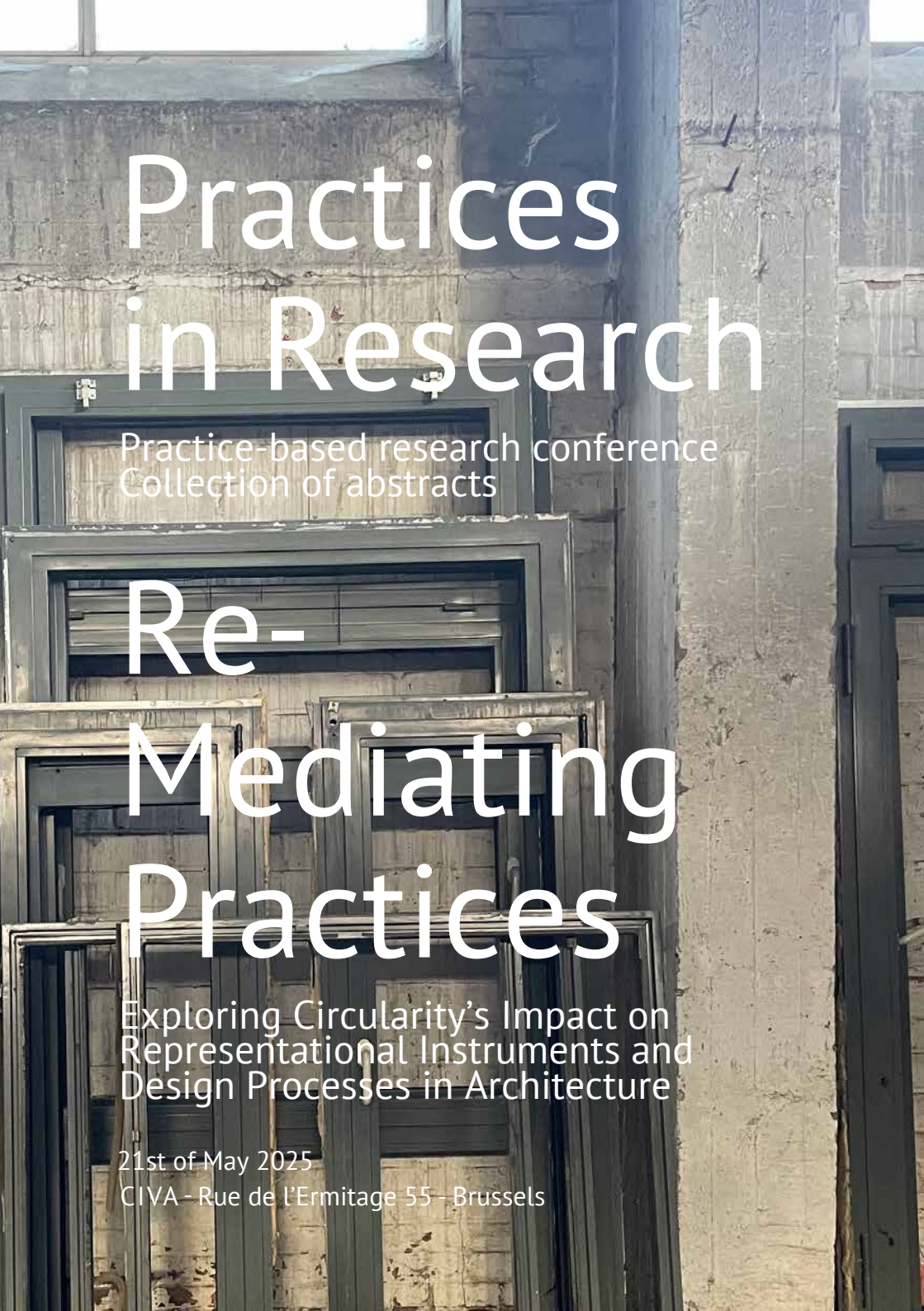

Practices in Research

Practice-based research conference
Collection of abstracts

Re-Mediating Practices

Exploring Circularity's Impact on Representational Instruments and Design Processes in Architecture

21st of May 2025
CIVA - Rue de l'Ermitage 55 - Brussels

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PRACTICES IN RESEARCH #06

www.architectureinpractice.eu

Program

09:30 Arrival at C I.II.III.IV. A

Welcome
“Practices In Research #06 -
Re-Mediating Practices’

10:00 Three parallel sessions

Session 1 - Material Uncertainty 1
Benoit Vandenbulcke - chair

Living With the Ancient - Luigiemanuele Amabile, Marianna Ascolese, Alberto Calderoni (Università degli Studi di Napoli Federico II)
No Time to Waste - On salvaged materials tectonics - Matthieu Brasebin, Elisabeth Terrisse de Botton (brasebin terrisse)
Determined in uncertainty - Unfolding stories for the conservation of City Hall Diksmuide - Gert Somers, Jonas Lindekens, Sara Verleye (ono architectuur)
From Designer to Builder Through Hands-on Practice - The return to the matter and the appearance of architects-artisans - Arianna Fabrizi de’ Biani

Session 2 - Re-use Aesthetics 1
Tine Segers - chair

Re-enchanting Banality - Narratives of reuse in architecture. - Karbon’ architecture et urbanisme
Layering and Dressing: Strategies for Sustainable Architecture - Catarina Medroa, Falco Hermann, Lina Lahiri, Marvin Letmade (SHift)
Casa Lei - A project between imperfections, discoveries and objet trouvé - Paolo Bianco (Politecnico di Torino)

Session 3 - Resilience and human-centeredness 1
Elodie Degavre - chair

How to Steal a Building - Adapting, recycling and de-constructing in the inner city of Johannesburg. - Dr. Heather Dodd (Savage + Dodd Architects, University of Johannesburg)
Second Chance - The evidential paradigm in the evolving design process - Sarah Becchio, Paolo Borghino (ErranteArchitetture, Politecnico di Torino)
Re:House - A circular building, or how ‘building’ circulates - Markus Jeschaunig (Agency in Biosphere University of Technology Graz)
Performing Transferences - Theatre as a method to Architecture - Shivani Shah, Revati Shah (ReSa Architects)

11:20 Coffee break

11:40 Three parallel sessions

Session 4 - Processes of Reclamation and Contextual Mining
Martina Barcelloni (to be confrmed) - chair

Between As-Found and As-Built - Real-time rendered models as an instrument to work remotely with locally harvested materials. - Daniel Norell, Einar Rodhe (Norell/Rodhe)
Sand garden - Drawing a landscape architectural plan of what potentially could be therecultivating resilience and adaptability - Johanna Bendlin, Laura Villeret
Gramma - Athenian grammar. - Durandin Benoit, Rouaud Camille (Studio Gramma)
Emergent Sites - Two projects to reflect on situated design practice. - Roland Reemaa, Laura Linsi (LLRRLLRR)

Session 5 - Re-use Aesthetics 2
Wouter Van Acker - chair

Urban Mining as a Design Approach on Budget Renovation - Study case: A House in Tangerang Selatan, Indonesia - Apriani Sarashayu, Tatyana Kusumo (Studio Aliri)
Remaking the Cavallerizza Reale in Torino - Conflicting ideals and practices in a large-scale adaptive reuse project - Matteo Robiglio (TRA_Toussaint Robiglio Architects, Politecnico di Torino)
Cultural Texture - Exploring AI's Sensitivity to the Cultural Textures on Site - Marius Grootveld (Veldwerk Architecten, RWTH Aachen)

Session 6 - [De]normed and [De]categorized Approaches
Tomas Ooms - chair

Composite Practice - Delete >< Enter: The site as an impulse for action - Katrin Brünjes (BrünjesTyrra Architekten)
Adaptation - Exploring circularity and flows through a process of making. - Roz Barr
In the Act of Ma(kin)g - Kinship-centered practice shift - Martina Genovesi, Caterina Malavolti (Every Island)
Half Lap - From Risk to Tolerance at Cowan Court, Churchill College Cambridge - Dylan Radcliffe Brown (6a architects)

13:00 Lunch Break

14:00 Guided Visit of "Chronograms of Architecture" exhibition

15:00 Three parallel sessions

Session 7 - Re-use Aesthetics 3
Benoit Burquel - chair

The Pilot House - A playful Reframing Experiment in Radius - Francisco Moura Veiga (A Forschung, ETH Zurich)
Research Practice import.export Architecture: Building by "Strategic subtraction and curated reduction" - Oscar Rommens, An Vanderveken (import.export Architecture)
CC+ Current Condition Plus - A design tool for reuse practice - Gino Baldi, Serena Comi (Vacuum atelier architects)
Kaleidoscoop - A collaborative project for a cross-border third place in Strasbourg - Gaël Biache, Jean-Nicolas Ertzscheid, Florent Revel, Benoît Streicher (UN1ON)

Session 8 - Resilience and human-centeredness 2
Christine Fontaine - chair

How to Build Less by Knowing More - Representing the Existing - Tobias Fink (ana.institute, Technical University of Munich)

A Living Lab - Design, Development and Implementation of Circular Renovation Strategies - Lieven De Groote, Ana Castillo (MAKER architecten)
Reclaiming the Informal - Ruins, Reconstruction, and the Aesthetics of Adaptation in a Polarized Architectural World - Ayla Azizova (Atelier Azizova)
Urban Mining and Reassembled Architecture. - The case of a Social Housing in Palma de Mallorca by Harquitectes. - Andrea Crudeli, Francesca Molle and Xavier Ros Majó (University of Pisa, Harquitectes, Universitat Politècnica de Catalunya)

Session 9 - Pedagogy
Juliane Greb - chair

Debri*movers* - a new park typology constructed from demolition waste - Zofia Krupa (ETH Zürich)
Symviosis Children Cemetery - "..If the greatest lesson is a matter of death, then it is a matter of life.." - Eleni Yiapoutzidi Karra (KU Leuven)
Faking it or Making it - Scarcity and Abundance – Making Architecture with What Is at Hand - Tomas Ooms (Studio Tuin en Wereld, KU Leuven)
Reclaiming Uncertainty: Pedagogy for material flows in architecture - Matthew Dylan Anderson, Nicolas Ibaceta Zamora

16:30 Coffee break

17:00 Plenary Session

Tomas Ooms - moderator
Tine Segers
Elodie Degavre
Juliane Greb

19:00 Keynote Lecture

L'Equipe - Aliki Loïzidis
Véronique Patteeuw

©Niklas Famesla

PRACTICES IN RESEARCH

RE-MEDIATING PRACTICES

EXPLORING CIRCULARITY'S IMPACT ON REPRESENTATIONAL INSTRUMENTS AND DESIGN PROCESSES IN ARCHITECTURE

WEDNESDAY 21ST OF MAY 2025
09:30 - 21:30
C I.II.III.IV. A
rue de l'Ermitage 55 - Brussels

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PRACTICES IN RESEARCH #06
practice-based research conference

10:00 sessions 1, 2 & 3
11:40 sessions 4, 5 & 6
15:00 sessions 7, 8 & 9
17:00 concluding remarks

L'ÉQUIPE - ALIKI LOÏZIDIS
VÉRONIQUE PATTEEUW

19:00 keynote lecture at C I.II.III.IV. A

RE-MEDIATING PRACTICES

In the pursuit of an actual and pertinent attitude, architects are increasingly committed to working with the materials and structures that already exist. This practice—rooted in re-use, reclamation, harvesting, and urban mining—challenges architects to embrace the unpredictability of what is available. Whether reimagining a structure or harvesting materials from demolition sites, they must navigate fluctuating quantities, variable qualities, and unexpected dimensions, colors, textures, and technical performance.

This unpredictability demands a mindset of resilience and adaptability, or agility, from designers. Re-use is not just about what remains of the material world but also about how architects reimagine their own practices, relinquishing certainty and control in favor of experimentation and resourcefulness. To engage meaningfully with these constraints, designers must let go of traditional aesthetic ideals as dominant drivers, instead embracing imperfection, irregularity, and serendipity.

How do architects thrive in this space of uncertainty? What instruments, methods, and processes enable them to work creatively within the flux of material availability? How do they reframe constraints—such as limited supply or inconsistent quality—not as barriers but as opportunities to uncover

unexpected potential in existing resources? And what new aesthetics and spatial practices emerge when beauty is no longer defined by precision or uniformity, but by adaptability and responsiveness?

Urban mining, harvesting, and reclamation require architects to think in terms of flows: flows of materials, energy, and information. The availability of materials is contingent not only on demolition or deconstruction schedules but also on logistical challenges, evolving regulations, and the inherent unpredictability of what is salvaged. How do architects design for this variability? How do they incorporate flexibility into their processes to align with what is available, when it is available?

Re-use and reclamation are as much about unlearning as they are about learning. Architects must challenge established conventions of material perfection, the dominance of newness, and even the notion of authorial control over the design process. This work involves an ongoing negotiation between material realities and design ambitions, between available resources and project goals. How does this negotiation transform the role of the architect and the authorship of the project?

Building on PiR#05

This issue builds on PiR #05, which broadly addressed circular architectural practices. As Urszula Kozminska (Arkitektskolen Aarhus) and Bie Plevoets (UHasselt, As Found Network)

observed in their reflections on Practices in Research #05: Demolitions and Deconstructions (https://doi.org/10.5281/zenodo.14537154), circularity and re-use strategies engage with aesthetic and graphical language in distinct ways, using it as both an explorative and representative instruments.

Therefore, PiR #06 explores how architectural practices addressing adaptive reuse, with a focus on the challenges and opportunities of working with uncertainty, employ representational and explorative instruments—drawings, models, simulations, photography, maybe even poetry or installations—to respond to unpredictable material flows.

Contributors critically engage with different themes, while always focusing on the representational and explorative design tools at work in their approaches.

5 Themes, 34 contributions, 9 parallel sessions

Material Uncertainty: How do architects represent and navigate the variability of salvaged materials in terms of quantity, quality, performance, and appearance?

Processes of Reclamation and Contextual Mining: What design methods and media are emerging to integrate salvaged materials into the built environment?

Re-use Aesthetics: How does relinquishing traditional aesthetic ideals transform design outcomes? Which new approaches emerge from the nature of Re-Use strategies? In both cases, which representational tools are engaged to feed them?

Resilience and Human-centeredness: How do architects creatively cultivate adaptability and responsiveness in processes marked by unpredictability? And how do architects represent and navigate collaboration with diverse stakeholders—owners, users, builders, and ultra-local experts—within circular practices? What tools and methods foster dialogue and integrate these perspectives into design processes?

(De)normed and (De)categorized Approaches: It is probably impossible to propose an exhaustive thematic list. If your contribution does not fit any of the above categories, please include it here and propose a category title.

Pedagogy: How does one integrate the unpredictable availability of materials in a learning environment? How do you integrate reflections on working with reclaimed materials in design studios?

Calendar

13th of January 2025 - call for contributions
28th of February 2025 - submission of short abstracts
7th of March 2025 - notification of acceptance (conference)
28th of April 2025 - submission of extended abstracts
21st of May 2025 - conference in Brussels (place tbc)
9th of June 2025 - invitation for publication
8th of august 2025 - submission of full articles for peer review
29th of September 2025 - double-blind peer review available
31st of October 2025 - submission of final articles
28th of November 2025 - publication of PiR#06

Publication

After the conference, the editorial committee will select contributors to develop their extended abstract for the fourth issue of Practices in Research, the annual online open-access double-blind peer-reviewed journal for practice-based research in architecture.
The selection will be notified by the 9th of June 2025.

All complete articles need to make use of the InDesign template file available on the website of the In Practice interuniversity research group:
www.architectureinpractice.eu/pirjournal

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session 1
material uncertainty

Living With the Ancient

Uncovering the Ipogeo dei Cristallini

Luigiemanuele Amabile, Marianna Ascolese, Alberto Calderoni

DiARC - Dipartimento di Architettura
Università degli Studi di Napoli Federico II

This paper presents a case study of the redesign of entrance to the Greek necropolis of Ipogeo dei Cristallini, located within the Palazzo di Donato in Rione Sanità in Naples. The project embodies a human-centred shift in architectural practice, redefining the role of the architect as a mediator between heritage conservation and contemporary urban dynamics. Through a carefully orchestrated series of interventions—ensuring structural safety, improving accessibility and preserving cultural identity—the work illustrates how collaborative design strategies can transform material constraints into creative opportunities. Discovered in 1889 by the building's owners, the Ipogeo dei Cristallini comprises four Greek burial chambers adorned with original frescoes. Since its return to public stewardship, the site has served both researchers and visitors. Central to our approach was an ongoing, multi-layered dialogue among stakeholders: private owners, municipal cultural institutions, university researchers, and, during construction, restorers, end-users, builders, and conservation experts. This interlocutory model ensured that every decision—from material selection to execution—emerged from collective expertise rather than unilateral prescription.

Methodologically, the project juxtaposed traditional representational tools (drawings, digital simulations) with exploratory practices (site photography, in-situ installations). This hybrid toolkit enabled the team to reconcile the ground-truth conditions of the excavation with ambitious design aims, challenging conventional aesthetic norms of archaeological renovation. By deliberately embracing imperfection, irregularity, and

serendipity, the team fostered a learning-through-doing ethos that valorized resourceful adaptation of salvaged materials—most notably composite cement derived from the site's native tuff stone. Crucially, the disciplined use of just two new materials—black-oxidized steel and concrete—alongside the strategic orchestration of natural and artificial light, was instrumental in evoking a calibrated atmosphere of passage. These elemental choices delineate a sequence of thresholds and gradations of intimacy, guiding visitors through shifting spatial experiences that underscore the dialogue between ancient vestiges and contemporary interventions.

Beyond its built outcomes, this paper positions the Ipogeo intervention as a vehicle for architectural research, interrogating the porous boundary between practice and academia. We ask: what does *research* signify within our field, and which semantic framing—pure, basic, applied—best captures the intellectual and practical labor of practitioners who view their projects as research outputs? In an increasingly protocol-driven European academic system—where rigid procedures often delimit what counts as valid research—there is an urgent need to normalize a shared definition of research for architecture.

Here, we propose conceiving research as the construction of an action-oriented program, centered on transforming physical space to enhance societal well-being. This conception reframes research not as an exclusive academic pursuit but as a collaborative endeavor, co-developed with professional communities in a reciprocal cultural exchange. Within this framework, we articulate the figure of the *architect-researcher*—occupying the liminal zone between

profession and scholarship—whose dual competencies enable adaptive, context-responsive solutions for a changing world.

In the specific Italian milieu, navigating between design practice and academic inquiry remains particularly turbulent: it is often legally and technically challenging to recognize certain practice-based activities as legitimate instruments of teaching and research. By examining how the Ipogeo dei Cristallini project embodies this intertwined trajectory, the paper explores mechanisms for substantiating the research value of design interventions within existing regulatory frameworks.

Ultimately, the study argues that material uncertainty —typically perceived as a constraint—can become an operational tool when approached through collaborative, research-informed design processes. Rather than pursuing restoration as reproduction, the project works through the material and atmospheric potentials of minimal, non-mimetic intervention. In doing so, the work challenges normative definitions of authorship and control in heritage contexts, proposing instead a shared agency distributed across designers, materials and site conditions. By tracing how salvaged materials, limited resources and context-specific aesthetics were negotiated and transformed, the project positions itself not only as a singular architectural act, but as a methodological proposition. It offers a critical model for the architect-researcher: one who operates between academic inquiry and built practice, and who sees in the ambiguity of the existing a space for design innovation and disciplinary reflection.

Fig. 1 View of the access corridor to the Greek necropolis prior to the intervention. The exposed stratigraphy and material decay underscore the site's layered history and spatial fragility, offering key atmospheric references for the subsequent design approach.

Fig. 2 Unrestored staircase and vaulted chamber before the project. The fragmented circulation and provisional safety measures highlight the need for a calibrated architectural response capable of mediating between access, safety, and respect for the archaeological substance.

Fig. 3 Overview of the reception space with custom steel furnishings. The project uses minimal elements to define functional thresholds without mimicking the historical fabric.

Fig. 4 Reception area with brushed steel counter and display cases. The intervention highlights the juxtaposition of contemporary materials and the former entryway.

Fig. 5 Access staircase to the Greek necropolis, with black steel railing. The intervention facilitates visitor movement while preserving the raw quality of the excavation. Archaeology remains the protagonist, guiding the design approach.

Fig. 6 A block containing the restrooms—mute and monolithic—sits discreetly within the space. The lighting strategy articulates transitions and degrees of intimacy while respecting the archaeological presence.

This project was realized within the framework of a scientific collaboration agreement between DiARC – Department of Architecture of the Federico II University of Naples and Interprogetti. Team: Alberto Calderoni and Ferruccio Izzo (coordinators), with Luigiemanuele Amabile, Marianna Ascolese, Salvatore Pesarino, Gianluca Piccolo.

No Time to Waste

On salvaged materials tectonics

Matthieu Brasebin
Elisabeth Terrisse de Botton
brasebin terrisse

“Building from leftovers demonstrated that materials also have a metaphysical meaning, not just an architectural-conceptual purpose.”

Ruuben Jan Rekkor, *No Time to Waste* production and construction leader team.

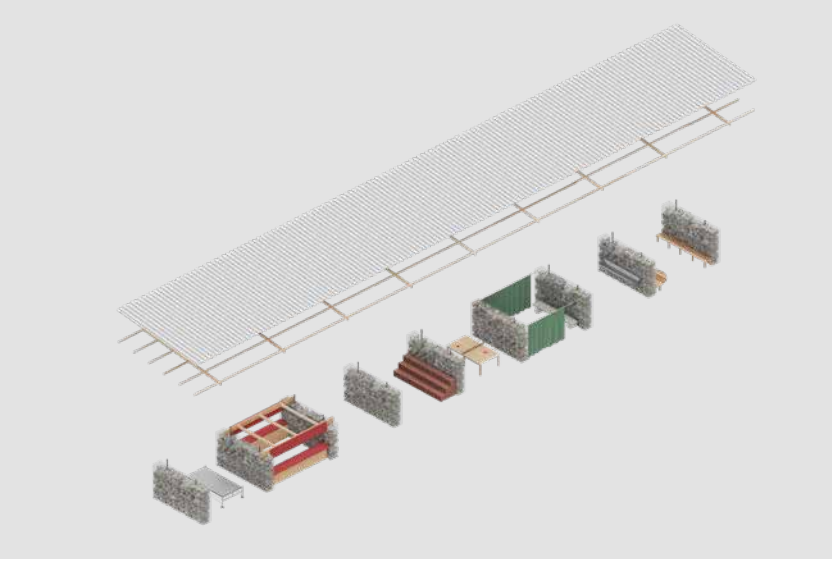
This idea was explored through the unconventional construction process of *No Time to Waste*, an experimental installation developed for the 2024 Tallinn Architecture Biennale open call, under the theme *Resources for a Future*. The structure—a prototype for a 45-meter-long urban canopy designed for bus stops in Tallinn’s Balti Jaam square—investigates the intersection of public space and material circularity.

By utilizing debris and industrial remnants, the project reimagines the archetype of the modern bus shelter, an industrialized model dating back to the 1960s. Through the pursuit of new forms and tailored construction techniques, the project questions the norms of modern standardization.

No Time to Waste prototype, 2024. © Gregor Jürna.

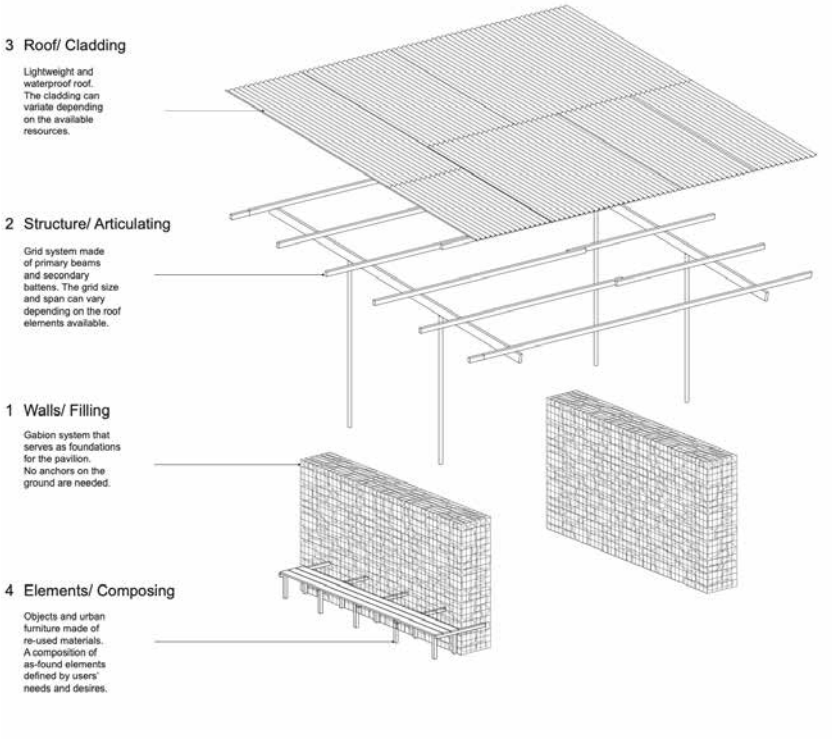
At the early stages of the design process, the central challenge, yet simultaneously a significant opportunity, was the impossibility of predetermining the outcome: the competition brief required a complete design using unspecified, locally salvaged materials. Rather than proposing a fixed proposal reliant on speculated resources, we established a framework of principles adaptable to what was ultimately available.

The pavilion was composed using primary architectural elements: two walls, a structural grid, and a roof. Here, actions - such as infilling the walls, articulating the beams, or cladding the roof became more important than the nature of the material itself.



45 meter long canopy. The space is organised by a sequence of unique and diverse rooms.

Reclaimed elements, sourced from demolition sites, waste depots, and discarded industrial stock, were employed *as found*, embracing the unique state of each piece. While some materials retained their original architectural purpose; others—often categorized as waste—were carefully repurposed with intention and care.



Framework of adaptive principles: a filled wall, an articulated structure and a cladded roof.

No Time to Waste construction process, 2024. © Elisabeth Terrisse de Botton.

Deeply inspired by Herzog & de Meuron's project *Dominus Winery*, where the gabion wall is reimagined as a sensorial and physical gesture, we sought to reinterpret this generic building element into something specific and expressive. Acting both as external foundations and display artifacts, the walls are filled entirely with demolition waste and held together by stainless steel cages instead of relying on traditional mortar joints - merging structural function with tactile materiality.

"Placing the stones, when you don't have to worry too much about molding, mortar, and alignment, is quite fun. You can think about your ideas and figure out where the next piece of stone might fit."

Ruuben Jan Rekkor, *No Time to Waste* production and construction leader team.

This flexible system can accommodate a wide range of salvaged materials, reflecting both the unpredictability and aesthetic richness of reused matter. In this way, the wall becomes more than a structural partition; it reveals the latent metaphysical significance of the materials themselves. The minerals, once considered debris, take on new value as cultural and temporal fragments. The method of their assembly—one that celebrates the inherent irregularities and imperfections—highlights the hands-on technique involved in the process.

