1º Seminário Intermédio NoVOID: "Explorando a vida obscura dos espaços urbanos abandonados"
IGOT, Universidade de Lisboa - 21st September 2017

NOVOID Ruínas e Terrenos Vagos Nas Cidades Portuguesas
FCT Fundação para a Ciência e a Tecnologia

BIODIVERSITY IN RUINS AND VACANT LANDS: GUIDELINES FOR RESEARCH

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INTRODUCTION

The growing number of abandoned, neglected and unoccupied urban spaces, marks a new era of cities where the urban landscape has become “perforated” by ruins and vacant properties.

These areas are widespread in the urban landscape, from the centre to the periphery. Their intermittent and ubiquitous presence calls for a moment of criticism and provides an opportunity for creativity.

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In the context of the NoVOID Project – "Ruins and vacant lands in Portuguese cities: exploring hidden life in urban derelicts and alternative planning proposals for the perforated city", funded by the FCT, we will present the quantification by defined **categories**:

1. Ruin

2. Ruin and yard

3. Vacant land

To the cities of Guimarães, Vizela, Lisbon and Barreiro in order to future landscape architecture proposals.

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1. Terrain Vague and the History of Contemporary Landscape Architecture

Lisbon, Portugal (A. Baptista, 2017)

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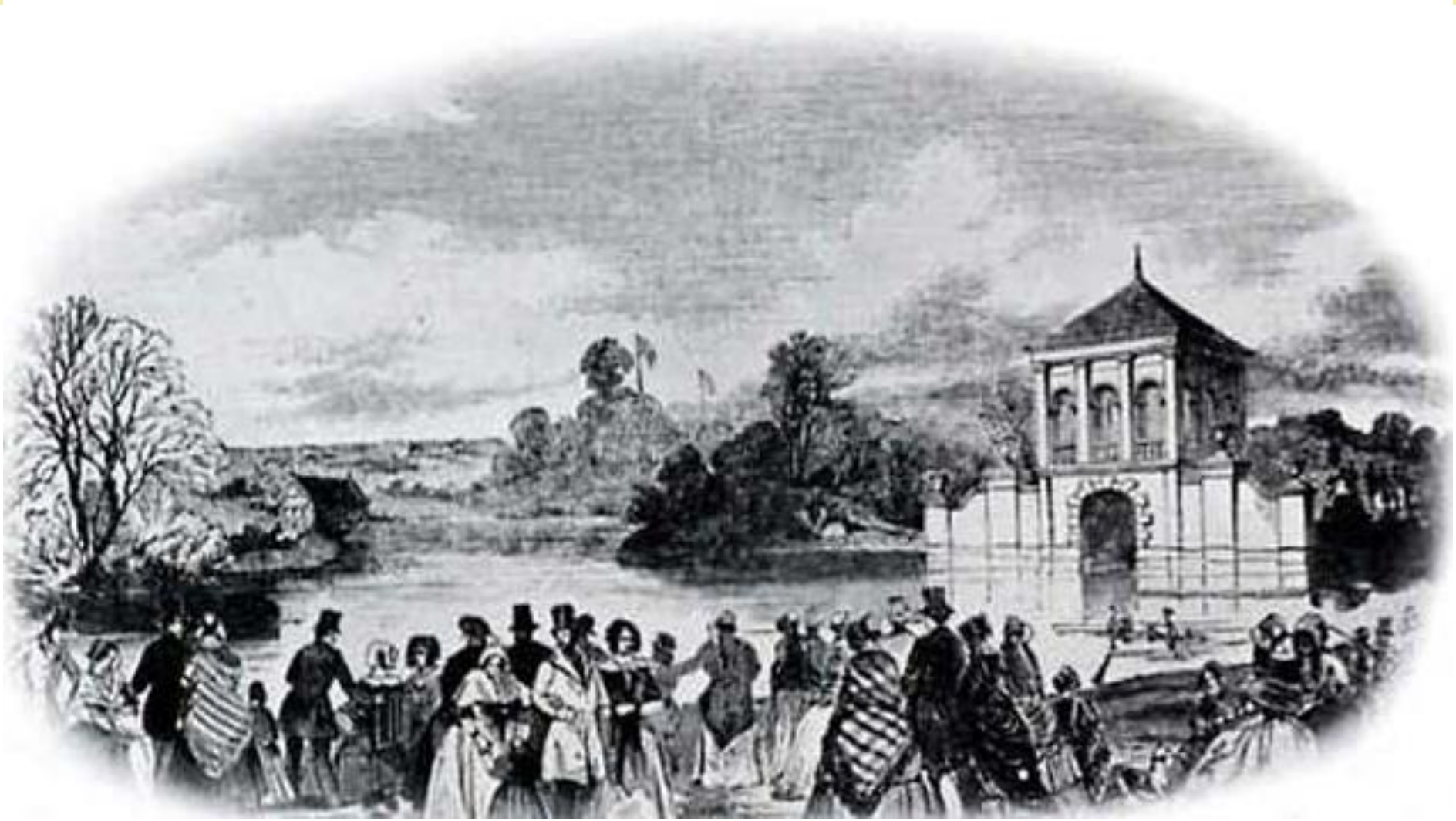

