MInDS 2024

MInDS milano international design studio
politecnico di milano
school of architecture urban planning construction engineering
m.sc architecture - built environment - interiors
5 - 16 february 2024

POLITECNICO MILANO 1863

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Milan, 5 - 16 February 2024

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MInDS / Milano International Design Studio is an intensive design workshop conceived as an international exchange and education platform, activated between the third and fourth semester of the Master's degree program ACI-BEI.
The workshop, which develops over two weeks, is articulated in ten distinct classes held by ten different visiting professors, committed to questioning ten different topics.
The scope is represented by architectural design, which is also the object of study and experimentation. But it is a form of design that can no longer be recognized in a single scale, or in a predetermined typological catalogue. Rather, it concerns an architectural know-how that tries to be open to contaminations coming from other practices, to better respond to the demands of an heterogeneous and constantly changing reality.

Benoit Burquel @AgwA

Demolition

AgwA is a Brussels-based architecture office. Since 2003, they produce architecture in Belgium and internationally. Their projects mainly involve mixed programs on complex sites. AgwA is particularly interested in critically exploring the potential for adaptative re-use of existing buildings. They relate their architecture practice to research, teaching and publishing. Since 2019 they edit the In Practice book series and in 2019 they co-founded Architecture in Practice, an interuniversity research group for practising architects. AgwA is composed of 20 architects and is led by Benoit Vandenbulcke, Nicky Vancaudenberg, Hélène Joos, Harold Fallon and Benoit Burquel.

overview of the design topic

Architectural projects start with removals – excavating and demolishing, piercing and cutting, dismantling and disassembling. These subtractions precede additive actions – supporting and reinforcing, connecting and articulating, completing and covering. The interplay of removals and additions creates scenarios where diverse materials and spaces coexist – juxtaposed or articulated, distinguished or accepted, distanced or concealed. This studio explores this dual gesture as an irreducible sphere where spatial ambitions materialize, and architecture evolves into a language. It demands precision in observing existing constructions and thoughtfulness in calibrating additions. Embracing an economy of means, readability of construction, and a nuanced sense of sophisticated rusticity, it works towards a powerful and straightforward architectural expression.

project site / area of intervention

TMilan will be our field of exploration. Ubiquitous office buildings, anonymous parking structures, generic housing estates and supermarkets. Generic structures, though embedded in their context and specific in their structure. Any conversion entails partial demolitions. To allow other uses, to unveil unexpected qualities, obviously. But also, to renew and subvert their entanglement with the context. The sites of intervention will be chosen precisely based on their intrinsic (absence of) structural and spatial qualities, as well as their peculiar relationship with the surroundings.

design tasks

The studio proposes to question the nature and the ambition of a design project by exploring the architectural potentialities arising from partial demolition and the new artifacts it introduces – props, supports, reinforcements, complements. Large drawings and scale models will be our primary tools to delve into the material reality of these structures and to develop an architectural language made of precise spatial interventions and embodied actions.

