
LISBON - BETWEEN RESILIENCE AND CHANGE: FROM THE 1755 EARTHQUAKE TO THE 1988 CHIADO FIRE

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We intend to emphasize the resilient role of the city of Lisbon destroyed by the appalling Earthquake on 1 November 1755. Reconstructed in the eighteenth century by order of the Marquis of Pombal, it was one of the earliest cities transformed under the aegis of the Enlightenment through a complete modern plan. On 25 August 1988, the center of Lisbon is once again struck by a major disaster: a devastating fire destroyed Chiado, one of the most city's distinctive areas. In the aftermath of Postmodernism debates, several personalities related to architecture and culture as well civil community discussed the future of the affected area. Such a debate was polarized by two opposing views: the rebuilding of the destroyed buildings as they originally, or alternatively, the construction of new buildings with a new design expressing their own time and refusing a historicist pastiche. The assignment of the project to Álvaro Siza Vieira put an end to the debate and gave rise to a new controversy. Siza proposed neither the full reconstruction of the pre-existing buildings nor a radical break with the past. He proposed instead a compromise solution based on the thesis that the affected area integrates a larger unit – the so called Baixa, the lower part of the city reconstructed under Pombal's orders – which, as a "big building", should be "repaired" in order to preserve its identity. Through multidisciplinary approach, we do not only intend to reflect on the urban history of Lisbon, but also to demonstrate that Siza's reconstruction, which started in 1988, managed to reinterpret and to continue the 1755 plan, which has ensured the resilience of Lisbon's identity facing an increasingly globalized world.

Keywords

Siza Vieira, Chiado Fire, Lisbon, 1755 Earthquake, Urban Planning, Urban History, Álvaro Siza, Chiado Fire, Lisbon, 1755 earthquake, Urban Planning, Urban History

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INTRODUCTION

In the morning of November 1, 1755, Lisbon was struck by a violent earthquake (with several replicas tsunami and fire) that ravaged one-half to two-thirds of the city. 230 years after, in August 1988, suffered another disaster: a violent fire destroyed a significant part of Chiado one of the most affected areas in 1755 and whose reconstruction transformed it in one of the most charismatic neighborhoods of the city. Catastrophes such as these are recurrent throughout Lisbon history; in addition to the fire, a constant urban flagellum, on January 26 of 1531 the city already had endured a major earthquake even more violent than the one of 1755. The city has been transformed through calamities by acquiring at the same time, resiliency to such occurrences, as can be seen with the reconstruction of Lisbon ordered following the eighteenth century earthquake which determined the evolution of the urban structure of the city in the next two centuries, ensuring the maintenance of its character and its identity following the Chiado reconstruction.

BAIXA ´S PLAN AND THE CONTINUITY WITH THE OLD CITY

The tragedy of 1755 had an impact in a broad international literature and led to the assembly of a civil protection system and also the establishment of a unique recovery strategy in the Portuguese panorama and also rarely within a European context. It is an absolutely unique and exceptional historic milestone in urban planning and architecture, whose scope is still less unknown at an international level¹. Despite having been developed for over two and a half centuries it embodied a genuine territorial management tool in the modern sense of the term. For the first time in history was conceived and implemented a genuine plan, ie a document incorporating regulatory framework, design and a specific financing system². Implemented in 1758 in order to regularize the city and alter its pre-earthquake urban morphology, the Plan has been prepared with great architectural accuracy and also a highly effective political control in order to ensure, as was stipulated by the Decree of 12 June of that year, the “public utility of regularity and beauty of the capital” against the “private” interests³. Demolishing what remained standing, which we now know was not so scarce, the plan chose to reconstruct ex novo dissipating the memory of such a drama and creating a new city over the remains of the earthquake. It sets also the forthcoming city expansion, committed to the remembrance of the destroyed city, in a strategy repeated on the occasion of the Chiado reconstruction, which by the end of 1980s and in full aftermath of postmodern discussion, proposed the reinterpretation of the plan pursued by Sebastião José de Carvalho e Melo, the future Marquis of Pombal and Secretary of State for Foreign Affairs and War at the time of the rise of D. José I to the throne.

