

DIDA RESEARCH WEEK



UNIVERSITÀ DEGLI STUDI FIRENZE



OLTRE BAMPÈ

Energy and functional renovation of Primary School buildings in Lucca

Scientific Chief
Prof. Paola Gallo

Research group
Prof. Simone Secchi
Prof. Gianfranco Cellai
PhD, Arch. Rosa Romano
PhD, Ing. Alessandra Donato
Arch. Alfredo Di Zenzo
Arch. Antonia Sore

Head of research
Centro ABITA, DIDA

Partner
Comune di Lucca

Year of undertaking
2015-2017

Budget
15.000 €

Keywords
Sustainable Schools,
Energy Saving, Deep
Renovation, Energy
Analysis

Poster presents teaching methodology, research results and didactic experience developed on Oltre Bampè research, financed by Lucca's Municipality, which focus on deep renovation of school buildings, located in Med Area. Seminar goal was to promote the challenges of sustainability and retrofitting, developing a new design approach and new professional skills for the architect of the future who will be called to work in these design areas.

During Seminar students analysed three schools case studies provided by the of Lucca's Municipality Public Administration (LU), which has supported academic work, offering the opportunity of real projects developments of deep building renovation.

Projects outcomes were innovative design solutions that could be replicated on other school buildings retrofitting projects. Work developed during the seminar was linked to specific geographical, economic, cultural and social condition of Europe's School Buildings stock targeting in particular EU Energy Efficiency Performance Building directives focusing the build towards Nearly Zero Energy Buildings new generations.

Project excellent results developed and obtained during Seminar activities, showed how theory applied to design phase development, led students to re-think project approach on the basis of environmental thinking, assessing architectural composition, formal and technological choices; a new professional awareness which is independent of the simple aesthetic and dimensional results. In addition, the possibility of verifying technological solutions through the use of appropriate software and the constant reference to Environmental Control Techniques disciplines, allow young architects to understand the need to combine creative design phases with quantitative validation ones.

Therefore, effective and environmentally sustainable technology solutions become closely linked and integrated into architectural design ones, often justified by a cost-benefit analysis indicating students' sensitivity to issues related to managing costs and maintainance of public assets. Since project concerns school buildings, it was in fact fundamental to reflect on the necessity to adopt materials, systems, components and equipment that guarantee durability and easy maintenance, as well as an excelent level of indoor comfort in both existing and new school spaces.

