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## 2021

# Manual of best practices for a blended flexible training activity in architecture for higher education institutions

This volume returns the results of the Intellectual Output 03 of the research project "ArchéA. Architectural European Medium-sized City Arrangement", with the aim of analyzing and restating the state of the art achieved in the field of flexible mixed training in architecture, strongly encouraged by the emergency period of the Covid-19 pandemic. The result is a collection of good practices carried out internally and externally to the ArchéA partner network, in the context of higher education institutions, made possible by new virtual tools capable of mediating teaching and mixed and flexible learning around the disciplines related to the project.

**IO3**
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# Manual of best practices for a blended flexible training activity in architecture for higher education institutions

edited by Enrico Prandi and Paolo Strina

**State of Art: the experiences of ArchéA's Network**

Paolo Strina
**Didactics, seminars and workshops in virtual environments.
UNIPR experience in teaching architecture.**

*University of Parma, Italy*

**Fig. 01** Selma Homepage - the E-Learning and Multimedia Service Center of the University

### Online platform teaching

The University of Parma has for some time made available to the faculty and students an advanced system for teaching e-learning and FAD based on numerous digital tools. Through the Moodle platform for distance learning most widespread internationally in the university environment, *Selma* - the University E-Learning and Multimedia Services Center - organizes and manages the entire training activity of the University: traditional study courses in presence or entirely online, training courses, masters and advanced training, and for the coordination of projects or working groups. (Fig. 01) Anyone in possession of credentials issued by the University of Parma can enter the Moodle platforms and use their potential. Specifically, the Selma Center guarantees the management and coordination of services such as:

- •management of the *Elly*-Moodle platforms;
- •consultancy, planning, management and methodological and didactic coordination of distance learning projects;
- •management of videoconferencing platforms;
- •production of multimedia teaching material through multimedia post-production services and audio / video recordings in the classroom and / or in the control room;
- •training dedicated to teachers and tutors;
- •other highly innovative services to support teaching activities.

Using these technologies for distance teaching and learning, the ICAR 14 Architectural and Urban Composition group coordinated by prof. Carlo Quintelli, has set up his 6 architectural design laboratories for the year 2020-2021, on the "*Venice Laboratory*" research project. (fig. 02) Three urban facts consolidated in the urban fabric of Venice,

already the subject of authoritative and autograph design experiments that have now become part of modern architectural theory and examples of a consolidated practice with a long Italian tradition on urban design, have been assumed as protagonists of a broad and systematic urban regeneration strategy. The 3 urban facts taken as case studies and design applications are:

- the Giudecca island
- the Cannaregio district
- the Accademia Bridge

The laboratories were divided as follows, in compliance with the academic-ministerial provisions relating to ICAR 14 teaching:

*LP1 / A Architectural design laboratory + workshop.*
The theme of the first year workshop was the single-family residence on Giudecca.

*LP1 / B Architectural design laboratory + workshop.*
The topic concerned the project of a single-family building type on the Giudecca island.

*LP2 Sustainable architectural design laboratory + workshop.*
The workshop dealt with the theme of "Architecture of urban spaces" design in the Cannaregio district, north of Venice.

*LP3 Architectural project for sustainable urban regeneration + workshop.*
The chosen theme concerned the urban area of the Accademia Bridge as an important urban center, between Rialto and San Marco.

*LP4 Architectural and urban design laboratory for the sustainable city + workshop.*
The topic concerns the project of an

**Fig. 02** Poster of the UNIPR 2020-2021 ICAR 14 laboratory educational program coordinated by prof. Carlo Quintelli

experimental sustainable settlement on the Giudecca island.

*LP5 Architectural and urban regeneration project synthesis laboratory + workshop.*

As part of the Synthesis Laboratory, among others, the project for the Accademia Bridge in Venice.

