

## **AVENIDA ALMIRANTE REIS: urban diagnostics**

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### **Abstract**

Cities are spaces of change and social and space innovation. In the past decades, as a result of internal and external social and economic dynamics, the city of Lisbon has undergone major changes in its organization, namely in terms of the relation among population, business, housing and services.

In this context, the research project Atlas of Almirante Reis studies the change processes in one of the longest avenues of the city, an avenue where we can see, in a linear urban structure, the occupation of the city in the last century at architectural, historical and socioeconomic levels.

Based on historical and geographical research and land survey, we aim to present the first results of the project and thus contribute to a description of the current space dynamics in Lisbon, namely regarding changes in its demographic and economic structure and its relation with the changes in the architecture of the city.

**Keywords:** Avenida Almirante Reis, Rua da Palma, Lisbon, urban diagnostics, Geographical Information Systems

## Full Paper

### Introduction

Avenida Almirante Reis, together with Rua da Palma, is an important axis of urban and road dynamics in Lisbon. The avenue is one of the longest of Lisbon, approximately 2800 metres long, and crosses three boroughs - Areeiro, Arroios and Santa Maria Maior. The avenue's current name, established in 1910, honours one of the most represented heroes of the Republic in terms of street name; its previous names were Anjos Avenue (while still in project) and Dona Amélia Avenue (1903/1910). It is built on the water line that runs to Baixa - to the northeast – as does Avenida da Liberdade to the northwest. Avenida Almirante Reis is the continuation of Palma, near Martim Moniz, and goes up to Estrada da Circunvalação and up to Areeiro (Mangorrinha, 2009/10).

This is a rather unique avenue because there we can see the different eras of Lisbon's urban expansion. Despite the need for a road to link the centre of the city and the rural area in the northwest of Lisbon (namely, for the supply of city markets), the planning of the Almirante Reis underwent many changes and it took almost a century for the avenue to have the layout it has today. The avenue would be an alternative to the road that existed in the 18th century – Rua Direita dos Anjos/Estrada de Arroios - which was an extension of Rua da Palma, built in the late 18th century, as a means to order the traffic from Rua dos Anjos to Desterro, where the Monastery of Nossa Senhora do Desterro was located.

Firstly through the Commission for the General Improvement Plan of the Capital City, and later through the Technical Office of Lisbon Municipality, led by engineer Pierre Joseph Pézerat, the plan for expanding Nova da Rua da Palma existed since 1877, as well as that of expanding Estrada de Sacavém (the future Avenida Almirante Reis) (Silva, 1989 & 1994). In 1877, the same Technical Office, then led by engineer Ressano Garcia, submitted that project. The construction would only begin in 1892, though.

This is a very popular borough, traditionally viewed as a less noble area of the city - axis Mouraria/Intendente (Menezes, 2004 e 2013) - which will gradually expand to a rather middle-class bourgeois area of the city, built in the 2nd half of the 20th century (França, 1997; Silva, 1994) – in particular, the area of Alameda through to Areeiro.

Although Avenida Almirante Reis has been hardly studied from a social and urban point of view, it has an important role in the history of housing in Lisbon since it is one of the main connecting roads between the city in the 2nd half of the 20thc and downtown (Baixa), as well as one of the links to the outer area of the city (Figure 1). In the past three decades it has become a multicultural area in view of its inhabitants and unique businesses, which are one of its main features. This dynamics of change, especially in regards to business and services, has been obvious throughout the 20th century and was even more so in the last decade; the avenue evidences signs of rehabilitation, as well as of degradation. The avenue has also good public transportation, including six metro stations.

Almirante Reis is an interesting case study due to its importance in the city's history and life and ability to embrace change. The preliminary results of the ongoing project Atlas of Almirante Reis are thus presented. The project aims to analyse and assess the space, the residents and the shops and services, as well as know the local agents able to promote change so as to foster an understanding of the city that includes perspectives and practices leading to urban consolidation and the resolution of territory conflicts. The final product will be the Atlas of the Avenue based on information collected directly and on georeferenced statistical data, theoretical research and applied research exercises. Later, there will be direct involvement in local actions. Partners in the project are CEACTION/UAL – Research Centre in Architecture, Universidade Autónoma de Lisboa (whose researchers are Filipa Ramalhete, Margarida Tavares da Conceição, Inês Lobo, Júlia Varela, Raquel Vicente) and CICS.Nova – Interdisciplinary Centre in Social Sciences, FCSH-UNL (whose researchers are Teresa Santos and Nuno Soares). Lisbon Municipality and Arroios borough administration (junta de freguesia)

