## contents

Alessandro Rocca - Design, research and methods Stamatina Kousidi - Primers, partis, prototypes: towards new methodological approaches in architectural design research Andrea Gritti - Text will arrive soon Li Jiaxi - Synthetic landscapes, capable to deal with coastal issues Liu Xiaoyun - Healing the vacancy Alessia Macchiavello - incrE(LE)MENTAL PREVision reseARCH Oljer Cardenas Nino - Pierre Jeanneret housing projects Marianna Frangipane - Narrative as a design tool in marginal landscapes Carla Rizzo - Architectural plans Francesca Gotti - Multi-public groundscapes Li Xiang - Architecture without architects Hu Dan - Participatory new vernacular public buildings Lu Zhaozhan - Participation methodologies Sara Anna Sapone - The agency of nature Kevin Santus - Nature based solutions for climate change Hailong Chai - A design strategy for underground space based on TOD-Hubs Cecilia Cempini - Design the spaces of mediation Pablo Gamboa Samper - The university campus and the city of Bogotá Valentina Dall'Orto - Country after people Sarah Javed Shah - Urban and interior public spaces Rose Ann Mishio - Architecture in the pandemic Carla Bulone - Graphene in building construction Liheng Zhu - Crime prevention in urban parks Adrian Moredia Valek - Cooling Cities: Innovative water-based cooling systems NHES.

Syllabus January 2022

# Architecture Research Agenda





ISSN 2385-2291 Syllabus January 2022

# **Architecture Research Agenda**

Syllabus is a Pedagogical Supplement of FUOCO AMICO Architectural Review ISSN 2385-2291

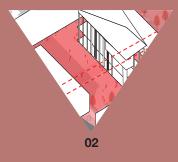
Syllabus presents experiences and research made inside formative courses at different levels: bachelor, master, doctorate. The goal is to offer these results, provisional and incomplete as they can be, to the scientific community, enhancing dialogues and exchanges.

Scientific Board Andrea Gritti, Stamatina Kousidi, Alessandro Rocca (Ph.D. Program of Architectural Urban Interior Design, Department of Architecture and Urban Studies, Politecnico di Milano)

Editor in Chief Alessandro Rocca

Kevin Santus collaborated at the editing of this issue.

©2022 MMXII Press piazza Leonardo da Vinci, 26 20133 - Milano MMXIIpress@gmail.com



Syllabus 02

contents

4

Alessandro Rocca - Design, research and methods	007
Stamatina Kousidi - Primers, partis, prototypes: towards new methodological approaches in architectural design research	013
Andrea Gritti - At a critical distance. The experience of the virtual	019

Andrea Gritti - At a critical distance. The experience of the virtual classroom in a Ph.D. course in architecture

## Architecture Research Agenda

contents

architecture research agenda	027
Li Jiaxi - Synthetic landscapes, capable to deal with coastal issues	029
Liu Xiaoyun - Healing the vacancy	047
Alessia Macchiavello - incrE(LE)MENTAL PREVision reseARCH	065
Oljer Cardenas Nino - Pierre Jeanneret housing projects	083
Marianna Frangipane - Narrative as a design tool in marginal landscapes	103
Carla Rizzo - Architectural plans	117
Francesca Gotti - Multi-public groundscapes	135
Li Xiang - Architecture without architects	147
Hu Dan - Participatory new vernacular public buildings	163
Lu Zhaozhan - Participation methodologies	173
Sara Anna Sapone - The agency of nature	183
Kevin Santus - Nature based solutions for climate change	207
Hailong Chai - A design strategy for underground space based on TOD-Hubs	227
Cecilia Cempini - Design the spaces of mediation	237
Pablo Gamboa Samper - The university campus and the city of Bogotá	247
Valentina Dall'Orto - Country after people	257
Sarah Javed Shah - Urban and interior public spaces	267
Rose Ann Mishio - Architecture in the pandemic	291
Carla Bulone - Graphene in building construction	319
Liheng Zhu - Crime prevention in urban parks	333
Adrian Moredia Valek - Cooling Cities: Innovative water-based cooling systems	343

5

#### Syllabus 02

Valentina Dall'Orto is an Architect and Master of Architecture from Politecnico di Milano (2015). Currently, she is an Executive PhD candidate in Architecture, Urban and Interior Design, at Politecnico di Milano. Since 2017, she works as professor and researcher at the Universidad Técnica Particular de Loja (UTPL), Ecuador, participating to the activities of the research group habitAndes. Armong these Valentina is managing the projects of community service in a marginal district of the city. Previously she collaborated with Quito's Instituto Metropolitano del Patrimonio (IMP) and SEK University. She has also volunteered experience in different countries, focusing her explorations on South American territory since 2015. Presently, her research focuses on rural houses typologies in Loja region.

