

A walk through  
the research  
paths of the  
Department of  
Architecture  
of Florence

**DIDA**  
RESEARCH  
WEEK  
**BOOK**  
2018



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UNIVERSITÀ  
DEGLI STUDI  
FIRENZE

**DIDA**  
DIPARTIMENTO DI  
ARCHITETTURA

*graphic design*

**didacommunicationlab**

Dipartimento di Architettura  
Università degli Studi di Firenze

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# Plans and Projects for the City and the Territory

## PPCT

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The Laboratory “Plans and Projects for the City and the Territory” is a part of DIDALABS, it is a structure aimed at researching, training and transferring knowledge to the territory. Activated within the protocol of understanding between Territorial Organizations with expertise in the field of planning and the DIDA Department, to organize, coordinate and enhance the territorial governance activities developed in the settlements and territories under their jurisdiction; moreover it operates within the coordination of DIDALABS System Workshops, integrating their competences with those referring to the projects and the action lines activated and to the own fields of the PPCT. The Laboratory PPCT promotes and coordinates training activities such as seminars, workshops, project applications, and also operates as a coordination structure between the Territorial Bodies, the DIDA Department and the University of Florence for the participation in Horizon 2020 calls, national and regional calls and scientific management of funded projects. The activities of the laboratory can involve the fields of knowledge and monitoring of urban and territorial phenomena, planning, evaluation, territorial governance, urban planning within the city and territory.

### Some Laboratories

#### 1\_Urban Innovation Project - Empoli

Scientific Coordinator: Francesco Alberti

The project intends to establish an organic and integrated program among the objectives set by the POR, in this perspective the following objectives are set: reduction of social hardship in the field of social health services and recovery of buildings and areas for social functions; integrated system of services through the recovery of public assets; functional and intelligent connection of public spaces; experimentation in the field of innovative technological systems; involvement of the various social components and management of equipment and services.

#### 2\_Urban Regeneration “Senzuno” - Follonica

Scientific Coordinator: David Fanfani

Redevelopment project of the urban fabric of Senzuno, through the enhancement of local resources and the contextual context of the territory compared to the wider context of the city of Follonica, both at the infrastructural level but also in the context of complex relationships between the Senzuno district and the fabrics adjacent urban areas.

#### 3\_Building scheduling - Livorno

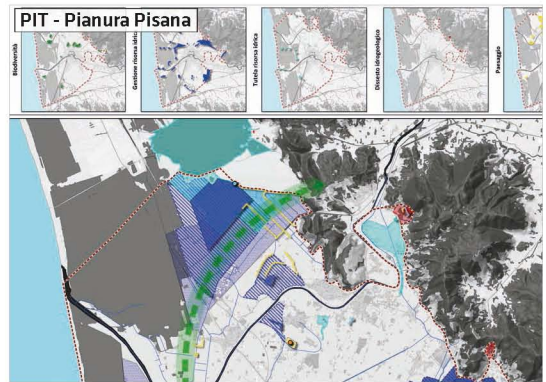
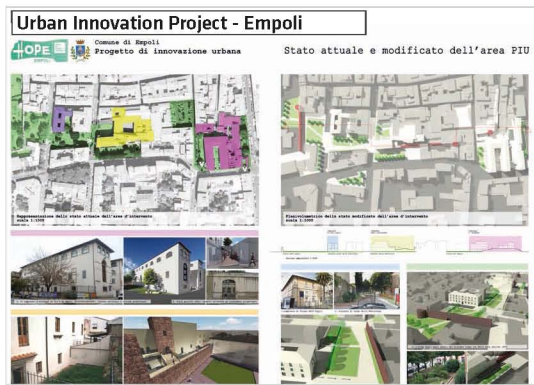
Scientific Coordinator: Claudio Saragosa

The research project aims to rediscover and valorise areas of the city of great value, but a little known, through a paper and computer filing creating an App for smartphones and tablets and an “urban code”, the urban genetic code, that is the quantities and the proportions that make every human settlement pleasant. The purpose of these tools is to collect accurate information on the city’s buildings that are not deductible from cartography.

#### 4\_Census of the Brownfields on the territory of the Metropolitan City of Florence

Scientific Coordinator: Claudio Saragosa

Census and distribution of urban or urbanized disused areas with pollution problems that require reclamation, redevelopment and re-functionalisation, with a view to functional rebalancing of the territory.



## 5\_PIT - Pianura Pisana

Scientific Coordinator: Claudio Saragosa

PIT Pianura Pisana, from the foothills to the sea, is a project that brings together various public and private entities, with the final objective of recreating a territorial structure able to increase its resilience, to improve the conditions that favour conservation and improvement of biodiversity and fertility of agricultural land, conservation and optimal management of water resources and the creation of local networks for the enhancement of the territory and agricultural supply chains.