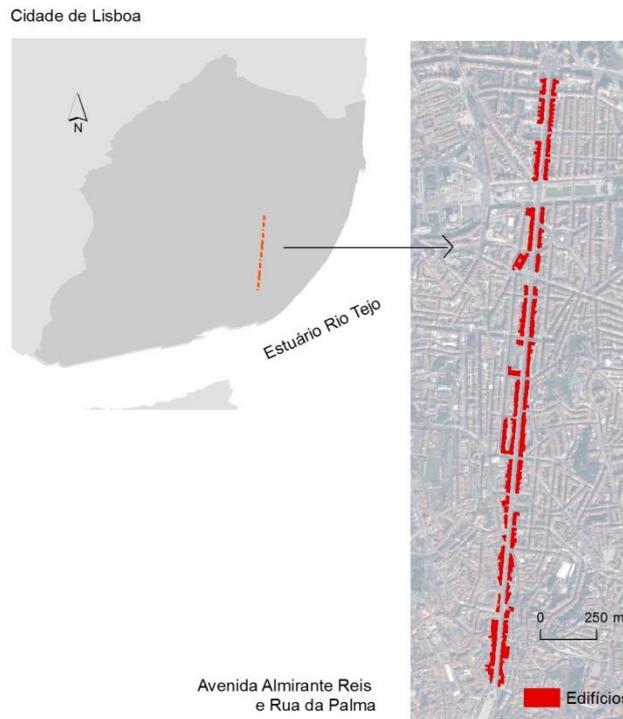


Figure 1. Localization of Avenida Amiranre Reis in the district of Lisbon.

### Urban and functional survey

One of the first outcomes of the project derived from a survey and the filling in of a georeferenced form of all the buildings in the axis Rua da Palma / Avenida Amiranre Reis. This survey aimed to describe the current situation in order to improve our initial research questions. The survey was conducted in October to December 2015 by two inquirers.

Data collection included a visit to the location and street viewing using Google Street View to eliminate possible doubts. Data collection was conducted using the *open source* toolKoBotoolbox (<http://www.kobotoolbox.org/>) which allows the designing of forms and the collection of data using a browser or the application available for mobile phone or *tablet*. The collected information is then available in digital format, a much faster method than the traditional one - that of manually collecting and introducing data in databases.

Collecting data on each building was later codified in the Geographical Information Systems (GIS) to allow for its space analysis. At this stage, a

georeferenced digital map is created where the buildings' geometry is associated with the collected data. GIS codification makes it possible to analyse the space component, i.e., visualize geographical patterns, assess proximity relations and analyse the concentration or dispersion of variables in the territory.

This paper focuses on the morphological analysis of the buildings, their commercial use, including its space size.

For the morphological analysis, the survey included: 1) number of floors above and below ground level; 2) number of residential and non-residential areas; 3) time of construction; 4) colour and material used for the façade; 5) state of preservation.

Commercial use was collected at ground level and included: 1) number of shops on the ground floor; 2) type of goods sold; 3) state of preservation of the shop; 4) if in a gallery.

### **The buildings in the avenue**

The database included information collected for the 255 buildings in Rua da Palma and Avenida Almirante Reis.

Figure 2 shows that Rua da Palma (in the south) is where the older buildings are, some built before 1919. At the opposite end you can find the most recent buildings, all built after 1960. The buildings erected after 1960 represent 46% of all the buildings and older buildings are only 11% of the 255 buildings in the avenue (Table 1). The low percentage becomes relevant when you consider the context of Lisbon, where the percentage of buildings erected before 1919 is 20%. The aging index of the buildings (the ratio of buildings from before 1960 and those from after 2001) is 10%, very similar to the percentage in the city (11%). 22% of the buildings were erected between 1919 and 1945 and 15% between 1946 and 1960.

