

The Álvaro Siza's Master Plan, the architectural and structural projects for the reconstruction of Chiado, in Lisbon

Genin Soraya - ISCTE- University Institute of Lisbon, Lisbon, Portugal, soraya.genin@iscte-iul.pt

Iannizzotto Lorenzo Stefano - ISCTE- University Institute of Lisbon, Lisbon, Portugal, lorenzo_stefano_iannizzotto@iscte-iul.pt

Abstract: On 1988 a frightful fire broke out in Chiado, destroying 18 buildings, of which most part only the facades remained. A reconstruction plan was committed to Álvaro Siza, who fulfilled the request to preserve the existing buildings. The bibliography is mainly devoted to historical events, and architectural design options. There are few publications on the constructive and structural interventions, the objective of this study, to allow a broader knowledge about the intervention at various levels and disciplines. This is of particular interest in the scope of the research project "Siza Atlas. Filling the gaps for World Heritage" which aims to contribute to the nomination of a group of Siza's works for the World Heritage List. The subject is analyzed through complementary readings: research of bibliography, documentation from the archive and in situ observations. A comparative analysis of the interventions proves a common method of construction with reinforced concrete structure built in situ. The principal improvement of the plan concerned the public space, recreating paths between the blocks, connecting the lower and upper levels of Chiado.

Keywords: Álvaro Siza, Reconstruction of Chiado in Lisbon, Master Plan, Masonry constructions, Structural reinforcement.

1. Introduction

The *Master Plan for the Reconstruction of the Chiado Damaged Zone* was published in 1991. It includes 26 buildings, from Marquês de Pombal reconstruction, except the Armazéns do Chiado and Grandella buildings. The strategy of the plan was to maintain or rebuild the original elements, the facade, the height and volumetry before the fire. Siza stated that "*It is necessary to maintain the balance of the historical center and not to create rupture when there is no reason for it. In the case of the Chiado there is none. It will continue to be a transition zone between downtown area and the Bairro Alto [1]. The question of the façades was unimportant to me; they could be preserved or not preserved. I felt instinctively that the heart of the reconstruction of the Chiado lay behind the façades, in the blocks [2].*

2. Materials and Methods

The research was principally based on the documentation of the Municipality of Lisbon Archive. It was analysed the Master Plan and Siza's projects: the Armazéns do Chiado, Grandela, Câmara Chaves, Castro e Melo and Leonel. Leonel was the best documented regarding the construction system and stability project. The Canadian Centre for Architecture holds Siza's spoil, but few documents are available online. The method of research consisted of the following phases: bibliographical reading (i); online documentation research (ii); site visits for direct observation of the buildings (iii); and research at the Municipality of Lisbon Archive (iv).

3. Results and conclusions

The Master Plan of Siza proves a great respect for the pre-existence. The original pombaline elements are consolidate or rebuild. The plan prescribes rules, while leaving freedom to owners on the functions and interiors. As has rightly been pointed out [3], this aspect is somewhat reminiscent of the Marques do Pombal plan. In fact, Siza's plan has the same sort of detail, defines the composition of the façades, the height and the depth of the blocks, and in the interior only define the stairs and lift areas.

The buildings are reinforced with concrete structure built in situ, consisting of a waffle slab, supported at the periphery on concrete beams or walls, pillars and a central core of the stairwell and elevator. The foundations are direct through a thick slab. The roof in concrete slab is inclined. The masonry façade is reinforced with a concrete wall on the interior.

The principal improvement at Chiado is the innovative design of the public space. Three courtyards are converted into public spaces, creating passages and pathways; a new metro station Baixa-Chiado and a parking system was designed to manage the traffic.

The plan reaches the detail scale of doors, windows, gates, railings, advertising. Siza studies the window type of the Pombal period, and develops a new modern and simplified system, inspired in the original.

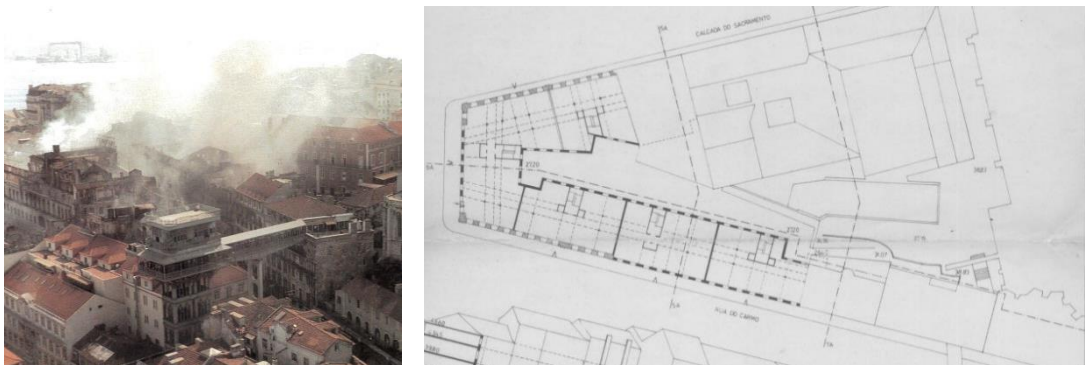


Figure 1. Photo after the fire ([3]. Plan of the Block B, showing two types of interventions for the façades: " to restore" (thicker walls) and "to rebuild" (thinner walls) (Álvaro Siza, 1996).

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