## 6\_Operational Plan - Cerreto Guidi

Scientific Coordinator: Francesco Alberti, Carlo Natali

Studies for the revision of the New Operative Plan and for the re-elaboration of the areas and the discipline of the transformations, in compliance with the Regional Law of Tuscany n.65 of 2014 "Rules for the Government of the Territory".

## 7\_The periurban woods of Follonica

Scientific Coordinator: Iacopo Bernetti

The research study the theme of planning and management of those public green areas that are configured as periurban woods in relation to the city of Follonica: the forest of Montioni and the coastal pine forest of Levante. The study mainly uses a multi-criteria analytical method aimed at defining the ecosystem services (landscape, naturalistic, historical-cultural, tourism, protection, etc.) that characterize the complexes with the aim of proposing a strategic view aimed at enhancing the main vocations and relations with the nearby urban settlement.

## 8\_PercLab

Scientific Coordinator: Iacopo Bernetti

The perception laboratory is aimed at identifying and applying the most advanced techniques of territorial analysis, integrating objective and subjective evaluations through modern instruments: virtual reality, eye tracking, saliency map and three-dimensional simulation. The ultimate objective of the activity is to develop guidelines and tools to support public and private decisions, correlating the results of the evaluations with the actions and regulations of planning and territorial management.

## 9\_Structural Plan - Rosignano Marittimo

Scientific Coordinator: Claudio Saragosa

The research deepens the study of the Statute of the Territory of the Municipality of Rosignano Marittimo as the foundation of the drafting of the new Structural Plan L.R. 65/2014, examining the main concepts and foundations of Territorial Heritage, Structural Invariant, Territorial Statute, Sustainable Development, Elementary Organic Territorial Unit.



PPCT

## Follonica Periurban Forests

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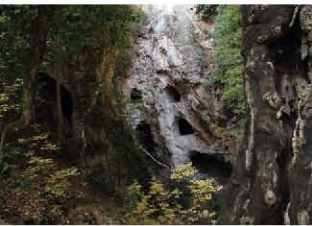
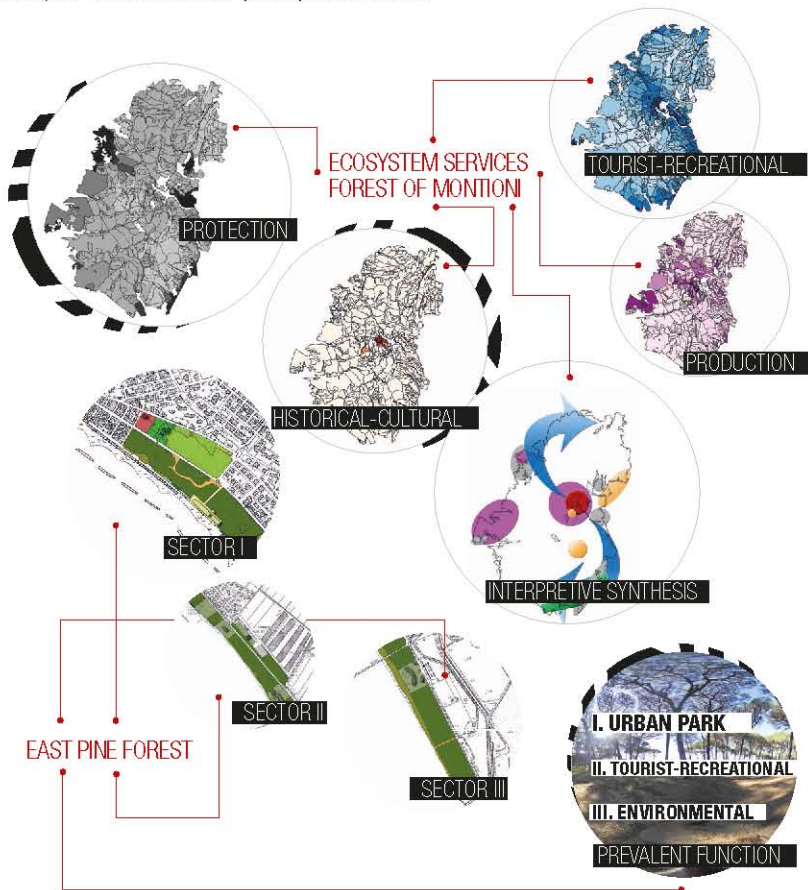
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The research is focused on theme of periurban forests' planning and management in Follonica: forest of Montioni and east coastal pine forest. First complex is a 'bridge' between sea and hinterland. In forest there are a lot of archaeological testimonies of Montioni's mining history, and it has a high nature value. Second complex is a coastal pine forest near Follonica and it can be divided in three parts: the 'head', linked to the city, it's used as 'urban park'; second part, is characterized by strong presence of touristic spaces and structures, with consequent anthropic pressures. Finally, third part is characterized by typical environmental role of the coastal pine forest. The research use method of multi-criteria analysis applied to forest types and agro-eco-mosaics of area to define ecosystemic services that characterizes the complexes. Final objective is to propose a strategic scenery to valorise forests' principal vocations.