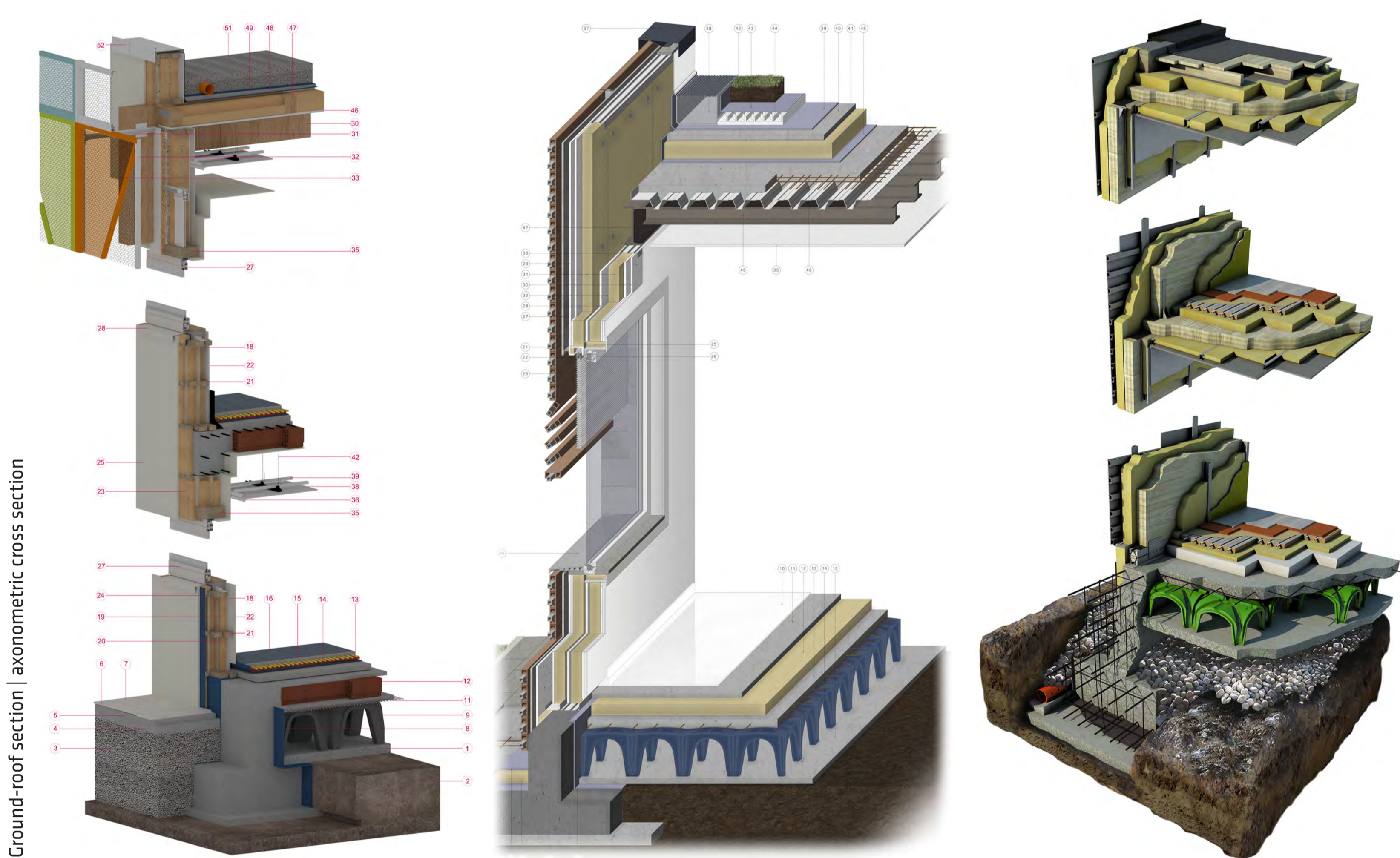
