

URBAN PLANNING IN MOROCCO: NORMATIVE RIGIDITY, ARCHITECTURAL QUALITY AND THE URBAN HEAT ISLAND PHENOMENON

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ABSTRACT

The functioning of cities is closely linked to the use of available resources and energies. After the Industrial Revolution, the modern, energy-intensive model of the city has since spread widely around the world, and is today a model that has been widely duplicated in developing countries. However, this modern model of the city is no longer suited to today's climate challenges. The phenomenon of the urban heat island (ICU) is one of these challenges generated by several determinants (the densification of the city, planning methods, human activities, the absence of nature in the city, used materials...). According to the Intergovernmental Panel on Climate Change (IPCC), the frequency of extreme weather events such as heat waves will only increase, it is essential that cities integrate these considerations into urban planning and the 'architecture.

Nowadays, our modern constructions in Morocco cannot function without consuming energy, thus generating an economic as well as an ecological impact. Talking about energy sobriety in the building, climatic, and social adaptation, or even thermal comfort, remains difficult to date, as habits and construction methods go against any ecological approach. To orient urban design in favor of thermal comfort in the city, two criteria are necessary: The choice of high-performance technical solutions and the choice of sustainable urban development strategies. For this, the awareness of the energy problem and the depletion of fossil fuels have led to review our way of designing and building. The thermal regulation, which appeared recently within the framework of the thermal regulation of constructions in Morocco, will henceforth become the minimum standard below which it will be prohibited to build or renovate.

Starting from the postulate that urban planning documents have a direct impact on the urban form and the practices of the city that it generates– in the sense that they define the location of human settlements and guide their spatial development– our intervention proposes to study how does urban planning, through urban planning documents influence thermal comfort in the city and the urban heat island.

In this context, it was incumbent on us to question the concept of urban planning and architectural regulations, to read it while understanding it in the context of the energy transition. We dwell on the question of architectural and urban quality in its broadest sense in close connection with the regulations, and we study how the latter can influence the phenomenon of the heat island and thermal comfort in the city. We approach this problem through the case of some Moroccan cities. We will try to see how urban planning documents influence thermal comfort and UIC in these cities and show how they could or did not protect themselves from its risks.

KEYWORDS: *Urban Planning, Urban Regulation, Heat Island, Energy Efficiency, Energy Transition*