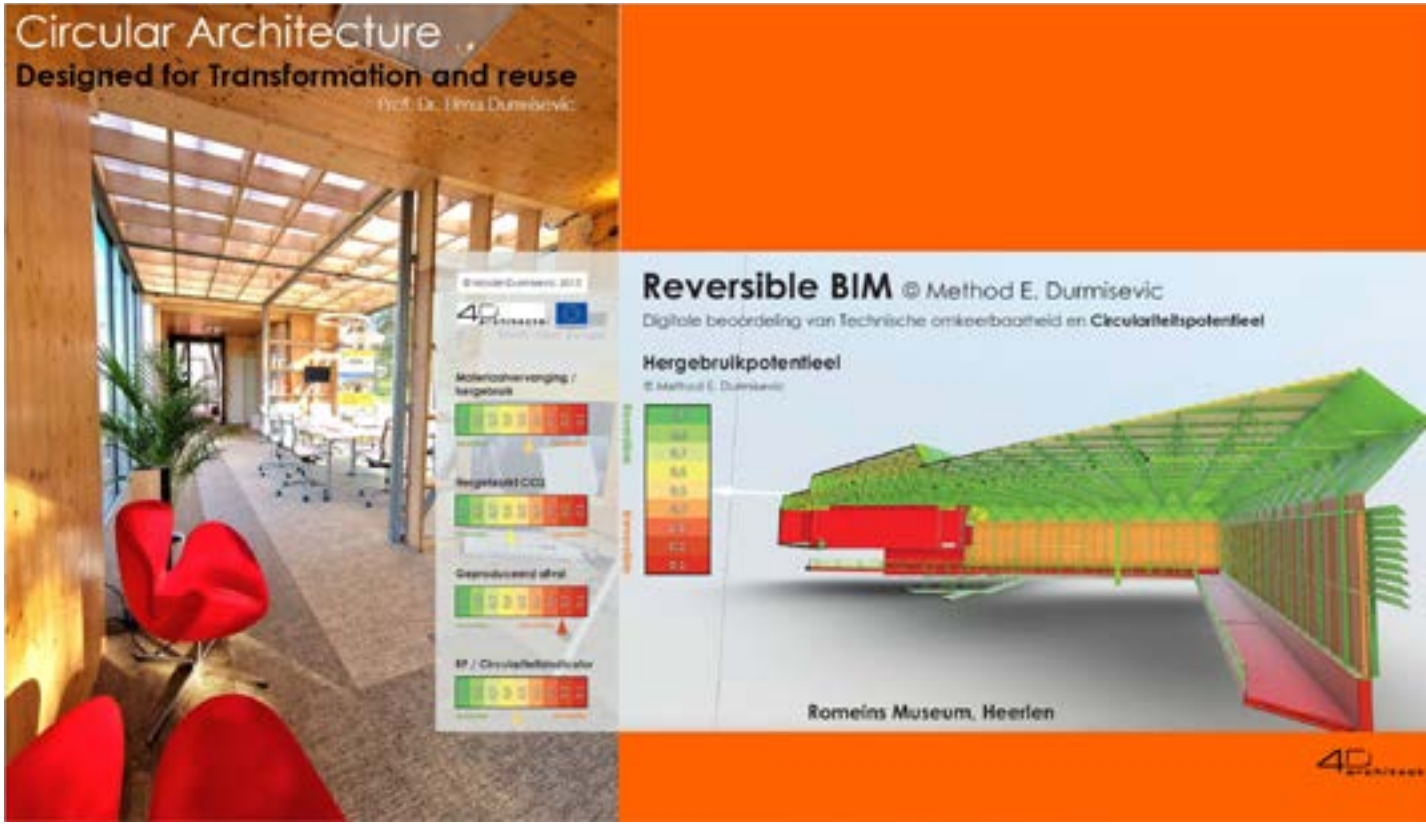
Elma Durmišević

Circular Architecture

Elma Durmišević holds a PhD at Delft University of Technology on Transformable Building Structures, and Design for Disassembly in Architecture. As Associate Professor at the University of Twente, Durmisevic developed a master program for dynamic and sustainable buildings that introduced green engineering in industrial design of architecture. Durmisevic is a leading architecture authority on Reversible/Circular Building Design and Transformable Buildings. She's the founder of 4D Architects in Amsterdam, founding director of EU Laboratory for Green Transformable Buildings in the Netherlands (platform for circular buildings) and founder of Green Design Centre for South East Europe.

overview of the design topic

At the core of all design concepts and interventions in the built environment lays the question: How urban interventions can eliminate negative impacts on bio-capacity of the planet and transform them into a positive ones. According to the UN, the increasing consumption reflecting rapid growth of population and economic prosperity, resulted in tripling of raw material extraction in last three decades. Earth's resources and biocapacity to support human living and prosperity will be compromised if more effective and circular patterns of resource use are not implemented in design and construction.
This course presents a new approach to design of buildings which will unlock multi-layered capacity of buildings and their materials and enable their different reuse options. Such approach envisions buildings and cities as material banks for the future, where demolition is defined as design error.
To move towards circular use of resources buildings need to be perceived as dynamic structures with multiple material layers relaying on reversibility of the building and its structure. The course will zoom into Reversible Building Design that considers buildings of a future as reversible Monuments of the future. Design brief will deal with design of transformable building which can adopt its use without demolition and whose components are exchangeable and upgradable. Students will be able to choose out of two assignments. Transformation of exiting building or design of new building following Reversible Building Design Principles. Students will also have a chance to use tools which enable assesment of building reversibly and its impact on the environment.