It embraces a more human-scale, artisanal and sensitive approach, where the material's individual character is celebrated rather than hidden. Through this, the pavilion becomes not just a physical structure but a metaphor for the evolving role of architecture in a post-consumer society, where every discarded object has the potential to find new life and purpose.

Construction process filling up the gabion walls Herzog and the Meuron's project *Dominus Winery*.

Stonehouse as a reference for Herzog and the Meuron's project *Dominus Winery*.

No Time to Waste prototype, 2024. © Elisabeth Terrisse de Botton.

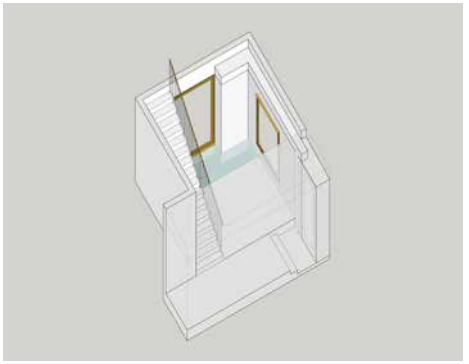
DETERMINED IN UNCERTAINTY

Unfolding stories for the conservation of City Hall Diksmuide

Gert Somers, Jonas Lindekens, Sara Verleye
ono architectuur

Restorations have always been places of pioneering in reuse, repair, replacement or addition of materials. Throughout history, the methodology and readability by which this was done has been subject of theories by e.g. Ruskin and Viollet-le-Duc. The subsidized context of heritage projects today invites for conservation that is often equated with a literal restoration of listed buildings towards a specific past period. However, this material- and labour-intensive approach takes place in changing times and clashes with an ecological conscience and the search for longer-lasting meanings over time.

In the restoration project for the UNESCO protected City Hall Diksmuide, literal restoration plays a role alongside more free ways of dealing with the existing. Instead of projecting one overarching restoration vision that seeks to curb the monument, we allow for culminating theories through what we find, design and make. We discover that it is precisely in areas of uncertainty that space for design emerges. The paper describes four moments of uncertainty in the design process, related respectively to dimensional uncertainty, material quality, amount of material available and construction complexity.



A concentrated moment of design in an area of uncertainty.

Case I_A concrete bas-relief.

At the newly constructed domestic square in the armpit of the L-shaped historical building, a patio gives direct access to the existing old cellars, a WWI emergency room and a new high-voltage cabin. While the interiors of the existing cellars and their interrelationship could be determined, we couldn't measure the thickness of the underground outer basement walls during the design process. Old and new meet with geometric uncertainty, leading to a double-layered design. The upper layer captures certainty while the lower layer allows for uncertainty. The concrete bas-relief accommodates certainty and uncertainty in a determined adaptive design.

Old and new meet with geometric uncertainty during the design process.

A concrete bas-relief accomodates uncertainties in dimensions.

Case II_Running out of tiles.

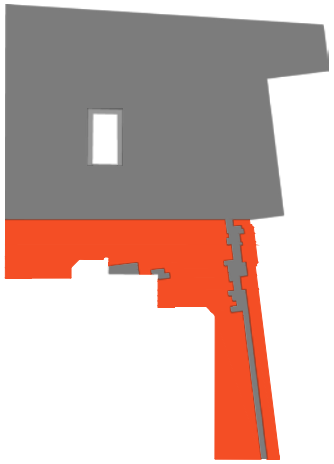
In one room the tiles are removed and subsequently re-used after inserting new techniques. Broken tiles result in a shortage of old, supplemented with new tiles to complete the floor. New plinths were used adjacent to the new tiles. Since matching plinths are missing for the old tiles, paint is used as replacement. Not the resulting pattern in the room is of importance here, but the recognition of paint as a material to complete the image. Painterly tectonics. Following this observation, paint was used at other locations as lightweight, agile and affordable material. It shows that moments of uncertainty can provoke new narratives throughout the larger project.

A tile pattern that shows when running out abruptly of original tiles. This moment gives rise to a painterly tectonic that diverges throughout the larger project.

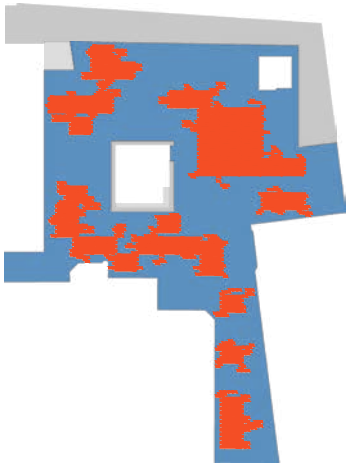
Case III_Duo toned confetti.

During construction, the envisaged polished concrete of the square turns out too thick, requiring a tiled alternative. Existing factory tiles on part of the square are supplemented with a similar version with a slightly different surface found in an old warehouse. To avoid stressing the difference they are mixed with the existing ones. By shredding them like a two-tone confetti cohesion is created. Certainty and uncertainty in a mutual balance.

The square with the existing pavement, with the tiles to be recovered shaded in red.



The square fully finished with tiles, in a patchwork of old and new.



The tiled square, in a patchwork of old and new.

Case IV_A dressed-up detail.

For the drainage of square and roofs, the floor construction now proved too thin to integrate pipes, and the water flow too high for open gutters. This leads to unexpected piping in the public art depot. Unknown and underestimated parameters in the existing lead to an impossibility at the construction site and require a corrective design. The tube passes under concrete beams in a felt clad detail. Uncertainty takes over certainty and gives way to something new.

Uncertainty leads to unexpected piping in the public art depot.

Historic narratives throughout the building offer a converging context for local interventions in conditions of uncertainty.

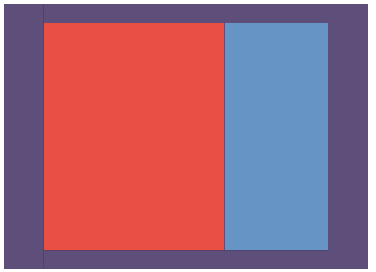
By providing insight into the design process of the different occurring cases dealing with uncertainty, we share design patterns and convert them to abstract graphical drawings. In their abstraction, these unlocked lines of thought allow relevance to other design processes in both historical contexts and new-build conditions. We also disclose how small moments of uncertainty can give rise to specific tectonic choices that provoke a diverging narrative throughout the larger project. On the other hand, we show how narratives that unfold at the scale of the building provide converging context for local interventions in conditions of uncertainty. We reveal the determining capacity of uncertainty and wonder aloud whether this can (help to) pave the way for more sustainable forms of restoration.

certainty

uncertainty

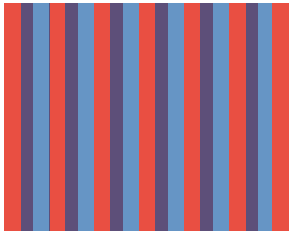
accomodating certainty and uncertainty in a determined adaptive design

(case I)



moments of uncertainty can provoke new narratives throughout the larger project

(case II)



certainty and uncertainty in a mutual balance

(case III)

uncertainty takes over certainty and gives way to something new

(case IV)

FROM DESIGNER TO BUILDER THROUGH HANDS-ON PRACTICE

The return to the matter and the appearance of architects-artisans

Arianna Fabrizi de' Biani

Today, among those working in reuse, sustainability, and circularity, many are former architects who have shifted paths. Trained in architecture and sometimes having spent a few years in firms, they realized that conventional architecture no longer aligned with their values. With a strong knowledge of the profession's codes and practices, they chose to leave the traditional framework to engage directly in construction or craftsmanship.

I belong to this category I call architect-builders or architect-craftspeople. What unites us is a commitment to direct experimentation with materials and low-tech techniques. This practice requires rediscovering vernacular know-how and grounding design in a tangible, hands-on approach.
Material implementation thus becomes a lever for transforming architecture from within, leading to two major outcomes: the emergence of hybrid profiles and the development of a new dialogue between designers and builders.

A New Dialogue

Building this new dialogue means starting from a place of equality and basing relationships on trust. This approach fosters collective knowledge sharing and challenges traditional construction hierarchies.

This alternative model is spreading through initiatives like the Manifesto for a Happy and Creative Frugality[1], which

1 https://frugalite.org/en/manifesto-for-a-happy-frugality/

calls for rethinking architecture around sobriety, creativity, and respect for local resources. It invites professionals and citizens alike to engage in transforming the ways we inhabit and build.

The Belgian non-profit Bat'Acc[2] also embodies this dynamic: born from the meeting of artisans and architects eager to work differently, it promotes participatory eco-construction. Designers, technical supervisors, and users share organization, responsibilities, and risk management through new collective tools and a mutual insurance system. By bypassing conventional rigidities, Bat'Acc fosters a horizontal approach to construction sites.

Inspired by these experiences, it becomes clear that the traditional hierarchical figure of the architect is incompatible with today's transformation goals. A critical question thus arises: perhaps we no longer need architects, at least not in the way we know them today? Because, truthfully, architecture has often been more a part of the problem than of the solution.

Faced with ecological challenges and the failures of authoritarian architecture, Mathias Rollot calls for the "decolonization" of architecture from its hegemonic position. He highlights the weight of disciplinary legacies, such as professional autonomism, and proposes several scenarios for evolution — one of which envisions architects abandoning architecture altogether, stating: "We can live

2 https://batacc.be/?fbclid=IwAR3Q72Edhne6z-x6d_YriV_MTYtiWUpf-9zmJcdJxOfou6nfPaGfkkvmVaA

and inhabit without architects and without architecture."[3]

Architerre and Hybrid workers

In my practice, returning to materiality is fundamental. I have chosen to work with earth — a resource often overlooked yet rich in potential — as well as with plant fibers, renewable materials readily available near our cities and homes.

Today, my daily life is balanced between organizing construction sites, leading workshops, and conducting laboratory experiments with new natural plasters. But beyond these activities, a crucial part of my work lies in meeting others, exchanging ideas, and collective reflection. The more I advance, the more I meet other architect-craftspeople following similar paths: Maria Glionna, who builds a new wood-fired oven every year; Isabella Breda, a ex-architect and designer now artist in to natural plaster crafts; Timur Ersen, today specialist in rammed earth construction... The list is long and growing, as today nearly 50% of architecture graduates in Belgium no longer register with the national Architects' Association after their studies[4].

Alongside these builders, another figure emerges: the architerre — architects allied with craftspeople, who engage directly with materials while maintaining their design role. These professionals practice a new kind of dialogue,

3 Rollot, M. (2024). Décoloniser l'architecture. le Passager clandestin.

4 Ordre des Architectes, Rapport annuel 2022

collaborating closely with entrepreneurs. The architect-engineer Odile Vandermeeren, founder of the non-profit Archisanat, Agnes and Charles Gheur are truly working together with their clients. are inspiring examples of this new posture. The architerre cultivate a vibrant dialogue between materiality, design, and craftsmanship.

I remain convinced that blending skills, hybridizing roles, and nurturing a passion for materials are key drivers of profound transformation in architecture. To paraphrase Giancarlo De Carlo: Architecture is too serious to be left to architects alone[5]. We must collectively open the debate on the future of our practices, cross-pollinate knowledge, merge experiences, and transform architecture into a living, open, and perpetually evolving process.

5 De Carlo, G. (2022). L'architecture est trop sérieuse pour être laissée aux architectes. Editions Conférence.

Corentin Dalon, architecte supporting the work of an artisan carpenter during the construction of the Children Center Xewa Sowé in Bénin.

The architect Odile Vandermeeren and others buiders working together on a participatory site in Incourt.

A partipant (an architect) trying a earth and fiber plaster during the participatory site in Incourt.

The architects Agnès and Charles Gheur, helping their clients by cutting hay for straw-earth mix.

Exchange between me and an architect during training on earth plaster.

Participatory site led by Timur Ersen (Atelier KARA), earth artisan who was once an architect.

Maria Glionna building a pizza oven made of earth and reusing materials.

session 2
re-use aesthetics 1

RE-ENCHANTING BANALITY

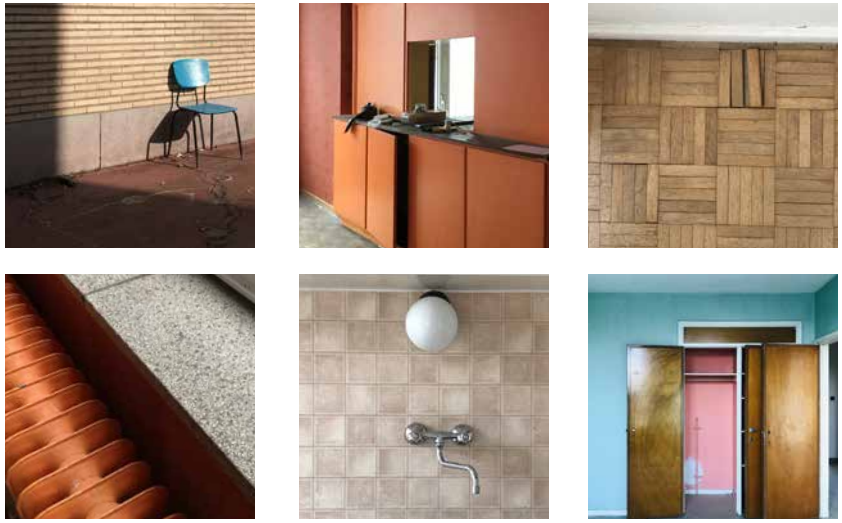
Narratives of reuse in architecture.

Karbon' architecture et urbanisme

Reuse is an opportunity to reshape narratives of architecture. It invites us to consider the potential of ordinary subjects and components in their capacity to redefine space and aesthetics by challenging conventional notions of value. Quoting philosopher Joëlle Zask (2024), reuse places the architect in a particular reflexive posture, the one of admiration. Admiration is not fascination, ethical or historical. It's a critical stance, a formative and creative act. From this position, this abstract explores the representational forms and implications of reuse process through three intertwined principles that underpin our practice and structure our relationship to matter :
To Decompose, Assemble and Take care.

Revealing the value of what is already there.
Photographic work during the site visit.

Blvd. Général Jacques
2020 - on construction

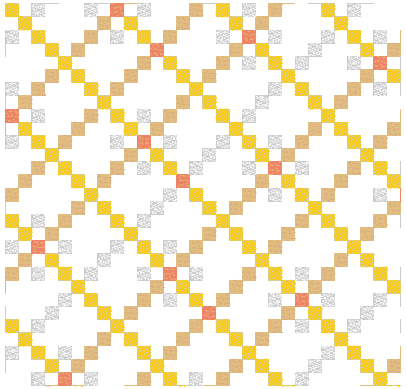


To decompose.

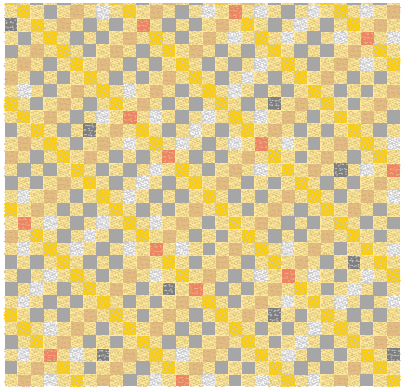
Inventory

The process of decomposing entails a critical rereading of the site. Initiated from the very first visit and often developed as a photographic work, this approach uncovers the latent potential of discarded materials and components, documenting them as architectural resources. This selective and sensitive gaze nourishes a new project narrative – one that shapes our engagement with the existing, supports dialogue with clients and invite them to revalue their perception of the site. Progressively reframed as an operative tool, this preliminary work can also evolve into a more exhaustive and practical inventory that informs the execution process and consolidates a situated knowledge of the site.

Designing with limited ressources.



Composition detail of mix-matched tiles for execution.



To Assemble.

Opportunity

To endow the act of building with a generative force, the construction site needs to be approached as a space of adjustment where opportunities are both created and seized. In this perspective, the notion of prescription must be reevaluated to accommodate indeterminacy, allowing the detail to remain an open field for negotiation, determinated by the contingencies of what is available. Reversing the design sequence, reuse introduces a productive uncertainty that enables forms of composition rarely permitted by standards protocols. Informed by mismatched reclaimed tiles - in size, colour and origin - a once-ordinary surface gains complexity and presence through the constraints of variability.

Cygnes - 2019 - 2023

Exposed construction systems *In-situ reused elements* *Dry assemblies*

Research collages **Brogniez**, 2020 -2024

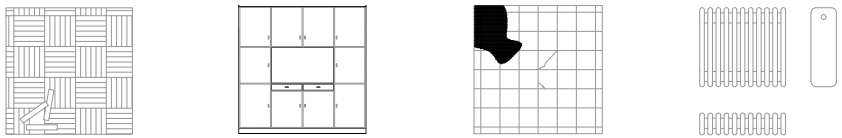
To Take care.

Anticipation

Anticipating the deconstruction and repurposing of materials, both in the short and long term, can become a defining aspect of the design process. Beyond its economic purpose, the decision to expose construction systems necessitates a rigorous attention to detail in execution. Dry-wall partitions revealing the layout of screw fixings, panels protected with a clear varnish rather than coated or painted, articulated cable management, the measured cadence of fastenatings, or the deliberate modulation of hemp-lime blockwork. These raw details, which are left in plain sight, becomes, through meticulous composition, some pragmatic keys for transmission to facilitate the maintenance and over time. Simultaneously, this collage of raw material gives the place an aesthetic texture and brings a new grammar.

Those three principles create an approach to reuse that entails an attachment (Bonnot, 2014) to many small intentions often dismissed as minor, but ultimately shaping the project's identity.
During the construction process, this imaginary must be conveyed, confronted, and defended with sometimes an almost absurd intensity. The paradox lies in the fact that saving materials takes time, and the architect is often the only one willing to invest it, especially when there is no grand gesture involved.
To shift perceptions and give new relevance to elements as common as a plinth, a false ceiling, or a radiator, the architect «reclaimer» reframes them, introducing a sense of craftmanship to industrial materials. In doing so they become the narrator of the ordinary, ultimately challenging the very foundations of what we consider valuable in architecture.

Thierry Bonnot, L'attachement aux choses, Paris, CNRS, series : « Le passé recomposé », 2014
Joëlle Zask, Admirer, Paris : Premiers parallèles, 2024



Layering and Dressing:

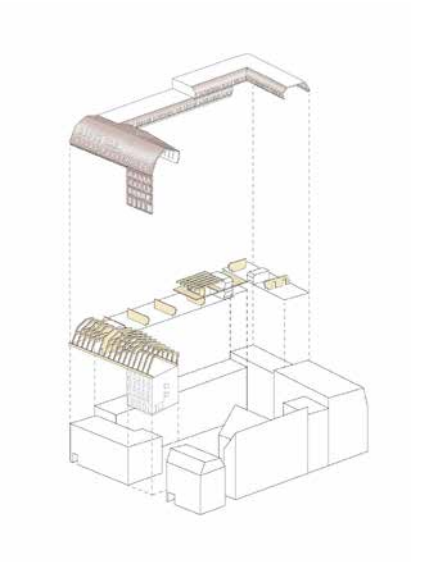
Strategies for Sustainable Architecture

SHift - Sauerbruch Hutton innovation for transition
Catarina Medroa
Falco Hermann
Lina Lahiri
Marvin Letmade

The preservation of existing structures serves as a critical strategy for mitigating environmental impact and safeguarding cultural heritage. This paper presents three distinct methodologies for the adaptive reuse of existing buildings, each of which introduces a novel aesthetic dimension to the architectural outcome. This approach facilitates the repurposing of buildings that may otherwise be incongruous within their context or exhibit a deteriorated or functionally obsolete façade. By incorporating a partial new cladding or structural addition, existing buildings can be revitalized, thereby enhancing their acceptance within the community. We contend that all operational structures should be regarded as valuable assets.

Extension - Case Study

The Berlin Metropolitan School is situated within a pre-existing structure from the German Democratic Republic (GDR), from 1987, known as the ‘Schulbaureihe 80’. The renovation scheme encompasses the addition of rooftop extensions to three existing buildings, and a lateral annex. Notably, the construction activities were executed during school hours and implemented in phases, aligning with the escalating demand for additional space. Consequently, the extension was conceived as a prefabricated timber system, facilitating rapid assembly and minimizing disruption to the ongoing educational environment.



Berlin Metropolitan School - Exploded view of roof extension

Berlin Metropolitan School - View from Schoolyard

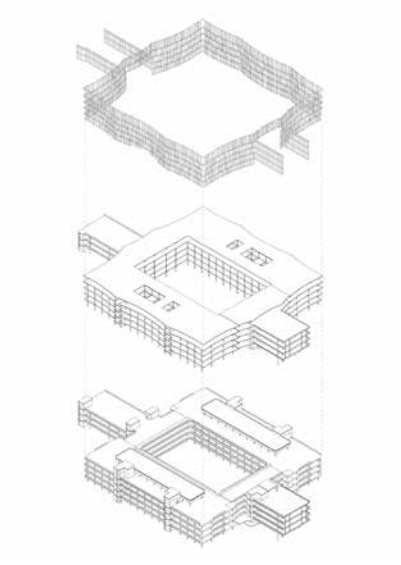
View assembly hall (Roof extension)

Restructuring - Case Study

An office block in Munich, originally constructed in the 1980s for large computing machines, featured a deep floor plan characterized by dimly lit central areas surrounded by perimeter offices. To enhance ventilation and natural lighting, the design necessitated the removal of floor plates to create an atrium. The façade renewal provided an opportunity to transform a previously unremarkable building within the urban ring into an elegant and unexpectedly 1dynamic entity, achieving a new overall form by concealing the formerly protruding staircases.

Top: befor restructuring

botton: after restructuring



Exploded view of restructuring façade

The façade create a colourful body that uses the principle of kinetic polychromy to revitalise banal urban space and encourage people to perceive the city as a sensual landscape.

Impression of polychrome façade

Impression of polychrome façade

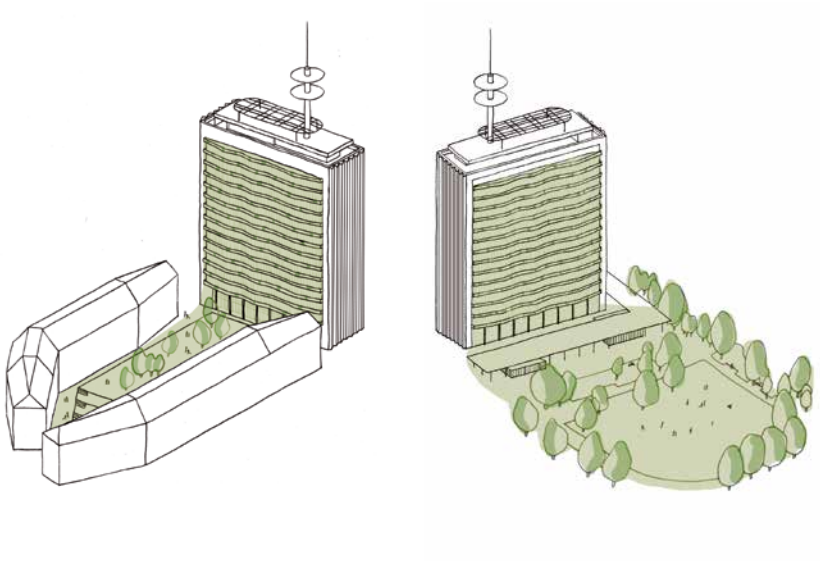
Repurposing - Case Study

The former Telekom high-rise is undergoing conversion from a commercial office structure to residential use. Its scale and prominence create a contrast with the surrounding urban fabric. The decision to preserve the tower is justified on multiple fronts: firstly, retaining the primary structure allows for the conservation and reuse of the ‘grey energy’ embedded within its reinforced concrete components, thereby promoting sustainability.
Secondly, the typology of high-rise buildings (when repurposed for residential use) leads to the preservation of green spaces.

The redesign of the office tower is executed through minimal interventions, ensuring that all new floor layouts align with the existing structural grid. The towering presence of the structure is mitigated through thoughtful considerations of color, materiality, and architectural detail. A series of loggias is introduced along the long façades of the high-rise, providing each apartment with adaptable external spaces. This screen not only imparts a lighter visual quality to the building but also reveals the variety of uses within. The balustrades reflect the diverse color palette of the adjacent park, while the foldable glazing of the winter gardens creates a dynamic façade that appears to shift with the viewer’s perspective. Overall, the shimmering façade harmonizes with the atmosphere of the surrounding urban landscape, further integrating the structure into its context.

Telekom-Hochhaus old urban fabric

Telekom-Hochhaus new urban fabric



façade will reflect the diverse color palette of the surrounding parks

View of the future apartments

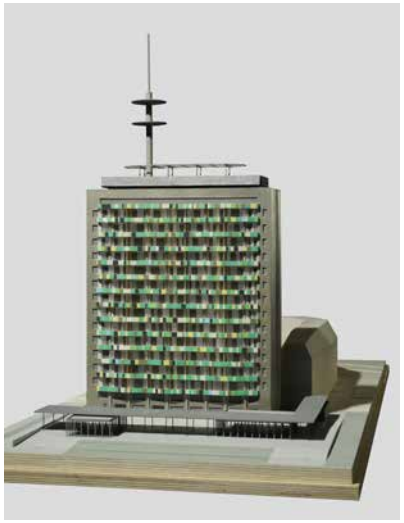
Replacing the old façade

View from tracks

In conclusion, the strategies of layering and dressing existing structures present a compelling case for architectural innovation that balances sustainability with aesthetic enhancement. Through the examples, it is evident that existing buildings can be revitalized and repurposed to meet contemporary needs while honoring their historical significance. By implementing thoughtful design interventions—whether through extensions, structural modifications, or aesthetic upgrades—architects can breathe new life into aging structures, allowing them to serve future generations. This approach not only mitigates environmental impact by reducing waste and preserving resources but also fosters a deeper connection between the built environment and the communities that inhabit it. Ultimately, these strategies exemplify how we can embrace the potential of our architectural heritage while paving the way for sustainable urban development.

Berlin Metropolitan School

Office Building, Munich



Telekom-Hochhaus

Casa Lei

A project between imperfections, discoveries and *objet trouvé*

Paolo Bianco

Transitional Morphologies Joint Research Unit
DAD – Department of Architecture and Design
Politecnico di Torino

We live on a planet we no longer recognize as our own[1]: climate change, now evident everywhere, affects not only the way we eat, dress and work but also the way we build[2]. Buildings, responsible for 39% of global emissions and 50% of virgin raw material extraction[3], demand a change of perspective: a return to existing structures and secondary materials. In this direction, the designer should adopt the mindset of a *bricoleur*[4], a latter day Robinson Crusoe able to exploit whatever is at hand to generate new possibilities.

Where contemporary design often pursues an ideal of perfection achieved through meticulous control of every process, reuse instead offers an occasion for interpretation[5], welcoming the unexpected (whether positive or negative) as a motivation to re orient creative processes and question traditional aesthetic canons.