Birkenhead Park (58 ha), Merseyside, Liverpool, 1847(opening), architect Joseph Paxton (1803-1865)

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Central Park (341 ha), New York, 1857 (opening), landscape architects Frederick Law Olmsted (1822-1903) and Calvert Vaux (1824-1895)

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Parc des Buttes Chaumont (25 ha), Paris, 1867 (opening), engineer Jean-Charles Alphand (1817-1891) and team.

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Edward VII Park (25 ha), Lisbon, 1945 (opening), architect Francisco Keil do Amaral (1910-1975)

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Gas Works Park (8 ha), Seattle, 1975 (opening), architect Richard Haag (b. 1923)

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1. Terrain Vague and the History of Contemporary Landscape Architecture

c. 1990

c. 1995

2016

World Exposition 1998 Lisbon – Parque das Nações, 544 ha

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Tejo Park, Parque das Nações, Lisbon, 1998 (opening), landscape architects George Hargreaves (b. 1952) and João Nunes (b. 1960) © Yoga Sámkhya.

1. Terrain Vague and the History of Contemporary Landscape Architecture

Landschaftspark Duisburg-Nord (North Duisburg Landscape Park), Germany, 1990 (project), 1992-2002 (const.). 230 ha, Peter Latz (b. 1939) and team (Latz + Partner) . © Latz + Partner.

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1. Terrain Vague and the History of Contemporary Landscape Architecture

Tempelhofer Feld, former Berlin airport, closed in 2007.

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High Line, New York (2009-2014), 2,7 ha, landscape architect James Corner (b. 1961) Field Operations, and planting designer Piet Oudolf (b. 1944).

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Petite Ceinture de Paris, 32 km, deactivated in 1993.

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2. Vacant land in Guimarães, Vizela, Lisbon and Barreiro: between reality and potential

The research project NoVOID, with a multidisciplinary team consists of geographers, architects, landscape architects, urban planners, botanists and other specialists, aims at looking into and discuss the value and potential of vacant and abandoned land in four cities – Guimarães, Vizela, Lisbon and Barreiro – and present solutions that enhance their value through meanwhile and permanent projects.

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2. Vacant land in Guimarães, Vizela, Lisbon and Barreiro: between reality and potential

This project seeks to answer a number of questions, such as:

- how many plots of vacant land are there;
- what type are they, and how are they distributed across the city;
- what is there ecological value, their biodiversity potential;
- who uses or would like to use this land;
- are there conflicts within these spaces and many other questions related to the challenge of intervening in these spaces located within the city or sometimes on the outskirts, resulting in a porous city, perforated by vacant land and ruins.