Roberto González García

Other Stratigraphies

Roberto Gonzalez is a qualified architect who holds an M. Arch from Universidad del País Vasco and an M.A. in Contemporary Art from Universidad Complutense de Madrid. He is the Director of Office for Political Innovation in Madrid, an international architectural practice, based in New York and Madrid, working at the intersection of design, research, and critical environmental practices. The office develops projects that transition across scales and medium, intended to bring inclusivity into the built environment. He combines an extensive career in the development of architectural projects with a focus on curatorial, publishing, and critical practices. He has been professor of architectural culture and theory at IE School of Architecture and Design, and he was co-curator of "AMAZING" (2006), "WOW" (2007), and "¿CÓMO?" at Fundación COAM in Madrid.

overview of the design topic

The Civic Museums of Milan contribute to create a history of the city and their becoming as societies through their material remains that have been separately classified: from figurative arts to archeological records; from material resources that traditionally belong to natural and anthropological sciences to those that are more related to historical disciplines. Civic Museums dive into the past to shape the present and thus influence the future, but if the future is not written neither is the past. The workshop aims to contribute to a more diverse future by looking at the past and its remains in a cosmopolitical way.

project site / area

of intervention

Spread throughout the city center, the Civic Museums of Milan function as a network of knowledge based in separated disciplines, each of which tells a part of a larger history, as sometimes overlapping but mostly isolated threads. The specificity of the disciplines has determined the way we look at the stratigraphies that order the material remains of the museum collections. Separately, they allow us to better understand each discipline, each museum, each history. But together, they could contribute to a more inclusive history. The account of the all the spaces and collections of the Civic Museums could be – and is– part of the same game board: a network of knowledge shaped by different layers and heterogeneous entities where the past and present day-to-day life is rendered.

design tasks

The aim of the workshop is to intervene in the network of Civic Museums of Milan by enhancing the ability of design and architecture to render visible the diversity of the knowledge that they contribute to preserve, through other possible and more diverse stratigraphies that could make visible not only the specificity of the material remains preserved by one particular museum, but also the collective heritage of the city.

Olaf Grawert @ bplus.xyz

The Transformation Issue – Between Fact and Fiction

bplus.xyz (b+) is a collaborative architecture practice that works at the intersection of theory and praxis, spanning various media and formats. The practice addresses contemporary challenges, particularly the social-ecological transformation and the adaptive reuse of the existing building stock, aiming to provide ecologically and economically viable solutions. Currently led by Arno Brandlhuber, Olaf Grawert, Jonas Janke, Roberta Jurcic, and Jolene Lee.

overview of the design topic

Today, architecture is a tool of financial speculation. Driven by market logic, the prevailing method for greater profit is to demolish what is already there and rebuild commercially. Consequently, by 2050, we will have demolished 2 billion square meters of existing space in Europe—more than the city of Milan. A future that threatens both the environment and society. As architects, we're part of this dilemma, reliant on this system to pay for both our practices and living.
Together, we want to challenge this narrative and change this man-made system by means of design. We want to create architecture beyond a singular building, that designs the advent of its idea into culture. That imagines how existing buildings can be transformed and become an argument for a system change.

project site / area of intervention

The project site encompasses an existing commercial building in Milan, which is either out of use or is projected to be in the future. Because following the logic of financial speculation, every building is up for demolition if it is not protected and allows for greater profit. Given evolving societal trends – from changing work environments and mobility patterns to shifts in shopping habits and the role of public spaces – we will investigate ways of sites primed for future reuse and transformation.
One building will be chosen as a model to explore adaptive strategies that go beyond mere housing, integrating functions vital for communal living.

design tasks

The design projects will be structured in two distinct phases.
Individual Design: This phase focuses on the adaptive reuse of the existing building. The aim is to establish a clear design concept to reuse and transform the building. The design itself won't be developed into detailed specifics but shall effectively set the stage for Phase 2.
Collective Narrative: In this phase, the design concepts from Phase 1 will be used to develop an individual narrative, which together shape a collective storytelling approach. Students will receive input on storytelling techniques, which will help in pinpointing vital stakeholders and gatekeepers. This phase will result in a variety of formats. Together, all these formats aim to shift people's perceptions about the capabilities of existing buildings, framing them as potential agents of change.