Within this framework sits *Casa Lei*, the gradual transformation of an early 1900s building that has been, in turn, a bus garage a private home and a local party headquarter. Launched in 2022 by AMArchitectrue and architect Luca Mostarda, the project embraces an "as found" approach as an ecological and economic strategy and as a narrative device that valorizes the traces of time. An almost "archae-

1 Latour, B., & Weibel, P. (2020). *Critical Zones. The Science and Politics of Landing on Earth.* Cambridge: The MIT Press.

2 Wikstrom, L. (2023). *Designing the Forest and Other Mass Timber Futures.* New York: Routledge.

3 Park Associati. (2023). *Urban mining.* (D. Ferrari, & M. Serra, Eds.) Retrieved from parkassociati.com: https://parkassociati.com/urban-mining

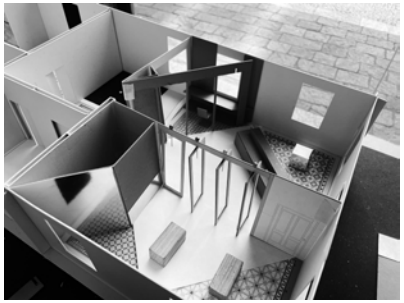
4 Scalbert, I. (2011). The Architect as Bricoleur. *Candidate. Journal for Architectural Knowledge*, 07(04), 69-88.

5 Kadowaki, K. (Ed.). (2020). *Co-ownership of action: trajectories of elements*. Tokyo: TOTO Publishing.

In the living area on the first floor the project's recurring features are immediately visible: the reused tiles, the traces of former walls, the recycled cladding materials and an exposed heating system that doubles as a support for the curtains. Photo: ©Paolo Bianco

The structural scars stand out from the background due to differences in texture and colour. Photo: ©Paolo Bianco

Above: a picture of Casa Lei before renovation works. Below: one of the project's test models and the porthole opening work. Photo: ©AMArchitectrue



ological approach" makes dimensional and photographic surveys the primary tools for understanding the existing layers. Through selective demolition, the designers could read the spatiality, cataloguing each element to plan its re-incorporation. As Giorgio Grassi notes, the ruin becomes a "design condition" from which new responses can spring[6].

In the "clean up" of the existing fabric, not only construction materials but also stories and memories are reused, forming a fresh stratification that prevents oblivion. From this emerges an aesthetics of imperfection that rejects Alberti's ideal of perfect harmony: cracks, marks, pipes and *objets trouvés* from the site become integral parts of the new spatial language. Service runs are highlighted by contrasting wall paint; the ghost lines of demolished partitions become decorative motifs; exposed heating ducts are mounted outside, cut costs, and can be altered in the future, while sure pipes double as supports for curtains and decoration elements. Doors, concrete tubes, bricks and brick panels are repurposed unexpectedly as partitions, sanitary fittings or cladding, while the original cement tile floors, meticulously surveyed, becomes an ordering element of the project and continuity between the spaces.

Additional materials, found or bought cheaply as leftovers from other sites, enrich the palette: a recycled metal sheet becomes wall paneling and a porthole donated by local window maker forces to make some important design choices, underscoring the idea that "the project becomes the con-

6 Grassi, G. (2023). *Giorgio Grassi. Scritti scelti 1965-2015.* Siracusa: LetteraVentidue Edizioni.

text of the project itself", to paraphrase Kersten Geers[7]. In the attic and on the ground floor, space awaits a definitive function, enabling stockpiling of salvaged materials and imagining future uses in an open ended process that avoids irrevocable moves.

This flexibility proved vital when the clients living on the first floor site chose to subdivide the building into several units; the project accommodated the change with ease. *Casa Lei* is thus an open, evolving site, its phased progress is slower but more experimental to allow continual adaptation. This operational circularity, coupled with reclaimed materials, makes the undertaking economically and environmentally sustainable while redefining the designer's role through decisions shared with clients and craftsman. In the project, the "as found" approach becomes a model of integral sustainability, molding itself to emerging needs and opening fresh perspectives for building and dwelling.

7 Geers, K. (2001). Architecture with Delay. In J. De Vylder, I. Vinck, & J. Taillieu (Eds.), *Architecten De Vylder Vinck Taillieu. 1 Boek 2* (p. 49). Ghent: MER Paper Kunsthalle.

Some spaces and details of the first floor. Is visible how the "scars" of the pre-existing structure, the signs of the works and some materials and construction structures are integrated into the project. Photo: ©Paolo Bianco

session 3
resilience and human-centeredness 1

HOW TO STEAL A BUILDING:

Adapting, recycling and de-constructing in the inner city of Johannesburg.

Dr Heather Dodd
Savage + Dodd Architects
Graduate School of Architecture, University of Johannesburg, South Africa

Johannesburg is a city in flux. Established within the framework of an extractive colonial economy, the city has been built and re-built several times over the past century. Material flows from a mining economy were inscribed in the built environment. Buildings were quickly built and then rapidly replaced by another - larger and more fashionable. Buildings were themselves responses to an extractive economy that governed the city's development.

Wemmer G.M Co. Cross Section through main Shaft Historic Mining Map

As the inner-city economy changed in the immediate post-apartheid era with corporate urban flight and the de-industrialisation of the inner-city economy, many former office and industrial buildings were vacant and available for adaptive re-use. A practice of adaptation and transformation of existing buildings and infrastructure has, over the past few years, reshaped the inner city into a space that reflects a more complex and dynamic mixed-use urban fabric. Yet this transformation is fragile, the trajectory is not always forward. It can be disrupted through multiple events including building occupations, fire and the stripping of buildings for their materials.

What was there may not be there tomorrow.

What happens when a building is 're-mined' and stripped for its materials? Where are the boundaries of 'circularity' in an informal economy? As architects we engage in the deliberate 'deconstruction and reconstruction' of buildings as an adaptive design process focused on limited interventions for maximum impact – we are challenged by the act of 'theft' – of elements of buildings disappearing. This suggests a practice of uncertainty, unpredictability and the need to continually reframe constraints in relation to opportunity.

Rapid and continual change - through processes that are largely informal, suggest flexibility and resilience in practice. A practise that is resilient is agile, tactical and can adapt and change quickly to circumstance.

Through a visual essay, the work of Savage + Dodd Architects is presented as a reflection of a tactical practice of making, adapting and un-making within this urban context. This both documents the intended trajectory of the process but also employs drawings and photographs to retrospectively speculate on often unanticipated processes that shifted and shaped the final outcomes.

Building / Floorplate as site – a spatial approach

In developing a spatial practice for adaptive re-use, we approach buildings as sites of tactical intervention. These are explored through a diagrammatic drawing technique showing a series of assemblage and adaptation options.

Our strategy is to maximise the potential of the building envelope, working within the floorplate as a site and the external façade perimeter skin. We create inner courtyards and light wells by extracting slab areas, while maximising FAR through rooftop additions. In this, it could be said that we are working from the inside out and are in fact engaged in the act of spatially ‘stealing’ space.
Our methods lie within conventional architectural documentation practice, and this approach is strongly tied to the construction technology of the building; concrete framed with brick wall infill and steel framed windows. Projects must be completed quickly. The best strategy for recycling buildings is to use what is already there.

(Left) Diagramming Spatial Tactics, Extract, Consolidate and Maximise
(Right) Paris House, Extracting a Courtyard

Floorplate as site

Roof as site

The case of the disappearing building

This approach was radically challenged in a project where, during a prolonged design period delayed by budget constraints, a building was systematically stripped for salvageable materials. Initially, a former post office, though long vacant, remained in near-pristine condition. However, as delays persisted, the concrete-framed structure with suspended granite cladding was gradually ‘mined’: all internal metal fittings and aluminium windows across 14 storeys were removed. The building became a material bank (but for whose benefit?) resulting in a significant loss of architectural and economic value.

This evolving condition introduced uncertainty into the design process, necessitating constant adaptation to a shifting material reality. The project stands as a counterpoint to planned transformation—an incomplete and reactive process shaped by external, informal material economies. It raises critical questions about the changing nature of architectural practice in relation to informal economies.

280 Smit Street, Google Street View
(Top to Bottom)
February 2013
March 2017
February 2025

280 Smit Street
(Top to Bottom)
2015, Intact Window
2016, Window Removed

SECOND CHANCE

The evidential paradigm in the evolving design process

Sarah Becchio-Paolo Borghino
ErranteArchitetture
Politecnico di Torino

In 1874, the Italian art critic Giovanni Morelli, writing under the pseudonym Ivan Lermolieff, published articles in the German periodical "Zeitschrift für bildende Kunst" that introduced a new method for distinguishing original works of art from forgeries. This approach, known as the "Morellian method," involved analyzing elements considered secondary within a painting. By carefully cataloging these details, Morelli was able to identify distinctive traits of artists' styles and thus unmask forgeries, in which no attention was paid to such details.
The emergence of an attitude of attention to detail, from the end of the 19th century, is the focus of the essay entitled "Clues: Roots of an Evidential Paradigm", in which Carlo Ginzburg traces the birth of the circumstantial model that links the traces Morelli searches for in paintings, the clues that Arthur Conan Doyle makes Sherlock Holmes stumble across, and the symptoms Freud identifies in his patients.
If Morelli distinguishes the fake from the authentic, Sherlock Holmes uncovers the culprit, and Freud attempts to improve the patient's mental health; for the architect, each project can be understood as a progressive adjustment to an evolving frame challenged by unpredictability.
The evidential paradigm is, therefore, the perspective that puts us in a position to investigate change in search of a new hierarchy of meaning as project conditions change.
In the three projects presented here, the unexpected thus opens the way to discoveries.

Ginzburg, "Spie: radici di un paradigma indiziario." In Miti emblemi spie: Morfologia e storia. Torino: Einaudi, 1986. English edition: "Clues: Roots of an Evidential Paradigm." In Carlo Ginzburg. Clues, Myths, and the Historical Method. London and Baltimore: Johns Hopkins University Press, 1989

CARPENTER CHAIR
The design of the Carpenter chair stems from the observation at the construction site of the instinctive action of assembling a simple seat by a worker with some pieces of metal gabion from the structures of a foundation. This operation, which encapsulates in itself a playful and liberating aspect, is the origin of a subsequent series of design experiments that make use of waste materials from intermediate worksite operations and semi-finished products normally concealed by the succession of construction operations. Corrugated steel rods, wooden scraps, insulating sheaths, couples of wedges, etc., are just some of the elements used in the formation of a comfortable chair.

BOSCO COLTO
The design of a pavilion for an open-air space during a self-construction workshop was an opportunity to experiment with an approach based on the use of resources limited to what could be found directly on the project site following the lack of supply of the planned materials, defining in the process a different strategy based on the paradigms of reduction rather than addition of external materials.
For example, part of the vertical structure was transformed into a new entrance front, using some roofing slabs as a new facade-manifesto. The same type of slabs, folded and manipulated, were used to form multifunctional platforms. Logs, prickly pears and other natural elements as *objects trouvés* contributed to the design of the pavilion.

CASA BM

The renovation of a house is a long process of layering of meaning that can go through phases of planning and realisation difficulties also resulting from external forces that are not entirely controllable, such as fluctuating budgets, know-how of the companies involved, unstable construction costs, etc.

If the process can become somewhat unpredictable, so are the discoveries that are made in this context.

At Casa BM, the result of the interaction with these events constitutes the field of experimentation, in a certain sense *forced*, that has led to uncovering those elements that have necessitated a deeper design immersion even when the construction site is underway, transferring complexity and difficulty to the field of opportunities.,

A series of targeted operations turned the site into a laboratory, proceeding by approximations, reductions and adjustments, through continuous adaptation to the conditions on the ground.

Direct handling, alteration of the conditions of use for which they were conceived, the study of fixings that can relate them to each other, are some of the détournement operations to which new and discarded materials have been subjected, with the aim of testing an empirical method based on the collection of clues capable of revealing unexpected characters and behaviour.

Photos: ErranteArchitetture

The operations of observing and redesigning the existing metal structure were followed by the physical actions of manipulating parts of that same body, resulting in an organism completely different from the previous one, proving that lack of resources, the unexpected and error can be transformed into design opportunities.

Photo: P.L. Sberni

Photos: Peppe Maisto

Photo: ErranteArchitetture

Experimentation with ordinary semi-finished products (e.g. the concrete pipes for collecting rainwater on which the supports for the downpipes are fixed), the use of stocks of cheap materials (e.g. in the cladding made of Chilean pine panels or in the interior walls made of exposed concrete blocks), do-it-yourself construction (in the production of the parapets, fences, stairs, etc.) but also the redesigning of elements following construction errors (such as the new ridge beam of the roof of the existing building, whose geometry provides a solution to the non-barycentric position of this in relation to the building's median axis) or design shortcomings (such as the red metal bracing that attempts to transform a simple structural need not initially considered into a didactic as well as an aesthetic experience), have transformed the construction site into a laboratory, proceeding by approximations, reductions and adjustments, through continuous adaptation to the conditions in the field.

Photos: Luca Bosco

RE:HOUSE

A circular building, or how ‘building’ circulates

Markus Jeschaunig
Agency in Biosphere, Graz (Austria)
PhD Candidate - Faculty of Architecture University of Technology Graz (Austria)

“What you people call your natural resources our people call our relatives”[1]

Oren Lyons

Can you build a house without Planet Earth taking notice? These question was fundamental, before the here discussed project was set into action. In the world we are living in today, every being, thing or place is holistically interwoven into a complex system by interconnectivity. Everyday actions, such as switching on the light or taking a shower, have an episodic life, that in first line appears harmless; the fact, that these actions also have a second “systemic life, that inevitably contributes to planetary harm and damage, seems to corner me in a morally indecent position”[2] . The Italian Philosopher Marcello Di Paola describes it as “ethical problem of agency loss”, which is distinctive of the Anthropocene. While the systemic life of our actions escapes our jurisdiction as agents entirely, it is as real as the direct experienced episodic life. So climate change would not occur, if we are not consuming or – in this case – building?

Aim of the practice and research project Re:House was it, how we can build differently – in this case testing circular

1 Lyons, Oren, traditional Faithkeeper of the Turtle Clan and a member of the Onondaga Indian Nation (born 1930)

2 Di Paola, Marcello, “Urban Oasis”, Kerber Publisher, Bielefeld/Berlin (2018), p.p. 81

design methods including ReUse and local sourcing – in order to result harmless for the biosphere; Furthermore, how we can multiply the this practice and ‘experience of building’ in a deeply effective way to interested fellows, in order to break open potentials for a broader applicability. It focuses on how to reduce ecological impact during construction the Re:House explores circular design methods, urban mining as well as conversion and renovation. A practice based research project that tests value creation potential during demolition of buildings, ‘simple construction’ with on-site materials and experimental formats of social participation in a demonstration building.

Anergy vs. Exergy

In addition to circular construction and reuse, the project also incorporates locally sourced materials. To reflect this approach theoretically, it leverages a scientific concept that is assumed following: Ecological building practice can only succeed, if there is a high degree of local ‘anergy’ [3]‘ (e.g. air, sun, earth, local sources) instead of energy-intensive, farfetched ‘exergy’[4] (e.g. oil, gas, steel, cement).

House extention

In the example of a single-family house from the 1950s, which was typical of the post-war period in Graz suburbs, it became necessary to build an extension, in addition to a comprehensive energetic renovation of the existing build-

3 Leibundgut, Hansjürg, „LowEx Building Design for a ZeroEmission Architecture“, vdf Hochschulverlag AG, Zürich (2011), p.p. 29

4 Ebd.

ing, it provides a new residential area with an adequate bathroom oriented towards the garden level. The sealing surface of the floor plan area of the house extension was kept constant by erasing the old asphalt zone in front of the building. All other construction measures were weighed up according to ecological aspects and taken in favor of the ‘anergy’ principle.

Design Method(s)

The reach as low emissions as possible, this project used a wide range of reuse practices and local sourced materials. Over a period of several years in advance of the project, based on a plan many materials were harvested, then stored and brought to the building site. Materials that exist can be reused and get a second life. On site materials earth

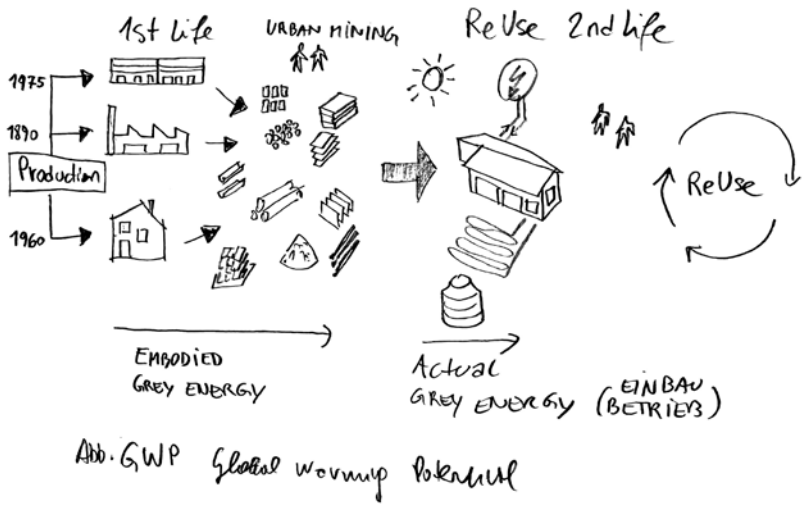


Fig. 1: Sketch, showing how building can be reused, waste becomes food

for the earthen walls or the wood from the little forest at site.
A nearby brick factory by Brick products were diverted from the waste disposal route from an industrial wasteland of a clay brick factory – only 400 meters away from the building site – and local clay from the site was used to make the roof tiling and rammed earth walls of the dominant walls and some plaster surfaces inside. The entire wooden roof structure was made from 120-year-old wood construction (mined during the demolition of 19th century factory buildings in Graz Reininghaus, 11 km), as well as glass bricks and other building elements. Wooden wall panels (Mahagoni wood from 1975), door frames, door panels, switches, plugs, sanitary items and gutters were harvested in the Vorklinik Institute at Graz University Campus (13 km).

The urban mining procedure of the larger demolition sites such as Vorklinik Graz, Sophienspital and Arbeiterkammer Wien (198 km) were coordinated by a consultancy company called BauKarussell. Before demolitions of buildings start, they often do so called social urban mining events[5] , were a general public is invited to harvest what ever the need. This reduces waste on the one hand, but far more important it involves people, neighbors, formerly users etc. to get in touch with questions of reuse, circularity and waste management.

All of these ‘old’ but still high-quality materials that are no longer needed in today’s construction sector, could be

5 https://www.baukarussell.at/social-urban-mining/ (accessed : 28.04.2025, 08:55:23 am.)

reused for a second life in a new building. Under the logistical challenge of 'just-in-time management', the plan of the building was constantly adapted to available materials, although the permitted main geometry didn't changed. This building represents a unique material composition, and therefore also a new aesthetic, that combines the lowest possible energy consumption with a high level of craftsmanship and design and material quality. For example, the qualities of massive wood cladding, massive doors with heavy aluminum fittings or terracotta roof tiles used as flooring have a high-quality and long lasting technical but also aesthetic strength, that can not be beaten in atmosphere with anything standard products from contemporary market. Critically to mention is, that in field studies like this, craftsmen have to get orientation and take definite longer in mounting, than with standard products.

Raising awareness and how 'building' circulates

Facing an often confusing interdependency in todays crisis-ridden world, people seems to loose more and more of their own agency. The sociologist Anthony Giddens outlines "agency means being able to intervene in the world"[6]. Creative disciplines like art and architecture have the huge potential to build other worlds and futures, to provoke

6 Cf. Awan, Nishat, Schneider, Tatjana, Till, Jeremy: Spatial Agency: Other Ways of Doing Architecture, Routledge, New York, 2011, pp. 31
Anthony Giddens : agency, stating that an "action depends on the capability of the individual to 'make a difference' to a pre-existing state of affairs or course of events [...] agency means being able to intervene in the world, or to refrain from such intervention, with the effect of influencing a specific process of state of affairs".

change, open new sustainable narratives and retreat agency loss. The project Re:House experimenteds with participatory formats and social involvement. Its intention was it, to explore, how a general public can become socially engaged in the process of rethinking 'building' in order to "opens up interstitial spaces for meaning that are otherwise rare".[7]

The geological presence of high quality clay and earth material in the village of Premstätten (Austria) historically led to the establishment of brick production companies in the area. Yet, paradoxically, earth-based construction is totally absent in the village today. Knowledge got lost about this craft too. While everyone knows the earth ground they live on, doing workshops where people could learn how the building method of rammed earth works and that locally sourced material (anergy) can become building material for a house. Also to show it on the finished north facade is important, the architecture is a demonstrator, showcasing to build LowEx.

Fig. 2 & Fig. 3: Public workshop activities, building site; 2 Student- and 1 Kids+parents workshop "rammed earth", photos: Jeschaunig

7 Redecker, Eva von, Repair and Revolution, Arch+ The Great Repair – A Catalogue of Practices, Spector Books, Leipzig (2023), pp. 207

To deepen understanding and broaden participation, following activities were organized:

- Hands-on workshops
- Children's activities (summer clay workshop)
- Site tours and lectures
- Publications
- An open house festival

These activities fostered public engagement and generated widespread interest. Most importantly, they allowed people, neighbors, friends or interests to see and understand where the materials came from, how they were processed, and how they contribute to a new kind of architecture—one rooted in local resources and collective knowledge. Also craftsmen were part of the process.

Conclusion

The Re:House visualizes how circular building from the demolition, the urban mining process and a component can be migrated in its second life in the most efficient way. It is a demonstrator of a circular building attempt, but in the same time the 'act of building' becomes alive through involvement. Building turns circles , building is circulating towards transformative change.

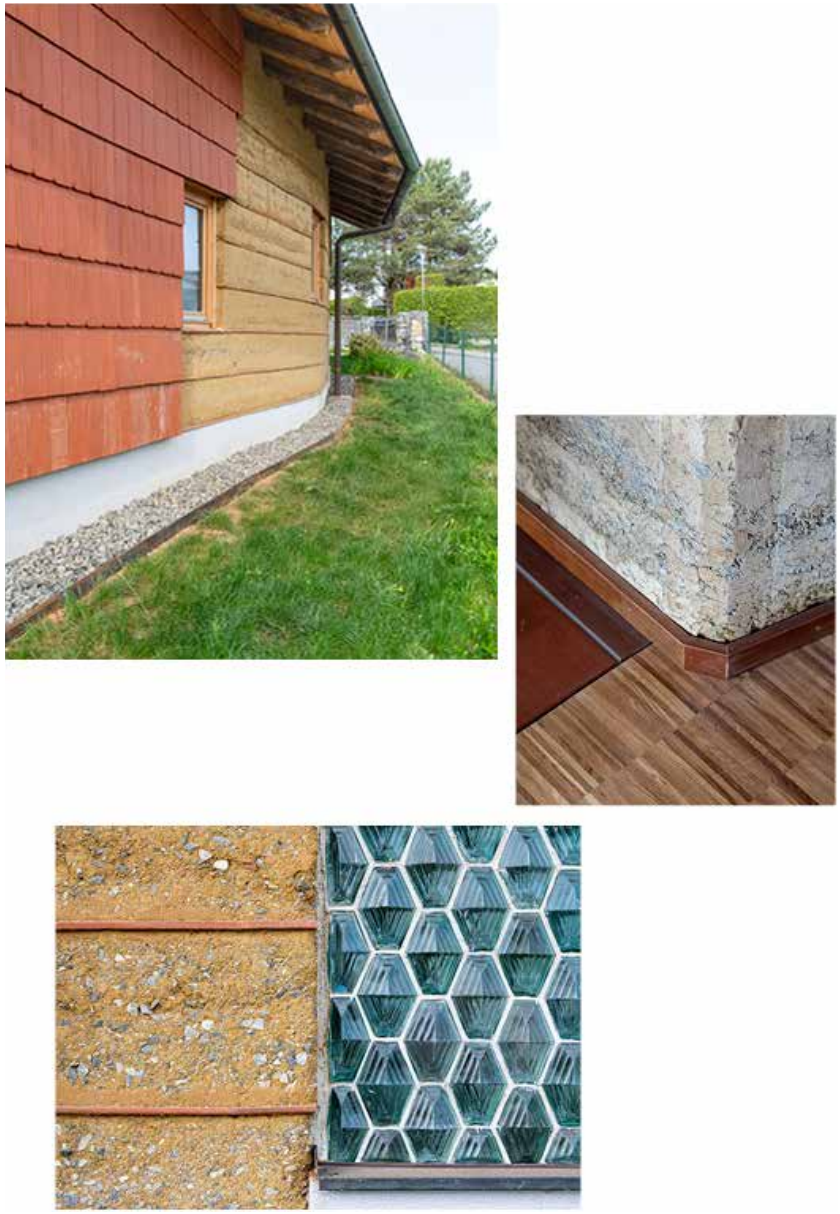


Fig. 4-6: Re:House, Premstätten (Austria), architecture by Markus Jeschaunig (2024), photos by Tom Biela

Fig. 7-9: Re:House, Premstätten (Austria), architecture by Markus Jeschaunig (2024), photos by Tom Biela

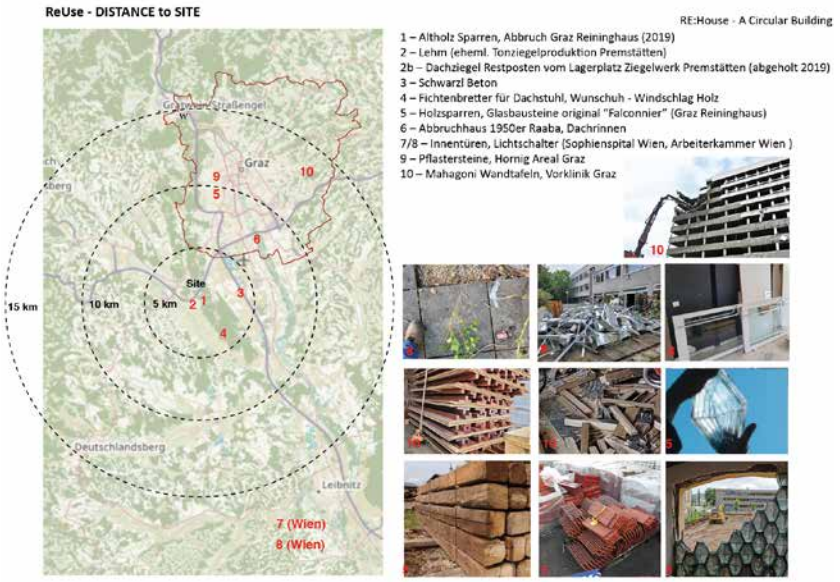


Fig. 10: ReUse Distance to Site, photos by Jeschaunig - Agency in Biosphere

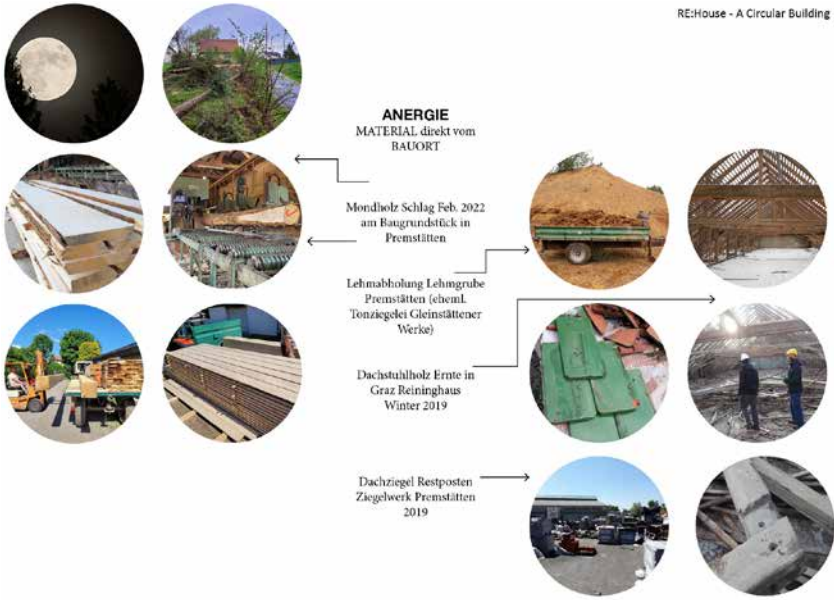


Fig. 11: Re:House, Harvesting process, excerpt (2019-2023), photos: Jeschaunig – Agency in Biosphere

PERFORMING TRANSFERENCES

Theatre as a method to Architecture

Shivani Shah
Revati Shah
ReSa Architects

Sparsh is a situational architectural built project that draws methods of seeing and framing the site from theatre. Theatre as a method to architecture produces an architecture that is built upon a series of 'situation's' rather than on a static and fixed 'site'.