**Table 1. Description of the classical buildings**

Name.	R. Palma./Av. Alm.Reis Number.	Lisbon Number.
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Classical buildings	255	52496
Buildings strictly residential (%)	4	79
Buildings from before to 1919 (%)	11	20
Buildings from 1919 - 1945 (%)	22	19
Buildings from 1946 - 1960 (%)	15	21
Buildings from 1961 - 2000 (%)	46	26
Buildings from after 2001 (%)	5	5
Buildings constructed in several periods (%)	1	-
Aging index of buildings	10	11

**Source:** INE (Census 2011), Urban survey (2015)

Though the relation between the construction of the avenue and the time the buildings were erected is evident, there is a slight heterogeneous character in the different blocks, which derives from the fact that most buildings were privately built along several decades (the constructions were thus conditioned by previous constructions) and that buildings were demolished and others built in the same site.

As far as function is concerned, most buildings are mainly residential (90%), with an average of eight residential areas and three non-residential areas per building (Figure 3). However, only 11 of the 255 analysed buildings are residential only. If we consider the city, and according to the 2011 census, 79% of the classical buildings are solely residential, a percentage much higher than the 4% present in the studied location. On the other hand, 26 buildings include no residential areas. These include hotels, shopping areas or office buildings.



Fonte de informação: Levantamento Urbanístico Realizado Out/Dez 2015, Atlas Almirante Reis, CEACUAL, CICS.NOVA/UNL

Figure 2. Buildings according to the time of construction.