THE MODERNITY OF 1758 ´S PLAN

Supported the theoretical basis from Manuel da Maia Dissertations, the chief engineer of the kingdom and great strategist and urban planner of the process, the Baixa (Lower City) Plan was developed by a team of architects and military engineers led by Captain Eugénio dos Santos and the Lieutenant Colonel Carlos Mardel, the perpetrators of the first real projects, namely the front elevation for ordinary buildings and the design for the square that was going to recreate the former Terreiro do Paço (the once Royal Square) renamed the Praça do Comércio (Trade Square). These are the three main protagonists of the reconstruction of the city which, as part of the reforms of Pombal, has become, for history, “Pombal ´s Lisbon”⁴. Despite historiography have given supremacy to Eugénio dos Santos, author of the plan that has been approved and executed, latest research shows that it is almost impossible to unravel the role and responsibility for everyone⁵.

The layout of new Lisbon ´s plan, epitomized by the grid of Baixa, comprised between the Terreiro do Paço and Rossio, incorporated, in addition to this, the riverside area of Remolares / S. Paulo and Chiado, the intermediate zone between the two and the Bairro Alto (the Upper Neighbourhood), corresponding, as a whole, to the area affected by the fire which followed the earthquake and tsunami.



FIGURE 1 João Pinto Ribeiro, “Planta topográfica da Cidade de Lisboa arruinada também segundo o novo Alinhamento dos Architectos Eugénio dos Santos e Carvalho e Carlos Mardel”, (Topographic plan of the ruined city of Lisbon also under the new alignment of architects Eugénio dos Santos e Carvalho and Carlos Mardel) n.d., copy.



FIGURE 2 Rua do Ouro, one of the main streets of Lisbon's Baixa, 2016

The novelty compared to the old medieval grid, was the introduction of a reticule of longitudinal and cross streets that reordered rationally and pragmatically the Portuguese metropolis, creating measures and innovative solutions such as protection against seismic risk and fire; sanitation and circulation networks; using a prefabrication system of the elements in buildings serialized (window frames, stonework, guard rails, etc.) The Plan also breaks new ground by creating a unit which is generated by the urban scale which dominates the architecture. Architecture and Urbanism will agglutinate, distributing the different types of buildings in a set where churches appear absorbed by the all urban design integrating all the blocks⁶. Lastly, the Plan creates completely unique mechanisms for negotiation with the different developers / landowners, based on edificability redistribution duties resulting therefrom on the basis of pre-existing buildable rights, which is a pioneering experience of what we now refer to as equalization⁷.

From an urban planning point of view, the generative entity of the Plan is the block assumed as architectural unit basis instead of the isolated building, which has no self-expression, as do noted Helena R. Santos⁸ and Walter Rossa⁹ The block is defined by the articulated Streets in reticule and prioritized into three categories (“main, secondary and crossbars”) which are distinguished by different widths and for the morphological composition of the facades¹⁰. It is up to the block to stratifying the several uses in altimetry - the ground floor and mezzanine floor for trade and crafts, the upper floors for housing, which are also hierarchically assumed at the façade design depending on the social status of the residents to whom they are intended. Facades, in turn, obey to strictly design rules having been also all front elevations of street fronts been designed in order to guarantee full control of the volume and architectural expression of the blocks The architecture is thereby subordinated to urbanism, “as it should be in a modern city punctuated by rational principles of practical and symbolic use”¹¹. The matrix of the 1758 Plan for this area of this part of the city, the most affected by the earthquake, remains almost intact in the lower part of Lisbon the Baixa, as we still know today. Its management strategically has played with time, the great doer of the city, by setting since then what should be irreversible: the alignments of the streets and squares which form the open air architecture, namely the large pieces of urban architecture, such as churches and squares Rossio, the Municipality Square (Praça do Município) and the once Royal (Terreiro do Paço) now renamed of Trade (Praça do Comércio), the latter opening over the river and adorned with the equestrian statue of José I, according to the symbolism - but do not the functions from the royal places - as highlighted by Raquel Henriques da Silva - which in France had been disseminating the king’s image throughout the territory¹².

We tend as well emphasize the changes that occur in Rossio, the old eccentric square in the center of the medieval city which since the sixteenth century, became the heart of the popular city. The 1758 Plan regularizes it in a dynamic interplay with the Praça do Comércio and the Rua Augusta, the central axis of the Plan¹³. The Pombal Plan for the reconstruction of Baixa, 1758, was based on an unprecedented rationalism that “announced Western thought of the time that reason emerged as the new enlightenment verification instrument”¹⁴. An Avant guard operation, which goes well beyond its time and is expressed in absence of ornamentation, the refusal of monumentality, the abandonment of strategic priorities, streamlining the layout and design, the standardization, the prefabrication and construction in series, the economy, the subordination of details to general principles, the anticipation and foresight of planning to urban growth¹⁵. Thus modernity contained all the ingredients which are now essential to promote the city: a political program which expresses a vision of future, a negotiation strategy essential to mobilize actors and financial means, public space paths, architectural design rules, technical rules for its implementation, management criteria and a serious utilization of time. This Plan was, as Manuel Salgado once said, “avant la lettre”, what we nowadays not hesitate to designate as a major urban project¹⁶. Lisbon had, of course, other notable periods of its urban planning history such as when Ressano Garcia, in the late nineteenth century, extended the city to the plateau by extending the Passeio Público, a public walk and garden, to the north, or when Duarte Pacheco in the mid-twentieth century, organized the city in which we live today.