#### Architecture Research Agenda

The research deals with the themes of the project of rural living, through an analysis of the architectural device of the house and how this has been declined in the southern region of Ecuador: Loja. The dwelling has been selected as a significant material expression of changes in living practices occurring in the Global South. The complex and multifaceted scenario presented by the contemporary countryside is an object of debate in different fields of knowledge. A multiplicity of conceptual categorization and the blurred nature of the subjects invite researchers to study it through unexplored optics. In this context, architecture is envisioned as an important agent of transformation in re-shaping the future of rural environment.

Valentina Dall'Orto

Rural habitat at 0° latitude

## On Global Rural - Position Project

Trying to define the current condition of countryside in a globalized world, one comes across a heterogeneous scenario, unified just by the difficulty to ascribe the position of what is not urban through predetermined categories. Some authors identify rurality as a spatial condition (Roskam 2016; Koolhaas 2020) while others deny its existence, stating that there is no longer any outside to urban world (Brenner 2013). Due to the opaque nature of the subject, the necessity to define conceptual tools for the construction of a new rural discourse becomes evident (Di Campli 2019).

In Latin American environment, these territories represent a conflictive space, far from the pastoral image dominated by an untouched nature. Currently are crossed by phenomena dictated by a forced adaptation to global market logics, by migrations and the consequent cultural hybridizations, which have also led to a profound change in living practices.

Such violent events shape a different function for the architectural device of the house. It no longer represents the specific constitutive matrix of the place, but often appears completely unrelated to the context.

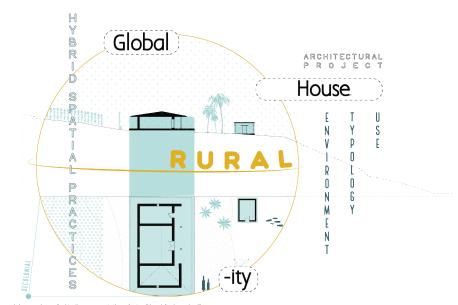
The proposed research will be developed in the Andean territory of the province of Loja, in the south of Ecuador, characterized by a mainly mountainous orography and an unstable climate (Alvarado 2017). This frontier land presents several environmental and socio-economic critical issues, related to the coexistence of traditional rural societies and new inhabitants, and to processes of abandonment and intensification of uses and values, which cause deterritorialization and re-territorialization movements (Di Campli 2019). In this context, traditional and contemporary architectural productions appear in an antithetical relationship, despite the difficulties in situating them in a specific temporal or formal horizon. The first, congruent with the image of its creator, shows a clear coherence between the form, its constitutive parts and the function associated with each space. It demonstrates an organic unity with the surrounding landscape. The second, on the contrary, emerge as a result of the flaking of places, a process of radical modification of living practices that manifests its uncertainty through imported architectural forms in perpetual transition. The transformation process leads to a progressive rejection of the typology, in favor of the homologation of domestic spaces to anonymous models.

Syllabus 02

The necessity for a decolonial perspective – References In order to identify the different reading efforts of the rural device for living made in various historical moments and

latitudes, some references have been selected.





Research keywords applied to the representation of a traditional Andean dwelling.

The diverse existing focuses are attributable to the needs of the period in which the studies are produced. In this sense, the explorations carried out after the Second World War, are characterized by a strong documentary intention, justified by the necessity to carry out a reconnaissance of the built environment on the territory. On the other hand, the contemporary focus is often linked to the purpose of rediscovering ancient knowledges based on a balance with the environment, in order to deal with the wicked problem of the climate change.

Regarding the Italian background, the selected studies were developed starting from the '30 and are aimed at documenting from different perspectives the condition of rural territory in its components. The research of Giuseppe Pagano and Guarniero Daniel of 1936, titled *Architettura Rurale Italiana*, is centered on demonstrating the intrinsic esthetic value in the functionality of rural houses. Through a photographical recognition is explicated the origin of the forms that shape the rural fabric. In this way, are explored the climatic, topographic and functional determinants which settle the origin and evolution of the built forms. In the context of CNR monographs of the postwar period, through a mainly argumentative narrative Lucio Gambi describes the rural house of Romagna starting from an historical analysis of the typological consolidation. The research records the variations of the architecture based on changing topographies of the region. The approach of Cesare Saibene provides a narrative of the Italian rural landscape based on the recognition of morphological units. The description is realized through the study of the physical, anthropic, economic and human settlement environment: the rural house is therefore a part of a whole.