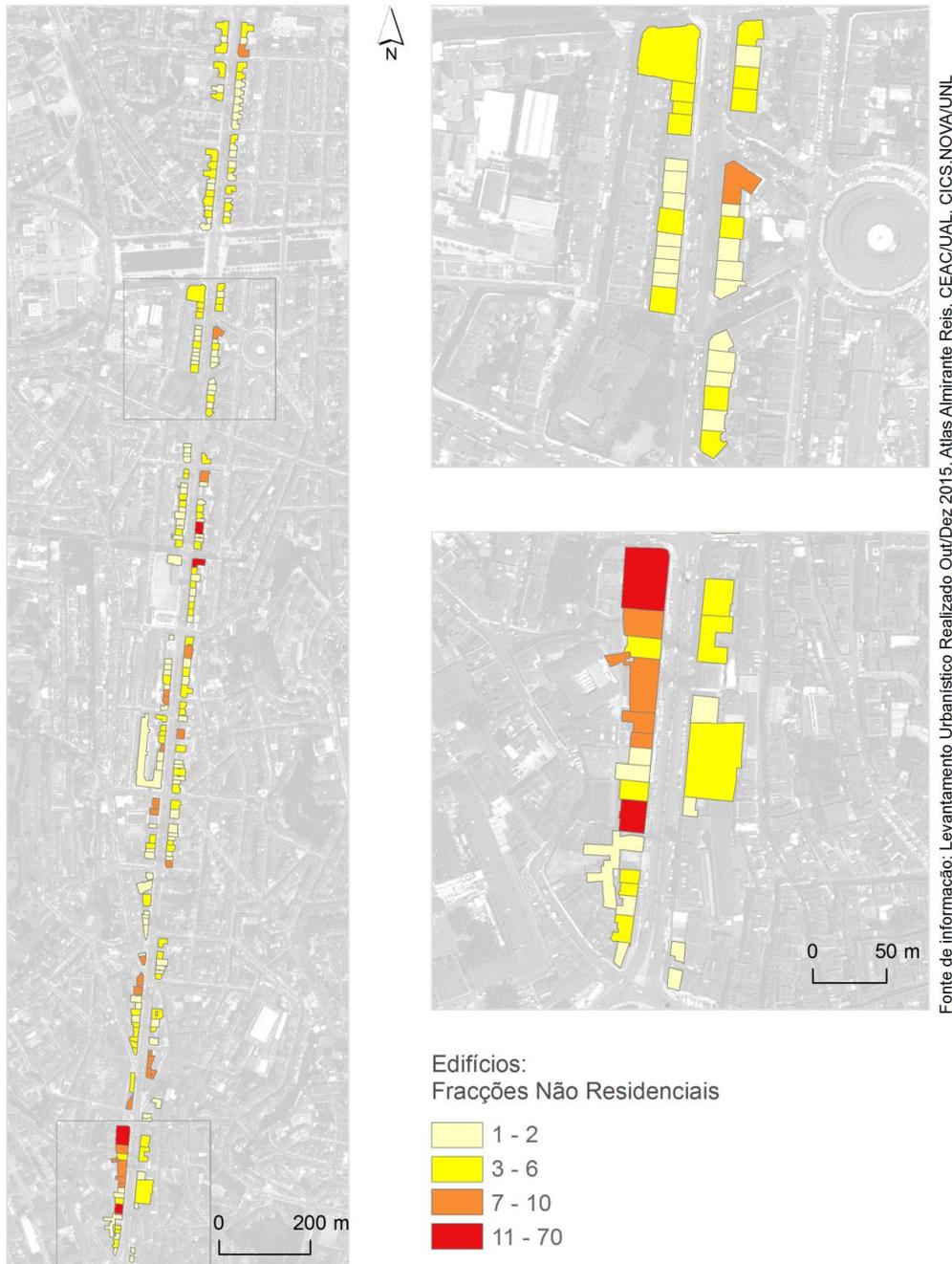


Figure 3. Buildings according to the number of non-residential areas

In terms of building preservation, the space pattern is not as relevant as in the case of time of construction. In fact, though some building in bad conditions

were built before 1919, there are also many that are in poor conditions and whose construction is much more recent. This is especially visible in Rua da Palma but can be observed along the avenue, as made evident in Figure 4. In total, 75% of the buildings are in a reasonable or good state of preservation.