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The NoVoid project includes three stages:

Stage 1 – Definition and identification of the subject of the study

Stage 2 – Analysis of the subject of the study

Stage 3 – Discussion and prospects

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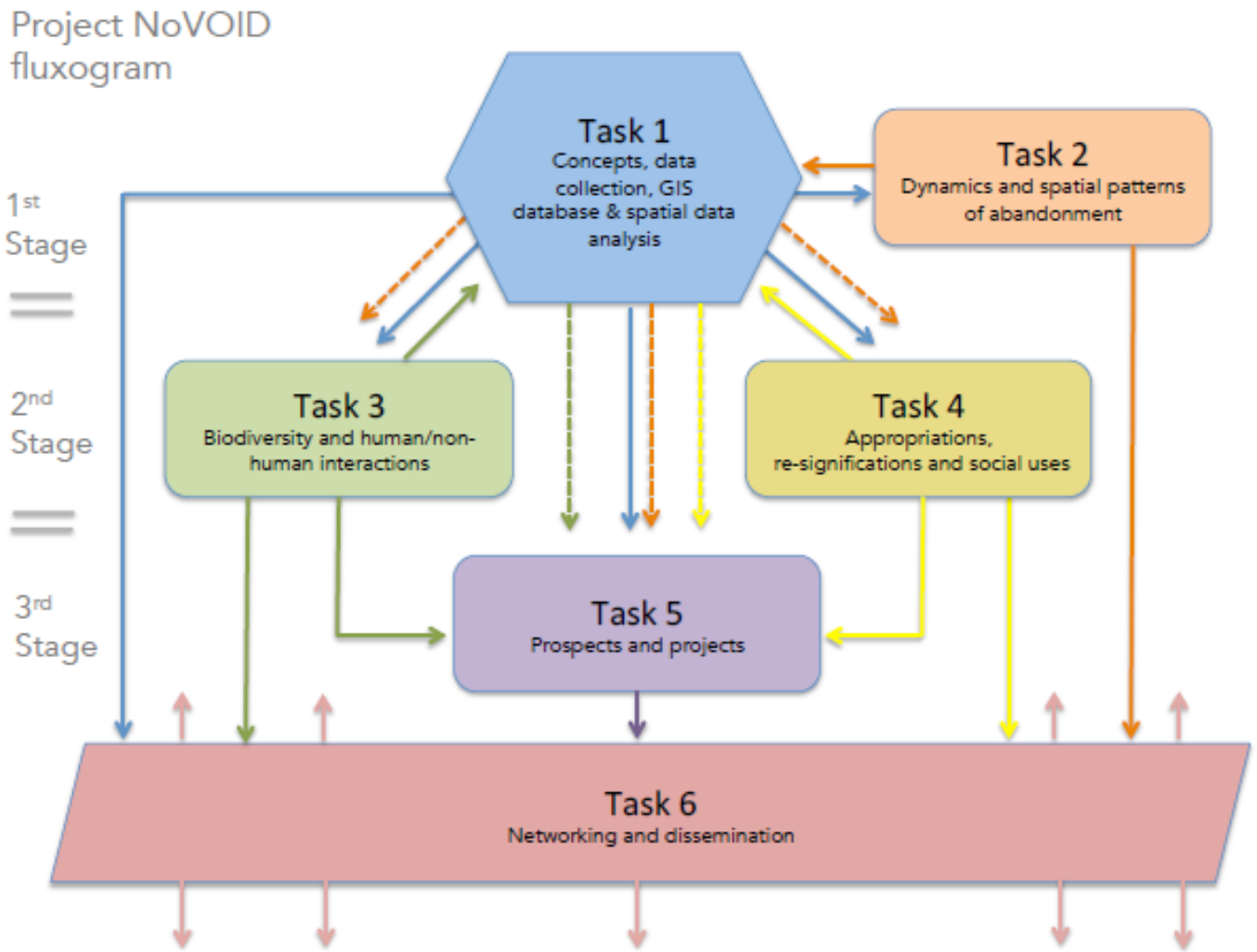

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STAGE 1 – Three abandoned urban space categories were defined which were identified and quantified by way of geographical information systems.

NoVOID classes definitions: Ruins, Ruin yards and Vacant land

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STAGE 2 –Will examine the potential of the urban spaces classified as abandoned land, from the architecture, landscape architecture, geographic and ecologic standpoints as well as from the recreational, leisure and social standpoints.

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Task 3 – Biodiversity and human/non-human interactions: main aims are to identify, promote awareness of the importance of and the benefits to be gained from biodiversity and human/non-human interactions in existing ruins, urban hollows and vacant lands, and developing new methods of working these urban landscapes.