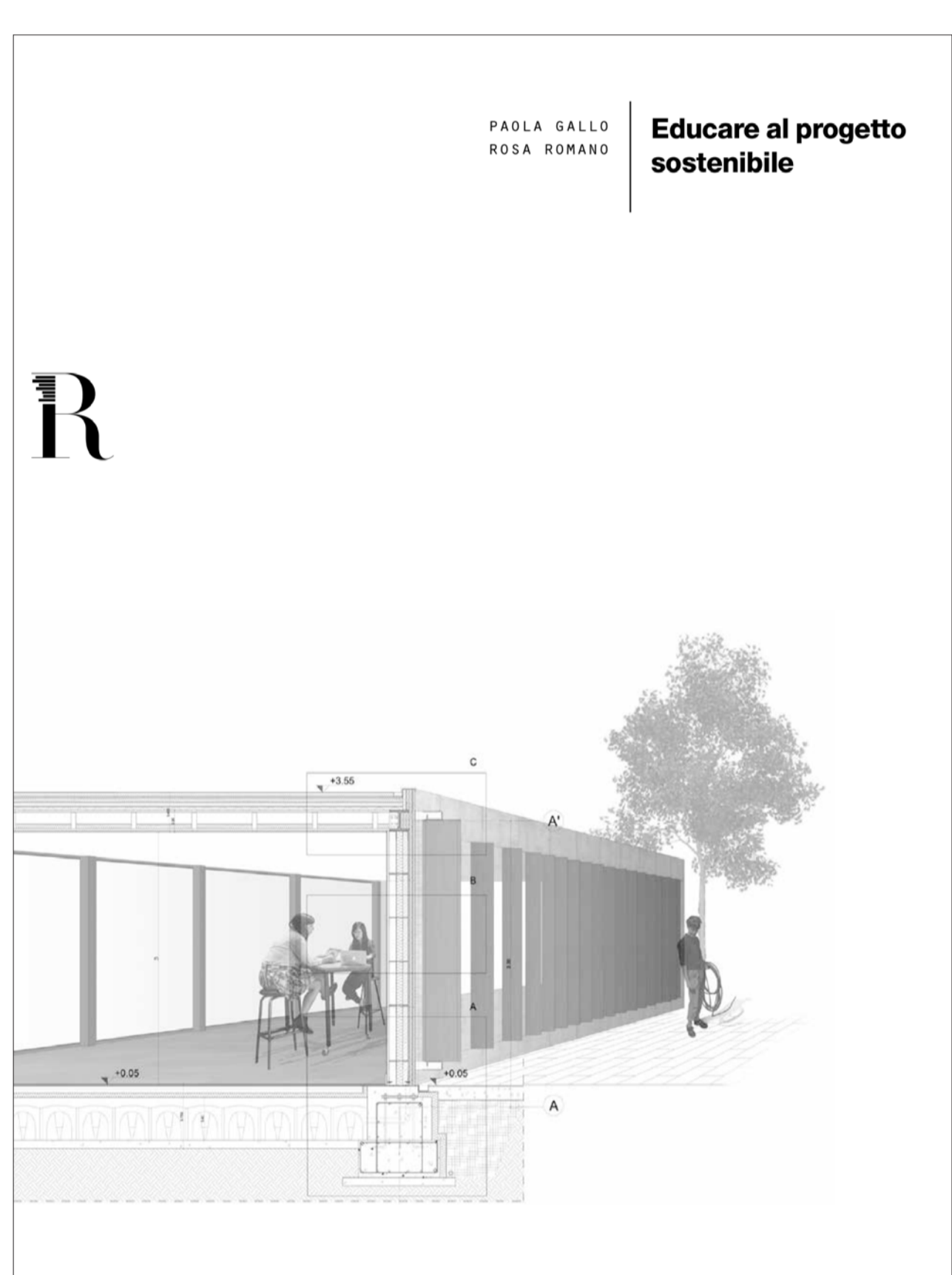
PUBLICATIONS