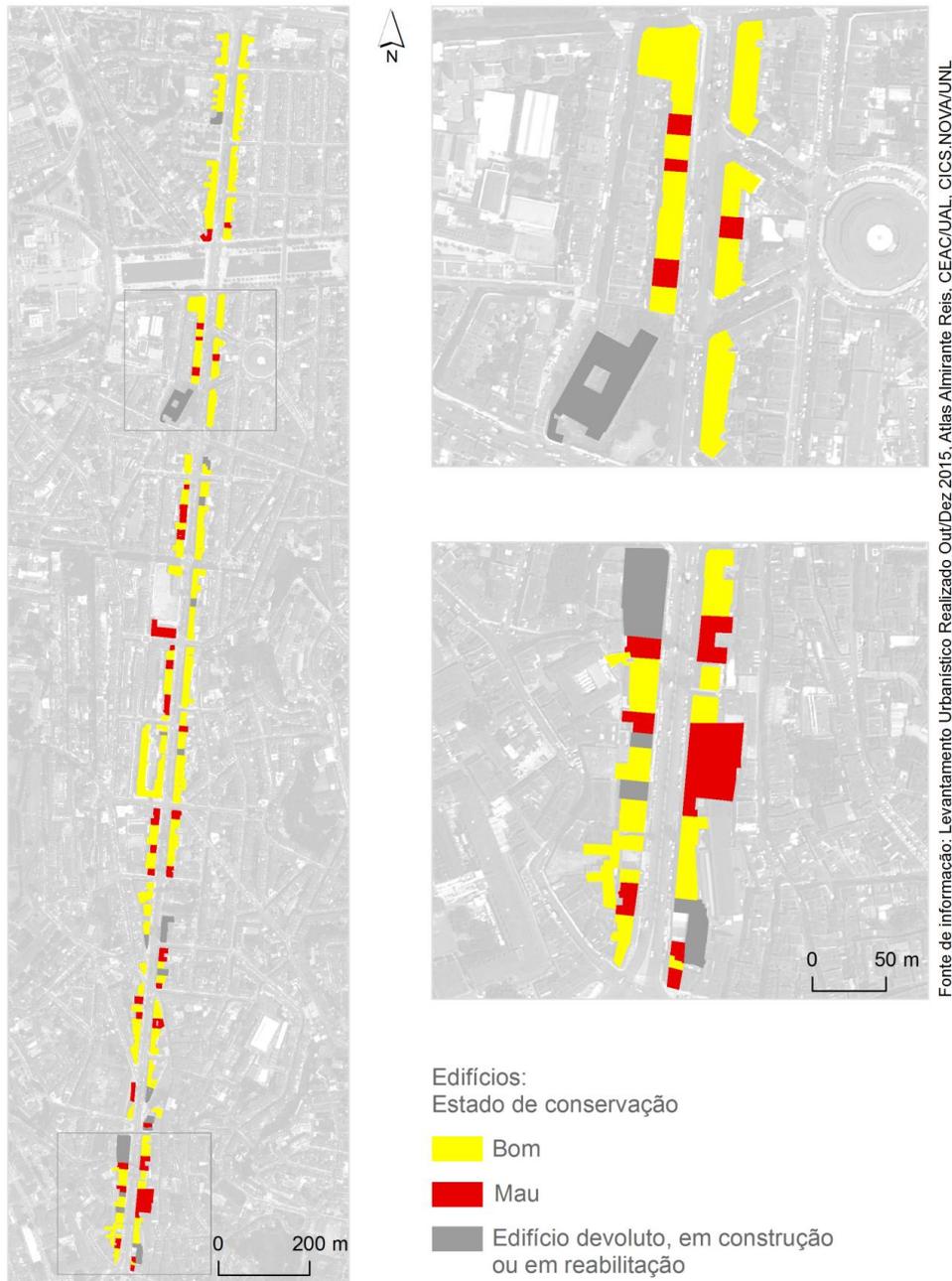


Figure 4. Buildings according to state of preservation.

The number of floors above the ground floor is mostly six but it varies between one and thirteen. The smaller buildings can be found in Rua da Palma and in the beginning of the avenue (Figure 5). These buildings are mostly non-residential and built before 1919.

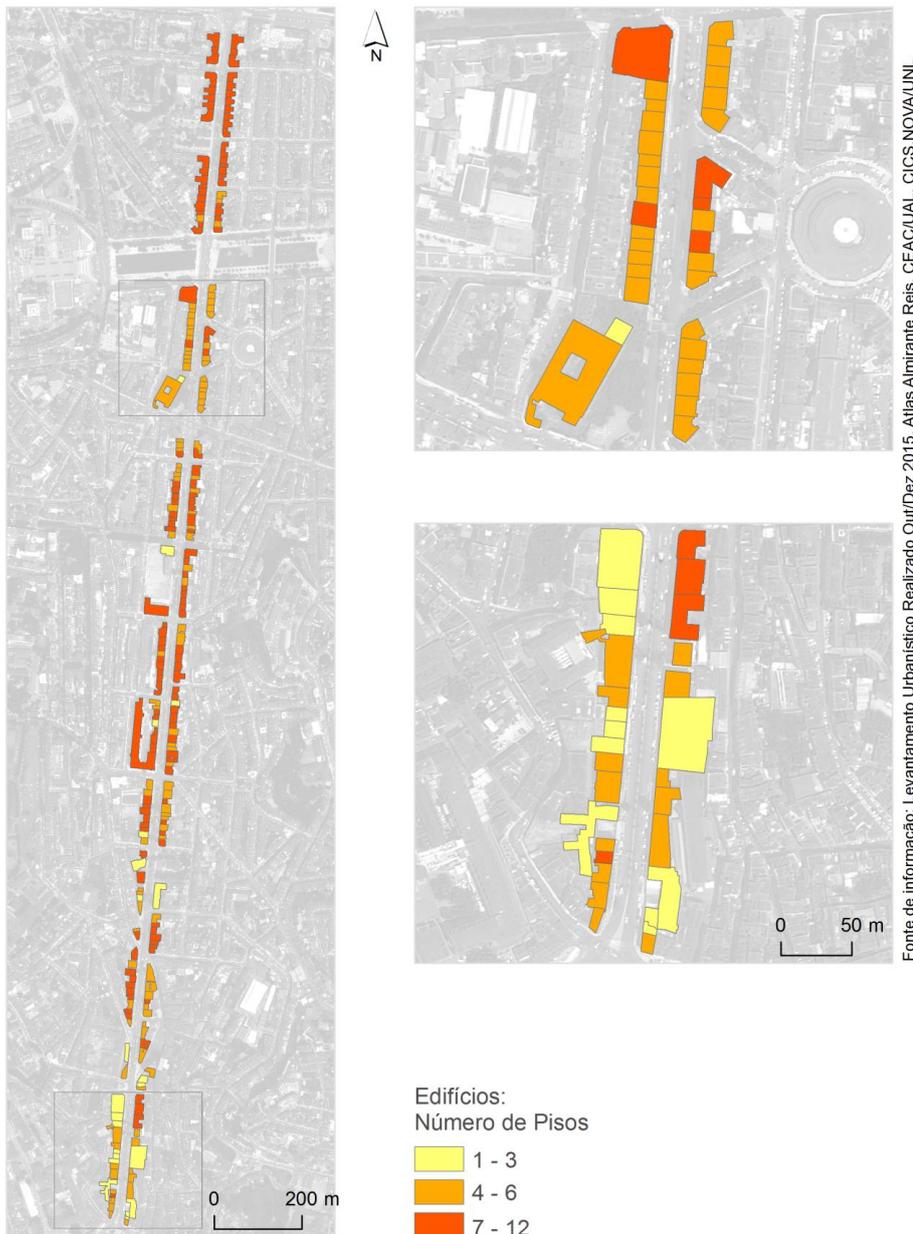


Figure 5. Buildings according to the number of floors above ground floor.  
**The shops in the Avenue**

