both a bath and spa and a water treatment facility may come together and to terms through the adequate use of architecture in water focused environments.

Traditional and popular examples of pre-Columbian, Eastern and Western cultures serve as well as more general and theoretical cultural references to be taken into account in this investigation and proposal.

The baths or spas (acronym for *salus per aquam*) that are expected here, based on theoretical logic and political initiatives, are thought of as public facilities designed and built through a participatory process with the community; that may stimulate the return of displaced populations by means of a concrete purpose, draw a positive and tangible attention towards marginal and remote areas of the country through eco-tourism, promote the regeneration and improvement of their economical and social structure through economical and cultural strategies based upon the diversified and rational good use of water (ex. Treatment and distribution of drinking water with origin denomination and education on its adequate use and preservation) and, above all, that serve as therapeutic spaces for the physical and emotional reparation of communities to take place. It is expected that the architectures to be proposed may be socially and environmentally responsible and may serve as models for future innovative community public facilities throughout the country establishing a common goal but through singular environmental and social emplacements.

2. Forced displacement in Colombiaⁱ

Forced displacement in Colombia is a complex phenomenon that takes place because of a great concentration of land in the hands of a few landowners, because of actions associated to drug trafficking, because of the placement of landmines, massacres, guerrilla and paramilitary offensives, and even because of the demobilization of illegal armed organizations.

The diverse actions and consequences that generate displacement as well as the multiplicity of actors involved make forced displacement in Colombia a situation of broad dimensions. Even though there is no precise figure, at least 5,000,000 people have been estimated to forcefully abandon their places of origin. The UN also establishes that forced displacement of persons in Colombia grows at a rate of 150,000 people per yearⁱⁱ

Due to this alarming situation, in 2004 the Constitutional Court declared an unconstitutional state of affairs in the matter of forced displacement that remains current. This declaration means that the Court has found a high amount of massive, repetitive and generalized violations of the fundamental rights of the people involved, and a prolonged omission in the fulfillment of the authorities' obligations.

In order to overcome these diverse situations, International NGO's and public and private entities have launched strategies to solve and monitor the development of actions. In addition, processes have been established in order to reincorporate illegal armed groups into civil life as well as provide the means to ensure the rights leading to truth, the fulfillment of justice and reparation for the victims of Colombia's internal conflict. Since 2004 there have been more 50,000 demobilizedⁱⁱⁱ and before they find a place to live and work they go through a transitional stage in places that are adapted to serve this purpose. The spaces that this paper proposes may serve this reintegration purpose as well during a transitional stage.

In 2008 the Congress of the Republic enacted a new displacement law, and the Constitutional Court called on academia to coordinate the efforts of those experts on the subject. This was done so that experts' recommendations would be translated into judiciary mandates, and all efforts could be maintained to overcome the unconstitutional state of affairs that is still current. This proposal, that is thought to involve students and professionals from various disciplines together with communities can be understood within this academic framework.

3. Natural conditions in Colombia^{iv}

A great portion of the Colombian territory is covered by forests. The rest of the territory is made of savannahs, moors, wetlands and dry areas. Nowadays, 60% of the country's coverage remains without substantial changes, while the remaining 40% has been intervened on, generating substantial changes on the ecosystems. That is why it is pertinent to point out, by all means, the importance that ecosystems have for a society establishing a connection between the radical transformation of the landscape and the loss of goods and natural services that generates marginalization, impoverishment and armed conflict.

Colombia presents an annual rainfall that is around three thousand millimeters. This amount of water is enough to generate a considerable torrent that feeds rivers, brooks and all sorts of storages. This water offer, at a world level, is six times the average offer and is three times the amount of water in Latin America. If this offer were to be distributed in a year per person, each person in Colombia would have 53,000 m³ of water per year. In other countries an inhabitant wouldn't receive even 1,000 m³ per year. But the water surplus in Colombia has unfortunately led to a great amount of waste, ill treatment and to a complete lack of consciousness in the adequate handling of natural resources.

If water resources and population density were confronted, we could see that the majority of the Colombian population is concentrated in a central mountainous region that has less water supply if compared with other less populated regions such as the Pacific, Amazon and Orinoquia basins. With a dreadful handling, rivers that are close to cities and towns in the center of the country are profoundly contaminated, while the great water basins in the periphery of the country that are environmentally intact present serious social problems.

Actions such as contamination or violence that negatively influence water and human life, demonstrate deeper deteriorative problems that both the environment and society face. Colombia, in the stage of a serious armed conflict, also experiments environmental deterioration that threatens its great water wealth. Social and environmental reparation in this country is not only needed, it is complementary.