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Renovation project and new construction Primary school San Marco, Lucca
(Designed by G. Bandini, G. Bellini, M. Bozzi)

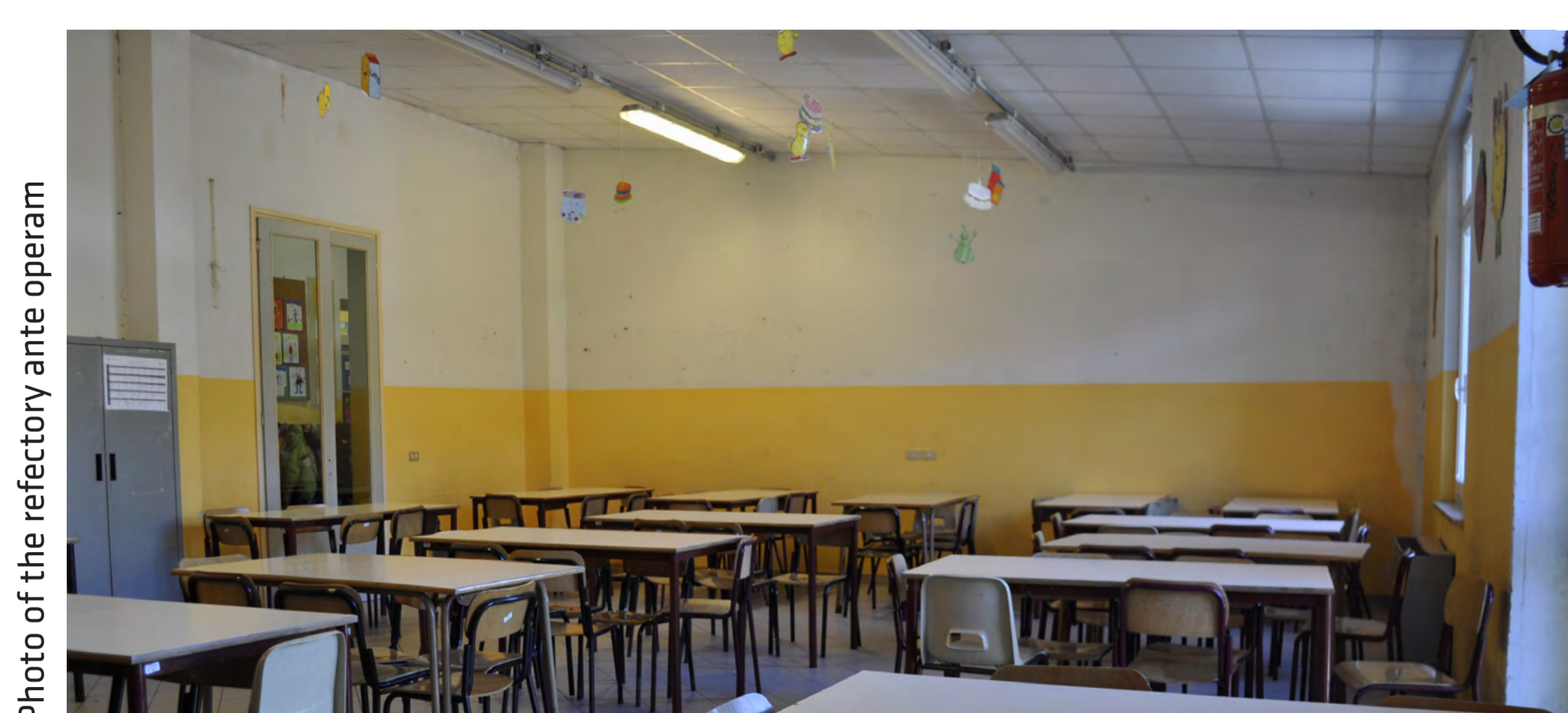
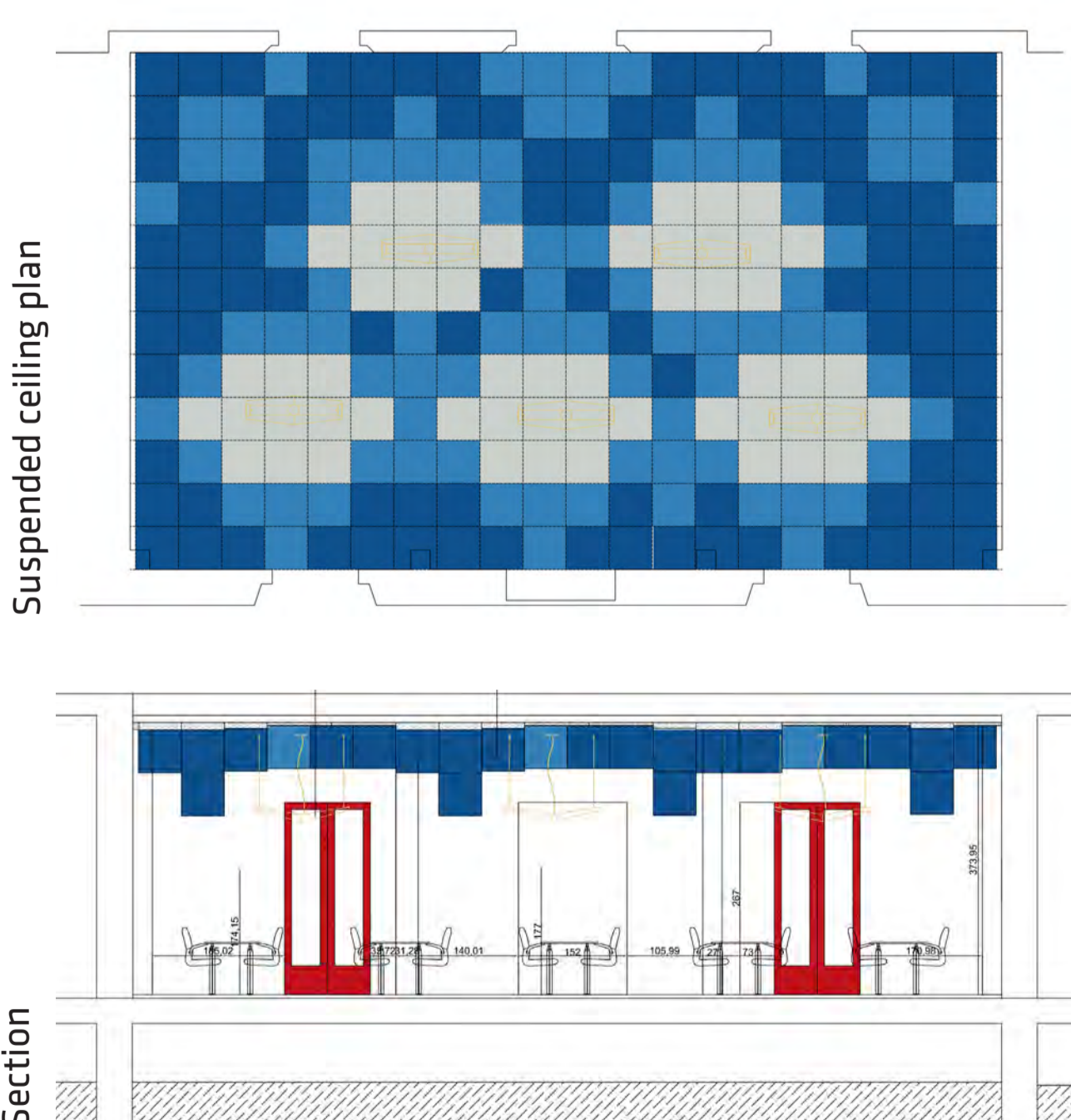
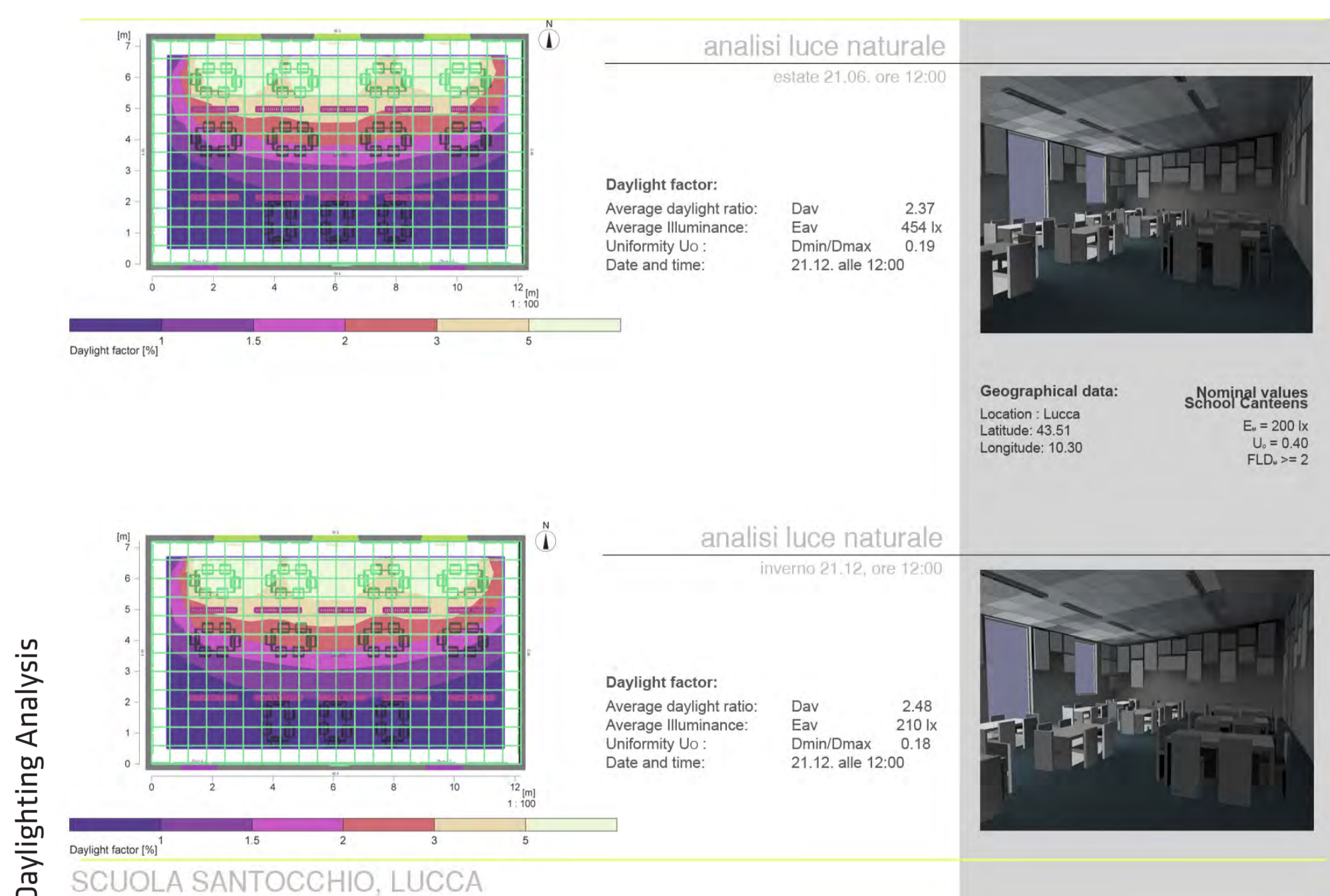


Renovation project and new construction Primary school San Donato, Lucca
(Designed by P. Artini, V. Brogi, A. Pucci)



Renovation project and new construction Primary school C. Piaggia, San Cassino a Vico, Lucca
(Designed by T. Pignatole, I. Tramentozzi)

INTERUNIVERSITY CENTRE ABITA



Acoustic and energy renovation of School Canteen Saltocchio, Lucca



Photo of the refectory post operam

19 - 23 FEBBRAIO

FIRENZE