The shops in Almirante Reis Av. are very unique in the context of space organization in Lisbon. Based on the work conducted by Jorge Gaspar in the 1970s, (Gaspar, 1976) and comparing to today, we may state that the changes having taken place in the avenue in terms of shops are relatively small and that its specificity is still valid and current.

This shopping area corresponds to the link between the eastern part of the city, the consolidated part of the city (Baixa / Mouraria / Costa do Castelo / Alfama) and the rural area, which supplied vegetables to the city. The former market in Praça da Figueira was a clear evidence of its importance up to its demolition in 1949. The bus terminals in the area which, until the 1950s, connected the city with the rural area (Rua da Palma / Desterro / Socorro) is another evidence of this close link.

The avenue is the result of the expansion towards the north of the eastern part of downtown Lisbon (Baixa) and is at the same time a ribbon (Jorge Gaspar, 1976) to the dense housing areas surrounding it. This ribbon will be two-dimensional: as a long axis (approximately 2.8 km) and at street level. The latter is especially evident in the life that shops bring to the street between Rua da Palma and Praça do Chile / crossway with Rua Morais Soares. From the crossway and to the north of Alameda Afonso Henriques towards Praça Sá Carneiro (Praça do Areeiro), the number of shops and the bustling of street life decrease significantly with the exception of the crossroads between Avenida Paris and Rua Actriz Virgínia (Figure 6).

The shops nowadays sell different articles and are rather low standing, far from the specialized character they had in the 1970s - the avenue was known for its furniture and household appliance shops. Some of these shops are still open today but most of them have closed. The reason why furniture and house appliance shops chose that location was its closeness to the city centre and the fact that it was possible to rent large shops at reasonable prices.

Today, most of these shops are rented to whole sellers and retail sellers whose requirements are similar to prior renters: good accesses, near the city centre, large areas and low rents. These businesses are owned by people from different areas of the globe, mainly from Asia. Their number has expanded and there are more and more shops with products from all over the world.