A common figure for all the courses, in which, as can be seen from the titles, the size of the workshop assumed considerable weight, was the multidisciplinarity guaranteed by the presence of educational modules relating to urban planning, construction sociology. The workshops took place according to a pre-established calendar of lessons, project reviews, external contributions, accessible remotely in synchronous or asynchronous mode, with a corollary of didactic and bibliographic material, all accessible from the UNIPR ELLY e-learning platform. (Fig. 03)

The multidisciplinary nature of the laboratory entailed moments of common verification and synthesis of all the information put in place for the architectural project. Difficult task given the remote development but fulfilled through seminars between the disciplines involved. (Fig. 04)

An attempt, therefore, to educate the project theme through a series of introductory lessons provided on pre-recorded video support or transmitted in real time within virtual environments on the MSTeams platform, which allowed the direct interface, albeit filtered from a screen, between pupils and teachers. The urban project, as well as the architectural and urban composition in general, suffers from considerable limitations if approached at a distance, without an effective direct and physical laboratory comparison. The critical point, precisely, with respect to the methods of teacher-student interaction that took place virtually, are the revisions of the
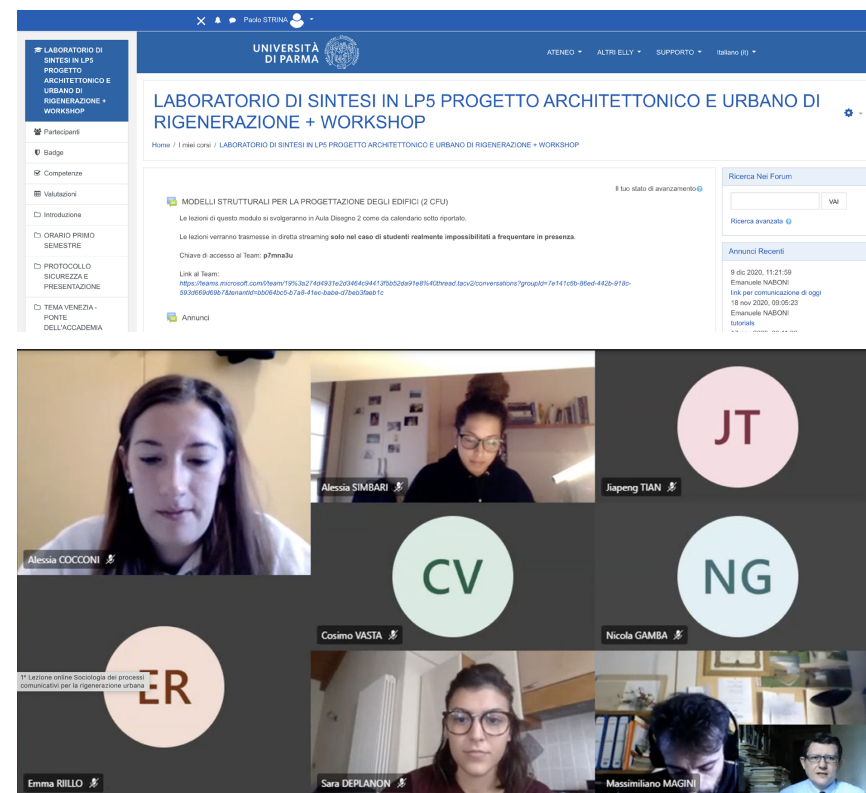




**Fig. 03** UNIPR Moodle e-learning platform. In the photo, the page dedicated to the LP5 synthesis laboratory architectural and urban regeneration project + workshop
**Fig. 04** Seminar review moment on MSTeams virtual environment

**Fig. 05** Poster of the Workshop "Six workshops for Venice"

project. The ordinary tools of representation of the project are often not very effective if viewed on the monitor, due to a series of factors: scale and size of the project itself that does not allow a global view through small screens, resolution and heaviness of the image to be managed on the web, distorted colors from the monitor, etc. The students therefore carried out work on adapting the representation of the project to the communication channels used during the distance learning period, which allowed an immediate and effective transmission of their presentations, thus overcoming the expected criticalities.