4. Architecture and water

Hydrotherapeutic practices that consist of water usage as a therapeutic agent have been performed in the West since ancient Greece. Later, with Roman civilization, hydrotherapy had a great reception associated with social interaction, as may be understood by the enormous baths of Caracalla, Diocletian or Trajan. Running parallel to hydrotherapy, there are many and diverse traditions that use water in rituals associated to corporeal and spiritual purification. We can find immersions in pre-Columbian South American cultures, saunas in the Scandinavian Sami, Onsen or thermal baths in Japan, Islamic hamam and Jewish baths, Indian and Indonesian spas or the thermal baths in Rotorua, New Zealand.

The therapeutic properties of water allow us to provide an elementary and natural basis for the treatment of physical and emotional alterations in human beings. The location in which these practices take place becomes crucial in the effectiveness of such treatments. Architecture associated with the construction of baths, thermal baths, saunas or spas demand such precise spatial and technical considerations that results often become significant built examples in both cultural and disciplinary aspects. On the other hand, the usage of a sacred natural resource in sensible locations requires architects to take into account special environmental considerations. Peter Zumthor's Thermal Baths in Vals, Switzerland or German del Sol's Landscape-spa in Puritama, Chile are great architectural examples that allow us a glimpse into the enormous potential that architecture could reach in order to regenerate or re-establish a deteriorated social and environmental fabric through the strengthening of bonds with nature and water. Architecture as a recipient of both nature and humans in baths, spas and water treatment facilities may well serve this purpose if society shifts its understanding and

implementation, from an elitist and hedonist commodity to a public and environmental necessity.

5. Conclusions

This research hopefully leads to a concrete implementation. It is necessary to identify more accurate case study sites in areas where there is a strong cartographic correlation between water abundance and social deterioration. For this to happen it is necessary to find expert advice on environmental and social issues that may help determine specific procedures to initiate work with communities and sites. It is therefore necessary to organize an interdisciplinary team that can inform the construction of a theoretical model and trigger spatial models. In the first phase I have made contact with architects Antonio Manrique and Carolina Blanco and psychologist Juan Pablo Aranguren who actively works with the reintegration and demobilization program. It is necessary to further the discussion involving experts from disciplines that may inform the project. Field work, community interaction and the subsequent implementation of the economical model can benefit from areas such as anthropology, economy and business administration; and the inclusion of academic and government programs in peace building may contribute to the inclusion of this project in future development initiatives in country and regional programs. Once case study sites have been identified, and before the implementation stage, an academic space will open as an experimental field, while students engage in the spatial resolution of issues of national relevance.

From 2016 on an academic unit made of 30 students, three interdisciplinary professors and under my supervision and coordination begins in the Faculty of Architecture and Design at Universidad de los Andes in Bogota, Colombia. The aim with this unit is to explore spatial possibilities of the theoretical model and its possible implementation in specific sites. This will be one of several initiatives within this unit that is oriented towards the understanding of the role of Architecture in conflict and post-conflict in Colombia. Within this unit preliminary visits to case study sites will be made. Drafts to serve as prototypes for some of the sites and selected communities will be developed. The theoretical reflection on the subject will take place in parallel. It is essential to plan a strategy for community outreach as well as to find public and private support to submit the project for concrete implementation. A web space concerning the entire process, and an audiovisual documentary following the strategy are intended as products that may help socialize and fund raise for the construction.

The cooperative work will thus lead to the design of architectures in natural landscapes that promote the return to rural areas after forced displacement; will generate work in both the construction process and the subsequent implementation of public infrastructure understood as baths, spas and water treatment facilities; will promote national and foreign tourism generating awareness and attention to locations that are both socially and environmentally vulnerable; thus stimulating local economies. These architectural spaces in relation with water will also be consulted with the national government so that they may become part of a new network of infrastructure services. As said before, architectural infrastructure has been understood as buildings that help cover basic needs related to education, culture and sports. But these baths/spas designed and built through collaborative work will promote communal and environmental cohesion in marginalized and forgotten settings in a therapeutic manner that conventional public infrastructure does not procure or provide. Moreover, these spaces will have an important participation in the transitional period that Colombia will soon undergo, due to all the initiatives aimed at a peaceful resolution of the internal armed conflict. The spaces will serve as transitional locations for the incorporation into civilian life of those that have been demobilized; and will offer adequate environments for the therapeutic reparation of victims in a natural and architectural conciliatory stage. A reconciliation between architecture and water is expected to "take place".

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ⁱⁱⁱ (Agencia Colombiana para la Reintegración, 2012)

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