# Brownfields Survey of the Metropolitan City of Florence

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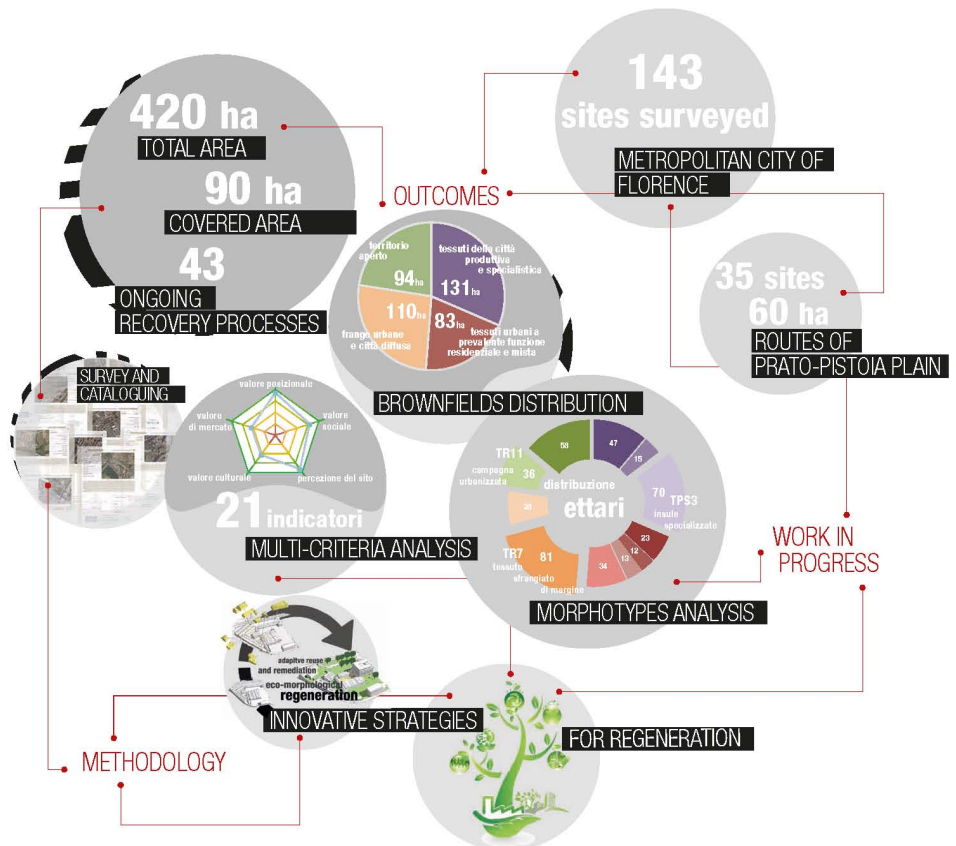
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The topic of the research carried out within the DIDA Plans and Projects for the City and the Territory, commissioned by the Metropolitan City of Florence, is part of the territorial transformations that have taken place significantly from the 50s to today. After the long processes of structuring of the territory and the phases of development and transformation of the various productive activities disseminated in urban and suburban areas, we are today in the presence of large areas that are variously abandoned with sometimes very complex recovery problems. The so-called brownfields, production areas abandoned or in a state of degradation or under-utilization, with known or perceived environmental pollution, relevant for the urban and territorial regeneration processes. At a time when, at least in Tuscany, work is being done to reduce rural land consumption, so as to limit urbanization according to the provisions of LRT 65/2014, brownfields become strategic for any urban regeneration path and metropolitan. In these areas, once they have been redeveloped, they can be provided in fact those functions that would otherwise have to be located in the external perimeter of the urbanized areas, creating new and deplorable processes of land consumption. At the same time, they offer the possibility of experimenting participatory processes on a subject that is strongly felt by the community.