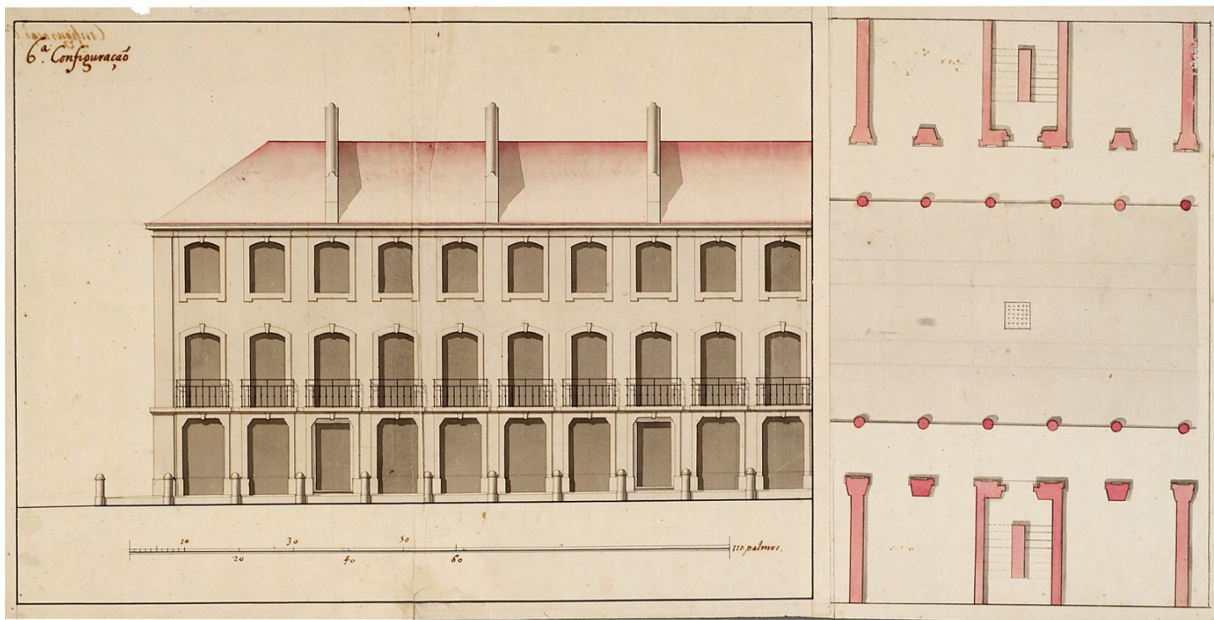


FIGURE 3 Eugénio dos Santos, 6th setting for the buildings of Lisbon's Baixa, 1756

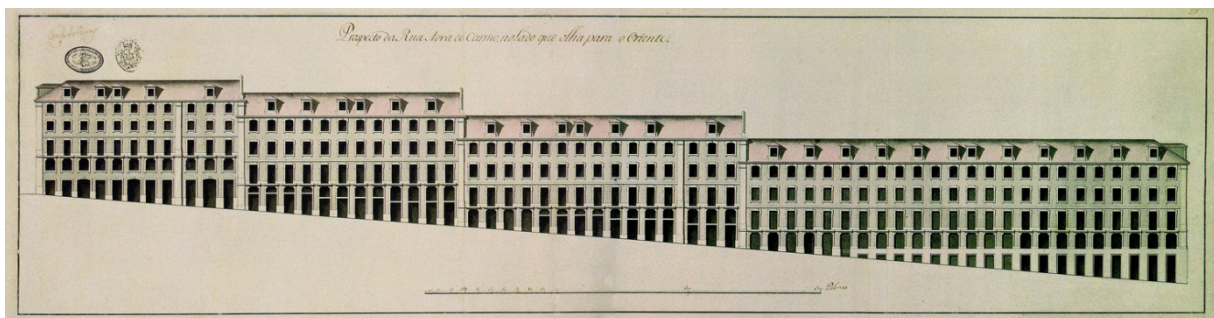


FIGURE 4 “Prospecto da Rua Nova do Carmo no lado que olha para o Oriente”. (Prospectus of Rua Nova do Carmo on the side that looks to the East) n.d.

