



Itaipu Fortress, Praia Grande. “Plan of the Village of Santos”, eighteenth Century,. Santo Amaro Fortress,.Picture. National Library/IPHAN/SP. V H Mori

Both (Santo Amaro and Itaipu) were built solidly to last for centuries and reach, unblemished, a new millennium in the surveillance of the seas, beaches, mangroves and cliffs bordering the Bay of Santos

Itaipú Complex (the forts Duque de Caxias, Jurubatuba, Rêgo Barros and support facilities) is located on a small coastal range, which goes through the west coast of Santos Bay. The east coast, with the same characteristics and the same degree of environmental protection, shelters the Andradas Fort (1942), built to protect the port on the eve of World War II.

The *Itaipu Fortress* (1902) in Praia Grande (SP), and *Andradas Fort* (1942) in Guarujá (SP) are from the Republican period and are home to two modern anti-aircraft artillery units.

The Twentieth Century (middle) marked the end of fixed position artillery. Military artillery has evolved from the bow and arrow to space missiles launched from virtual positions.