

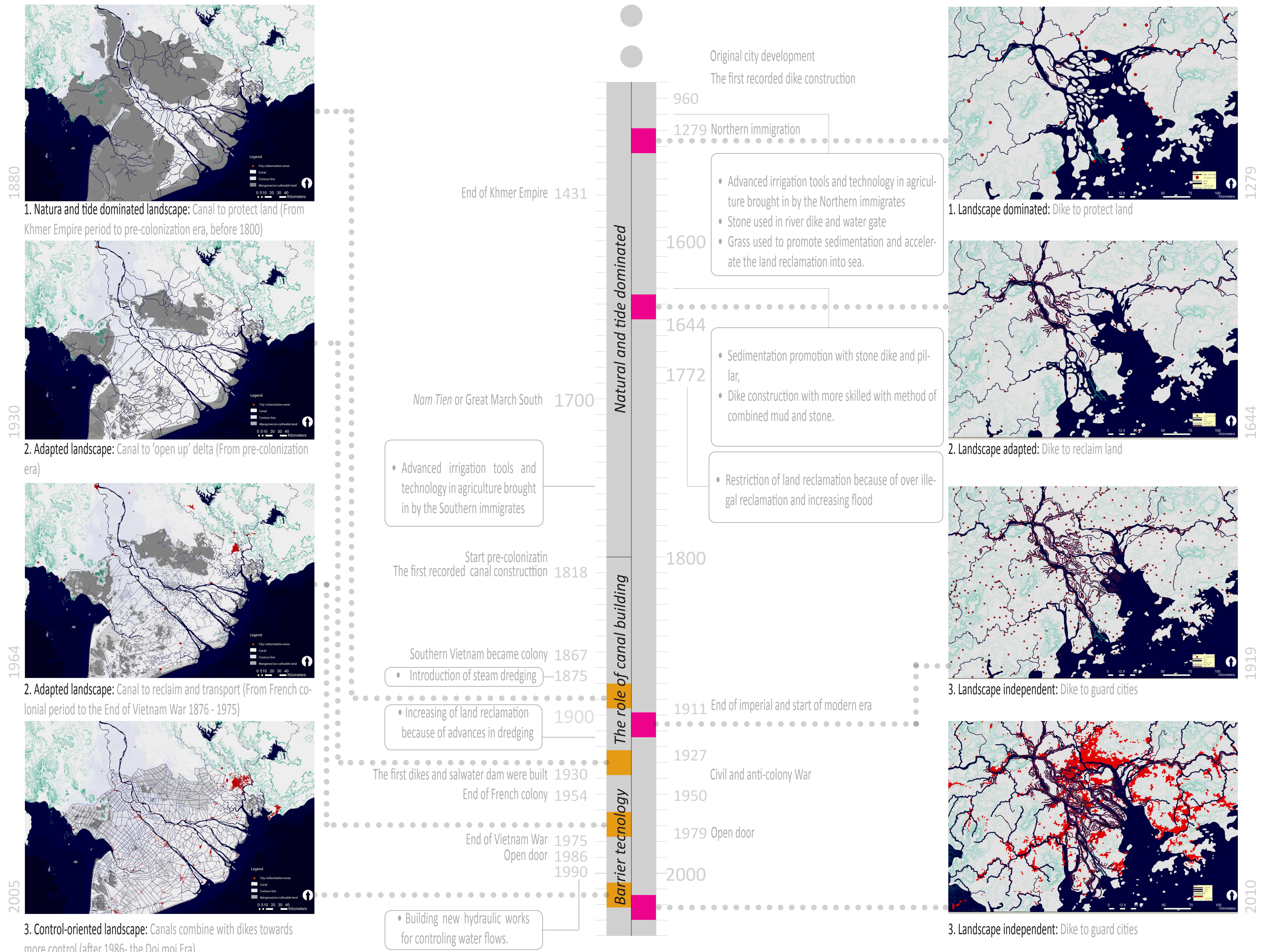
With half of the world's population living in, the delta areas become more vulnerable to the impact of climate change and will face larger pressure to support urban development in the coming century to build upon the specific and unique water-based landscape. This landscape is not only formed by the dynamics of natural forces but also shaped by artificial interventions. As a result of national policies combined with local attempts over the past. Nowadays, many challenges force the delta landscape to adapt to new conditions: rising sea level, changing river discharge, increasing groundwater salinization and subsidence constitute significant and increasing threats to delta cities (Delta competition, 2010). Therefore, it is necessary to develop new approaches, which collaborate among urban design, hydraulic engineering, and water management. Understanding of delta landscape transformation would be a solid foundation for interpreting these new approaches.

Using the Triple- Three- Layers-Approach (Meyer and Nijhuis, 2010), to understand the old approaches of dwelling and water infrastructure in the deltas by demonstrating the landscape morphology, construction strategy, location and section of the dike system throughout centuries, this paper compares the dynamics of two urbanizing deltas throughout centuries: the Mekong River Delta in Vietnam and the Pearl River Delta in China.



Re-intervention and reforming delta landscape

A comparison between the Mekong River Delta and the Pearl River Delta



The result shows the historical interventions tended to change inter-relationship among the layers of landscape, infrastructure and human occupation. These different interventions impacted on delta landscape as well as offered better conditions for urbanization over times.

The Mekong River Delta, in which exhibits a spread out pattern of urban development by the cities along the watercourse, indicating the need to emphasize the role of canal system. However, the Pearl River Delta, with emerging new reclamation areas and high population density, illustrates the importance of re-organizing the dike system built through long history.

Both two cases show the urbanizing delta landscape as a result of the combination of resistant and resilient approaches. The trends from Landscape adapted to Landscape independent contribute to increasing flood threaten. These experiences are not only essential in each delta to introduce delta-specific strategies for sustainable urban development, but also can help other deltas in the world to generate their own approaches in the future.

