

Smart Cities, Morphology of the Uncertain: A Study on Development Processes Applied by Amazonian Cities in Ecuador

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Abstract : The world changes constantly, every second its properties vary due either natural factors or human intervention. As the most intelligent creatures on the planet, human beings have transformed the environment and paradoxically -have allowed 'mother nature' to lose species, accelerate the processes of climate change, the deterioration of the ozone layer, among others. The rapid population growth, the procurement, administration and distribution of resources, waste management, and technological advances are some of the factors that boost urban sprawl whose gray stain extends over the territory, facing challenges such as pollution, overpopulation and scarcity of resources. In Ecuador, these problems are added to the social, cultural, economic and political anomalies that have historically affected it. This fact can represent a greater delay when trying to solve global problems, without having paid attention to local inconveniences -smaller ones, but ones that could be the key to project smart solutions on bigger ones. This research aims to highlight the main characteristics of the development models adopted by two Amazonian cities, and analyze the impact of such urban growth on society; to finally define the parameters that would allow the development of an intelligent city in Ecuador, prepared for the challenges of the XXI Century. Contrasts in the climate, temperature, and landscape of Ecuadorian cities are fused with the cultural diversity of its people, generating a multiplicity of nuances of an indecipherable wealth. However, we strive to apply development models that do not recognize that wealth, not understanding them and ignoring that their proposals will vary according to where they are applied. Urban plans seem to take a bit of each of the new theories and proposals of development, which, in the encounter with the informal growth of cities, with those excluded and 'isolated' societies, generate absurd morphologies - where the uncertain becomes tangible. The desire to project smart cities is ever growing, but it is important to consider that this concept does not only have to do with the use of information and communication technologies. Its success is achieved when advances in science and technology allow the establishment of a better relationship between people and their context (natural and built). As a research methodology, urban analysis through mappings, diagrams and geographical studies, as well as the identification of sensorial elements when living the city, will make evident the shortcomings of the urban models adopted by certain populations of the Ecuadorian Amazon. Following the vision of previous investigations started since 2014 as part of 'Centro de Acciones Urbanas,' the results of this study will encourage the dialogue between the city (as a physical fact) and those who 'make the city' (people as its main actors). This research will allow the development of workshops and meetings with different professionals, organizations and individuals in general.

Keywords : Latin American cities, smart cities, urban development, urban morphology, urban sprawl

Conference Title : ICAUH 2018 : International Conference on Architecture, Urbanism and Hermeneutics

Conference Location : Vienna, Austria

Conference Dates : June 14-15, 2018