

Landscape Projects between Land and Sea : A Solution for Restoring Resilience in Coastal Territories Faced with Climatic Risk

After a period of relative climatic stability, the news of the last twenty years has been marked by a succession of disasters affecting urbanized coastal areas, including, most recently, Hurricane Harvey and Hurricane Irma. In addition to these high-profile events, there are also the less-obvious catastrophes provoked by climate change, all of which will profoundly transform coastal territories in the years ahead. Global warming and sea-level rise, accentuated by the risks of marine submersion, could affect areas now inhabited by 280 million people (more than 2 ° C compared to the pre-industrial era, 1850).

Given the intensity of these disasters and the accelerating effects of climate change, coastal territories and their societies seem vulnerable and unprepared. Hard infrastructure responses have too often been proposed as the only alternative to risk: coastal containment, and the construction of infrastructure and defense structures against the incoming sea. However, these heavy infrastructures can have severe, adverse effects on coastal erosion, and it seems unrealistic to protect the totality of our shorelines by infrastructure alone. It simply is not a viable solution.

Therefore, it is clear that a paradigm shift is needed in view of the magnitude of these new challenges. And indeed, a new approach to the management of coastal areas has been under development for some years. This has often been the result of a post-disaster awareness, calling into question the old models of urban development and the engineering solutions usually proposed as a protection system. This emerging doctrine promotes new visions of risk, based on the territory's adaptation to hazards and changes, and it seeks solutions by proposing new landscape-based approaches.

In response to recent climate disasters, some coastal cities have begun to implement this new landscape approach. The purpose of this study is to analyze and compare landscape projects in Charente-Maritime after storm Xynthia, and in New York following Hurricane Sandy. Can landscape projects between land and sea be a solution for making coastal territories more resilient? Through these two case studies, we examine the new concepts put forward in the respective landscape projects, as well as the new visions of the coastal landscape they propose. This study analyzes the bottlenecks that today hinder the implementation of this approach on a larger scale, and identifies the actors that influence and carry out this paradigm shift. Furthermore, this study proposes new avenues for reflection, and actions we can take to better prepare our coastal territories for climate issues through a new culture of adaptation.