Nikos Katsikis

Critical Minerals, Critical Landscapes

Nikos Katsikis is an urbanist and educator working at the intersection of urban theory, design, and geospatial analysis. He is currently Assistant Professor of Urban Design at the Department of Urbanism, Delft University of Technology, the Netherlands. He holds a Doctor of Design from Harvard GSD (2016), where I also served as Instructor in Urban Planning and Design, and editor of the journal New Geographies. His creative work has been widely exhibited in venues such as the Venice Biennale of Architecture and the Shenzhen Biennale of Urbanism.

overview of the design topic

The studio investigates the new spatial forms and logics of the extractive basis of the Green Transition. A combination of geopolitical antagonisms with the necessary response to the impacts of climate change, has led EU to adopt aggressive policies to secure the material basis of the post-carbon future in Europe. Selected mineral resources have been identified as critical to the supply chains of the renewable and IT industries. The goal of increasing the production of these critical minerals within European soils, will lead to increasing pressure on land uses, ecosystems, and communities. How can these new extractive landscapes be designed?

project site / area of intervention

The studio anticipates the intensification of resource extraction operations around major deposits of critical raw materials, with a focus on the Italian peninsula. Core materials for the Italian context are expected to be copper, magnesium, manganese, tungsten, cobalt, titanium, with their major deposits and concessions being concentrated across the geologically more active mountainous areas of the Alps and Apennine. Thus, the work will focus on the central and western Alpine arc (between the major concessions around Gorno and Punta Corna), exploring the articulation of city and more-than-city landscapes, human and more-than-human actors in their making.

design tasks

This is a research by design studio, where design is used both as a form of critical inquiry and creative practice. The two main tasks are: a project of disclosure, unpacking the spatialities and materialities of the extractive ecologies of selected critical raw materials, highlighting their negative externalities; a project of post-extractivism, envisioning the necessary extraction futures of the selected mountainous regions, in ways that harness the potentials and respect the limitations of both the human the and more-than-human agents that animate them. The studio will combine multiple scales of disclosure, from the molecular, to the European, with a territorial and architectural scale of intervention.

Mathieu Mercuriali

Island Prototype - Researching Models of Sustainability

Mathieu Mercuriali is a qualified architect, town planner and doctor of architecture (EPF Lausanne). After working in the offices of Patrick Berger and TVK in Paris and OMA in Rotterdam, he now practises his profession as a full professor at ENSA Strasbourg, a researcher in the LIAT and AMUP laboratories and a freelance architect. He creates and studies projects that redefine the boundary between architecture and the living world, establishing a form of historical, theoretical and critical dialogue between the ruins of modernity and the conditions for their re-naturation. He is the author of Concevoir à grande échelle (B42, 2018).

overview of the design topic

Inhabited by successive civilisations and peoples for thousands of years, the small Mediterranean islands combine paradoxical equations of life: late modernity, a rustic habitat and a fragile economy. Reacting to contemporary issues linked to climate change - rising sea levels, disasters, drought, migration - they seem to be the small-scale laboratory of our complex future: climate change, rusticity, globalisation, migration. How can we reconcile production, culture and leisure in a constantly changing world? By studying the resilience of a number of them, the students will establish design models to conceive a built environment for a sustainable future.

project site / area of intervention

The students will use the small islands of the Mediterranean as spatial models of climate change. The Mediterranean basin thus becomes a possible inspiration for the resilience of Europe's biotopes, taking as an example of ancestral systems such as the Cretan diet or vernacular building systems. They will study the metabolism of a group of islands (Alicudi, Amorgos, Djerba, Ischia, Lampedusa, Menorca, Porquerolles, Rhodes) using comparative criteria such as biodiversity, construction methods, trade, energy and water, to then design a "prototype island that can be adapted and transformed in other places in Europe", as an Open-Source manual for action by a new generation of architects.

design tasks

The workshop will take place in three stages, with the aim of producing projects that propose alternative ways of constructing the territorial and architectural scales:
Phase 1: the students will analyse the case studies in groups to create an atlas of Mediterranean island archetypes based on their resilience or fragility facing of climate change, using around ten adaptation criteria.
Period 2: the students will devise spatial scenarios of possible actions to design a "prototype island" as a concrete utopia applicable to other sites in Europe.
Period 3: the students will apply their ideas to a district of Milan that they have previously determined to be relevant, to design sustainable projects.