We frame working drawings as having embedded agency within them to choreograph the bodies and materials on site. We then translate the choreographies—generated by the working drawings on site—onto our own bodies, performing 'image theatre' exercises inspired by Augusto Boal's Games for Actors and Non-Actors, both on the under-construction site and later within the studio.

The exercises begin to reveal the site as a temporary unscripted condition – a situation - while reframing the working drawing as a script for rehearsing materials, labors and building processes on these site-situations. In this process, we recognize that the laboring bodies—framed as the communities present on site—carry within them embodied ideas shaped by broader social, cultural, and discursive fields. These communities, actively engaged in the construction of the buildings, are carriers of situated knowledges, rooted in their direct and continuous engagement with the lived realities of the site. As their bodies sense temperature variations, breathe shifting air densities, observe the landscapes with attentiveness, and register the seasonal changes across the span of the project, the bodies become living maps of change, embodying the evolving conditions of the site. By studying these bodies,

we create a circular process: embodied experiences guide spatial decisions, and those decisions, in turn, shape environments that better support and respond to the bodies which are holders and shapers of the site shifting situations.

Theatrical practices carry within them an embedded adaptive method—one that is deeply attuned to the temporariness of lived experience. While traditional methods of architectural thinking—through models and drawings—often attempt to relinquish control by fixing ideas into static forms, theatre embraces the fluid, shifting nature of reality. It offers powerful possibilities for engaging with the uncertainties and slipping conditions inherent to the site.

Furthermore, reframing the working drawing as a script—one that invites the site communities to complete the voids left in its white spaces—gives voice to the materials themselves. This approach rejects the controlling nature of traditional working drawings and softens the boundaries of authorship within the project. Through the process of co-designing, a collective social practice emerges, establishing frameworks that integrate knowledge drawn from collective communal lived, everyday nuances of the site. Collective decision-making, in turn, creates an adaptive system in which choices around material sourcing, use, and placement are shaped by the embodied collective languages, histories, cultures, and knowledges of the workers. The theatre method to the architecture thus shifts the architectural project from a site to community while simultaneously converting the community into a site.

When this adaptive-theatrical approach is applied to architectural design, it enables a fluid response to the site's shifting realities. Architecture, rather than resisting change, becomes capable of adapting itself—growing out of and with the contingencies of the site.

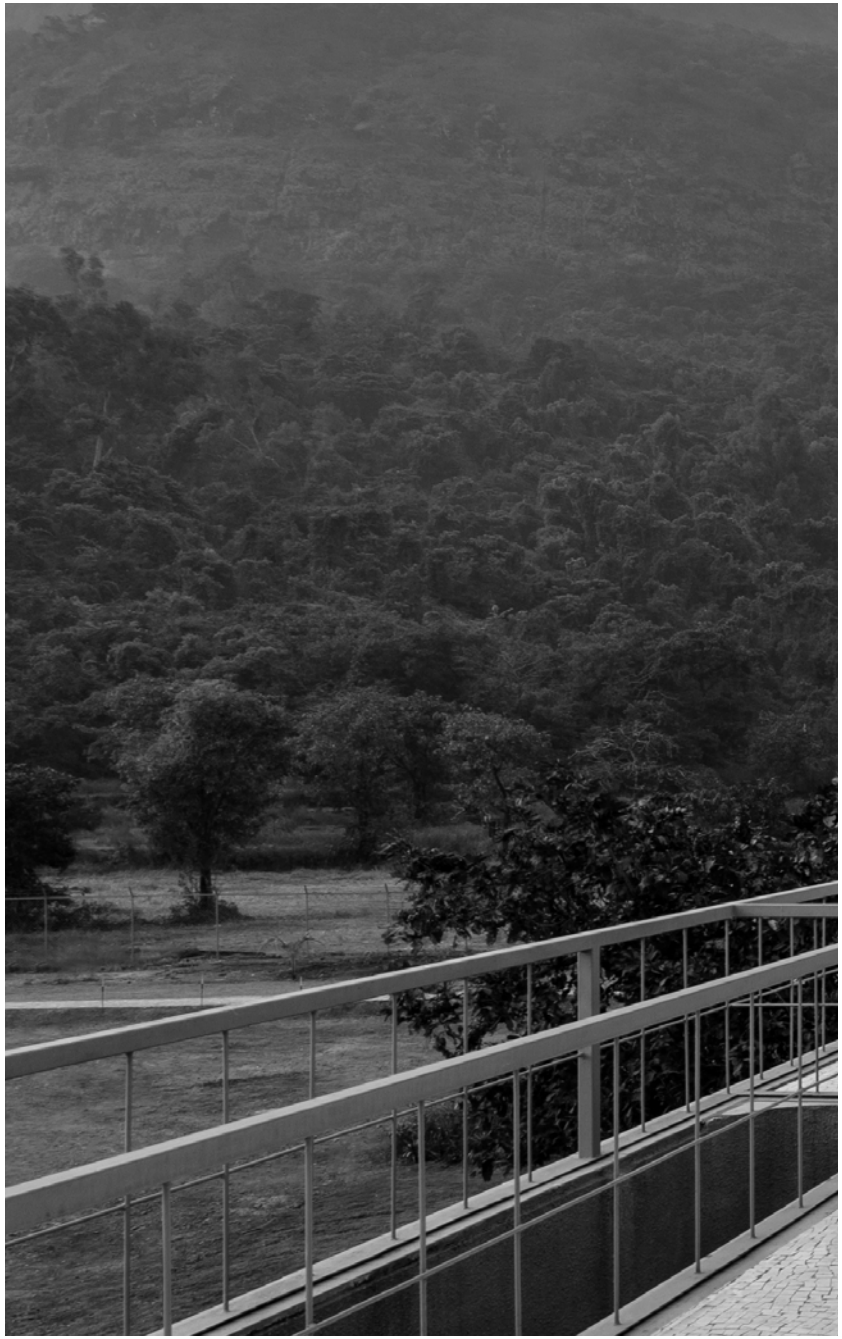
The approach also examines the diverse "gazes" within architectural production: the intentional gaze, the colonial gaze, the professional gaze, and the extractive gaze. Each gaze holds agency, reshaping the project and the site through its ability to deterritorialize existing conditions.

The document submission incorporates polished images of the finished structure are juxtaposed with raw, frugal notes, disrupting the emptiness of images divorced from the working conditions that shaped the project. This aligns with the socio-political aim of foregrounding transient, everyday site happenings as materials carrying agency and values across people, resources, and ecological systems
The document also physically engages the reader, requiring movements that echo the repetitive acts performed by working drawings on laboring bodies, fostering an embodied experience of the project.

4th May 2024 . Inside the master bedroom's seating section, at the corner between the bedside table and the rotating door, there are two skylights - one in the roof and another in the floor. Each casts light onto the other, eventually illuminating the sloping contour. It brings to mind the moment when light first touched the ground before the building was constructed.

21st January 2023. A corner window, triangular in shape, is located above the stilted master bedroom. From here, we can see the sloping contour of the land. To my left is the ramp leading to the master bedroom, and beside it, a sharp drop. Below the drop is a grate, with land extending beneath it.

We do this exercise in the studio often. It is an Augusto Boal exercise 'Draw your own body'. We both lie on the floor of our studio and think about our body as a totality, and also about each of its constituent parts: fingers, head, mouth, tongue, legs, sex, eyes, hair, belly button, neck, elbows, shoulders, vertebrae, etc. Then we try to move the part of the body that we are thinking about, whenever possible.



This time we wake up with our backs on a tent base, the underside of the tent borrowing its form from the undulating contours of the land below us. On the CAD drawing, we are on the lowest contour of the site.

While we were undertaking the architectural project we were also parallely researching the work of Augusto Boal from 2020 to 2024, using his book 'Games for Actors and Non-Actors' as instructions to our own bodies.

Exploring a bodily reading of his book. transfering actions from site upon the contours of our own bodies.

8 th July 2024

We did a site-specifc performance-exhibition today. The exhibition ' On Building a House' was choreographed as a place-based, scattered site-exhibition. Drifting across a particular landscape, you walk, cut through, pause, and traverse grounds, plants, contours, building materials, tools, a house, electrical poles, labor bodies, their breaths, their language, accents and textures, absurd forms, a library totem object, etc.

Inside the walk - a temporary unscripted piece ' you assemble the parts, draw connections, and structure information.

We ask if the architectural project is built upon a series of 'situation's' rather than on a static and fixed 'site'? If the bodily perceptions, that a walk generates, contribute to 'situations'? How does it reframe the way in which architectural production is known? What is known within the contours of one's body in the experienced site-situations?

Situated between sculpture, earthwork, performance, theatre and architecture, the exhibition aims to question our ideas of the site boundary, access, private ownership and titles in relation to situated ecologies and environments through a re-thinking of the architectural documentation process that grapples with the temporariness of the building process.

As the villagers who have been sonically exposed to the effects of the building construction process enter the site compound wall and walk through the site we are narrating stories from our notes of the process of construction. The dynamics of deterritorization get revealed in this process.

5th May 2024

He asks "What should we do at this edge? "
"I will raise this".

26th July 2023

He calls and says "The red is not staying and flowing, can we paint it red later? There are outoor paints which wont come off"

I received another call again

I say "Its okay, you can remove the red completely, we will just do it as a grey".

21st March 2023

Today we are marking the Library and the study structure. We look at the tree and work backwards on what is the best that we can do. We can see some heights. Not sure. Just working through feelings. Then find the clearest patch. Think about entering. Sketch some section from Shantivan down below to see it again. Sketch it again. Such a micro sketching. When our bodies can draw it up. One is to one. I am walking up and down that slope many times. Remembering how steep it is. How many dry but weeded plants are there. How many of them I crush. How brown and dry they were. Something so earthen about all of them.
We place string lines cutting the land. Later we will see the compound wall getting build on another plot of land. Building lines on the land is a very sharp act on nature and the earth. It is a way of saying that we will now build a very new relationship. As if the continuity across will become something new. It is a very sensitive act. It must be done with care.

23rd July 2023

He says "We have gotten all the stones from rivers around. We can't find any more." Adds "I will go to thurbe and check"

"Angad - (meaning undulating in hindi) - edges of the stone. We will cut the stones in an undulating pattern"

The other contractor says "If we make the mortar red then it will be weak. Because this is an outdoors element, it will be exposed more to the rain, so we will reduce the quantity of geru (geru is a mixture of clay and cement), We will make it a little less red so that the strength is not reduced"

My phone rings. I answer "call a little later".

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Photo Credits

Studio Abhishek Sawant

session 4
processes of reclamation and contextual mining

BETWEEN AS-FOUND AND AS-BUILT

Real-time rendered models as an instrument to work remotely with locally harvested materials.

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Norell/Rodhe
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Einar Rodhe
Norell/Rodhe
Konstfack University of Arts, Crafts and Design

To construct architecture based on locally harvested materials is becoming increasingly common. In such practice, design is often developed through mock-ups using materials at hand, thereby eliminating the need for drawings and other representations altogether.[1] Raamland[2], a community garden and pavilion in Bruges, explores an alternative approach, where locally sourced building elements and materials are assembled in real-time rendered models before being assembled on site. Rather than eliminating the need for on-site presence, these rendered models were closely linked to their material counterparts. Spanning from encounters with *as-found* materials to *as-built* documentation of the constructed outcome, they allowed us to conceive the design remotely from our studio in Stockholm, thereby reducing travel and on-site presence.

To source materials, we ventured beyond the immediacy of our site and conducted a series of excursions to a network of locations and local actors in and around Bruges where used material is handled, such as junk yards, demolition sites, recycling centres, and second-hand stores[3]. Taking cues from Alison and Peter Smithson's notion of the as-found, this involved an extended attention to context, including an understanding 'how the existing built fabric of the place had come to be as it was', as well as a creative

1 See Urszula Kozminska and Bie Plevoets, 'On Unbuilding: Overarching Reflexions on Practices in Research #05 Demolitions and Deconstructions', Practices In Research, issue #05 (December 2024), pp. 377- 401 (p. 391).

2 Raamland was commissioned for the 2024 Bruges Triennial: Spaces of Possibility. Design: Norell/Rodhe; Daniel Norell and Einar Rodhe. Curators: Shendy Gardin and Sevie Tsampalla. Local architects: Dertien 12.

3 For a recent overview of the practice of extending the site to include material networks, see Lidia Gasperoni, 'On-site Catalogues: Reassembling Situated Materials', Candide, 24/25 (2024), pp. 1-19.

Fig. 1-4. Most of the materials were sourced in a one-week excursion to sites in and around Bruges.
Fig. 5. Available building elements were documented in a virtual library, ranging from unique objects to boards and planks.

Fig. 6. Material assemblages were continuously developed in a model that included materiality and patina. Key moments, such as the oculus, were studied in rendered drawings.

practice of gathering and assembling materials 'where the art is in the picking up, turning over and putting with…'[4] Building a catalogue of materials was both a designerly activity, characterised by chance encounters with special finds that spurred the imagination, and a systematic process of surveying, measuring, and sorting. Some materials were standard, such as lumber, while others, such as a mantelpiece, were unique. Step by step, this exercise attuned us to different qualities that used objects may possess, from reading their histories through traces and patina that evidence 'other lives', to assessing them for what they may become – for their potentiality as building materials.[5]

Back in Stockholm, we completed the catalogue. To create accurate representations, each object was interpreted in a texture mapped model, often based on photographs of the find. The resulting precision and rich materiality became a way to overcome the 'layers of abstraction' that, as Maarten Gielen has observed, make conventional CAD drawings ill-suited to a reuse practice.[6] Design became a process of composing on-screen assemblages of objects, often seeking unexpected juxtapositions. An ornate window capped by an industrial aluminium profile? A wall of worn lumber and plywood set against a shiny white marble floor? Loosely formed assemblages were developed into a pavil-

4 Alison and Peter Smithson, 'The "As Found" and the "Found"', in The Independent Group. Postwar Britain and the Aesthetics of Plenty, ed. by David Robbins (The MIT Press, 1990), pp. 201-202 (p. 201).

5 For a precedent for this way of viewing materials, see Tim Ingold, 'The Materials of Life', in Making: Anthropology, Archaeology, Art and Architecture (Routledge, 2013), pp.17-32 (p. 17).

6 Maarten Gielen in Giovanna Borasi, Maarten Gielen, and Konstantinos Pantazis, 'Specifying from a Broader Catalogue', Canadian Centre for Architecture, 2017, <https://www.cca.qc.ca/en/articles/issues/24/into-the-material-world/53665/specifying-from-a-broader-catalogue>.

ion and garden furniture by going back and forth between on-site and on-screen testing. In this way, rendering took on an unconventional role. Rather than serving a static 'corporate vision' used to sell the project in its early stages, rendered models became a tool to work remotely with a specific set of available resources.[7] They evolved into a continuously updated exploration of architecture as assemblage, eventually encompassing the constructed, the as-built. Typically, as-built drawings reflect 'the form in which something was actually constructed, especially as opposed to what was planned.'[8] They account for spontaneous on-site changes during construction and serve as a basis for future alteration or deconstruction.

Ultimately, the project proposes a layered architecture that exposes its logic of construction and its constituent parts, as well as the labour that has been invested in it, something that Mark Wigley has recently described as 'visualizing the secret lives of materials' by 'offering visibility into objects rather than onto objects.'[9] This, in turn, may call for an understanding – and thus representations – of architecture as an ongoing process embedded within broader material networks, a necessary step toward a less extractive architectural practice.

7 For a recent theorization of the role of rendering in construction, see Mark Jarzombek, Architecture Constructed: Notes on a Discipline (Bloomsbury, 2023), pp. 42-43.

8 Entry 'as-built', Oxford English Dictionary, <https://www.oed.com> [accessed 14 February 2025].

9 Mark Wigley, 'Returning the Gift: Running Architecture in Reverse', in Non-Extractive Architecture: On Designing without Depletion, ed. by Space Caviar (Sternberg Press, 2021), pp. 41-57 (p. 54).

Fig. 7. Norell/Rodhe, Raamland (2024). The pavilion included wall panels from an abandoned club in Oostende, second-hand Carrara tiles from Brussels, wood used at previous triennials and inert materials from industrial recycling centres.

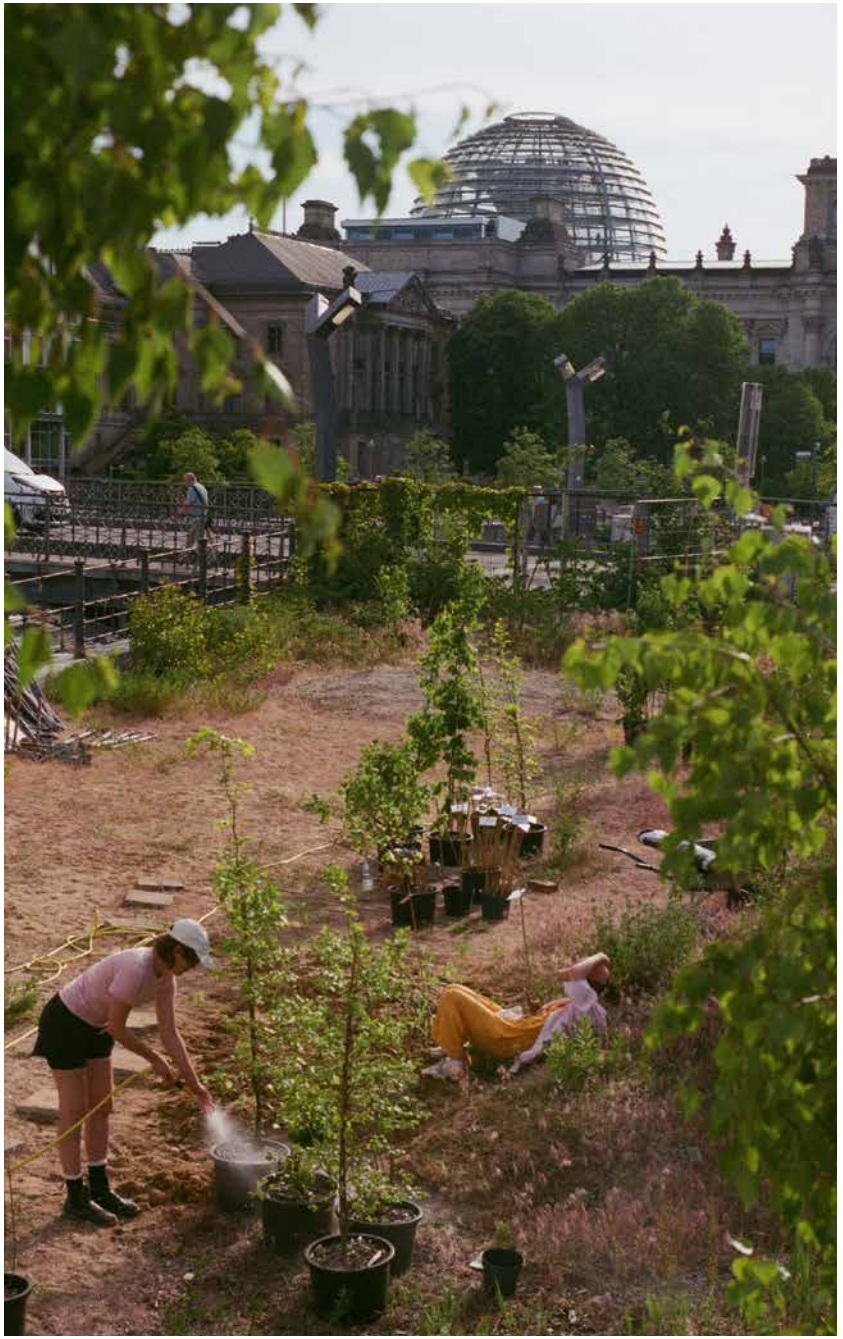
SAND GARDEN

Drawing a landscape architectural plan of what potentially could be there- cultivating resilience and adaptability

Johanna Bendlin, Laura Villeret

Sand Garden was developed as a response to an unpredictable, evolving site. The project began not as a top-down design but by recognizing and inventorying the existing species, an unintended landscape, an urban nature that had developed in a temporary gap of time and space.

In early summer 2023, we designed and built Sand Garden for the Summer Pavilion of the Kompeten entrum der Kultur- und Kreativwirtschaft des Bundes in Berlin, Germany.



A multitude of plants has shown their success in the sandy and windy territory and proven their transformative power before us entering the site. We entered with a plan, but one that, rather than imposing a fixed vision, enabled to focus on supporting and curating the existing, cultivating a dynamic space that could adapt with minimal intervention. Role was one of organising and stewardship, required to be present on site to respond to its evolving condition.

Project plan : the intervention focuses on the left side of the site to make use of the external accesses, creating a passage through the garden to reach the summer pavilion. The garden organizes pockets of vegetation that allow for the placement of flower beds.

Landscape architecture traditionally operates on large spatial and temporal scales with designs that take years to build and grow, and implementation often occurs years after initial planning. Sand Garden was an experiment in navigating unpredictability, embracing immediacy, and working hands- on with the site.

Instead of extensive preliminary analysis, we allowed the sites current conditions to inform the design, ensuring the landscape itself to inform our process.

1. 

2. 

3. 

4. 

5. 

6. 

1. Survey of present botanical protagonists

2. Seedlings growing at Nettles and Poppies collective on their own balcony

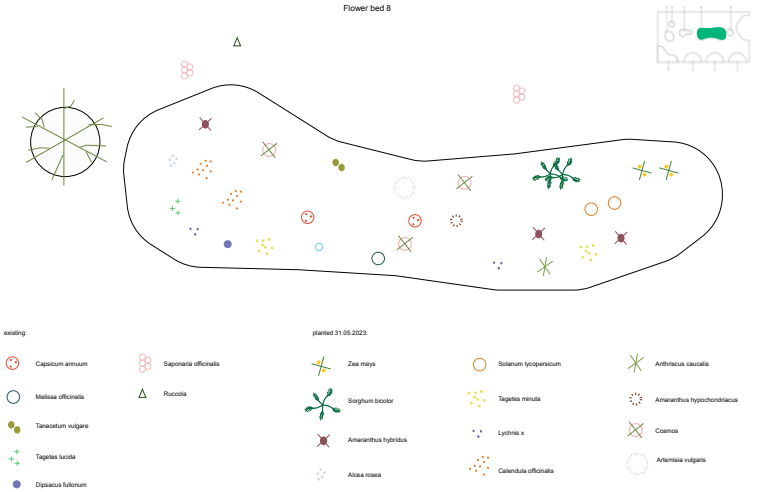
3. The clay clump: the addition of clay helps create new conditions on the site, thereby lowering maintenance by enriching the soil in specific areas. Adding clay to the sandy soil allows water to be retained longer, which supports the establishment of new plantings and also creates conditions for other plants to develop.

4. Collective planting: the preparatory soil work requires labor to loosen the soil and mix it with clay using a shovel in the specific areas.

5. Micro polarities for uses: A small series of objects made on-site from available materials are placed between the gaps created by the pockets of vegetation.

6. The planting hole and the watering basin allow the Verbascum bombyciferum, planted as seedlings, to have a significant reserve of water deep in the ground after being watered right after planting.

By preserving what was already thriving, we minimized risks and uncertainties, a useful strategy for short- term projects with limited budgets. Ressources were allocated toward maintenance rather than materials, demonstrating the importance of care in landscape design. Watering and gardening became integral to the project, shifting the focus from heavy material inputs to ongoing stewardship and sustainable practices.This approach redefines landscape design as a process of setting conditions for continuous evolution.



Garden maintenance and care : We propose to take stock of the situation after the hot season to assess the condition of the garden and harvest seeds for the following season. The survey plan of the bed flower n°8/9 reveals that one-third of the plants observed, such as rucola or Melissa officinalis, are species that appeared spontaneously without our intervention. The new condition of the enriched soil with clay and waitering have allowed other species to establish themselves.

Instead of a rigid plan, Sand Garden demonstrates how adaptive strategies- centered on care, responsive gardening, and minimal intervention- can create resilient, self-sustaining environments where design is setting conditions for landscape as nature to evolve.

Although the site is mostly flat, micro-topographies are present due to the accumulation of gravel and soil. We took advantage of these different elevations to create varied heights and relied on the different soil conditions offered by this heap.

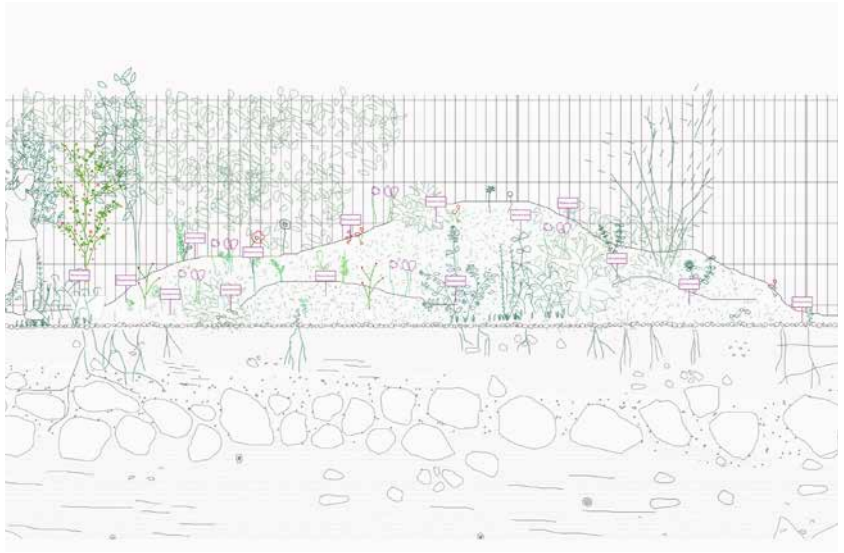


Illustration documents of the projected state in the sketch design phase of the micro-topographies recorded during the survey and here projected as planting support.