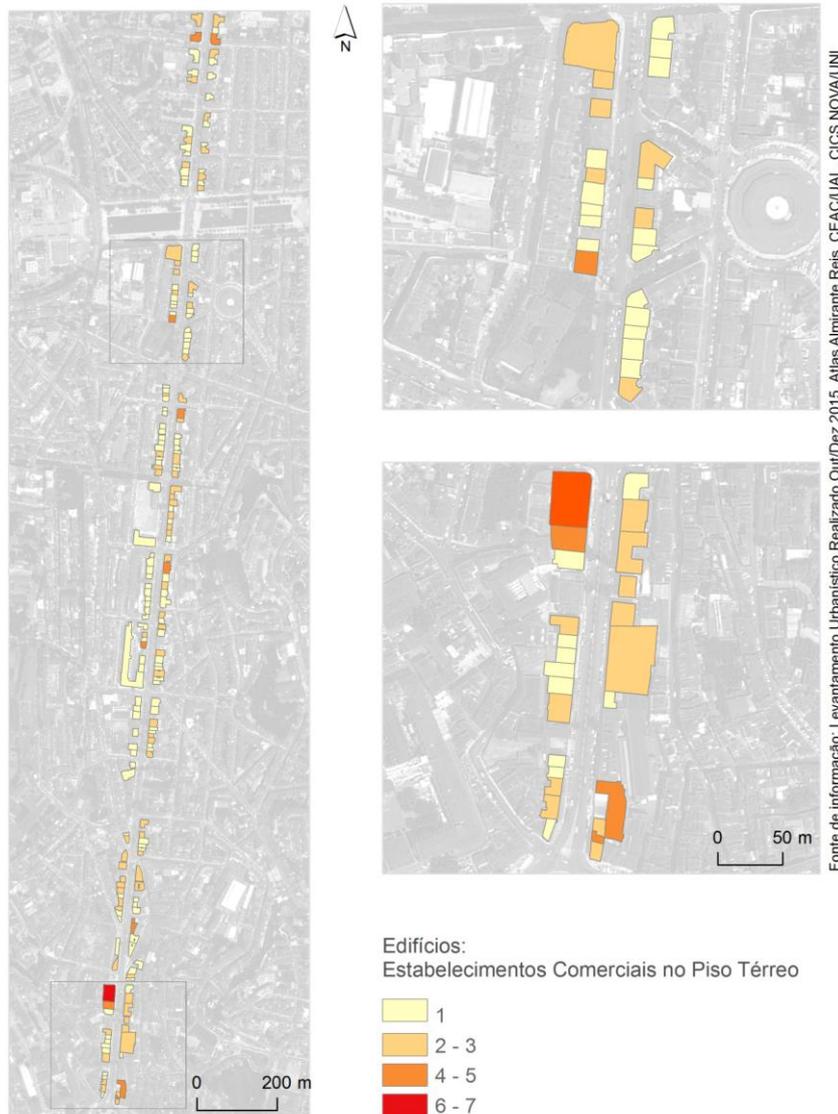


Figure 6. Buildings according to the number of shops on the ground floor

Along the avenue, business concentrates in some crossroads near the metro stations. The six metro stations make this a very accessible area of the city, much more than most (only in 1972 was the line extended from Anjos to Alvalade station). However, the avenue never became as important as the city's main axis (Avenida da Liberdade / Avenida Fontes Pereira de Melo / Avenida da República). From the 20th century onwards, the city expanded northwards along the two axes (Avenida da Liberdade and Avenida Almirante Reis), but they progress differently. Avenida da Liberdade is a natural expansion of the



wealthy downtown area (Chiado, Rua do Ouro, Rossio), and Rua da Palma / Avenida Almirante Reis was the expansion of the poor downtown area (Praça da Figueira, Rua dos Fanqueiros).

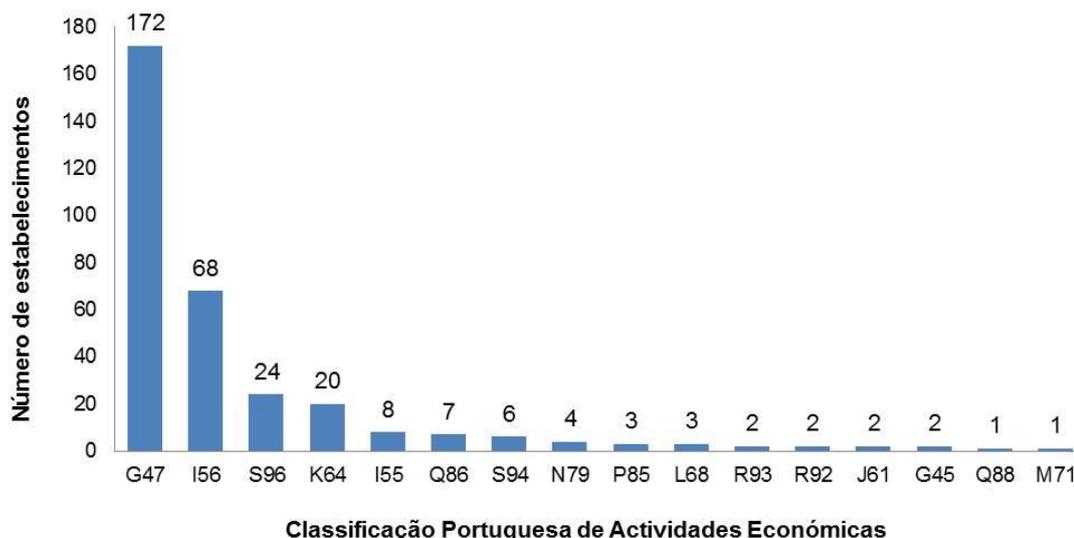
Initially, the expansion northwards was in the Avenida Almirante Reis axis rather than that of Avenida da Liberdade. This is clearly identified in the large number of buildings constructed in the 1960s in an attempt to renovate the blocks. This does not occur in Avenida da Liberdade. These new buildings include shops under pillared galleries (Figure 7).