Syllabus 02

Regarding the contemporary approaches to the study of the rural house, the subject is often analyzed in its technological component, highlighting how vernacular architecture constitutes an important repertoire of applicative information for today's construction. Under this perspective, it is important to point out the contribution of the atlas *Habitat: vernacular architecture for a changing planet* edited by Sandra Piesik in 2017, and of *Lo-tek Design by radical indigenism* by Julia Watson in 2020.

The relevance of the PhD research proposal lies on the necessity to set up an interpretative spatial model of decolonial origin. As Ananya Roy argued, the dominant theories on the design and governance of cities and territories are rooted in the Euro-American experience and are therefore unable to account for the multiple forms of space production in the southern hemisphere (Roy 2009).

#### Architecture Research Agenda



Myer's Home - Rural Studio Newbern Alabama, 2020.

## Key Words — Key Projects

The key-projects are considered representative as they illustrate the multiplicity of variations assumed today by rural living. In this perspective, it is interesting to point out the exploration of RUF aimed at addressing the consequences of the processes of urbanization of rural villages in China. The collective envisions a three-storey-core that could maximize the flexibility in the building construction, providing also a rooftop garden and a water storage reservoir.

In the European context, the work of the architect Gion Caminada, active in the recovery of the village of Vrin, is characterized by structuring of a dialectic discourse with the local tradition, recovering a direct relationship with the landscape. His architectural production is ascribed to the concept of "cosmopolitanism", which differs from "globalism", interpreting the former as the act of focusing on a specific place without losing the vision of the global panorama. The Forest House, represents the transfiguration of the conventional use of the house in a new one, more relational, that can meet the requirements of the present time. At the same time is important to highlight Stephen Petermann's critical reading of the gentrification process of the Andermatt Alpine Valley (CH), that is undergoing a strong development as a holiday resort of an Egyptian real estate billionaire. The author highlights how the social, political and economic landscape is radically determined by neo-Cartesian tech-driven orthodoxies in an evolving process of resortification.

## Conclusion

Syllabus 02

The PhD research proposal aims to contribute to the existing body of knowledge with a mainly methodological improvement. For this purpose, the rural house is considered a complex cultural product, a living and dynamic organism that is transformed and reacts to the phenomena to which it is subjected. This research will investigate what rural house can express about the global phenomena that affect it and which instruments of architectural domain allow an effective reading of the complex dynamics that are shaping rural territories through the analysis of the dwelling. From that perspective, the contribution is focused on establishing a methodological path useful to read the relationship between the various elements that compose the rural house and their context, observed from a decolonial perspective. This process will facilitate to obtain conceptual tools useful for the purposes of the architectural project.

#### Architecture Research Agenda



RUF proposal for rural village of Shiguang, China, 2016.AMO critical reading of urbanization process of Andermaat, Switzerland, 2017. The Forest House, Gion Caminada Switzerland, 2017.

Syllabus 02

Architecture Research Agenda

Bibliography

Brenner, Neil. 2013. Theses on Urbanization, Public culture, Duke University Press. AMO, Koolhaas Rem. 2020. Countryside: a report. Taschen; Roskam Cole. 2016. *Inventing the Rural*, in Architectural Design – Designing the rural N.242, edited by Bolchover, Lin, Lange. Jhon Wiley and Sons. Di Campli, Antonio, and Luigi Coccia. 2019. RuralEstudio, Quodlibet. De Rossi Antonio. 2020. Riabitare l'Italia, le aree interne tra abbandoni e riconquiste, Donzelli Editore. Pagano, Giuseppe, and Daniel Guarniero. 1936. Architettura rurale Italiana, Quaderni della Triennale, Hoepli. Gambi Lucio. 1950. La casa rurale nella Romagna, Consiglio Nazionale delle Richerche - Centro di studio per la Geografia Etnlogica VIIII Staluppi Giuseppe. 1994. Cesare Saibene e il paesaggio italiano, Vita e Pensiero. Watson Julia. 2020. Lo-tek: Design by radical indigenism, Taschen. Piesik Sandra. 2017. Habitat: vernacular architecture for a changing planet, Thames and Hudson. García, Tamayo, Cobo, and Francisco Coronel F. 2018. "Estudio tipológico de la arquitectura vernácula: aportes y síntesis desde la complejidad". ASRI-Arte, Sociedad revista de Investigación N.14, ISSNN 2174-7563. https://dialnet.unirioja.es/servlet/ articulo?codigo=6266274 Hensel Michael Ulrich. 2015. "Rural Studio: Incarnations of a

Design-and-Build Programme", Architectural Design 85 (2): 40-47. DOI: 10.1002/ad.1875