GRAMMA

Athenian grammar.

Benoit Durandin & Camille Rouaud
Studio Gramma

Genesis

Gramma is an Athenian project that began two years ago. Every day, walking through the streets of Athens, we could see elements removed from homes undergoing renovation piled up in skips containers. These elements, such as marble sinks, mosaiko flooring, wooden shutters, kitchen furniture, and other glazed doors – characteristic testimonies of a world where artisans custom-built interiors with a limited vocabulary – were thrown into the street to be destroyed and replaced. While the materials were not all of local origin, the designs and machining were. What constituted a singularity was being erased. These elements came from collective housing units, called polykatoikia (plural polykatoikies), which appeared in the 1930s and were massively built in post-war Athens. If no polykatoikia interior resembled another, no polykatoikiainterior fundamentally differed from another. This endemic production, which required the development of specific know-how that is now lost, adapted to its environment and always functional, was being destroyed to be replaced by standardized and industrially produced elements.

Methodology

In an initial phase, we systematically took photos of these elements to constitute the first archives of the constructive vocabulary of post-war Athens (Instagram: @g__r__a__m__m__a). While continuing to photograph them, we began to shelter them if we could, transporting them to storage locations to prevent their destruction.

These elements, such as marble sinks, mosaiko flooring, wooden shutters, kitchen furniture, and other glazed doors – characteristic testimonies of a world where artisans custom-built interiors with a limited vocabulary – were thrown into the street to be destroyed and replaced

This came with the paradox that we found ourselves in possession of abundant conventional elements (as Venturi defined them) with almost no market value, yet impossible to reproduce.

The first tools we developed borrowed from those of hunting and gathering, carrying out opportunistic and limited samplings of the countless architectural elements available to us. This came with the paradox that we found ourselves in possession of abundant conventional elements (as Venturi defined them) with almost no market value, yet impossible to reproduce. Beyond the real-time archaeological work we are pursuing, the only value we could give them would be to recycle and transform them to give them a new use, as useful as the one they had before.

2024.01.17 /// 07:54:33 /// Krissis 44, Athens, Kypseli /// farewell green mosaïko...











1. 2024.05.09 /// 18:59:37 /// Dilou 30, Athens, Kaisarianni /// marble sink n°008.

2. 2023.10.30 /// 19:33:31 /// Agiou Orous 25-27, Athens, Botanikos /// 4x solid wood roller blinds.

3. 2024.04.29 /// 00:03:45 /// Kastorias 30, Athens, Botanikos /// 1x solid wood entrance door, color hex #2a5c59 & #637d96 + 2x triple panels louvered shutter color hex #637d96 + 1x french window (2x casements) + marble plate t=20mm.

4. 2024.06.07 /// 09:33:08 /// Kallifronia 61, Athens, Kypseli /// 1x french window (2x casements, single glazing) off white + 4x double panel louvered shutters, color hex #a0a7c1 + 1x whole window frame + misc. solid wood dismantled door jambs.

5. 2024.05.09 /// 18:49:40 /// Paramythias 29, Athens, Metaxourgeio /// 60x cement tiles 200*200mm ~2,5m2.

6. 2024.05.15 /// 10:05:37 /// Palamidiou 77, Athens, Agios Georgios /// 9x interior doors.

7.2024.05.23 /// - /// - /// 4x solid wood french windows (8x casements) + 3x double panels of solid wood louvered shutters + 1x hanging kitchen cupboards + misc. solid wood window frames.

8. 2024.05.28 /// 22:26:35 /// Drosopoulou 100, Athens, Kypseli /// 157x 1950's white and pink hollow bricks.

9. 2024.01.17 /// 07:54:33 /// Krissis 44, Athens, Kypseli /// marble sink n°004.

10.2024.09.03 /// 10:08:26 /// Agias Annis, Athens, Eleonas /// 1x euro palett of bricks, commonly used for neoclassical houses, late XIXth to early XXth century.

11. 2024.07.18 /// afternoon /// Fokionos Negri 68, Athens, Kypseli /// x2,5m2 'café' mosaiko found on the 6th floor 'retiré' of a 1959 polykatoikia.

12. 2024.09.03 /// 15:40:46 /// Kastalias 8, Athens, Kypseli /// 9x misc. solid wood off-white interior glass doors and a window (4x glass doors + 3x cupboards doors + 1x pocket door + 1 french window casement).

Barbara's Sink, 1971 - 1975, Paralis Giorgos (1908 - 1975), Oil on canvas, 115 x 88,3 cm.

Project

We are almost at the end of the first phase of work as it was conceived. Last October, we showed the Gramma archives for the first time in an exhibition for which we wrote and printed the project's manifesto. In parallel, we are building a library related to the reuse of construction materials throughout the ages, whether books, texts, or images. We are currently writing a book that we hope to publish before the summer, which will include the manifesto and other texts we have written since. There is a canvas at the National Pinacotheca of Athens, Barbara's Sink, executed between 1971-1975 by Giorgos Paralis, depicting an ultra-realistically painted sink on which there are all sorts of kitchen objects. This will be the subject of a final exhibition for this first phase, in which we will relatively reconstruct this kitchen with the elements collected from the street.

We will then move on to the second phase of the project, in which we will open a workshop, Studio Gramma, dedicated to the construction of architectural and furniture elements from the material of spolia. To supply it with raw materials, we will rely on the network of scrap dealers who travel through the city of Athens with their vans. The elements will be refurbished, cut, and reassembled. The final phase of the project, probably in several years, will be devoted to the construction of a pavilion in Athens entirely made of spolia, to return these materials, which once belonged to the intimate spaces of homes, to the city and its inhabitants.

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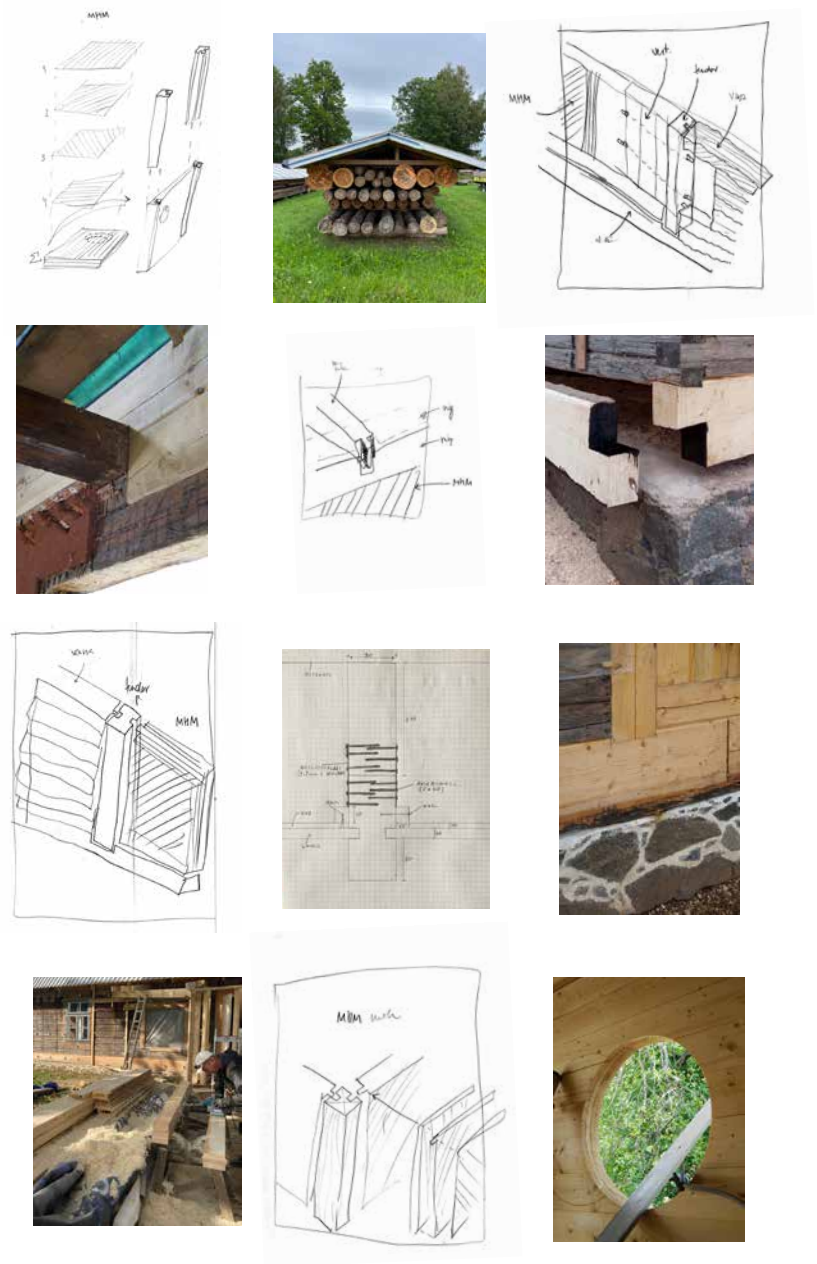
EMERGENT SITES

Two projects to reflect on situated design practice.

Roland Reemaa, Laura Linsi
LLRRLLRR



Design and construction process of a rural timber house construction. Photography: LLRRLLRR

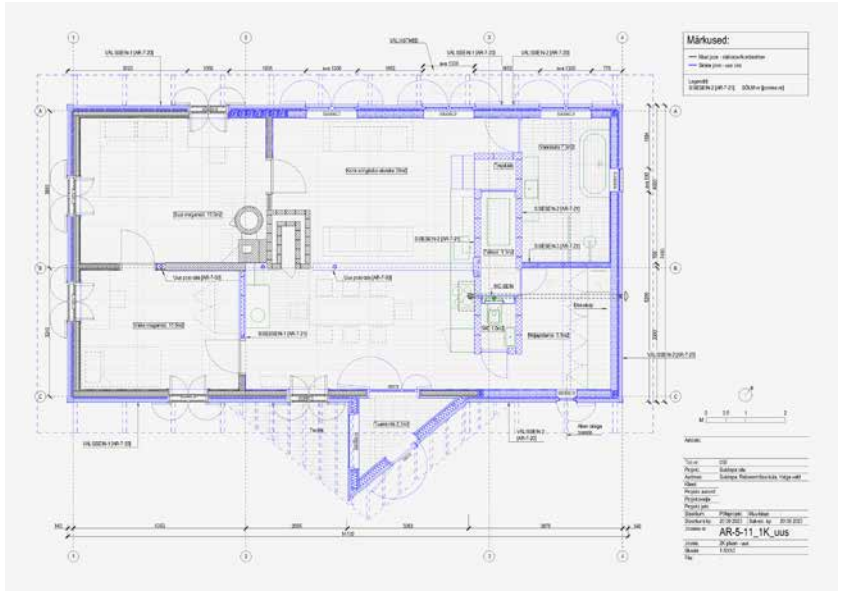
SITUATED PRACTICE

The following two projects – a 140 sqm rural log house refurbishment and an 18,000 sqm contemporary art biennale within an industrial harbour – explore how local skills and equipment, beyond material availability, impact the development of contextual and economical architectural projects. Despite the differing briefs, both examples highlight the importance of on-site observations, dialogues and documentation of existing resources.

Located peripherally in Estonia and Latvia, the projects are shaped by locally specific actions in collaboration with the architect and the contractors. They reflect theories of situated practice (Donna Jeanne Haraway, 1988), which avoid generalized knowledge imposition and rather rely on specific knowledge that emerges from their context. Materials, such as timber and concrete, can be considered here as objects of knowledge, which become active agents, not merely passive resources. While the locally sourced materials are at the core of reuse strategies, it is mostly the dialogues with people involved in the project, that turns inert material into vibrant matter (Bennett, 2010).

Hence the title – Emergent Sites – refers to projects that are not only shaped by material viabilities, but importantly and largely by social inquiries that go beyond architect's agency. The examples present that such practices can further expand local craftsmanship and offer more economical solutions to specific situations.

Photography: Tõnu Tunnel



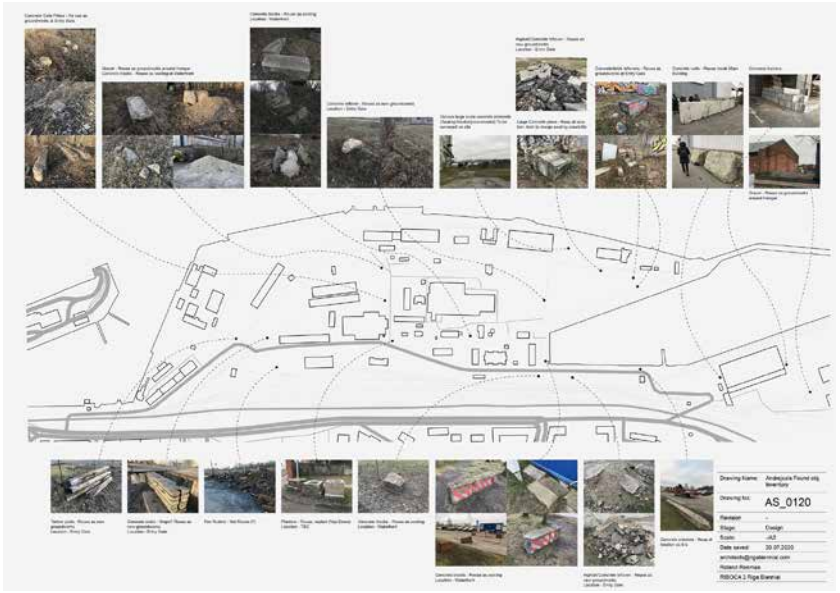
1:20 model and ground floor plan, with blue indicating new elements and black retained parts. A new masonry plumbing core mirrors the original heat-retaining stove, while also enclosing stairs to attic. The design is collection of traditional and contemporary timber detailing adhering to bioregional material use for insulation, finishing and local reuse.

RURAL MINING

The log house refurbishment in the rural woods of Karula, Estonia was built in collaboration with a traditional carpenter Agu Trolla. As a craftsman he sources windthrow and second-grade timber after storms and forest clearances. The design and repairs hereby adhere to bioregional principles (Michael Vincent McGinnis, 2005), including replacing dry-rotted timber; rebuilding stone foundations; recycling interior floorboards, brick slips for flooring and natural clay rendering; and adding exterior insulation with woodfibre panels and paper waste cellulose.

The design mirrors the old brick heat-retaining stove with a new masonry plumbing core, as the house had no running water. Its central position maintains passive warmth during subzero winters, while pipes are avoided at the perimeter. New exterior walls became a local experimentation: the lower-grade timber was planked into MHM wall panels, built in-situ layer by layer, allowing tight bespoke joinery between new and old parts, while achieving similar moisture permeability and continuous wall finishes inside and outside. The alternative solution to the initially planned solid log walls was also cheaper and offers the contractor new opportunities of making further use his material bank.

In the mindset of ‘rural mining’, the project offered an engaging process between the architect and contractor to share traditional and contemporary timber detailing, which arose from specific site conditions, while offering both new skills and experiences for future projects.



Pavement sketch about turning rubble from the territory into mosaics, which gave wheelchairs access to the industrial port. Below a mapping of rubble within the port that was used to discuss logistics for moving them around the territory.

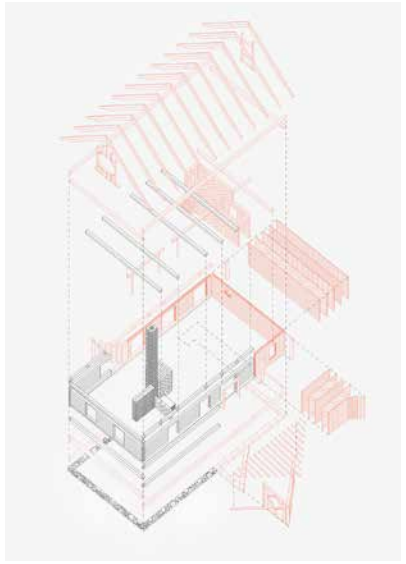
HARBOR LIFTING

The winning proposal to an invited scenography competition for the 2020 international art biennial RIBOCA2 in Riga, Latvia was inspired by the continuous flows of goods and materials of the operating harbour. While the Andrejsala port was chosen as a 3-month venue by the organisers, we proposed to further collaborate with its operators and to make use of their equipment, machinery and skills in the vast territory. The aim was to incorporate circular design principles as much as possible, ensuring the site could return to industrial use after the event.

The knowledge of heavy-duty machinery became crucial in the design, which allowed utilizing 1,5tn concrete barriers and various brownfield rubble for pavements, walls, and furniture. The surveys and collecting of materials also gave the port incentive to clean up its often hazardous 20ha grounds. Together with the harbour master, we explored how temporary curatorial requirements, such as new cabling, lighting, roof repairs and openings into existing walls, would support the port's future operations. The lightweight walls and event spaces were designed and specified as demountable, inventoried and redistributed after the show, while the structural and permanent interventions enhanced the port's following industrial functions.

Without knowing much about the harbour beforehand during the competition bid, it was a concept wholly based on situated circumstances and ideas that might emerge according to local availabilities, either in skills or materials.

All photography: LLRRLLRR



Timber house in various construction stages from top left: expressive steel beams, where one of the original walls is removed; newly finished MHM walls on bottom log ring-beams; a new porch. The axonometric diagram unfolds all new (red) and retained, repaired (black) elements.

Atmosphere of the harbour during construction and the art biennial, including from top left: demolition of walls together with the harbour operators; making use of industrial concrete barriers as a cafe and ticket booth; rubble mosaics guiding visitors through new entrances to event grounds.

Photography: divi melni sulni and LLRRLLRR

Donna Jeanne Haraway (1988). Situated knowledges: the science question in feminism and the privilege of partial perspective. Feminist Studies, Inc.

Bennett, J. (2010). Vibrant Matter: a Political Ecology of Things. Durham: Duke University Press.

Michael Vincent McGinnis (2005). Bioregionalism. Routledge.

session 5
re-use aesthetics 2

URBAN MINING AS A DESIGN APPROACH ON BUDGET RENOVATION

Study case: A House in Tangerang Selatan, Indonesia

Apriani Sarashayu
Tatyana Kusumo

Studio Aliri

"Studio Aliri" is a design studio based in Tangerang Selatan,Banten. Aliri derived from Bugis word which means the main pillar of the house. The pillar both represent the base of the structure -the beginning of the house framework and has the cultural symbol, where it narrates the role of women in the family. Following this idea, Aliri believes thoughtful design comes from strong research and awareness of the context. Since starting in 2018, they've mostly renovated small houses, using existing materials and respecting the surroundings.

Renovation in Indonesia, particularly in rapidly developing areas like Tangerang Selatan, is increasingly driven by economic realities for the younger working generation rather than land scarcity or historical preservation. The lack of affordable central housing and a preference for landed properties push millennials and Gen Z to seek homes in Jakarta's periphery and surrounding cities. Bintaro, a well-established satellite city southwest of Jakarta developed by Jaya Real Property since 1979, exemplifies this trend.

A two-story house within Bintaro Jaya's Sector 3, built in the 1990s and initially renovated by its first owner for basic needs, underwent a significant transformation for its second owner, who acquired it in late 2022 and commenced renovations in early 2023(fig.1). The initial renovation had resulted in unplanned growth and diminished spatial quality. The new owner aimed for an open-plan design maximizing natural light and air circulation, all within a tight six-month schedule and a budget of 400 million rupiah (approximately 21,000 EUR), encompassing both construction and interior work. With this restriction, Can we use urban mining as a design approach to help reduce the cost of the project?

Figure 1. Building plan showing development and changes of the building through years. Existing in the 90's, first renovation by previous owner, and Newest Renovation in 2023.

Within the time frame and budget, Studio Aliri is selected by the owner for doing both design and the construction part. The system is common to be called as design and built. This kind of system make it easier and faster for experimenting with the design process, the time frame, and the budget. For cutting down the budget, both parties agreed to use urban mining as the approach, specifically the reuse of existing building materials. This approach recognizes buildings as significant repositories of raw materials. There are two major methods that have been used: 1) Preserving Major Structure and 2) Reuse and Recycling.

Preserving Major Structure

The core structural elements—columns, beams, and, after careful inspection, the existing staircase—were retained, significantly reducing structural costs. The original roof's material and geometry were also preserved, with additional support integrated for new solar panels(fig.2). Later, less functional roof additions were removed, and the backyard was converted into a skylight, enhancing both natural light and ventilation. Strategic wall removals created a more flexible layout and improved inter-floor connectivity.








Reuse and Recycling Architectural Elements

A comprehensive material inventory, conducted during the initial site survey, formed a crucial foundation for the design. Detailed measurements and mapping were documented through photos and sketches, subsequently digitized. The architect, who also served as the Project Manager, collaborated closely with the head of construction from the outset. This ensured informed decisions about which elements to retain or remove, minimizing execution revisions. The material inventory effectively became a “material bank” for the design process. Beyond doors and windows, elements like window bars were ingeniously repurposed as second-floor railings with minimal modification following the principle “forms follow availability”—simple cutting and joining—supplemented by new ergonomic pipe bar additions for safety (fig3). This window bars also preserving the aesthetic memories of the typical existing house in the area.

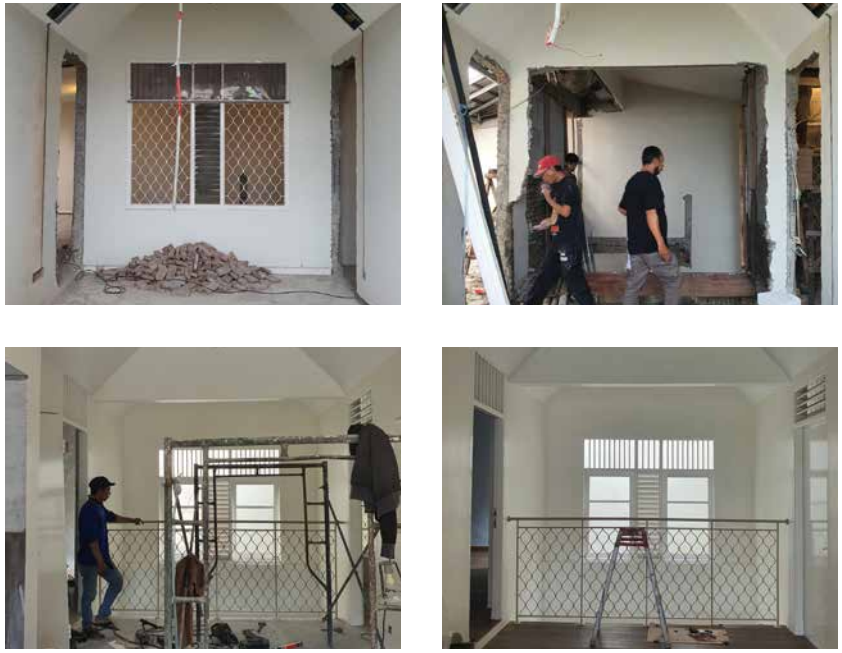


Figure.3 Repurposing building element to be used as another function : window bars remodified and transformed to be railing for the new void.
Reused the old existing windows and doors by repainting and placing to the new arrangement of rooms.

Reusing building components in renovation offers substantial advantages. It directly reduces the energy consumption and carbon emissions associated with manufacturing and transporting new materials. Compared to primary material extraction, reuse lowers prospecting, processing, and transportation costs and efforts, lessens environmental impact, and often enjoys greater social acceptance. In this project, reduced costs included savings on material sourcing, production, debris removal, and new material transport. The primary driver for keeping existing structure and reuse was direct cost savings for the budget-conscious client, without sacrificing program or design quality.

References

<?> Philipp Entner and Daniel Stockhammer, ‘From Linear to Circular Construction: Liechtenstein’s Building Stock as the Material Bank of the Future?’ in: Daniel Stockhammer (ed.), Upcycling: Reuse and Repurposing as a Design Principle in Architecture (Zurich: Triest Verlag, 2021),pp 133-147.
<?> Hillebrandt, A. (2019) ‘Circularity in Architecture – Urban Mining Design ’, in Manual of recycling. Edition Detail, pp. 10.

URBAN MINING AS A DESIGN APPROACH ON BUDGET RENOVATION

REMAKING THE CAVALLERIZZA REALE IN TORINO

Conflicting ideals and practices in a large-scale adaptive reuse project

Matteo Robiglio
TRA_Toussaint Robiglio Architects
Politecnico di Torino, Dipartimento di Architettura e Design

An ongoing palimpsest

The remaking of the Cavallerizza Reale of Torino is a large-scale multi-purpose and multi-author project aiming at the renovation of 58.000 m2 of UNESCO listed heritage buildings located in the very core of the historical city centre.
The asset owns its name to its initial function as horse riding school of the Military Academy. The 1675 pristine layout organized in four courtyards around a central rotunda and the sizing of the horse stables at the ground floors defined the still readable seminal structure and proportions of spaces. Different from similar European estates, Cavallerizza was developed vertically to merge stables and barracks. Its peculiarity is thus in the superposition of serial cellular sequences built over large vaulted empty spaces. An inherently contradictory design task that was creatively met over three centuries by succeeding Royal architects, resulting in an heterogenous yet coherent palimpsest of "variations on the theme" and technological innovations. The dialectic continues today with its reuse, designed by four architects' teams, for four different programs and promoters, loosely coordinated by a 2019 masterplan drawn by the City.

Scale, duration and complexity make Cavallerizza an exceptional yet representative case-study on the adaptation of architecture over time, both in history and today. Comparing projects and (partial) realizations by Castellamonte (1675) Alfieri (1747) and Mosca (1838) or the 2022 international competition entries for the reuse of Manica del Mosca and

Pagliere wings as headquarter of a private Bank Foundation, we can, on one side, observe discontinuities in morphology and construction within permanence of typology and technology, on the other, appreciate and evaluate different interpretations of what was and is understood as adaptive reuse.

"Adaptive" what?

The competition project by our team – led by Anne Lacaton and Jean-Philippe Vassal – was about changer peu pour tout changer. We carried out an accurate study of the program. We studied in detail the features of all existing spaces: size, position, structure, access, materials, climate, natural ventilation and light. We adapted program to space, rather than space to program. The existing building proved to be apt to respond to contemporary needs with minimal interventions. Two examples: its mass and openings were naturally regulating internal climate, running mostly in free mode with minor seasonal corrections; accurate fire engineering proved that no additional safety stairs were needed, so that the spectacular original autonomous stairway could retain its full functionality and beauty.

