

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

DIDA RESEARCH WEEK BOOK 2018







DIDA
RESEARCH
WEEK
BOOK
2018

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





UNIVERSITÀ
DEGLI STUDI
FIRENZE

DIDA
DIPARTIMENTO DI
ARCHITETTURA

graphic design

didacommunicationlab

Dipartimento di Architettura
Università degli Studi di Firenze

Susanna Cerri
Stefania Aimar
Federica Giulivo
Simone Spellucci



didapress


Dipartimento di Architettura
Università degli Studi di Firenze
via della Mattonaia, 8 Firenze 50121

© 2019
ISBN 9788833380629

Printed on pure cellulose paper *Fedrigoni Arcoset*

ELEMENTAL
CHLORINE
FREE
GUARANTEED



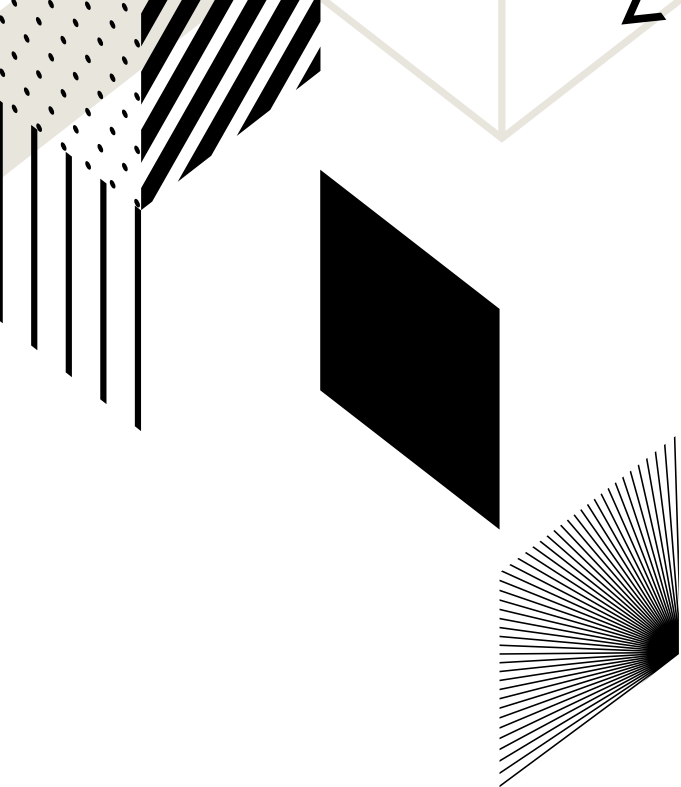


In February 2018, the Department of Architecture of the University of Florence (DIDA) promoted an open and public analysis and evaluation of the research carried out by the Department during its first five years of existence in order to define its strategy, the relationship with third and second cycle education, the role of experimental research and the DIDA-LABS laboratory system, as well as of research units and inter-university research centers.

The objective of the DIDA Research Week, through the documentation, communication and evaluation of the activities carried out by the Department in national and international research projects or in individual or exploratory projects, is an analysis and an in-depth reflection on the research activities at all levels carried out during the first five years of the Department: a wide and transparent reflection which communicates what the research carried out by DIDA is in all its different forms, calling the most qualified colleagues in Florence, Italy and abroad to discuss and to evaluate it and to contribute to the identification of future goals, strategies and actions.

The transparency strategy in scientific communication developed by the Department plays a central role not only concerning the dissemination of knowledge but above all for the effective evaluation by the entire scientific community, certainly more effective than the current assessment procedures. The increasingly international dimension of research and education requires the maximum possible transparency and accessibility of research results.

The Department's commitment to supporting scientific journals, the DIDAPress publishing, the Communication Laboratory and the first DIDA Research Week itself aims to meet this need.



**DIDA RESEARCH WEEK 5 YEARS OF RESEARCH BY THE DEPARTMENT DIDA 2013-2017:
AN ASSESSMENT FOR THE FUTURE PROGRAM.**

19-23 February 2017

Santa Teresa, via della Mattonaia 8, 50121 Florence

Monday 19 February

Disciplinary research

Interdisciplinary and multidisciplinary research

Tuesday, February 20

Competitive research, horizon 2020, industrial research, design research,
research for the third mission

Research communication, magazines and scientific publishing

Wednesday 21 February

The Ph.D. Course in Architecture

Thursday 22 February

Research, training and profession. DIDALABS, Research Units and Research Centers

Applied research experiences

Round table: Research, training, profession: DIDA Open perspectives

Friday 23 February

Research, training and profession in the design area:
scenarios and strategies for the design and project area

DIDA RESEARCH WEEK
BOOK 2018



TABLE OF CONTENTS

INTRO

| | |
|---------------------------------------------------------------------------------------|-----------|
| DIDA Research Week. Overview of DIDA research environment from 2013 up to 2018 | 15 |
| Saverio Mecca | |

| | |
|---------------------------|----|
| Map 1 Research Map | 18 |
|---------------------------|----|

