

CAIS DO CARVÃO COMPLEX – NAVAL CLUB & MARINE BIOLOGY RESEARCH CENTRE 1990-1998, Funchal – Portugal

Client Municipality of Funchal

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Photography José Manuel Costa Alves

The *Cais do Carvão* Complex - comprising a marine biology research centre and the Naval Club that integrates *Quinta da Calaça's* former main house - is located along the beautiful sinuous coastline of black porous rock (as a result of the rapid cooling of the volcanic lava in contact with the seawater). The existing set is an example of the sensitive appropriation of the territory characteristic of the Madeira Island, demanding a study as accurate as possible of the previous transformations throughout history and an evaluation of the current conditions to seek to value its heritage - which is also that of the landscape - composed by the system of stone walls and terraced platforms that are generated; by the house originally built in the first half of the 19th century by Henrique Vitch of neo-Palladian influence of British colonial architecture that spread widely in the city of Funchal throughout the 19th century and which still constitutes a precious heritage in the Island; and, not least, by the arboreal mass and tropical vegetation, standing out a magnificent group of palm trees.

The design proposal sought to strengthen this unique situation, revealing, within its structural principles, a great sensitivity in adapting to the place, through three discrete interventions. Thus, it sought to reinforce the relationship with the ocean, to extend the terrain's organisation with several terraced platforms along the cliff, to minimize the presence of new elements (despite their areas), to reinforce the centrality of the ancient house concerning the set, to remove the parts added over time, and whenever possible to excavate to avoid excessive volumes and liberate the view towards the ocean.

The first intervention consisted of building a long curved wall parallel to the coastline that contains, at the upper level, the Belvedere where one arrives and enters the complex. The second intervention consisted in delimitating a natural platform at the bottom of the Belvedere, reached by descending a stair that frames the ocean below and distributes the access routes. The third intervention consisted of adding two volumes against the cliff, supported by the maritime work of the pier, that extends itself toward the east to welcome the research centre and, to the west, to absorb some external tanks, ending in a ramp that gives access to the ocean. Two emerging vertical elements - a slim tower lift providing direct access to the street and, on the other side of the house, a compact volume leaning onto the slope - establish the limit of the intervention.

The maritime works allowed to increase the solarium areas without compromising the fragile yet fascinating relationship with the volcanic landscape. The built platform was rehabilitated to minimize its impact, creating diving and access platforms to the ocean and a stair to the old beach.