However, no period compares, by the vision, the audacity of the solutions and uniqueness of the proposals, to the task from those military engineers of the eighteenth century, who conceived and designed an urban set as the Baixa, the scale of a city of a quarter million inhabitants, articulated between two large functional squares which promoted what we today would call a structural grid of the great Lisbon when the Baixa and Chiado were the center of Enlightenment city¹⁷. The significance of this operation was so great that, over time, the city's image turned out to be mistaken with the image from the very reconstruction, so strongly marked by the Praça do Comércio facing the river, the Rossio Square, the cartesian streets with their modular and typified facades, in short, by an architecture in the bone, pragmatic and repetitive¹⁸.

A PLAN THAT HAS ADAPTED

The Plan 1758 took over a hundred years to be completed. Throughout time it was interpreted and adapted, revealing always a great ability to adapt to new realities and needs. Buildings have been subjected to several adjustments and urban space became and multiplied through the creation of new the public life places. Throughout 19th century the block unit with uniform buildings, which determines the character of the urban area, was matter of endurance and devaluation due to a lack of understanding on the part of current practices related to romanticism and then from a an eclectic refusal during the early years of the twentieth century. It became famous the statement Cyrillo Volkmar Machado (a famous artist of the 19th century) on the insipid uniformity and dull austerity of the Baixa buildings: “Lisbon has a monotony that freezes ... with bland and uniform decoration.” The blocks in his “monotony”, were now seen as utilitarian construction, which can be replaceable and transformable. The reaction to the formal and unitary stiffness of Pombal architecture, and the desire to transform its design despoiled and austere, are the source of rupture and transformation impulses that will mark the loose interventions in the Baixa that successively occur from the last decade of the nineteenth century, and in the most radical cases are likely to change the blocks unit¹⁹. Since late 19th century some buildings were replaced others magnified, many changed in its constructive structure, through of new construction techniques which have replaced the wooden cage - first iron and then the concrete - but also were constructed new assets to replace Pombal architecture. The necessity to concentrate more public services, banks, corporate headquarters, the large department stores and the “new” trade, as well as the installation of new means of public transport, such as rail, ferries, trams and public elevators, but also by virtue of various major fires that have devastated the city have forced Baixa to modernize with interventions either in the public space, or at the private buildings. However, despite the profound transformation the urban blocks matrix and morphology remained nearly intact. Moreover, as highlighted Manuel Salgado, although new construction techniques and the development of public transport systems having forced some adjustments and adaptations to the 1758 plan, the truth is that it has always revealed a great capacity for adapting and flexibility, non-having wasted its core values and characteristics²⁰.

BAIXA'S PLAN AND LISBON EXPANSION OVER THE LAST TWO CENTURIES

The reconstruction of Baixa underlies the urban expansion that Lisbon will see in the next century with the opening of new corridors to the north, the growth in the west, with the creation of alternative urbanization poles, as exemplified by the Amoreiras district with Carlos Mardel design or more peripheral settlements and therefore more disorderly as Lapa.

CHIADO'S RECONSTRUCTION AFTER THE DEVASTATING 1988 FIRE

Almost two and a half centuries later, in the early hours of August 25, 1988, the history of destruction is repeated. This time, the Chiado, the heart of Baixa and the most important civic and commercial sector of the historical city, was partially destroyed after a devastating fire. For an instant, the memory of the 1755 tragedy once again echoed in Lisbon, despite the huge difference between the two events, both in magnitude and in the extent of the caused damages.

The municipality of Lisbon rushed to repair the damages, opting for the full reconstruction of the affected area. Option that will enforce a wide international support and that will make the architect Álvaro Siza a faithful interpreter of the difficult task that meant keeping the balance in the historical center of the city without resorting to unneeded disruptions. Although it could be an strong temptation to take advantage of this incident to introduce through innovative design, the basis for Siza strategy, the arguments that helped to defend his

reconstruction project that became completed in its final version in July 1990 and were immediately accepted by the municipal authorities of Lisbon, are rooted in the 18 th century urban structure, that was taken as the starting point. Siza assumes the commitment on restoring urban continuity by presenting the same type of image and definition of the 18 th century plan, from the time of the Marquis of Pombal, taking as inescapable reality the city´s own memory. According to Álvaro Siza, at the Chiado what is really remarkable is constituted by the implantation, by the topographical location of the set in relation to Baixa district, by the accesses and relations with the surroundings and not the buildings by themselves.