**The workshop in a virtual environment**

The 6 laboratories described above organized, as a moment aimed at achieving a significant progress of the project by the working groups, an intensive workshop lasting one week, entitled "*Six laboratories for Venice*" (fig. 05). The week saw, as scheduled, the alternation of specialized contributions transmitted through interdisciplinary lectures on the "place Venice", to understand its architecture, urban planning, urban development also through past projects that have remained in the history of architecture as experiments urban on a

large scale, the criticalities, the social dynamics that regulate spatial behavior, especially in post-Covid contexts; all interspersed with moments of group work on the actual project which resulted in a first stage of progress of the project presented by the students during the last final day of the workshop. A second online virtual workshop experience took place within the *ArchéA* research program, among the partner schools: UNIBO - Alma Mater Studiorum University of Bologna; RWTH Aachen - Rheinisch-Westfälische Technische Hochschule; POLSL - Politechnika Slaska; UNIPR - University of Parma; ENSA Normandie - Ecole national supérieure d'architecture de Normandie.

TThe *ArchéA* program has included two thematic workshops on the regeneration of two urban areas, one in Bologna and one in Aachen. The second workshop entitled "Redesigning the medium-sized European city. The Driescher Hof in Aachen's periphery "took place online, through the MSTeams platform. The Workshop, which saw the participation of a total of 30 students (6 from the Master's Degree in Architecture of the University of Bologna - Cesena Campus, ITALY, 6 from the Faculty of Architecture of RWTH Aachen, GERMANY, 6 from the Faculty of Architecture of 'University of Silesia, POLAND, 6 of the Master's Degree in Architecture of the University of Parma, ITALY, 6 of the Ecole Nationale Superieure d'Architecture de Normandie, FRANCE), was held in English, entirely in blended Teaching / Learning mode with possibility to follow all the works in live streaming from the respective universities. Students of different nationalities faced the project under the guidance of a tutor who intertwined with them in the moments of review of the project progress according to indications provided from time to time also through the help of the cloud, messaging programs, dedicated sharing channels . The final results were evaluated by an international faculty jury during the final live MSTeams session.

**Conclusions**

Our daily life, even pre-Covid, was already heavily contaminated by a kind of communication carried out through the screen of the various devices that have become, for some detractors of technology, prostheses of our body. These tools, thanks to messaging, sharing, video-calling and cloud applications, have upset the interaction between people. Their use has become a hobby that occupies a large part of our free time. The Covid emergency has only favored the extension of these

communication and virtual sharing systems to work and education spaces, with respect to which, for years, efforts have been made to encourage telework where applicable, already in place in some realities more advanced than the Italian context. The contingencies deriving from Covid have forced to accelerate in this sense, thus clashing with systemic criticalities at a national level deriving from an undeniable widespread technological backwardness and an evident inequality in terms of digital infrastructure equally widespread among geographical areas. Universities, in this specific case, were obliged to convert to flexible teaching or, in some cases, totally remote. From physical classrooms, we have migrated to virtual classrooms in web spaces designed to host online meetings. Architecture as a discipline to be taught and learned has revealed particular difficulties with respect to these new interactive methods. Especially the ICAR 14 discipline, of which the experiences described are exemplary, suffers from the physical distance beyond which it is complicated to discuss the project carried out in a laboratory form. As Ignazio Gardella said, "The teacher's pencil should not be farther than one meter from the eye of the student", precisely because the drawing, the sketch, the representation, the erasing, the model torn and

modified live, are the tools immediate action and understanding of architecture. The added value of teaching architectural and urban composition is precisely the laboratory form that transforms teaching into a constant workshop concentrated in the hours of lessons. On-line teaching and learning, in the dimension of the workshop, must break down these limits, if ever possible, compensating for direct comparison in real time and the traditional tools of the architect's work in the design phase through the installation of cameras globe for the synchronous transmission of the laboratory activity in the various connected locations, the use of large screens on which to carry out the shared project review, the provision of multimedia tablets able to treat the project graphics as a series of levels that can be synchronized with respect to the changes made by the actors of the project according to the principle of BIM design. These deductions / needs emerged precisely during the experimentation of teaching and flexible learning activities which, as the main and undeniable advantage, have the ability to favor the internationality of the university, paradoxically breaking down distances.



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In 2015 he founded the architecture firm PSAtelier, where he practices his profession. Among his publications: Strina P., The spectacularization of the dismission, in FAMagazine, Parma, 2017