This approach preserves the large vaulted spaces at the ground floor completely free and open. The sole added permanent new element is a large circular lift. The reuse and extension of the underground provides storage for movable equipment and service spaces. The pristine unity and wholeness is respected. The multiplicity of possible future

uses is made possible by a generic, open infrastructure, without specialized functional areas.
We proposed to making the different layers of a conflictual past readable – from military academy to artists' squat. We felt the presence of horses was still tangible, embodied in the structure and metrics of space. We proposed to re-introduce them.

The project was controversial, polarised opinions, ended up second.

In recognition of its quality, our team was charged of designing the public parts of Cavallerizza for the University and the City of Torino.

The principles of freedom, adaptation and temporality take currently form in the renovation of the Maneggio main hall as a flexible space for performances, events and exhibitions, the Scuderie as an open urban gallery leading to the reopened Royal gardens, and the southern barracks as an infrastructure for cultural productions, education and research.

Fig.01 Nine-year old Vittorio Amedeo II rides on the background of Carlo di Castellamonte's project for the Military Academy of Torino.
Engraving by Antonio de Penne after a drawing by Charles Dauphin, 1675

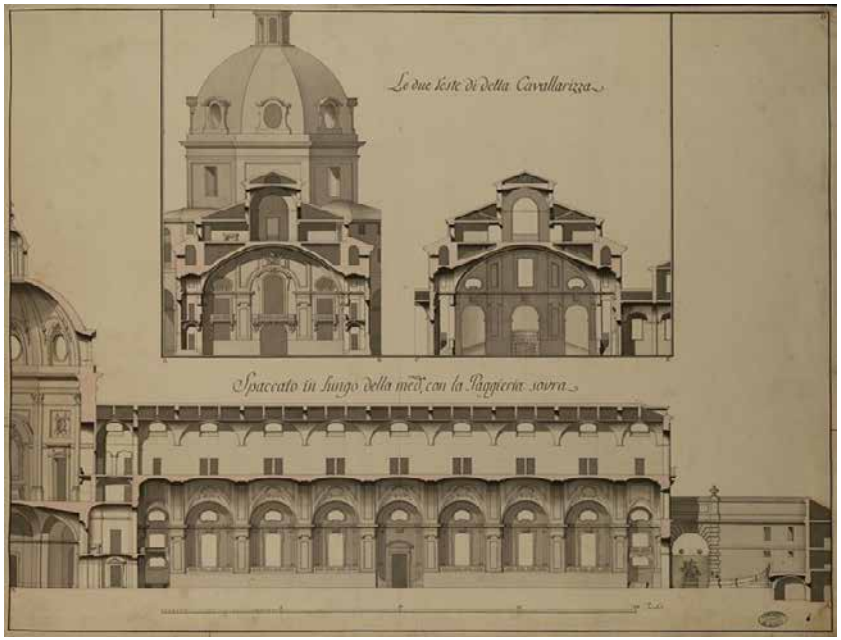


Fig.02 Benedetto Alfieri, project of the new Maneggio with superposed dormitories, 1763.

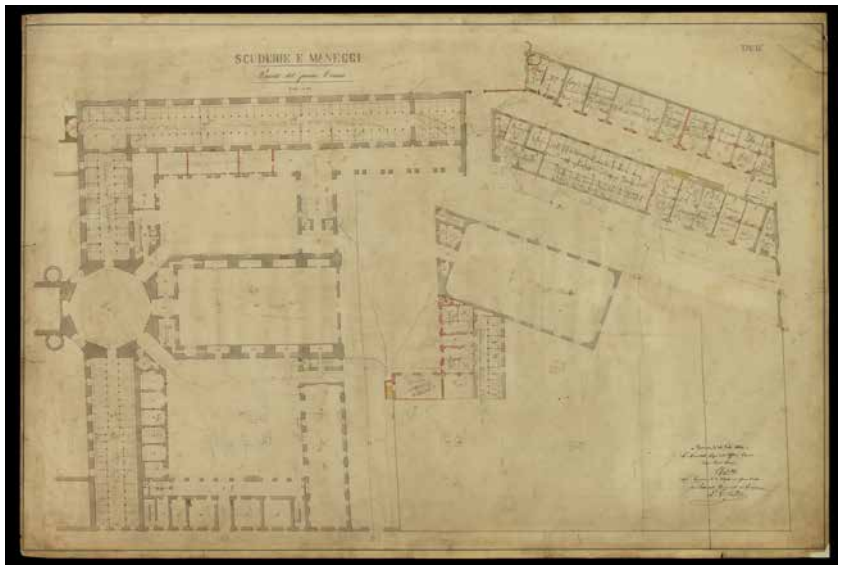


Fig.03 Assessment of the situation in 1864 by the Royal Estate.

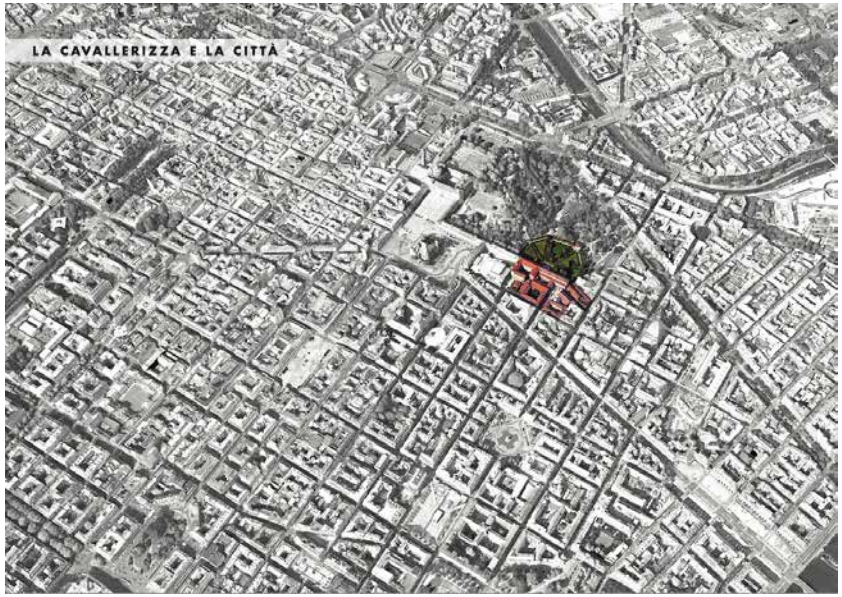


Fig.04 Cavallerizza Reale in the city center of Torino

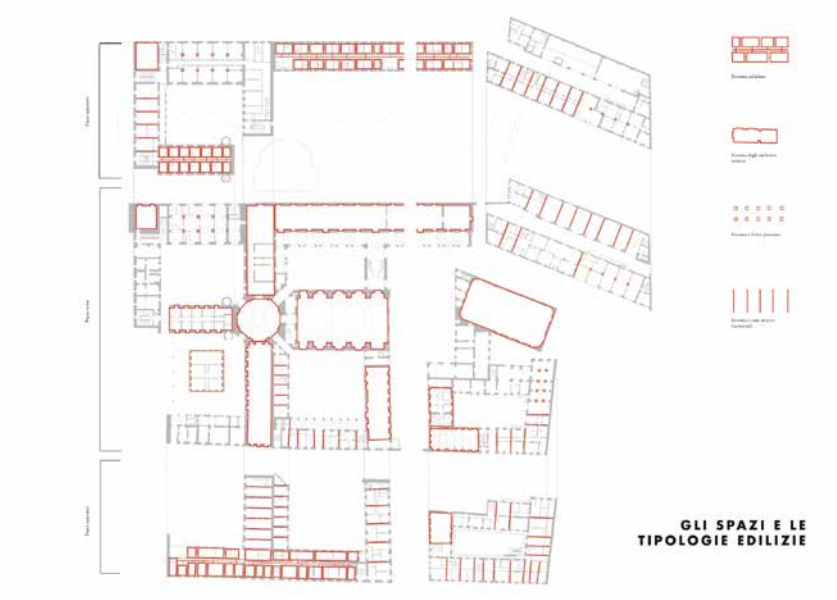


Fig.05 Spatial analysis – cellular spaces over open spaces – 2013 Masterplan

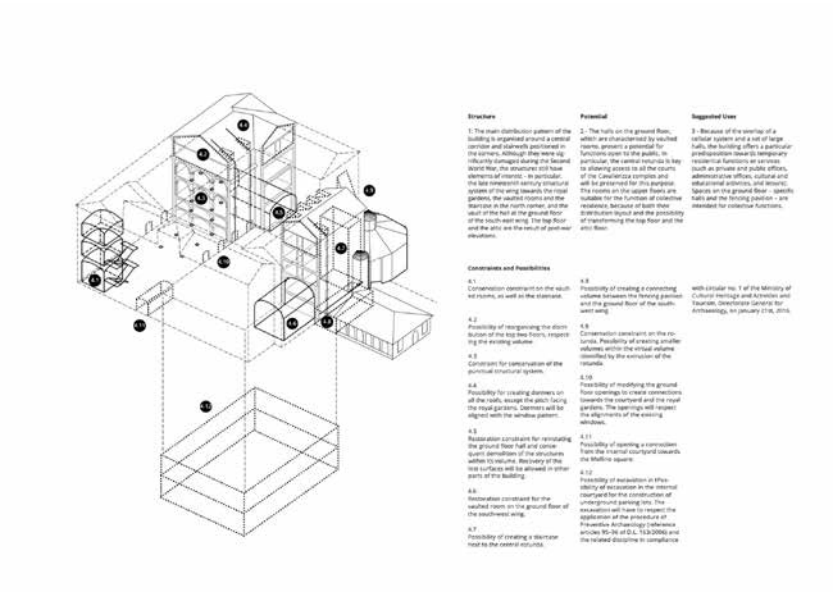


Fig.06 Spatial ruling – structure, potential, suggested uses- 2013 Masterplan

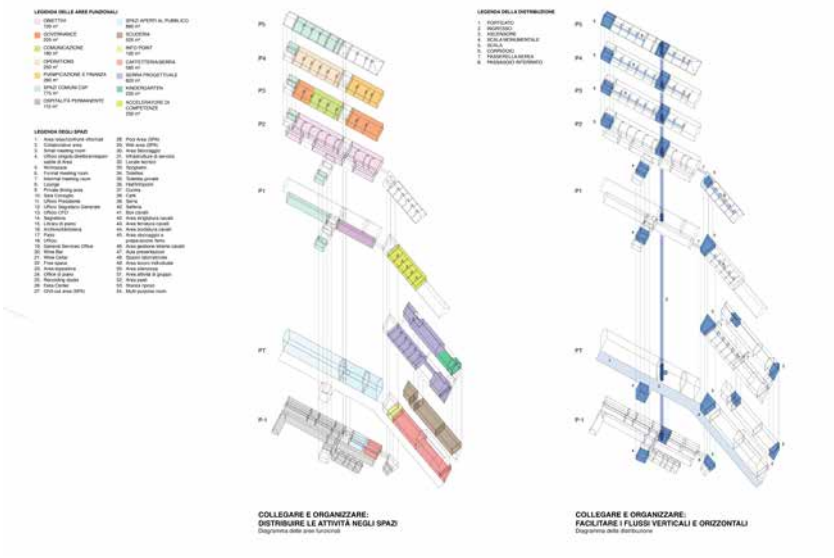


Fig.07 2022 Competition – group L&V – spaces and functions

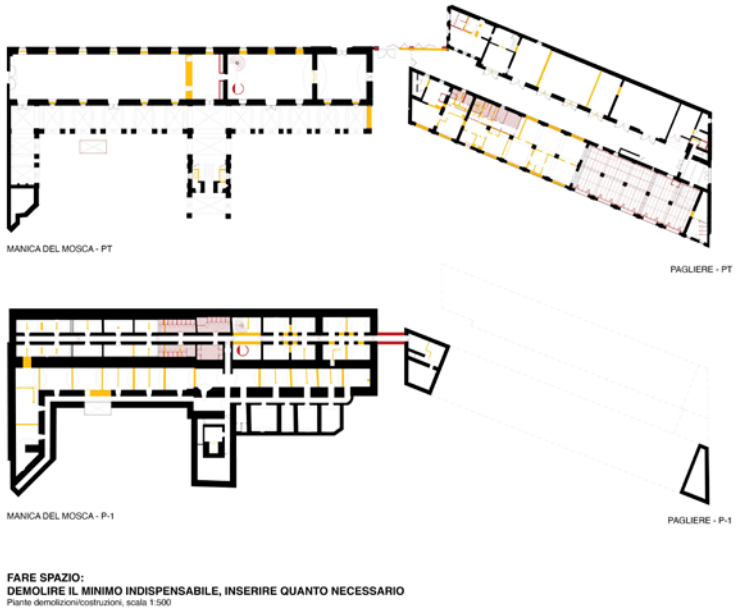


Fig.08 2022 Competition – group L&V – minimal interventions 0, -1 floors

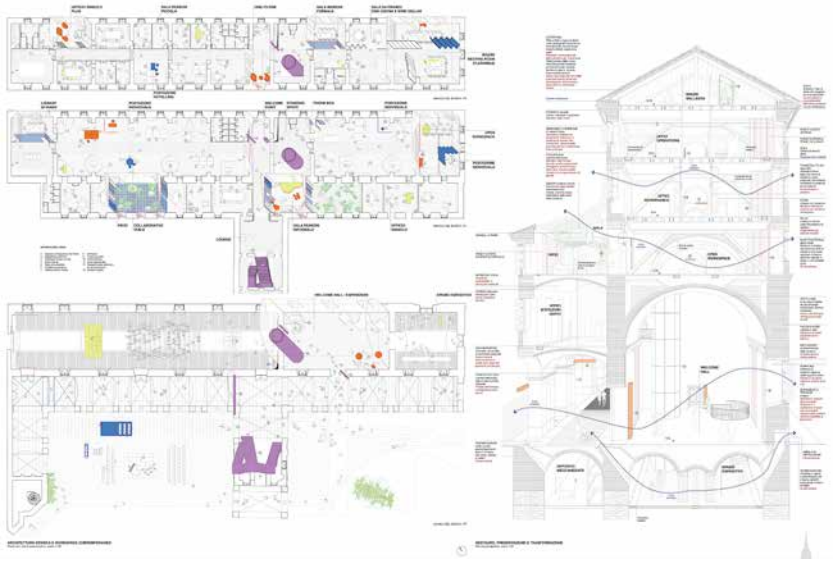


Fig.09 2022 Competition – group L&V – adapt function to space, main section and floors

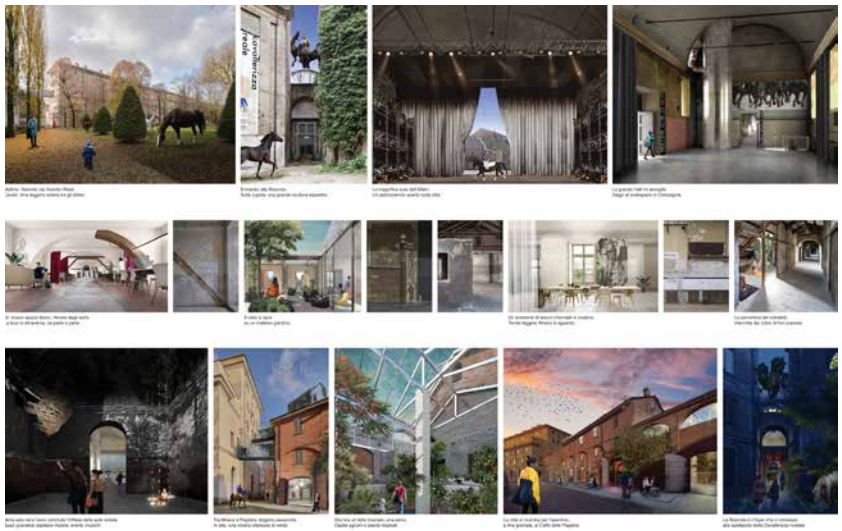


Fig.10 2022 Competition – group L&V – layered aesthetics

Fig.11 2025– group L&V – Maneggio Alfieri, as found

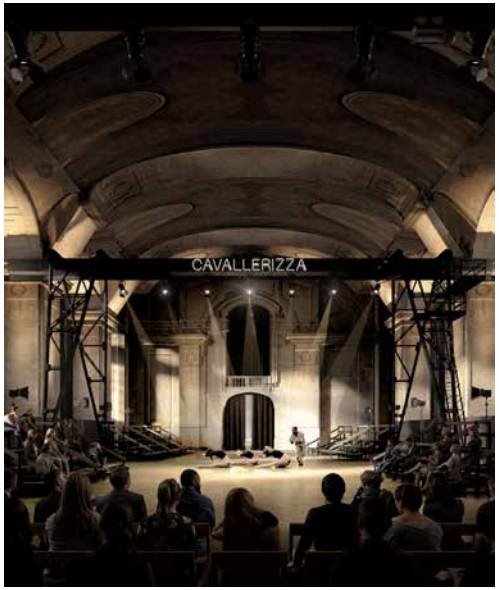


Fig.12 2025– group L&V – Maneggio Alfieri, project - rendering

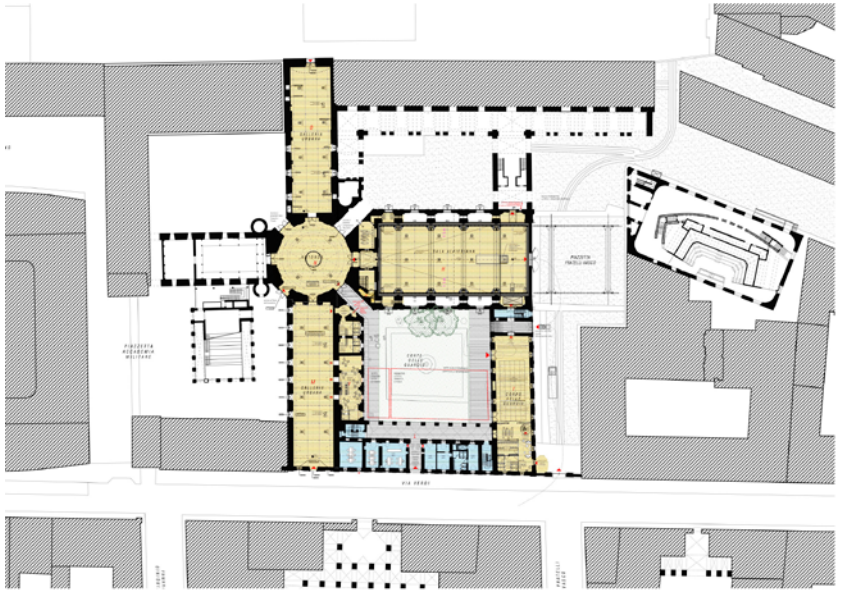


Fig.13 2025– group L&V – Cavallerizza, project – public galleries ground floor

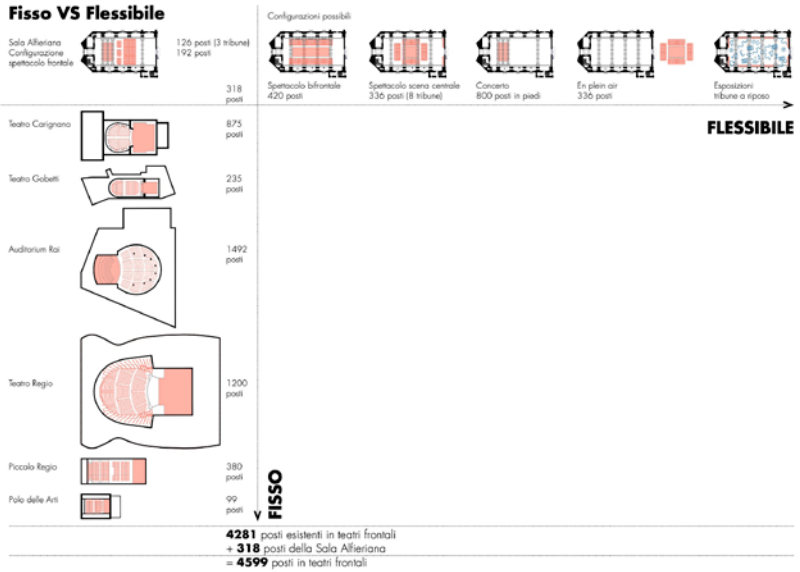


Fig.14 2025– group L&V – Cavallerizza, project – specialized vs. flexible space

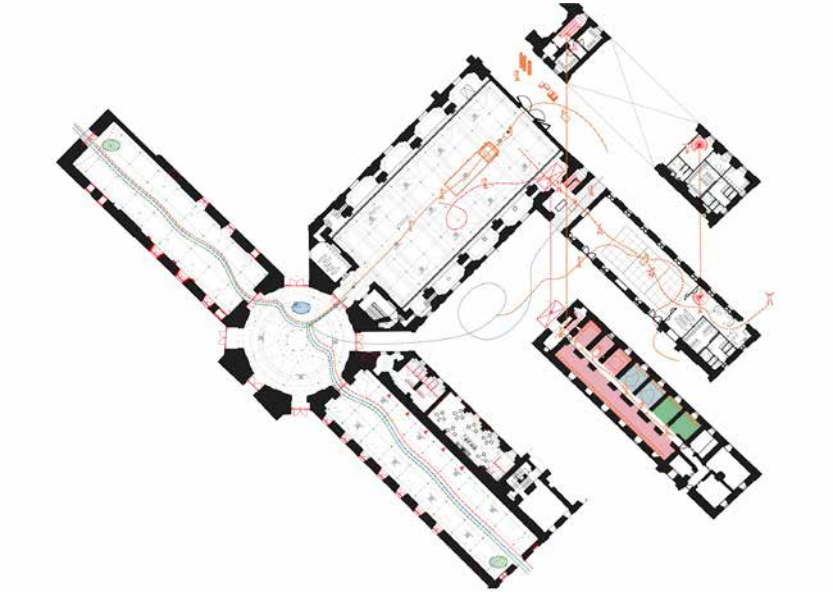


Fig.15 2025– group L&V – Cavallerizza, project – logistics for temporary uses

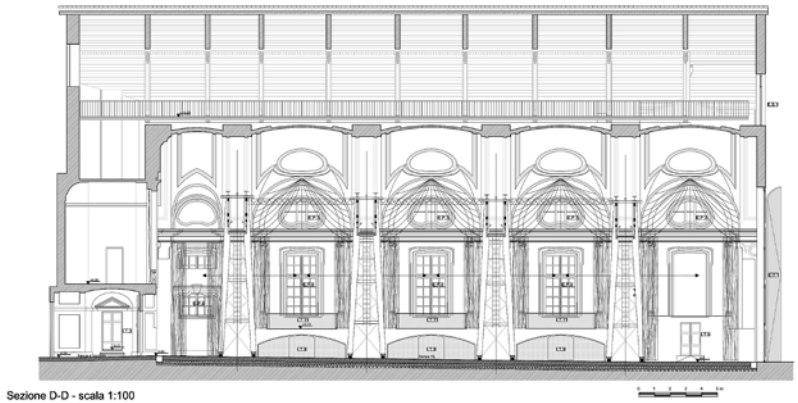


Fig.16 2025– group L&V – Maneggio Alfieri, project – longitudinal section with movable equipment

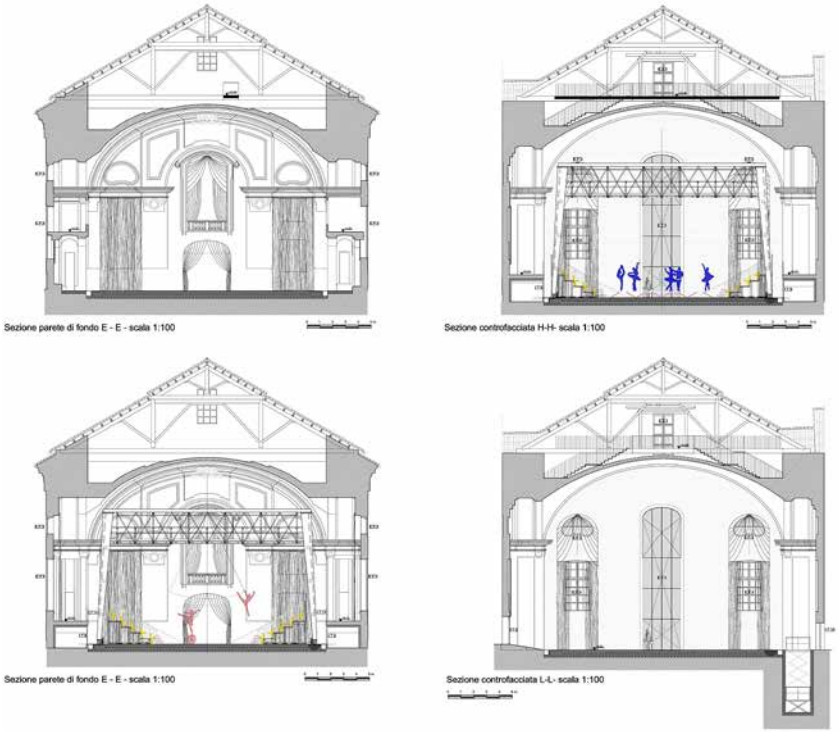


Fig.17 2025– group L&V – Maneggio Alfieri, project – transversal section with movable equipment

CULTURAL TEXTURE

Exploring AI’s Sensitivity to the Cultural Textures On Site.

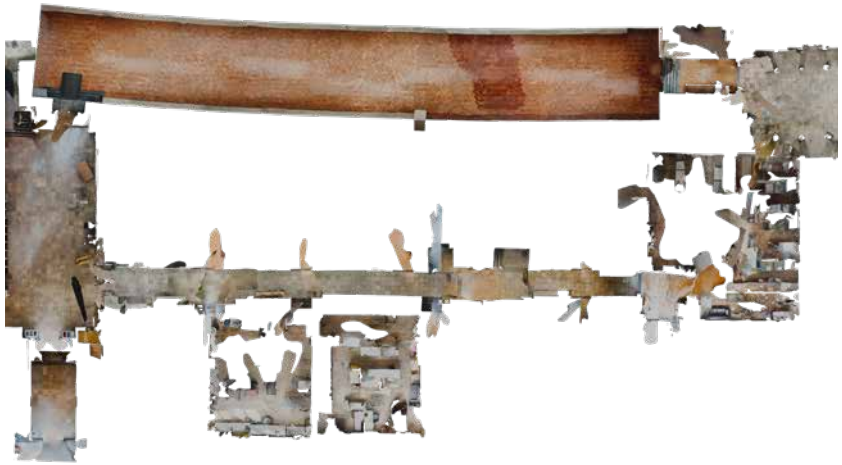
Marius Grootveld
Veldwerk Architecten
RWTH Aachen

As our building practice evolves to work with what we find, reclaiming material on-site, we not just gain the environmental benefit of the matter saved. Each found element carries a story, a pre-existing history about its life, stored in memory and recorded on its surface through wear and weathering. The past lingers in all the elements that make up our world, as spectres, ghosts, of intertwined stories of their invention, making, and use, grounding us in history and societal undercurrents. As the future belongs to the ghosts, a weaving of reclaimed elements pre-constrained with history may help us grasp the city that is to come. With a growing sensitivity to found construction materials present in the built environment and the spectres they contain, we are simultaneously drawn into the emerging era of artificial intelligence. Instead of a prescriptive programmed approach, AI has the ability to break information down into its smallest parts, understanding the world as a collection of patterns and textures to be extended. Because these models were trained on large datasets of our cultural production, they too contain these cultural textures that define our physical environment. With this AI can serve as a design tool imbued with a profound awareness of the spectres embedded in our architectural surroundings; allowing us to interact with the cultural textures present on site and resonate with the stories contained within elements that are reclaimed.