DIDA RESEARCH STRATEGY | A general view

| | |
|-----------------------------------------------------------|-----------|
| Projects and relations between fields of knowledge | 23 |
| Giuseppe Lotti | |

| | |
|----------------------------------------|-----------|
| Towards an innovative doctorate | 27 |
| Giuseppe De Luca | |

| | |
|------------------------------------------------|-----------|
| Didalabs. Clusters and applied research | 31 |
| Giorgio Verdiani | |

| | |
|----------------------------------------|----|
| Map 2 DIDAlabs. Inside Research | 34 |
|----------------------------------------|----|

| | |
|----------------------------------------------------------------------------------------------|-----------|
| Understanding research through communication. Concept, methodologies and tools of DRW | 37 |
| Susanna Cerri | |

| | |
|------------------------------------------------------|-----------|
| Setting Connections. Inter-university Centres | 41 |
| Roberto Bologna, Paola Gallo | |

| | |
|-----------------------------------------------|----|
| Map 3 Internationalisation of research | 44 |
|-----------------------------------------------|----|

DIDA RESEARCH MAP | 2013-2018 **47**

DIDA Research Systems **55**

| | |
|--------------------------------------------------|-----------|
| Inter-university centres ABITA_CIST_TESIS | 57 |
|--------------------------------------------------|-----------|

ABITA

TESIS

Laboratories **97**

A&P - Architecture & Project cluster **99**

Architecture and Auto-construction | LAA

Prato Laboratory | Laboratorioprato

Technologies for the Mediterranean Area Laboratory | TAM Lab

Theatre | Architecture Laboratory | TEARC Lab

Urban Design Laboratory | UD

AHCV - Architectural Heritage Conservation and Valorisation cluster **113**

Architectural Heritage Restoration and Conservation | LARC

Architectural Survey Laboratory | LRA architecturalsurveylab

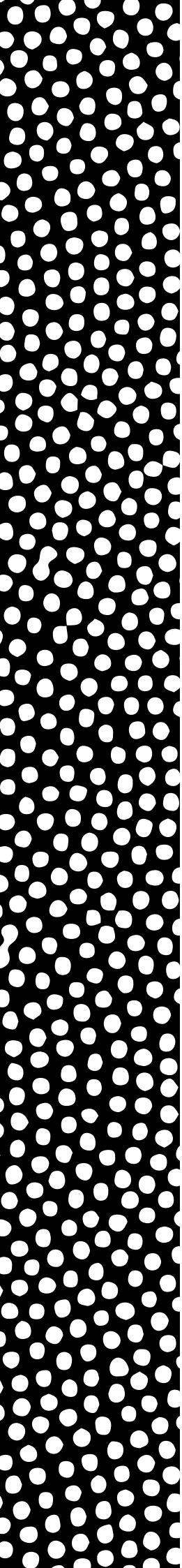
Cultural Heritage Management Laboratory | CHM_Lab

Heritage City Laboratory | Heritage City_Lab

Materials and Structures Testing Laboratory | LPMS

| | |
|----------------------------------------------------------------------------------|------------|
| DSI - Design and Sustainable Innovation cluster | 143 |
| Communication Laboratory didacommunicationlab | |
| Design for Kids | |
| Italian Design for the train DIT lab | |
| Ergonomics & Design Laboratory LED | |
| Modelling Laboratory for Design LMD lab | |
| Multimedia Architecture Interaction Laboratory mailab | |
| Reverse Engineering Interaction design Rei Lab | |
| Sustainable Design Laboratory sustainabilitylab | |
| ICT - Information Communication Technologies cluster | 189 |
| Informatic Laboratory of Architecture informaticlab - LiA | |
| Cartography Laboratory LCart | |
| Photography Laboratory LfA | |
| Architectural Model Laboratory LMA | |
| Architecture Video Laboratory VI.D.A. lab | |
| TEL - Territories, Ecosystems and Landscapes cluster | 205 |
| Critical Planning & Design | |
| Laboratory of Sociological Research on Design, Architecture and Planning LabSo | |
| Landscape Design Lab | |
| Laboratory of Ecological Design of Settlements LaPEI | |
| Plans and Projects for the City and the Territory PPCT | |
| Regional Design Lab | |
| PhD Programs | 241 |
| Architectural and Environmental Survey and Representation | |
| Design | |
| History of Architecture and the City | |
| Landscape Architecture | |
| Technology of Architecture | |
| Urban and Regional Planning and Design | |
| Research Units | 305 |
| Cities and Regions Across Local Boundaries A.VAST Area Vasta | |
| COmmunities REsilience CORE | |
| Documentation and Management of Small Historical Settlements DM_SHS | |
| Exploring Landscape Architecture ELA eu.med. | |
| Florence Accessibility Lab FAL | |
| Heritage and Euro-Mediterranean Design Dar_Med | |
| International Group on Urban and Architecture Design INTEGRO_UAD | |
| Landscape, Cultural Heritage. Project PPcP | |
| Local and Indigenous Knowledge Systems and Innovation INN-LINK-S | |
| Projects on Environment, Cities and Territories in the South PROJECTS | |
| Urban Bioregion Project PROBIUR | |
| Sustainable Urban Projects & Research SUP&R | |
| Technology for the Project TxP_R | |