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The task includes two steps:

1. the first one being the identification of biodiversity value in a sample of sites,

2. the second one being the identification of animal species (birds, specially) using sound recording methods which allow for the creation of sound mappings or soundscapes.

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The task starts off from the idea that vegetation is a fundamental structuring element in landscapes.

Not only does it dominate most land ecosystems through its biomass, it also constitutes the habitat for animal populations and is at the heart of the majority of human productive and cultural activities. It is also the element that best integrates a landscape's biological response to environmental factors (physical, biological and anthropic).

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Accordingly, a sample of the various types of ruins, urban hollows and vacant lands selected will be studied including the following phases:

1 - identify all the taxa found in the target areas (plants);

2 – construct a floristic inventory;

3 - establish the ratio of native and exotic species and identify the invasive species;

4 – identify the presence of RELAPE species (rare, endemic, localised, threatened or endangered) and of species in the Natura 2000 network;

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5 – determine the degree of presence, coverage and especially estimate the number of individuals present in the population of each taxon;

6 – compare the floristic inventories, the values of presence, coverage and number of individuals in the various target points within the city and between the different cities establishing the relationship between the characteristics of each site analysed (such as type of ruin, nature of the building materials, age, degree of substrate disturbance, bioclimatic, etc.) and the values of the indexes listed;

7 – compare the values of presence, coverage and number of individuals in urban areas and compare to the same indexes values estimated for the same species in natural ecosystems in the region where the city is located.

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1 - identify all the taxa found in the target areas (plants)

Garbage of various natures which is settled in abandoned urban land, ruins and houses and old walls gives rise to nutrient accumulation and also to soil contamination by chemical residues which allow the colonization of these spaces by a flora of great diversity.

Thus, we can observe the coexistence of a large number of species with a characteristic of strong invasiveness (mainly nitrophilous) coexisting with some species of interest for protection and conservation.

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1 - identify all the taxa found in the target areas (plants)

Species that occur habitually in the ruins and old walls of the city of Lisbon which belong to the autochthonous flora and which are favored by the urban environment (specialists in urban ruins). In vacant areas some grasslands could present other interesting species (like orchids). These species have some value for protection and conservation:

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Anthirrinum majus subsp. *linkianum*

Sedum album

Serapias parviflora

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Despite the interest for the protection and conservation of some species associated to the urban ruins most of the flora is exotic and much of it is invasive and is favored in its expansion by urban voids and urban ruins:

Ipomoea acuminata

Tropaelum majus

Ricinus communis

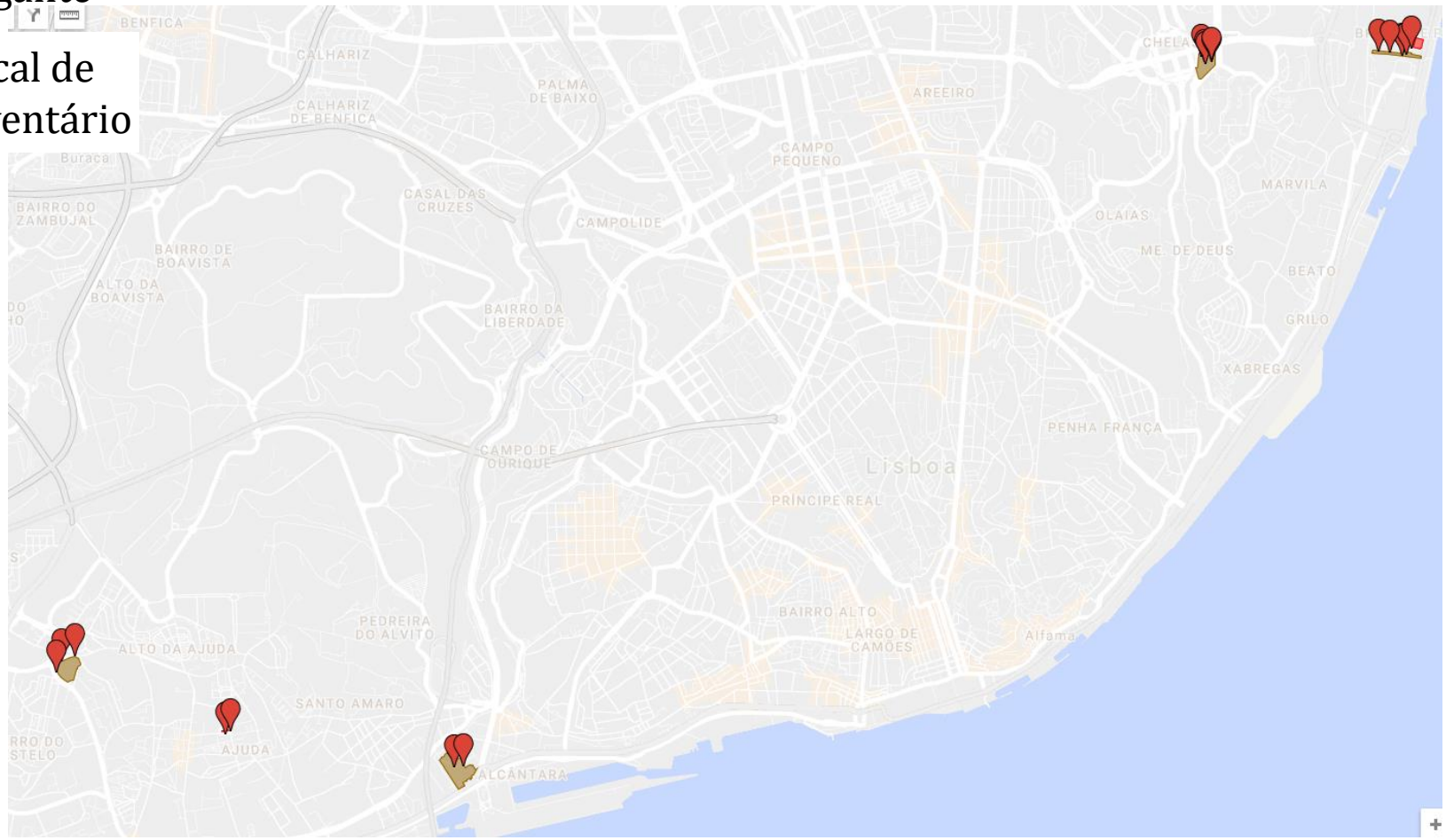
Cortaderia selloana

Lisbon

Ruína

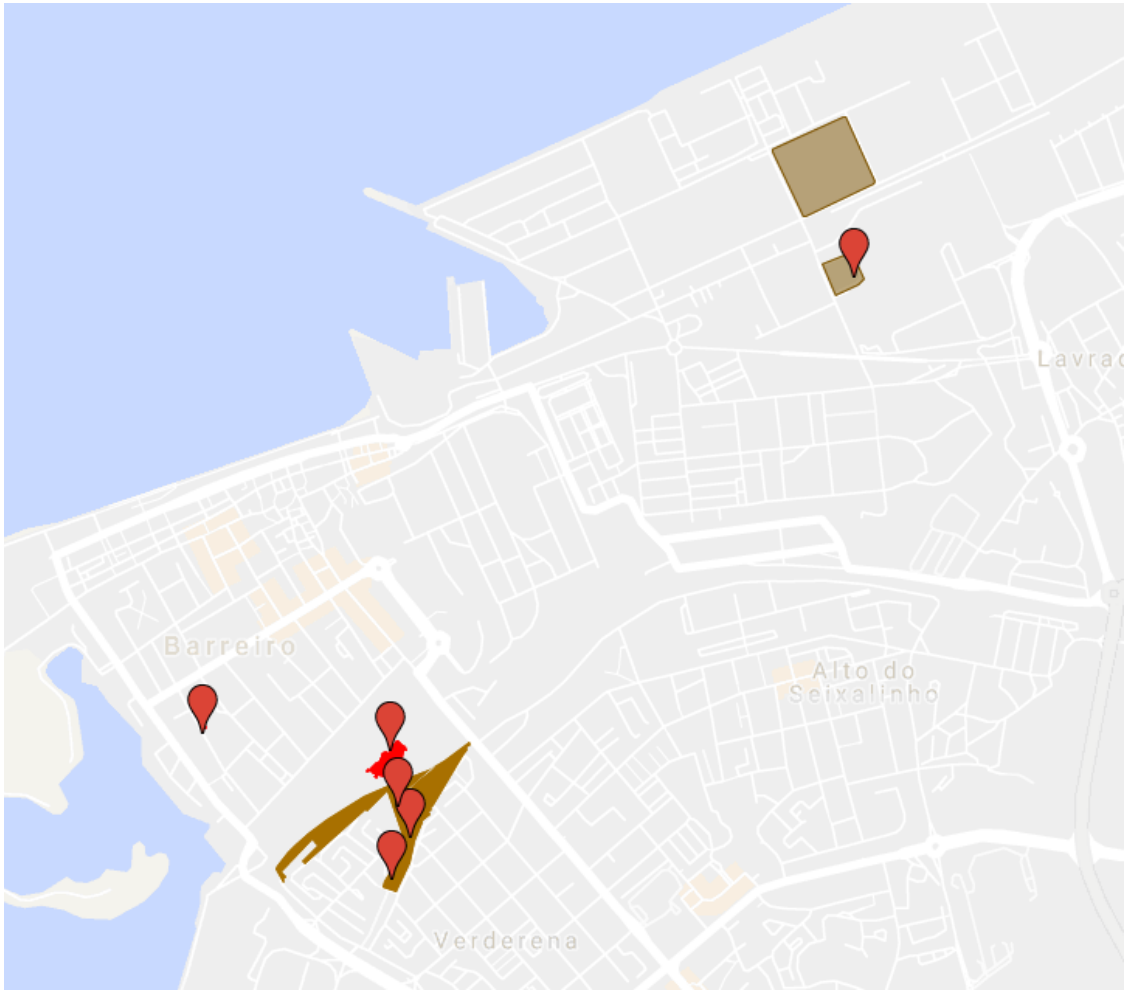
Vagante

Local de inventário



Barreiro

Ruína
Vagante
Local de inventário



Task 3 – Biodiversity and human/non-human interactions

During the fieldwork, all the animals observed (mammals, reptiles and amphibians) will be registered.

Task 3 – Biodiversity and human/non-human interactions

The dissemination of the results of this task is intended to set criteria to the designers (architects, landscapes architects, urban planners) and authorities that act upon the environment and landscape, as well as the decision-makers and those who propose solutions and regulations.

1- Vacant land, Alto St. Amaro/Alcântara, Lisbon

2- Vacant land, Alto St. Amaro/Alcântara, Lisbon

3- Ruin & ruin yard, Matinha, Marvila, Lisbon

4-Vacant land, Chelas/Marvila, Lisbon

5- Vacant land, Chelas/Marvila, Lisbon

6- Ruin & ruin yard, Olivais/Parque das Nações, Lisbon

7- Ruin & ruin yard, Barreiro

8 - Vacant land, Barreiro

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STAGE 3 –Discuss and create innovative urban spaces with landscape architecture and architecture solutions. The range of ruins, vacant land and abandoned ventures will be selected to propose meanwhile or permanent rehabilitation/reconversion programmes for those spaces as reference examples.

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In order to ensure the spaces are used the proposals will include the organisation of events and activities, such as concerts, conferences and festivals, or gardens and facilities such as allotments, playgrounds, creative workshops, art galleries, community kitchens that can attract the public and bring investment and profitability to the project.

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3. Final remarks

The interventions may be of a temporary or permanent nature depending on the type of space and future town planning, this alternative approach to abandoned urban spaces is acceptable, practical and may even constitute a particularly interesting challenge.

Interest in the type of approach employed in the NoVOID project may be applied both to new areas of the city that are being eyed up by real state developers (so called zones in waiting), both in the centre of the city, in the so called vacant spaces of a perforated city, as well as in dilapidated neighbourhoods or the poorest parts of the city.

The aim is to find and create provisional and permanent solutions for the selected spaces in the study cities.

The methodology employed in this project, together with the different types of intervention proposed, could be used in the future in other cities.

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