# VR perceptual evaluation



**Scientific Director**  
Iacopo Bernetti

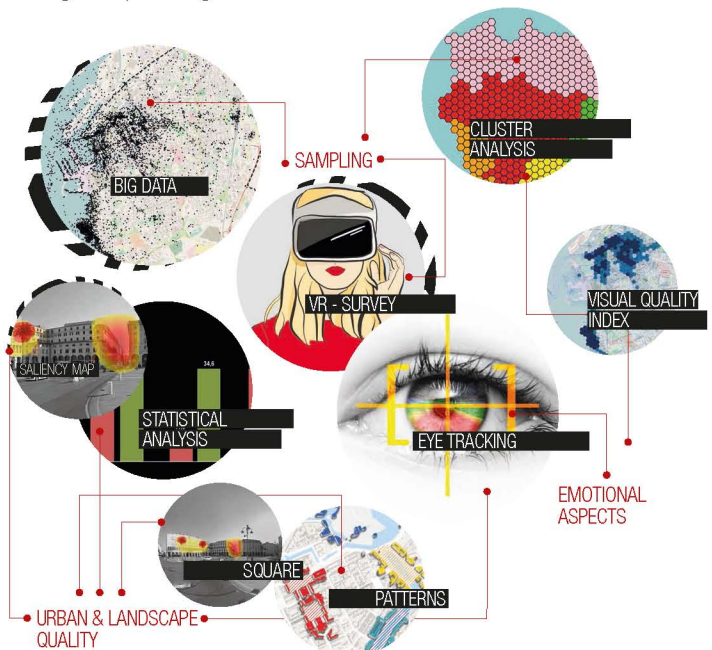
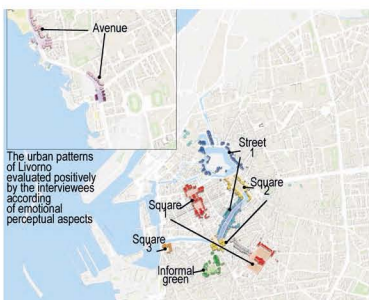
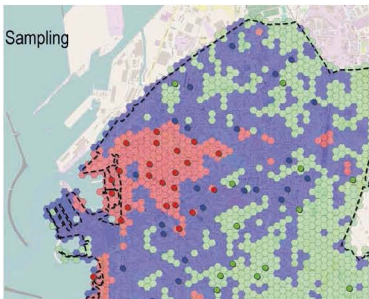
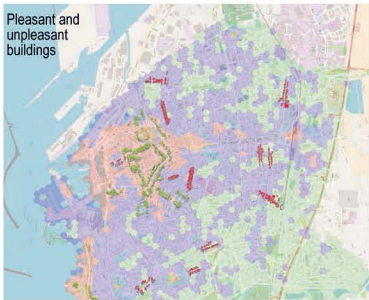
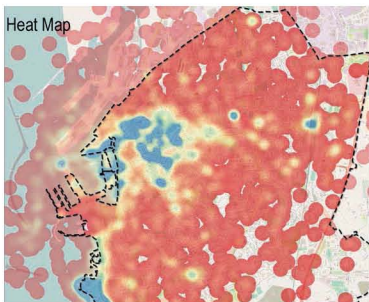
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The perceptual laboratory is aimed at researching urban and landscape quality, basing on the awareness of the loss of value of some spaces. These particular spaces do not favour the sense of recognizing oneself and the sense of belonging to the place where people live. The cause of the alienation of man with the surrounding environment derives from the inability to reproduce spaces according to coherent structural models that determine a perception of the place faithful to the *forma mentis* of a given cultural reality. Thus it is necessary to regenerate these places through the identification of those spatial patterns capable of generating emotion and empathy, since each individual acts and behaves according to how the space is composed. For this reason public perception, subjective expression of value judgments, has acquired a strategic importance in the political decisions of the territorial government, considering, therefore, the evaluation operation a fundamental tool in planning and regional planning, which anticipates and supports the real decision-making moment.

Therefore some researchers over time have tried to solve this complex issue through two different approaches: objectivist and subjectivist paradigm. The first method, conducted mainly by experts, maintains that quality is inherent in its own components, or the formal rules that make up high quality spaces. The second one is based on the judgment and on the evaluation of the interviewed people taken into consideration and it allows to evaluate the landscape from a visual-perceptive point of view. Consequently the methodological proposal that the laboratory offers to try to integrate the different approaches in a single evaluation framework, which uses advanced tool. In particular big data, social media, virtual reality, eye tracking, saliency map and three-dimensional simulation. The ultimate purpose of the research activity is to develop guidelines and tools to support public and private decisions, correlating the results of the above mentioned assessments with the actions and regulations of regional planning.







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DIDA, the Department of Architecture of the University of Florence, performed an open and public analysis and evaluation of the scientific research carried out during the first five years of activity since its establishment, in order to define its research strategies, their relationship with the 2nd and 3rd cycle education, the role of experimental research and the system of labs at DIDA (DIDALABS), as well as the role of research units and interuniversity research centers.

The aim of the DIDA Research Week Book 2018 is to communicate the results of such research, in all the aspects which were carried out at DIDA during its first five years of activity.

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