



## **Modern Urban Planning in Brazil: Presences and Absences in the City of Santos Urban Expansion Plan of 1910**

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In early twentieth century, the harbor city of Santos has become one of the most important urban centers of Brazil due to the exportation of coffee produced in the state of Sao Paulo, the main product of Brazilian economy. In order to cope with urban development of the city, state government of São Paulo hired the engineer Saturnino de Brito to design, for Santos, a development plan. Completed in 1910, the plan contains important features of urban modern planning of the period as the orthogonal layout of avenues cut by extensive structural diagonals, as the Ildefonso Cerdá's plan for Barcelona (1858), the presence of parkways and the relationship between buildings and urban plan, as the L'Enfant's plan for Washington (1791), and the creation of small squares and gardens in the ends of the avenues, clearly inspired by Camilo Sitte principles, all these references are explicitly mentioned in the engineer's memoirs. The plan intended to face yellow fever epidemics which plagued the city in the last years of the nineteenth century. Modern network infrastructure of water, sewerage, and drainage was based on the flows theory, combining the removal of polluted waters, rapid conduction of rain water; abundant supply of safe drinking water and absolute separation of water, wastewater, and rainwater, measures conceived to avoid the proliferation of microbes in urban rivers. Moreover, there was a clear intention to establish guidelines for urban expansion on the vast wetlands south of the urban core, an idea which land owners welcomed. The bold drainage system, designed by Saturnino de Brito, included extensive canals multiplying the possibilities of urbanization and occupation of these areas. Gradually implemented in the decades of 1910 and 1920, the plan could not avoid conflicts. If the great sanitation works were well received by local authorities and landowners, the urban design elements with beautiful open spaces, parks and parkways were strongly criticized. Expecting to get the land improved by infrastructure, and ready to be built, these owners wanted to fully exploit it, without any interference of a general plan. The "Plan of Santos" as it was known, was used only as guidance for water and sewage networks as well as big drainage channels, the only elements that are still part of Santos urban landscape. Excessive vertical buildings grew in the sanitized neighborhoods crossed by the drainage channels. These speculative processes, present until today, have roots in the dawn of modern urban planning in Brazil.

**KEY WORDS:** Territorial and urban planning, history of urban planning, urbanization.