Paulo Providência

Architecture for the Archaeological Threshold - A Temporal Frontier at Portela do Homem

Graduated from the Faculty of Architecture of Porto and PhD from the University of Coimbra, where he teaches Design Studio master courses. In addition to his professional and teaching activity, his research has focused on the relationships between architecture, anthropology, archaeology and landscape. Published a book on his projects and selected texts: Architectonica Percepta, Zurich, Park Books 2016.
He has been Design Studio Guest Critic at KU Leuven / Gent, EPFL Lausanne, ETH Zurich, KTH Stockholm, UCD Dublin, SAUL Limerick, Sapienza Università di Roma, NTUA Athens, FAUP Porto, Academia Architettura di Mendrisio, and Visiting Professor at École d'architecture, ULaval, Québec, Canada.

overview of the design topic

Archaeological heritage has an important role in the cultural, social and economic development of rural territories. The preservation and enhancement of archaeology areas through design may incorporate an active tourism into the local communities, for whom archaeological ruins are important assets. Not only the big monuments but also infrastructures, like the roman roads, are important as they structure the covered territory through their permanent repristination.
The design workshop will address the roman road of Via Nova in the north of Portugal, and the frontier at Portela do Homem, Gerês, through a reflection on the double sense of the border, as both a spatial and temporal threshold.

project site / area of intervention

The Via Nova (Via XVIII Itinerary of Antonin), a major example of roman road engineering connecting Bracara Augusta (Braga) to Asturica Augusta (Astorga), in the former province of Iberian Galicia, crosses the north borders of Spain and Portugal. The road goes along a set of gold mines explored in roman times, through a hilly and mountainous area, crossing the frontier in a specific site, a territorial threshold between two highly diverse valleys named Portela do Homem. Besides the reconstruction of the roman bridge overcoming Rio Homem, an abandoned border post brings the occasion to design a proposal for an interpretation center of the roman road and the landscape.

design tasks

The design tasks are set to give support to design options. The interpretation of a layered territory, identifying the various moments of territory construction, along with the morphological and geological interpretation, are tasks that should be fulfilled in the first week. A deep knowledge of the archaeological site through mapping the archaeologic traces, starts the design process. The consideration of the image intended for the archaeological site, through the construction of photo Collages and other representations, fostering an architectural ethnography, will be discussed in the second week.