In this area, the urban unit does not result of the block, which doesn´t assume the relevance which have in Baixa´s board due to the topography and also to the pre-existing, but by the uniformity and regularity of the façades essentials to the maintenance of Baixa´s character as a whole.

Consequently, to provide the intervention with a presence based on a rupture in the area would mean destroying the right balance in this part of the city, a sector definitively completed and very remarkable: “no one would think now to move or change a façade of downtown Lisbon, Baixa, with its repeated windows because it is such compassed and rhythmic phenomena which makes it possible and gives it´s justification”²¹.

Siza considers that the new city, set by the Plan of 1758, can be considered as a single building; all downtown Lisbon is a single large building, prefabricated and uniform which suffered a setback that must be addressed and solved. “It is as if there had never been a fire at Chiado. Plus, for me there has never been such a catastrophe (...). Let us think for instance in a door in poor condition that simply had to be painted, or in a series of them malfunctioning preventing access to certain galleries and that we had to get them working properly, immediately. Everything is so in this way. Basically, the design idea is this, and somehow earned me, for the first time, the conservative qualifying, although so has not ceased to result in an tremendously interesting experience”²².

The Chiado´s reconstruction plan has become famous and is now recognized worldwide. However, less known is the Baixa Plan aimed to rebuilding Lisbon as the capital of an empire and ensure in the future resistance to majour tragic events such as the 1755 earthquake. Its implementation was supported by technical innovations such as the Pombaline cage, one of the first anti-seismic structures in the world, and also by legislative and unique political regulations, that allowed the implementation of an urban program of great complexity. Nevertheless its largest contribution was the consubstantiation of a real plan in a contemporary way.

Unappreciated and misunderstood throughout the nineteenth century and the first decades of the twentieth century, with the exception of some authors that in due time were able to recognize its relevance, it will be with the founding work of the great portuguese historian José Augusto França that Pombal´s plan and the reconstruction of Baixa will become the subject of a sustained historical research that integrates it in the second half of eighteenth century European social, political and economic context.

Since then the theme definitively entered the Portuguese historiography of architecture and urbanism consolidating itself in most recent years in initiatives such as the exhibition that was dedicated to it in 2008 by the municipality of Lisbon, within which were presented renewed readings and released new research lines, as shown by authors such as Walter Rossa, Raquel Henriques da Silva and Claudio Monteiro.



FIGURE 5 FRua do Carmo after Chiado ´s reconstruction, 2016.

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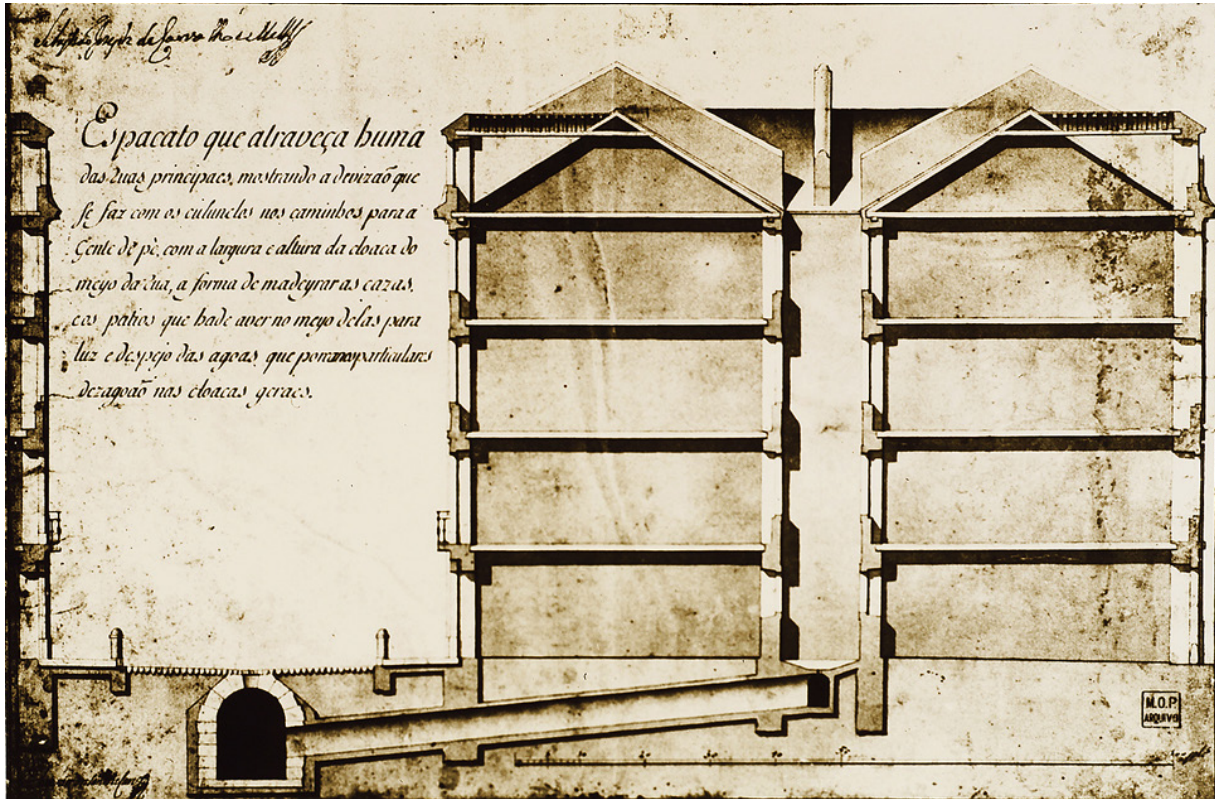