New spaces are created by blending existing spaces within the University of Antwerp, Campus Mutsaert site, borrowing the spatial composition from one and the texture from the other. The generated spaces feel like found spaces that are hidden in an undiscovered corner of the campus. Studio: Electric Changes, 2024-25, work by Pierric Jourdan

Above: A collected building created from a compilation of scans arranged into new configurations, forming new spaces with elements from the original spaces. Studio: The Collected Building, 2022-23, work by Paula Riebel. Below: A reimagining of this space using a style reference of the architecture of Alvar Aalto

Over the past year, Veldwerk conducted a design research in collaboration with RWTH Aachen, applying the developed AI design methods in the context of UAntwerp's Campus Mutsaert. The fragmented site, with its complex history, allowed us to utilise AI's sensitivity to cultural textures. By entrusting design choices to AI at an early stage, we were able to develop new fragments from the existing patterns inherent in the building. Furthermore, we explored the incorporation of reclaimed elements and spaces from other projects, creating spatially complex and culturally rich grafts between the spectres both projects contain considering the generations as found places to find function within. A second design research, in collaboration with the London office East, explores the use of these tools in a participatory context, weighing rough spacial collages by residents with the architectural values contained within the urban design proposal.



A plan section generated from a collective handheld phone photogrammetry scan of the university Mutsaert campus in Antwerp. The scans retain the cultural texture contained within the surface of the building. Electric Changes, 2024-25, work by Ekaterina Konon

A design research, in collaboration with the London office East, explores using an image-to-image generative model in a participatory context, weighing rough spacial collages by residents with the architectural values contained within the urban design proposal.

Building renewal in a post-growth society, using fragmentary generative design. The generated design picks up on textures and materials used in the context as found. Studio: Lost & Found, 2023-24, work by Cristian Moscoso.

Find and replace, a regeneration, for the corner of Bovenbouw's Cadix Project,Antwerp, weighted to the surrounding projects and to the Firefly dataset. Veldwerk, 2024, (original photo: Filip Dujardin)

To bring the sites to the digital realm we scanned, modelled and textured the projects in detail. Always using the textures as found taken from the photograph never substituting them for an representational alternative. The 3d models acted like 3d photo collages allowing us to peer into the photographs from different angles. Work by Malte Mittelstädt

In our explorations, we utilise an image-to-image generative model where novel images are generated based on the constraints of two input images and a prompt. The first image dictates the composition by providing its outline and depth information, while the second image influences the style by providing textures and patterns. Each image can be weighted to steer the generation process more. When a weight is reduced, the model is challenged to be more creative in finding a solution, leading to greater variety in the generated images. The prompt also adds a weight to what the model should find within its variables. The model only considers the image as texture that follows the most likely pattern to align to its weights, but in doing so captures principles that are true on a higher physical and cultural level like gravity, light, material, composition, style and location. In our research we test the generative model not as an image generator but as a producer of architecture making semantic choices within the elements and cultural conventions of our profession and the specificity of the site. By weighing design proposals and referenced spaces with reference projects and elements from site an alchemy occurs that ties these design ideas into a specific context. The generated image only gains meaning through observation, they are like found places seeking interpretation by its observer. A process very much like designing within a historically layered site.

Seven different endings, find the original state. The model picks up on the palimpsests present in the existing fascade and writes a multitude of fictions on how this fascade may have come to be. Studio: Electric Changes, 2024-ongoing, Work by Minkyu Kim

session 6
[de]normed and
[de]categorized approaches

COMPOSITE PRACTICE

Delete >< Enter:
The site as an impulse for action

Katrin Brünjes
BrünjesTyrra Architekten, Berlin

Demolition and reconstruction are the everyday norm in construction. However, ecological realities are forcing us to rethink this approach. The delete >< enter method, a 'tabula rasa' in which structures are completely removed and replaced with a new design, is an outdated model. In practice, the process of building with existing structures inevitably leads to fragments of older layers being integrated into new layers. Over time, this results in an accumulation of different objectives in terms of spatial flows, use and construction. Building with the existing thus leads to a practice of assembling elements, reinterpreting, inscribing and overwriting, giving rise to the concept of the palimpsest. In a constant dialogue between adaptation and invention, the traces of the various layers are placed in relation to each other and form spatial assemblages.

In our practice we use the site as an impulse for ecological action. After identifying deficits and potentials, we develop our intervention to adapt the space to today's needs. This process includes the promotion of polyvalent uses, circular building processes and the questioning of conventional building processes. With the Promenade project, we aim to improve circulation within the apartment by creating additional openings using existing chamber doors. The twin house: At the Lake - in the Woods is located in a designated nature reserve. The building was originally built to house farm labourers. We are transforming two units into a house for communal living. The materiality is exposed and repaired where necessary, balancing the heterogeneity of the individual elements to allow both the past and the present to be experienced.

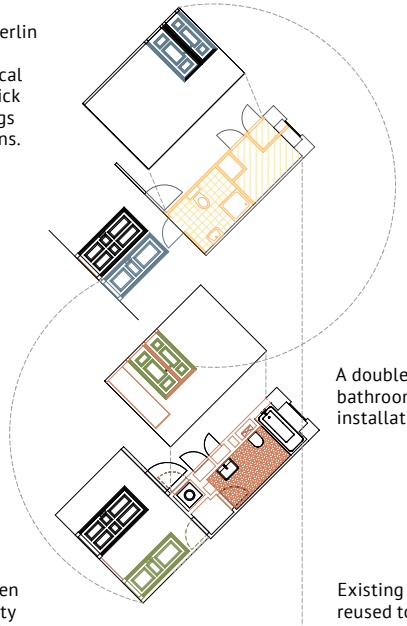
Every intervention is associated with a loss of what already exists and therefore requires careful consideration.

Lucius Burckhardt, The Minimal Intervention, 1982

The life cycles of the building layers, such as the site, structure, envelope, building services, room sequence and furnishings, are subject to different dynamic change processes in opposing time spans.

Stewart Brand, How Buildings Learn: What Happens After They're Built, 1995

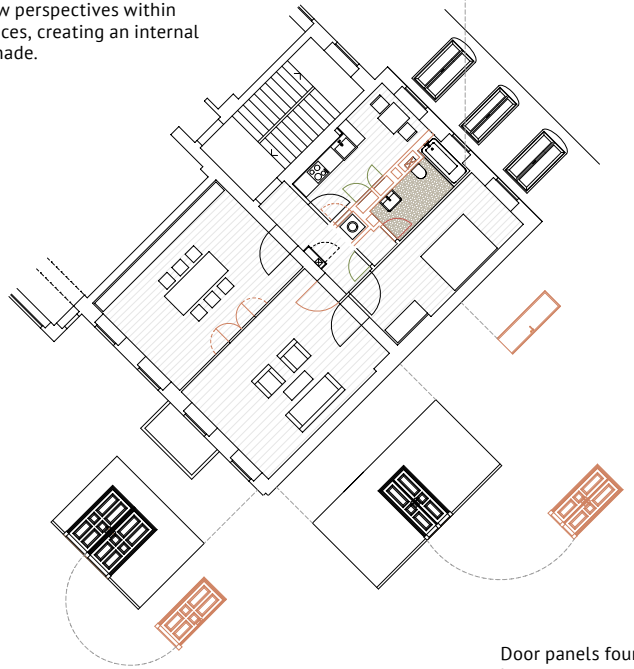
The renovation of a 1908 Berlin apartment is characterised by the typology and technical possibilities of the time: brick walls, wooden beam ceilings and timber-framed partitions.



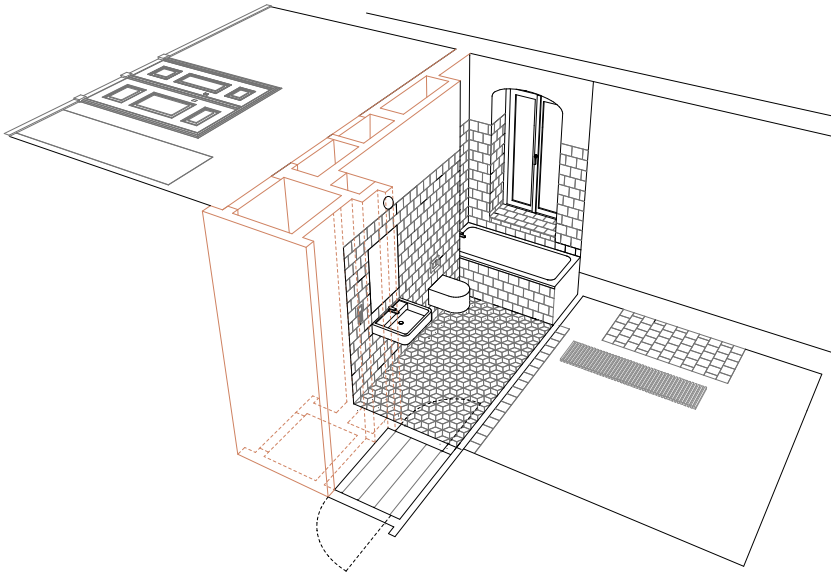
A double wall between bathroom and kitchen houses installations.

Additional openings between rooms allow for permeability and new perspectives within the spaces, creating an internal promenade.

Existing chamber doors are reused to create cupboards.

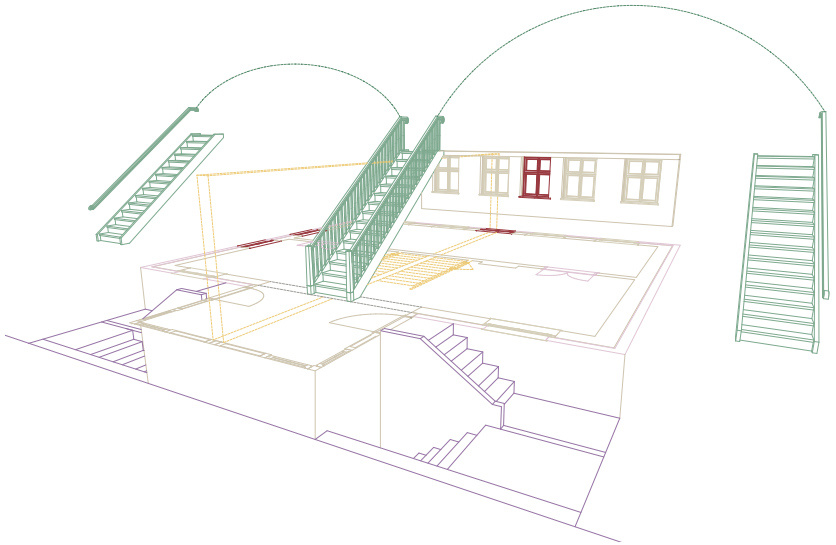


Door panels found in the basement are repaired and supplemented with wooden frames.



The installation of a double wall between the bathroom and kitchen allows to integrate technical installations. The remaining space is used for storage, with the existing chamber doors being reused to create cupboards.

PROMENADE, apartment in Berlin.
Photography: Maximilian Meisse



The dividing wall between two units of a twin house located in a designated nature reserve is replaced by a central staircase composed of components from the two existing staircases and oriented towards the front. This change allows the upper floor to be divided into four rooms of equal size.

The gaps in the floor created by the removal of the partition walls are filled with terrazzo in a lighter shade. The patchwork pattern on the floor is reminiscent of a carpet and serves as a testament to the past.

The brickwork of the walls is stripped of its layers and then covered with a thin layer of plaster. This process serves to unify the wall as a single element while exposing the underlying texture. The transition from the brickwork to the ceiling and the wooden window frames is plastered smooth to ensure precise connections

AT THE LAKE - IN THE WOODS,
transformation of a twin house in a nature reserve area. Photography: Maximilian Meisse











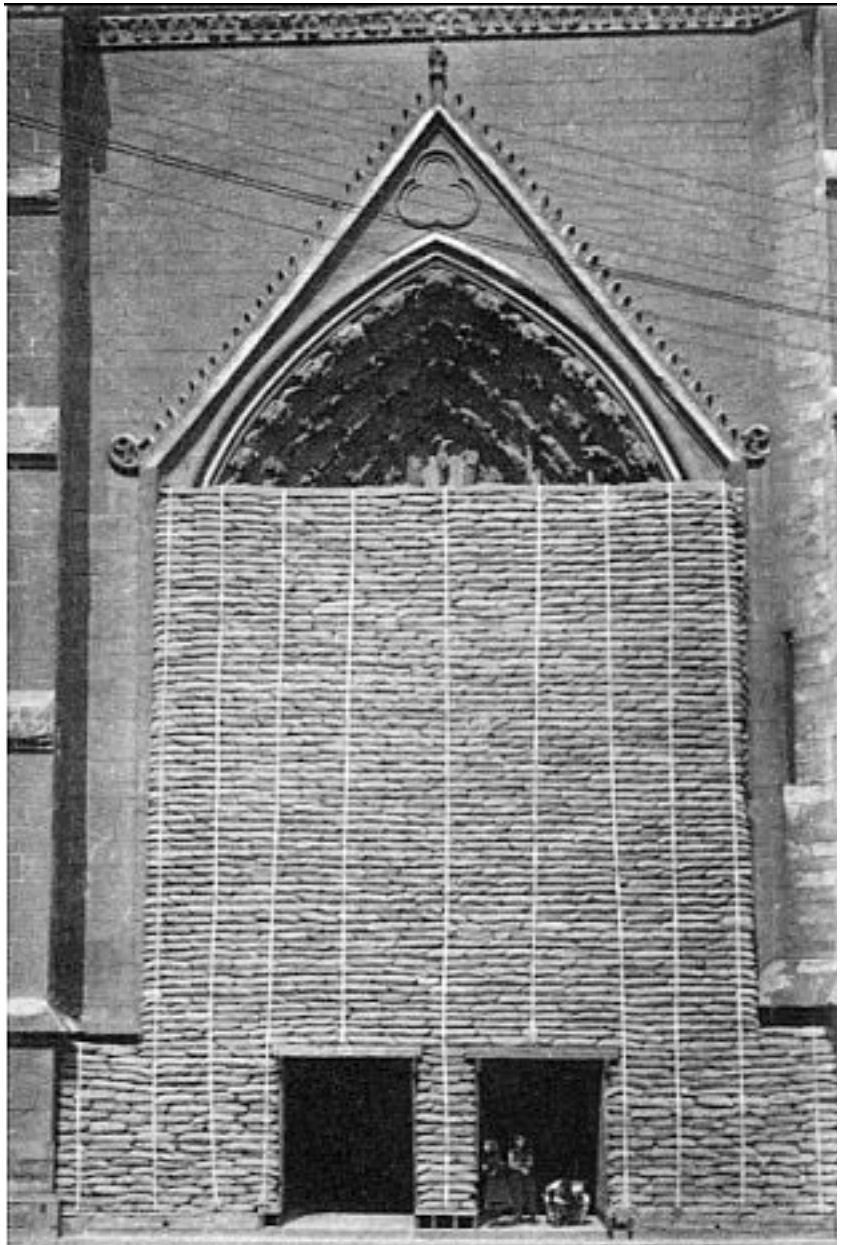
AT THE LAKE - IN THE WOODS

The construction of the house consists of brick walls, wooden beam ceilings, timbere-framed partitions and terrazzo floors. The material is uncovered, repaired where necessary and supplemented in parts.

Adaptation

Exploring circularity and flows through a process of making.

Roz Barr



AMIENS — Porche de la Vierge dorée, protégé par des sacs, en 1915

We find references in many images or texts while developing architectural ideas. It can contextualise a thought or a process of making or construction. The act of realising an architectural concept involves engaging with an idea that requires a decision that can be “made, “re-thought, and un-made to be realised.

Through careful adaptation and re-ordering of places, one can transform the familiar into the extraordinary. My practice works intensively with materials, and through attentive detailing, we make well-crafted architecture. This is explored through our use of maquettes and our enjoyment in making.

History informs us of what once was, and, in our recreating and uncovering of past places into new spaces, is ultimately the everyday evolution of architectural practice. We are informed by the conditions of the site and the environments we are constructing within in and the parameters of what is possible.

We can see this through construction and the materiality of what we build with. There is an economic factor that we find drives creativity. This does not mean “economy” in monetary value but an efficiency and understanding of a singular material approach that offers a tectonic solution that gives poetry to its construction. The architecture not only fulfils the brief or site but also offers an architecture that is impactful and memorable.

Amiens Cathedral, France, 1915.

Tin Chapel, St Augustine’s Church, London, temporary de-mountable pavilion, 2018.

Original Tin Chapel, St Augustine’s Church, London, temporary place of worship.

Process model of pavilion at 1:20 scale.

Tin Chapel, St Augustine’s Church, London, temporary de-mountable pavilion, 2018.

Our process of making architecture is embedded in how we construct. The conservation or adaptation of existing structures, the materials that we specify, and the methods of construction are always considering how there is an applied integrity to both form, material and how this is applied. From our initial concept, we will test and research the possibilities and constraints of what we can achieve that establishing a desire to push the boundaries of what we can achieve with efficiency through the materials we are specifying and how they perform. Therefore, the outcome of this approach solidifies the concept through the simplicity and honesty of the architecture.

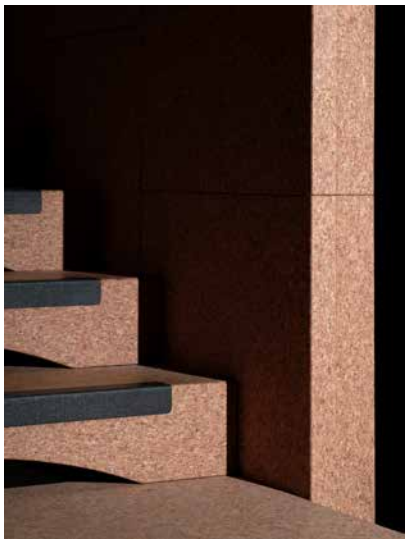
Historically, our ancestors created their settlements from the economic means that they found around them. Stone that could be excavated from the region they would build, or timber felled from the forest. There was an efficiency in the methods of construction, and as we evolved, our processes of construction developed too. There is nothing revolutionary about this, but we can learn from some of this by re-thinking how we construct in the present. The longevity and life cycle of buildings is critical in this thinking as well, and this applies to projects that are temporal also; therefore, our methodology responds to this. The cycle of use should be reflected in the material application when appropriate. From looking at how disused quarries can be activated to provide stone to build with, or to specify recycled material that can be dismantled and re-used is part of our process of making.

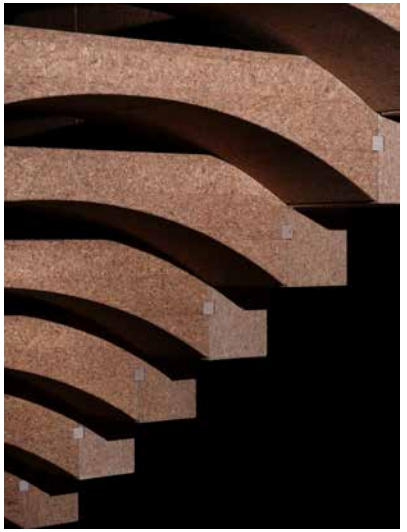
Garden History Museum, gardeners lodge - load bearing chalk and timber frame structure, Above.

Tottenhoe Hall Chalk Quarry, Bedford, UK.

The image of Amiens Cathedral during the conflict in the First World War is profoundly evocative. The image symbolises something quite beautiful that was created from the necessity to protect this historic cathedral. The building was under threat from destruction, and the necessity to protect was probably instinctive, and through the careful stacking of sandbags secured using parachute straps, a new architecture was created that transformed the sacred with this new form of monumentality.

It is thus that we reflect on how, what we do and what with that is so impactful to the everyday. There is so much invention to be had by re-thinking the economies of creating these new landscapes or places and spaces, with the methods of how we do this.





Oculus, London, Temporary public space, 2012, Opposite.

Cork Staircase, Building Centre, London, 2020, above.

IN THE ACT OF MA(KIN)G

Kinship-centered practice shift

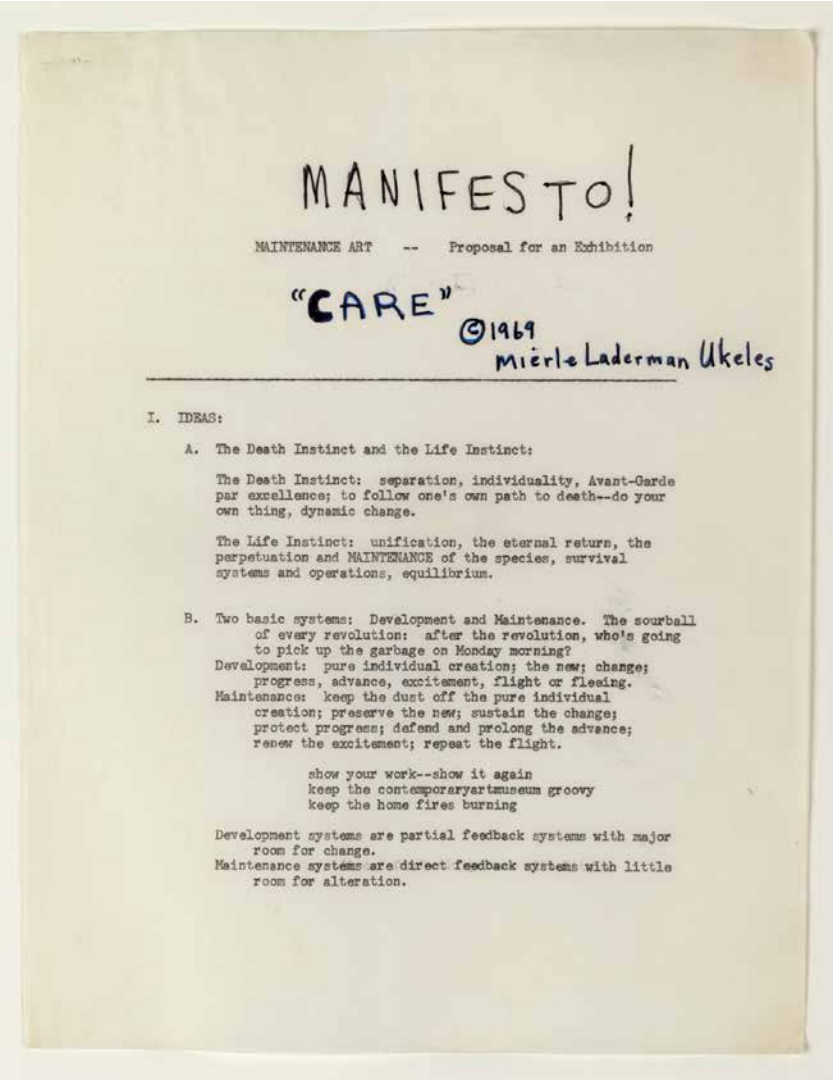
Martina Genovesi
Caterina Malavolti
Every Island

Response-ability is about both taking care and being taken care of.

Donna Haraway, *Staying with the Trouble*, 2016

Could the focus shift from human-to-human relationships to the synergies and transformations that occur in architectural practice through the mediation of materials? Moving beyond an anthropocentric perspective and drawing on Donna Haraway's concept of sympoiesis, literally 'making with', we reflect on architecture as a collaboration with other entities, sharing paths with actants of different shapes, roles, and wishes. All these non-human entities, alongside humans, play a crucial role in shaping architectural processes and in understanding how social, scientific, and technological systems operate.

Through reflecting on our practice as a collective, we observed how the inherently collaborative nature of architecture compels us to adopt responsible approaches. As we developed various projects, we came to recognize that the notion of collectivity extends beyond human interactions and extends to a broader range of entities. In this perspective, different subjects emerge.



MANIFESTO!

MAINTENANCE ART -- Proposal for an Exhibition

"CARE" ©1969 Mierle Laderman Ukeles

I. IDEAS:

A. The Death Instinct and the Life Instinct:

The Death Instinct: separation, individuality, Avant-Garde par excellence; to follow one's own path to death--do your own thing, dynamic change.

The Life Instinct: unification, the eternal return, the perpetuation and MAINTENANCE of the species, survival systems and operations, equilibrium.

B. Two basic systems: Development and Maintenance. The sourball of every revolution: after the revolution, who's going to pick up the garbage on Monday morning?
Development: pure individual creation; the new; change; progress, advance, excitement, flight or fleeing.
Maintenance: keep the dust off the pure individual creation; preserve the new; sustain the change; protect progress; defend and prolong the advance; renew the excitement; repeat the flight.

show your work--show it again
keep the contemporaryartmuseum groovy
keep the home fires burning

Development systems are partial feedback systems with major room for change.
Maintenance systems are direct feedback systems with little room for alteration.

Manifesto For Maintenance Art 1969!, Mierle Laderman Ukeles, 1969

maintenance, as an act of care, is a two-way binding. When maintaining a building, the building teaches us its stories, and leaves margin for uncertainty and invention over what we don't grasp.

Washing/Tracks/Maintenance: Outside, Mierle Laderman Ukeles, 1973, Wadsworth Atheneum Museum of Art.

During the residency at Cas-co Leuven (2023), drawing inspiration from Mierle Laderman Ukeles's writing *Manifesto for Maintenance Art 1969!*, we focused on observations and physical permanence in the space as the driving direction of our research. Speculations made over the physical characteristics and the unclear history of past uses of the empty exhibition space were directly tested through a series of site-specific interventions made over the months of residency. Through attempts at fixing, overlayering and mimicking the traces manifested by the existing materials, we performed maintenance as the ultimate act of care towards the given space, shifting the focus from the architectural tension of reaching a definitive completed state to the evolving and unfinished temporal dimension of the aftermath.

the Body is the Building is the Body, Every Island, 2023, Cas-co, Leuven: Overview of the exhibition space and details of some of the interventions. Photography Fabrizio Vatieri.

custodianship, as interdependency between physical means and their owners. The moment a material is integrated into a project, a relationship of accountability emerges, concerning the material's future, whether through reuse, transformation, or disposal. In temporary and self-initiated projects, limited resources often dictate a continuity of material trajectories. Beyond the necessary logistics of sorting, storing, and transporting, materials become a form of intellectual and physical baggage and, over successive projects, they shift in meaning depending on space's opportunities and challenges. We become witnesses to this evolving spectacle, where a site-specific potential encounters a material patiently awaiting reactivation. In this perspective, a finishing material for a table becomes the filling for a window; transportable bags designed for a

Shifting Territories, 2023, Every Island and Bebe Books, Bruxelles: A bag find a new owner and house

Welcome (a) Ceremony, 2021, Every Island, Bruxelles and *the Body is the Building is the Body*, 2023, Every Island, Cas-co, Leuven: From a dinner table to a window the same material is reused changing meaning and use throughout different projects. Photography by Maxime Pranato and Fabrizio Vatieri.

temporary public space occupation find new lives as school furniture or design pieces in friends' living rooms. The architect may be understood as a mediator, a kind of Cupid, facilitating the dialogue between material agents and spatial conditions.