Nemanja Zimonjic @TEN

Primordial and Technological

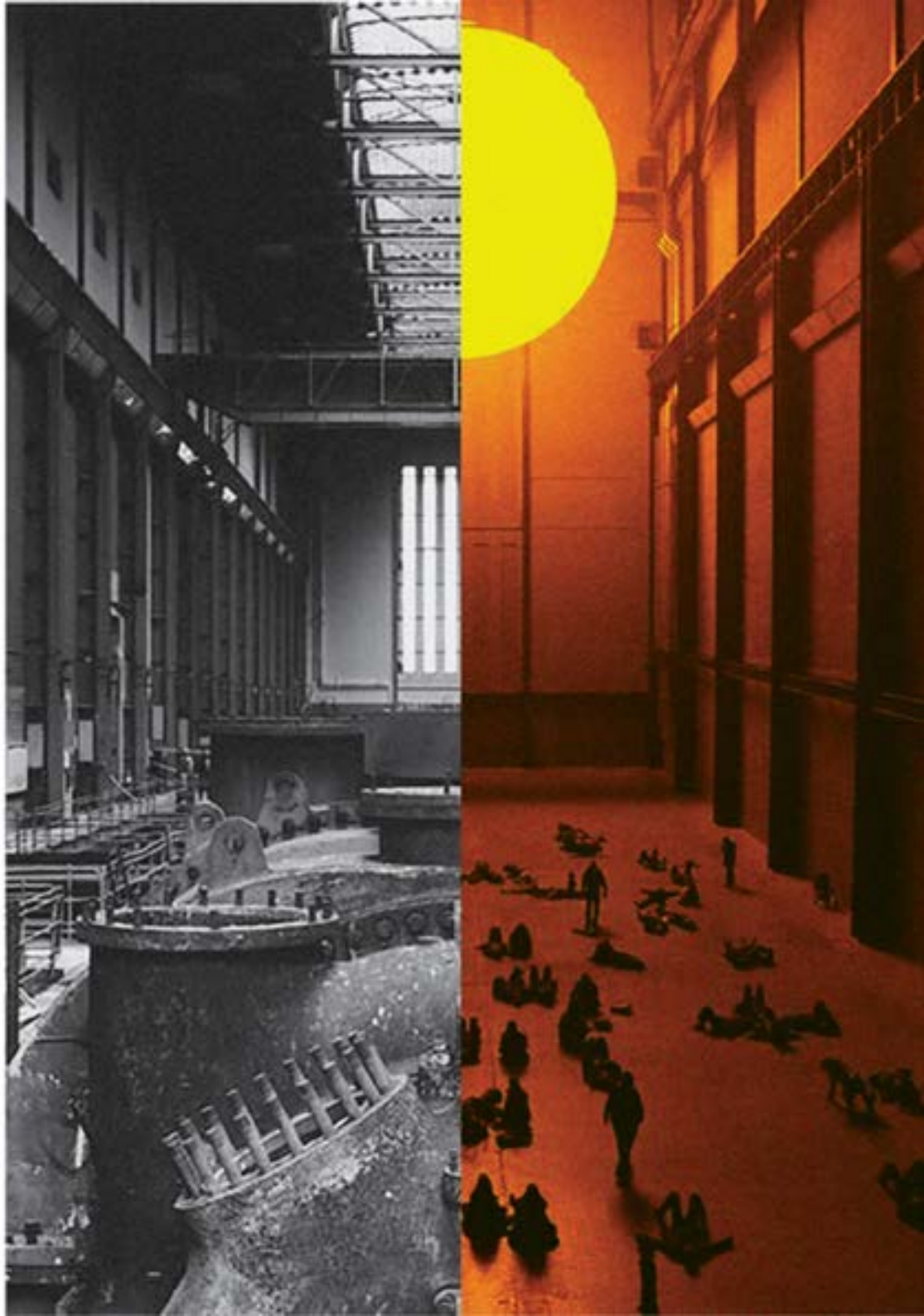
Nemanja Zimonjić MSc ETH Arch is an architect based in Zurich and Belgrade. He is the co-founder of TEN, a design practice developing cultural and collaborative and experimental projects in the field of architecture. **TEN** is an architecture, design and research association working on the principle that value is an outcome of design effort. Its engagement on public themes of interest and open research on the built environment is shaped by its common statute. TEN is composed as a record label, providing new formats for interdependent work groups with emphasis on design by research. It aims to conceive, explore and produce ideas that both state and expand upon emerging practices in the built environment. Its focus lies on producing new realities by means of building prototypes, urban propositions, algorithmic design, and materials research with a range of collaborators, colleagues, institutional partners and private clients.

overview of the design topic

The human is inherently a technological animal; its bi-directional relations with technology have shaped its entire history and determined the environments it inhabits. The factual probabilities of global ecological crisis, however, expose the dissonance in these relations and are causing critical reflection on the basic assumptions of technological determinism that drives the value proposed by design. Can we work with sufficient technologies to create desirable and valuable spaces.
TEN understands architecture as both primordial and technological, and we continue to ask what are the appropriate means of use of both trajectories in order to create new environments.
We see these issues at the forefront of a new generation of architects and critical practices, aiming to connect architecture and design with larger existential narratives.

design tasks and area of interest

1. To tackle the intense design task, we will collectively choose familiar indoor/outdoor spaces of Milan from a survey we will provide and test them against known and unknown conditions in order to create a resiliant interior public environments, between Inside and Outside as part of cities Open Public Institutions; aspects we will study are population and migration, acess for all, economy of means, cradle to cradle principles, necessary aesthetics, austerity and limits, changing climatic factors, programles scenarios, need for spaces of riot and assembly all structured by design and architectural production. The open structures embraces the immediate surroudnigns while setting a new clear geometries and strong architectural outlines. We will be working with ‘misuse’ of known natural and artificial processes of construction, demolition, growth and decay in order to propose spaces outside classical typologie while searching for a kind of directness that makes ‘An Interior’ accessible to all.
2. Together with vfew isiting specialised researchers and advocates across various disciplines, we would build speculative scenarios to create briefings for experimental design research on what we can consider ‘An Interior’.
3. New methods and old tools are required to frame, analyze and make visible the critical behaviours of the living environment in order to state its current challenges and potential future deficits. These design tools will help establish a common baseline for critical and responsive design propositions.



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