FIGURE 6 Eugénio dos Santos, Section of a street of Lisbon's Baixa, c. 1758. Copy.

Despite widely studied by the Portuguese historiography where is consensual the thought that represents a cutting edge operation in the context of urban planning and architecture of the Enlightenment period, Lisbon's Baixa Plan requires greater disclosure in order that its significance should also be recognized at the international level.

This is our main purpose : to promote its dissemination within the international scientific community.

A recognition of this urgency signal is the reference that Barry Bergdoll makes to the Lisbon's Plan in his work *European Architecture 1750-1890*, presenting it as from the urban theory discussed in France following the construction of Louis XV Square under which are highlighted the proposals of the French architect Pierre Patte.

These proposals, illustrated with the famous drawing of a section of an ideal street, are already unequivocal expression of the contemporary city program. The significance of the operation carried out in Lisbon becomes evident when we compare Patte's drawing, dating back 1769, to another, very similar, which integrates the plan implemented in Lisbon in 1758. However, there are few authors who know, in fact, that the section made by the Portuguese architect Eugénio dos Santos, precedes the work of Patte in 11 years, revealing that Lisbon was at the forefront of the urban operations carried out in Europe during the second half of 18th century.

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Endnotes

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- 2 Walter Rossa, *No 1.º Plano*. O Plano da Baixa Hoje (Lisboa: Câmara Municipal de Lisboa, 2008). 56.
- 3 José Augusto França, *Lisboa: Urbanismo e Arquitectura* (Lisboa: Instituto de Cultura e Língua Portuguesa, 1989). 160.
- 4 *Ibid.* 21
- 5 Walter Rossa, *No 1.º Plano*. O Plano da Baixa Hoje (Lisboa: Câmara Municipal de Lisboa, 2008). 57, 58.
- 6 Ana Tostões, *Precursores do Urbanismo e da Arquitectura Modernos*. O Plano da Baixa Hoje (Lisboa: Câmara Municipal de Lisboa, 2008). 170, 173.
- 7 Manuel Salgado, *Do Plano de reconstrução de 1758 à Revitalização do Século XXI*. 1758 Lisboa: O Plano da Baixa Hoje (Lisboa: Câmara Municipal de Lisboa, 2008).
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- 17 *Ibid.*
- 18 Ana Tostões, *Precursores do Urbanismo e da Arquitectura Modernos*. O Plano da Baixa Hoje (Lisboa: Câmara Municipal de Lisboa, 2008). 175.
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Image Sources

Figure 1: Vieira da Silva, Plantas Topográficas de Lisboa, CML, Lisboa, 1950. Gabinete de Estudos Olisiponenses, MP.62.

Figure 2: Jorge Nunes

Figure 3: Museu da Cidade (Lisboa), DES.1079

Figure 4: Arquivo Municipal de Lisboa, AH, Cartulário Pombalino, doc. 28

Figure 5: Jorge Nunes

Figure 6: Arquivo Histórico do Ministério das Obras Públicas, Transportes e Comunicações, D.15-1 A.L