The survey conducted within the project Atlas of Almirante Reis evidences that most buildings in Rua da Palma and Avenida Almirante Reis - 78% - have at least one shop on the ground floor and up to seven shops in the same building. We also collected the economic activities on the ground floor of each building; the classification was that defined in Portugal by Instituto Nacional de Estatística (National Statistics Institute - INE) - Classificação Portuguesa de Atividades Económicas (CAE-See.3) The economic activity that is most present (172 shops) is Retail (CAE G47), followed by Restaurant and similar activities (CAE I56) - 68 shops. The former represents more than half of the shops in the avenue and includes clothes and food shops; the latter includes cafés, pastry shops and restaurants. Less common are Other Personal Service Activities (CAE S96), which includes hairdressers, and Financial Services (CAE K64), which includes banks.



Figure 7. Buildings according to the number of shops in pillared galleries

Though the avenue has many shops, most are in bad condition, many show signs of recent change in the business activity without any refurbishing to adapt the facilities to that change.



**Classificação Portuguesa de Actividades Económicas**

G45	Comércio, manutenção e reparação, de veículos automóveis e motociclos	N79	Agências de viagem, operadores turísticos, outros serviços de reservas e actividades relacionadas
G47	Comércio a retalho, excepto de veículos automóveis e motociclos	P85	Educação
I55	Alojamento	Q86	Actividades de saúde humana
I56	Restauração e similares	Q88	Actividades de apoio social sem alojamento
J61	Telecomunicações	R92	Lotarias e outros jogos de aposta
K64	Actividades de serviços financeiros, excepto seguros e fundos de pensões	R93	Actividades desportivas, de diversão e recreativas
L68	Actividades imobiliárias	S94	Actividades das organizações associativas
M71	Actividades de arquitectura, de engenharia e técnicas afins; actividades de ensaios e de análises técnicas	S96	Outras actividades de serviços pessoais

Figure 8. Shops on the ground floor according to Classificação Portuguesa de Atividades Económicas (CAE-See.3)

## Conclusions

This initial urban diagnostics allows us to systematize some conclusions in view of the data collected during the field work. The first is the importance of the different uses of buildings (residential, non-residential - services, hotels, etc.) in the axis Rua da Palma / Avenida Almirante Reis. This data allows us to observe the permanence of the residential element in the axis, unlike what happened in other axes of the city, in particular in the last decades of the 20th century, when

the most central areas were taken over by the tertiary sector. Nevertheless, there is an increase in the importance of hotels and similar businesses (during the field work we realized there was a number of recently refurbished buildings).

Business is a highly represented activity and its influence in the avenue's daily life is visible. When compared to previous decades, there is a decrease in the specialization (furniture) that gave this axis a unique quality position in the city. At the same time, there is an increase in local businesses and some segmentation, connected to new urban markets, which may have an impact in the city's business structure.

There is also diversity in terms of the time of construction and number of floors of the buildings. In fact, excluding the area between Alameda and Areeiro, where buildings are more similar, along the avenue coexist buildings from different times and with different number of floors as result of continuous urban renovation. However, reference should be made to 1/4 of buildings being in a bad condition, some of which recently constructed. There is also diversity in terms of architecture - buildings of different types and morphologies. Noteworthy is the fact that 1/5 of the buildings have a pillared gallery on the ground floor where the shops are located. This gives a unique look to this avenue.

This initial analysis thus evidences a highly urbanized axis (there is only one big empty area in the avenue - the restaurant Portugália - and a derelict space - Arroios Hospital) with diverse buildings in terms of use, volume, time of construction and architecture characteristics.

This is clearly linked to the internal and external social and economic dynamics the city of Lisbon has undergone in the past decades, and the major changes in its organization, namely in regards to the relation among population, shops, housing and services. However, the studies already conducted on the city of Lisbon have scarce information on this avenue, so, within the research project Atlas of Almirante Reis, we aim to study the change processes in one of the longest avenues of Lisbon, where, in an urban linear structure, we may observe the occupation of the city in the last century.

We aim to further this study through deeper analysis of the data, namely in regards to the relation with the residents and the urban environment and thus better understand the role that Rua da Palma / Avenida Almirante Reis have in the contemporary history of Lisbon and their potential contribution to the future urban dynamics of the city.

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## Notes

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