| | |
|--------------------------------------------------------------------|------------|
| Scientific Journals | 345 |
| Firenze Architettura | |
| Contesti | |
| Territori | |
| Scienze del Territorio | |
| Opus Incertum | |
| Ri-Vista | |
| DIDA Research Programs | 359 |
| A&P - Architecture & Project | 363 |
| Architecture & Project | 346 |
| AHCV - Architectural Heritage Conservation and Valorisation | 485 |
| Architectural and Environmental Survey and Representation | 486 |
| Conservation of Architecture and Cultural Heritage | 572 |
| History of Architecture and the City | 604 |
| Materials and Structures | 648 |
| DSI - Design and Sustainable Innovation | 697 |
| Design | 698 |
| Technologies of Architecture | 714 |
| TEL - Territories, Ecosystems and Landscapes | 745 |
| Landscape Architecture | 746 |
| Urban and Regional Planning and Design | 752 |





DIDA Research

Programs

Central Italy Earthquake

Giano dell'Umbria Primary School

Scientific Coordinators

Mario De Stefano
Stefano Bertocci

Topographic and Architectural Survey

Stefano Bertocci
Giovanni Pancani

Architectural Design

Michelangelo Pivetta

Technological and Environmental Design

Paola Gallo

Structural Design

Mario De Stefano
Paolo Spinelli
Maurizio Orlando
Ersilio Vitolo

Collaborators

Matteo Bigongiari
Alessandra Donato
Massimo Lapi
Davide Lucia
Elisa Monaci
Vincenzo Moschetti
Luisa Palermo
Giacomo Razzolini

This project is the result of the synergy between the University of Florence and the Government Commissioner for Reconstruction that with the Extraordinary Program for the schools has given the responsibility to some universities for the design of 21 school buildings located in the areas affected by the earthquake.

This activity has been an example of integrated planning carried out following the restrictive guidelines imposed by the commission procedures to create a building able to meet the requirements of safety, durability and sustainability according to the high standards for school buildings provided by the guidelines, in addition to the prediction of the viability of the intervention in 100 days.

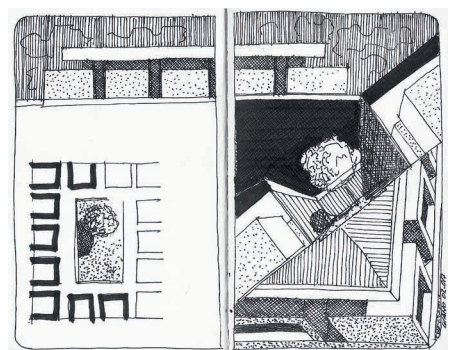
The design represents a court building, reminiscent of the nearby archaeological excavations of the Roman villa on the Via Flaminia, and proposes a further solution in the configurational choice of independent modules, no longer arranged in a linear way as in previous research about schools, now around a central courtyard under a slab made by steel for economy of workmanship and production times.

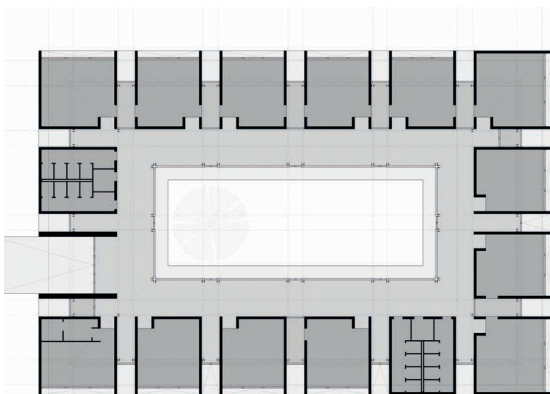
The planimetric system is purified, by necessity, of translations and rotations that would have made the realization more complex and onerous. This choice concentrates all the dynamics in an extremely simplified system in which the obsessive repetition of the planimetric and volumetric conditions, according to a synchronous code, determines spatiality with an almost domestic lexical character.

Nothing more than three independent elements: a basement, some stereotomic blocks and a flat covering. Above the unitary podium and under the large steel roof, therefore, independent functional modules will be built using steel-frame techniques that respond to the complex needs of teaching, gathering around a large protected courtyard for outdoor activities.

Spaces are organized in such a way as to allow children to procure diversified information autonomously through unconventional methods, as dictated by contemporary pedagogical methods.

A deliberately simple building that, however, is able to enclose and regulate precise typological solutions with cutting-edge technical expedients.







Printed by
Rubbettino Print | Soveria Mannelli (CZ)
for **didapress**
Dipartimento di Architettura
Università degli Studi di Firenze
April 2019



UNIVERSITÀ
DEGLI STUDI
FIRENZE

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.

ISBN 978-88-3338-062-9



9 788833 380629