Shifting Territories, 2023, Every Island and Bebe Books, Aalst: The mountain of bags assembled.. Photography by Romy Berger.

generosity, as a base approach in the act of harvesting. When researching and introducing materials from existing production chains in a creative process, this requires adaptation, moving from a normal supply chain mindset to a collective act.

For the Luxembourg Pavilion at the 60th Venice Art Biennale, we faced for the first time the challenge of designing a sound infrastructure. Given the particular characteristics of sound isolation and transmission that the space was required to have, the subject of borrowed technical materials from other fields became a necessity. In developing the design for the soundproof curtain surrounding the entire perimeter of the space, a system of insulating jackets normally applied for the insulation of ducts and machinery was researched. The hanged custom-made elements are the result of the months of exchange we had with the production facility, a joint act of sharing knowledge, stretching the boundaries of each other's usual methods to achieve a new, unknown result.

A Comparative Dialogue Act, 2024, Every Island and Andrea Mancini, Luxembourg Pavilion Venice Art Biennale: Photo documentation of the visit to the TAM atelier for developing the curtain for the pavilion.

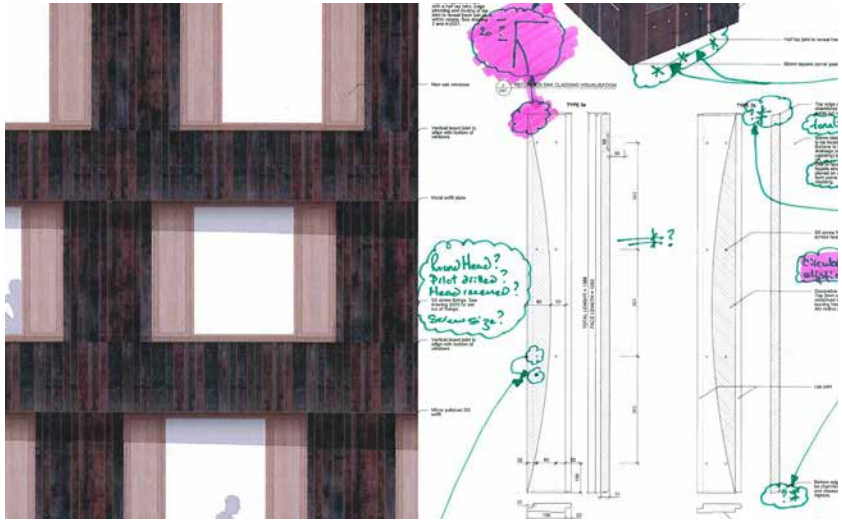
A Comparative Dialogue Act, 2024, Every Island and Andrea Mancini, Luxembourg Pavilion Venice Art Biennale: Top and bottom left: View and details of the insulating curtain main facade. Photography by Delfino Sisto Legnani. Bottom right: an example of an insulating jacket for industrial machinery.

HALF LAP

From Risk to Tolerance at Cowan Court, Churchill College Cambridge

Dylan Radcliffe Brown
6a architects

A DEFRA report indicates that between 1998 and 2011 the reuse of reclaimed timber in the UK fell between 90-98%. When compared to total timber consumption from the construction industry, this is equivalent to a reduction in re-use from 9% of timber in 1998, to 0.43% in 2011.



6a detail drawing, including the half lap, is annotated by the cladding subcontractor during construction. The rebated boards overlap to accommodate slight differences on overall lengths of each level.

Uncertain costs, uncertain Photoshop textures, uncertain dimensions, uncertain French.

The oak cladding used on Cowan Court, Churchill College, Cambridge was reclaimed from French freight trains which had passed around Europe carrying uncertain freight. 6a architects' design and detailing of the cladding followed both traditional representational methods - in drawings, renders, and sampling - as well as less conventional - in mapping, material certification, and early procurement.

Having joined 6a architects as an undergraduate assistant in 2015, Cowan Court was already nearing completion, and I took no part in its successes. Returning to this ambitious reuse project 10 years later, history; the loss of experience and knowledge from past colleagues, or simply fading memory, further obscures the steps taken by 6a to make possible the reuse of 1,800sqm of wagon oak. Now, through conversation and a dive into the archived project folders, I have attempted to sort through the detritus of meeting minutes and client reports to uncover a clear route through which reuse became possible, if one ever existed.

As questions of procurement, durability, cost, aesthetics, and testing each developed what emerges is a trajectory from risk perception toward tolerance. The half lap: a rebated timber board tolerates movement over time and provides a glimpse through the worn face toward the (temporarily) new.

Two rendered images show the development of cladding from silvery oak (represented at its late stage but proposed as new boards) to dark oak (representative of the reclaimed samples).

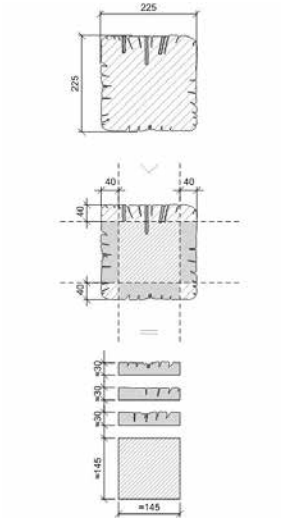


Diagram for how a reclaimed oak pile could be cut to produce four reclaimed boards and 'new' oak for cladding the internal courtyard.

Mapping of new and reclaimed oak sources in the UK and France.

"The proposed oak cladding will weather naturally in a silver-grey colour and eventually become similar in tone and appearance to the board-marked in-situ cast concrete surfaces that are a familiar feature of the existing college."

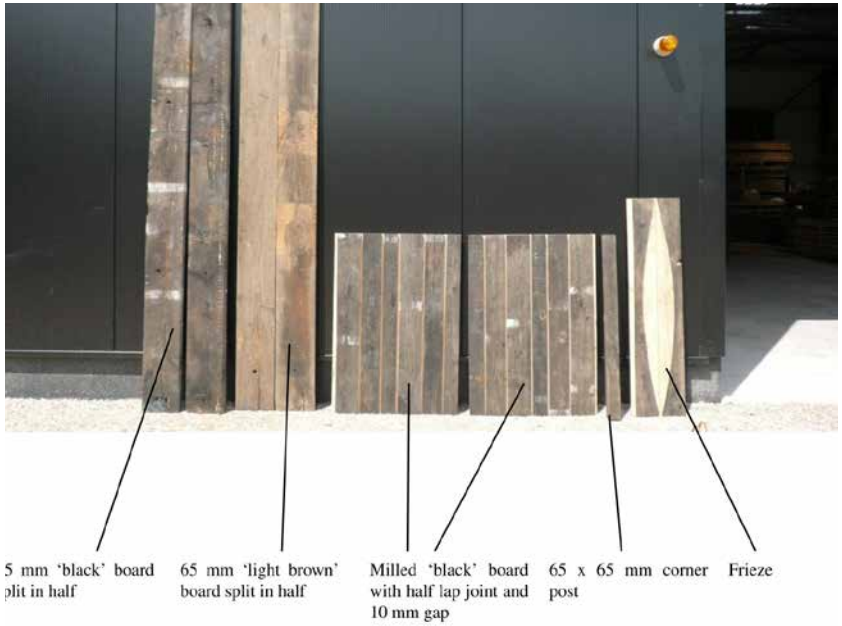
6a architects Stage E Report, March 2013

Aesthetically, 6a's material choice appears to have manoeuvred across uncertainty among clients and planning officers regarding oak's appearance and its unique aging process, eventually electing to avoid the "sometimes inelegant wait between new and patina". At each stage 6a drew careful observations from the adjacent Sheppard Robson buildings across the lawn and into the new façade.

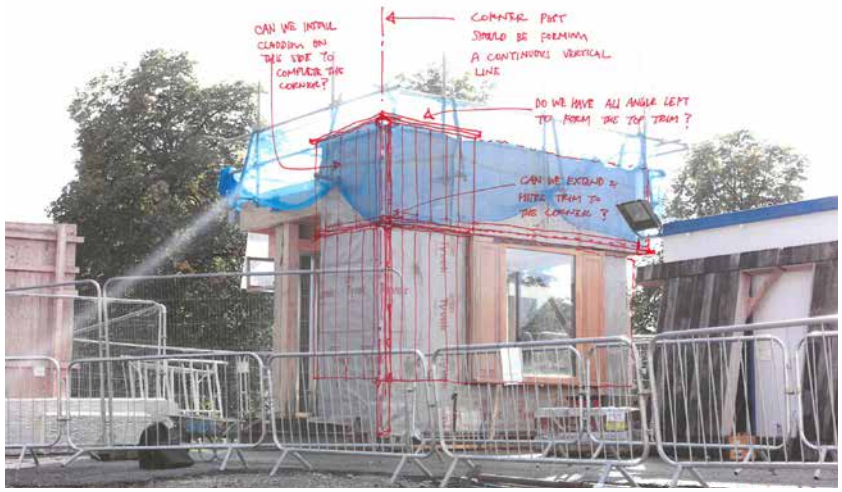
"6a tabled a sample of reclaimed oak cladding board. It is extracted from a sea washed oak piles from sea defence groins in Hastings. [Churchill College] did not object the proposed cladding but asked 6a to look into an alternative source as a fall-back option."

Design Team Meeting Minutes, July 2013

The team began by sourcing timber as locally as possible. Each source was reviewed according to traditional criteria of appearance, quality, and cost, but other criteria played a larger role than usual; variability, presence of defects, and pre-processing (see left). The client astutely raises a concern about available stock...



June 2014, 6a visited BCA Matériaux Anciens' operational headquarters in France. The visit allowed 6a to inspect the stock material and to view the sample panels manufactured according to the specification.



6a annotations over a photo of the contractor's 1:1 mock up on site. In the end, prefabricated cassette panels were prepared to speed construction. Gaps for bespoke width boards were left between select panels.

"The estimated cladding surface area required for New Court is 917m^2. BCA have extensive experience working with this material, and their initial estimate for the quantity required is 1,800m^2."

6a architects Timber Report No.2, June 2014

6a's early 'Timber Report' flagged the drawback of waste to the client. BCA's expert knowledge about their own product led 6a to recommend that the client procure the timber pretender rather than pass on the processing uncertainty to the contractor at high cost, and that the material be processed by BCA in France. How might we work with client and supplier to reduce wastage from 50% today?

"Contractors are invited to inspect the above sample boards ... currently stored at the roof of the boiler house in Churchill College. The sample boards set out the standard of workmanship, milled/ machined edge profile, plugs to bolt holes, surface treatment and finish"

6a architects Architectural Specification for Construction, September 2014

6a's specification was developed in consultation with BM TRADA. Tendering contractors first observed mock-ups made by BCA, after which 6a was novated to the contractor who produced their own 1:1 façade mock-up. The continuous up-scaling of material and construction tests in parallel to 6a's shifting position beside client, supplier and contractor proves a remarkable continuity of design.

session 7
re-use aesthetics 3

THE PILOT HOUSE

A Playful Reframing Experiment in Radius

Francisco Moura Veiga
Voluptas, D-ARCH ETH Zurich
A Forschung, Santarém

In our research on the articulation of architecture and the philosophical notion of “The Good Life”, understood as the search for one’s and one’s surroundings good, as proposed by Epicurus and Bentham, we came to understand that where we, as citizens and designers, could most positively impact ours and other’s lives is by acting locally.

This seemingly simple realization implies constraints on the availability of both material and conceptual resources. In order to tackle these in a constructivist manner, we postulate the Playful Reframing method and we introduce the Pilot House as a case study of the method’s application.

The method frames the departing research question as: “What is HERE?” It prompts a critical read of both the materiality of place and of the cultural and social contexts, echoing strategies from spontaneous architecture used by traditional builders in pre-industrial revolution times, when building was done using “(...) local natural materials – in contrast to the modern urban construction which is built from materials carried from a remote place as well as from artificial materials”, and in modern informal settlements which source from the immediate vicinity of the building site and from knowledge of non-professional builders.

It draws as well from more recent approaches such as Barbara Buser’s “Treasure Hunt”: a detailed survey of materials and building elements which can be re-used in the design process, leading to buildings such as the Kopfbau Halle 118 in Winterthur or the Elys in Basel, Switzerland.

From top left to bottom right,

Arquivo Ordem dos Arquitetos – IARP House with boys playing on the stairs,

Luisa Ferreira, Casa na Cova do Vapor.

Baubüro in Situ, Elys, Basel

Baubüro In Situ, Deconstructed Facade of the K 118 building, SAM Museum Basel

At the core of the method lies a second research question: "how to do with what is HERE?" We draw from René Proyer's understanding of Playfulness and from Vosniadou's take on Conceptual Change to formulate an approach (formulation of design principles - survey - revisit - reframe - design) to issues stemming from local scarcity, be they typological or material/functional.

Similar approaches have been put forth, at different levels, in projects such as Constant's New Babylon (urban typology), Cedric Price's Fun Palace (building typology), Shin Takasuga's Railway Sleeper House (material/functional), or Z Boys' appropriation of empty pools (material/functional) in 1977, Los Angeles. More recently. the work of Soren Pihlman is a case-and-point of such an approach, as are a number of projects which make use of playful approaches and are moving into construction phases, such as the Walkeweg housing by Parabase, Switzerland, or the Lagoa development by Mountains/Paratelier/Cardo, in Portugal.

For the Pilot House, this playful approach was followed in each step, starting with the formulation of design principles as simple bullet-points:

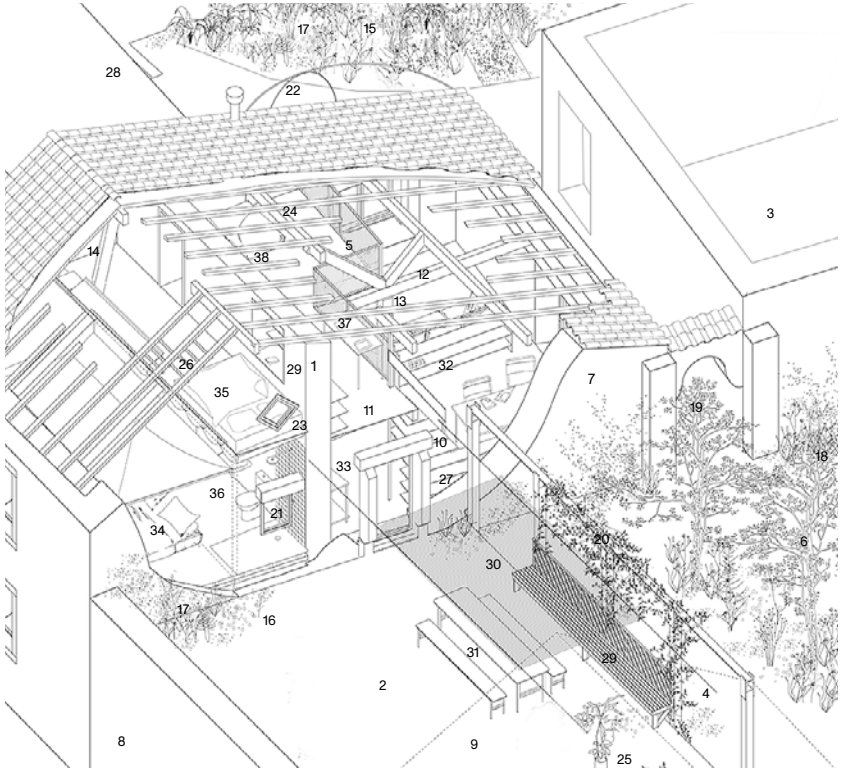
- Design with what is HERE.
- Reframe what HERE is.
- Push for natural materials.
- Second-hand, recovered materials.
- Only local workers.
- Suppliers should be small, local enterprises.

Shin Takasuga, Railway Sleeper House, 1970-1975

Hugh Holland, Stacy Peralta at Coldwater Canyon, 1977

Now the house is finished, we can say that, with obvious exceptions, all materials are natural and national. Construction cost per m2 was 20% below current market prices for renovation works. The reframing method allowed for the development of an easily scalable, dry construction system for energy-efficiency/comfort in renovation of soft-stone masonry houses. Most importantly, we see the results of investing in the local community, with construction workers and suppliers directly profiting from the financial and knowledge inputs the project generated.

Through Playful Reframing, inherit limitations implied by building local, be them aesthetical, technical, or economical, were seen anew. This allowed for a shift in mindset, from spending/risking the least to one investing in people who are in the immediate surrounding and using constricted availability as trigger for the reframing of materials, knowledge and manpower towards a new building identity and a reinforced community, fulfilling core goals in the pursuit of The Good Life.



TYPOLOGIES
1 - House
2 - Terrace
3 - Outlook
4 - Pergola
5 - Mezzanine
6 - Garden

STRUCTURE
7 - Stone Exterior walls
8 - Stone retention walls
9 - Brick vault slabs
10 - Wood stairs
11 - Wood slabs
12 - Wood beams
13 - Wood pillars
14 - Cork ceilings

ENVIRONMENT
15 - Garden as climate regulator
16 - Patio as climate regulator
17 - Garden and Patio as odor-therapy
18 - Garden as sustenance
19 - Garden as Biotope

PROSTHETICS
20 - Natural shade
21 - Double glazed, wood windows
22 - Water well
23 - Insertion of new windows for cross-ventilation
24 - Indoor Fireplace
25 - Outdoor Fireplace
26 - Indoor climbing rods
27 - Library
28 - Cats
29 - Bench

ROOMS
30 - Pergola
31 - Outdoor dining room / screening room
32 - Hall
33 - Kitchen
34 - Summer Bedrooms
35 - Winter Bedrooms
36 - Water closet
37 - Study
38 - Pantry (below mezzanine)

WORKERS AND SUPPLIERS
39 - Sr. Serafim, Mason (Almeirim)
40 - Ilidio, Mason (Almeirim)
41 - Sr. Antonio, Plumber (Santarém)
42 - Pedro Fitas, Electrician (Santarém)
43 - Sr. José, Mason (Alfange)
44 - Mestre Paulo, Mason (Ribeira)
45 - Carmo, wooden floor (Almeirim)
46 - Manuel Barreto, wood (Santarém)
47 - Cecnol, mortar (Santarém)
48 - Isocor, cork (Benavente)
49 - Sr. Aurélio, windows (Fatima)
50 - Equinox, kitchen (A-das-Lebres)

Francisco Moura Veiga and Hanna Lindberg, Cutaway drawing of the Pilot House, detail, 2024.

Research Practice import.export Architecture :

Building by “Strategic subtraction and curated reduction”

Oscar Rommens & An Vanderveken
import.export Architecture

(1) Project Paviljoendreef - *Photo IEA*

Over a period of 25 years, IEA has developed a toolkit for “creating architecture” by “cutting and pruning.”
We distill five recurring principles:

1. Subtractive action: removing and rethinking

Project Kox - Photo by Nathalie Lievens

Much like a sculptor carves a figure from a solid block, we build not by adding but by taking away or by reusing what was previously removed. This is a complex process of critical analysis, focusing on existing structures and their spatial and historical qualities. Similar to the idea of "Restauro Critico", this demands not only craftsmanship, but also critical thinking and judgement: carefully considering how and why parts of a structure are cut away, preserved, or "restored" in a particular way. Pure functionality is not the only guiding factor here. More important is revealing spatial experience, the aesthetic and historical value : reinterpreting social and cultural elements.

* *Flanders Architectural Review N°16: Responses in Responsibility) is a publication by the Flemish Architecture Institute (VAi), released on November 8, 2024*, 2000.
* *Cesare Brandi (1906 to 1988): his concept of restoration and the dilemma of architecture by Fidel Meraz – Conversationes num 7 - 2019*

(1) Project Balschool - *Photo Tim van de Velde*

(2) Project Borgloon - *Photo IEA*

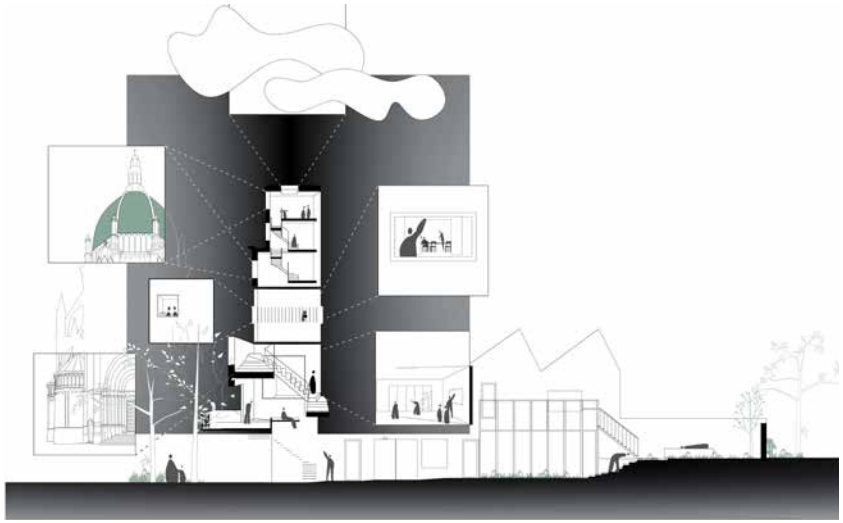
(2) Project Koxplein - *Photo IEA*

(2) Project Provincielaan - *Photo Pieter Rabijns*

2. Architectural section: as a research tool

For us, the section is a way to learn how to read, understand, and interpret a project and to design within it. We do not build by stacking further up- or onwards, but by interrupting, opening up, and questioning. Organizing light, revealing the invisible, and creating a cross-section where multiple systems and conflicts converge lies at the heart of our design strategy. Fragmentation, collage, and collisions at different scales are not problems to be solved, but rather fertile ground for design and conceptualization of a project.

* *Small, medium, large, extra-large – OMA – Rem Koolhaas and Bruce Mau – The section as a tool (1995 – reprint 2024) Rotterdam : 010 Publishers ; New York : Monacelli Press*



Project La Reine - Vertical Interior - source: IEA

3. Void: as an architectural spatial form

Project Balschool - *Photo by Tim van de Velde*

To bring air, light, and spatial quality into congested structures, we developed different forms and techniques of "de-pitting" (similar to removing the pit from a fruit, creating cavities or voids).
Existing hermetic spaces are broken open in four dimensions: height, width, depth, and also time.
We see the void not merely as an economically usable space, but as a fallow interlude: poetic in character, versatile in use, and facilitating spatial and social relationships. This space acts as a mediator: between inside and outside, between public and private realms, forming a kaleidoscopic in-between of perceptions and functional possibilities.

* *Gordon Matta-Clark: An Archival Sourcebook - Documents of Twentieth-Century Art - Gwendolyn Owens, Philip Ursprung (Ed.) - University of California Press, 2022*
* *Lucio Fontana: Walking the Space. Spatial Environments 1948-1968 - Luca Massimo Barbero, Barbara Ferriani, Marina Pugliese - Hauser & Wirth Publishers, 2021*

(3) Project Bloemstraat - *Photo by IEA*

(3) Project Koxplein - *Nathalie Lievens*

(3) Project Scheur - *Photo by AG Vespa*

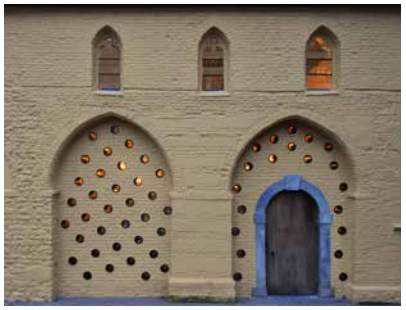
(3) Project Woodpecker - *Photo by F. Dujardin*

4. Revaluing the ruin:
making traces and patina tangible

Project Koxplein - *Photo by Nathalie Lievens*

In every process, we are aware that we are neither the first nor the last designers to touch a building.
We are temporary caretakers of configurations. This sense of reality does not diminish ambition, but places our work between past, present, and future. We work with time, revealing its traces and embracing both the beauty and the roughness of imperfection.
Some of our projects may appear unfinished, or intentionally leave room for further additions by future actors. An 'ideal aesthetic image' is secondary to creating space for future projections. Ruin-ification, formed traces, and the presence of patina are not seen as merely decorative elements, but as ways to reveal layers and to operate simultaneously on multiple scales.
Through peeling away, removing and exposing a building's evolving status, we explore the relationship between space and time and how we might intervene within it.

5. Cutting away and adding sparingly as a contemporary statement



Project Borgloon - *Photo by IEA*

In an ever-changing built environment, where space is becoming scarce, public funds are drying up, and societal needs are diversifying, we work with minimal interventions to create maximum value.

The construction industry is facing a necessary reorientation, driven by limited resources and a decreasing availability of land and finances. Maintenance, repair, recycling, upcycling, and circularity are no longer niches, but integral parts of our daily practice. Years of working with minimal budgets have developed the skill to achieve more by doing less and with fewer resources. We carefully choose sustainable building forms, manipulate simple materials, and bring program and use together in a simplified context.

* *Behind the green door : a critical look at sustainable architecture through 600 objects _ Lionel Devlieger (UGent) , Livia Cahn and Maarten Gielen 2014*

(4) Project Balschool - *Photo Tim van de Velde*

(4) Project Balschool - *Photo Tim van de Velde*

(4) Project Koxplein - *Photo by Nathalie Lievens*

(5) Project Ziggy - *Photo IEA*

CC+
Current Condition Plus

A design tool for reuse practice

Gino Baldi, Serena Comi

VACUUM ATELIER architects

Every building is a heritage and every building deserves demolition. Perhaps there are no a priori labels or strategies, but a negotiation of values, parts, and resources. These ever-changing constraints become opportunities to shift the center of gravity from conventional demands and solutions, with semiautomatic design solutions, to innovative strategies, providing opportunities to develop both practical and theoretical architectural research. Starting with Martin Boesch's publication "Yellowred" (1), an analysis is made of how the method of yellows and reds describes solutions of interventions on the existing heritage, becoming a retrospective of it. One wonders how to move this tool within the active phase of the project without relegating it to only a passive result. CC+ aims to be an analytical and design tool for understanding the solutions to be applied in a given Current Condition (2). Through this methodology, drawings show the current condition (CC) before a project, becoming an added value (+) for a building. The drawings emphasize heritage values and qualities, showing with yellow color the few parts that are sacrificed. With a different color each time, the existing volume is emphasized. In gray, muted, the design strategy is suggested, leaving the focus on the preserved heritage. The topic presents a meta-project approach to architectural transformation, challenging fixed notions of heritage and demolition. One understands what has been built and what is being demolished of the building, shifting the focus from the design authorship to the value of a transforming building.

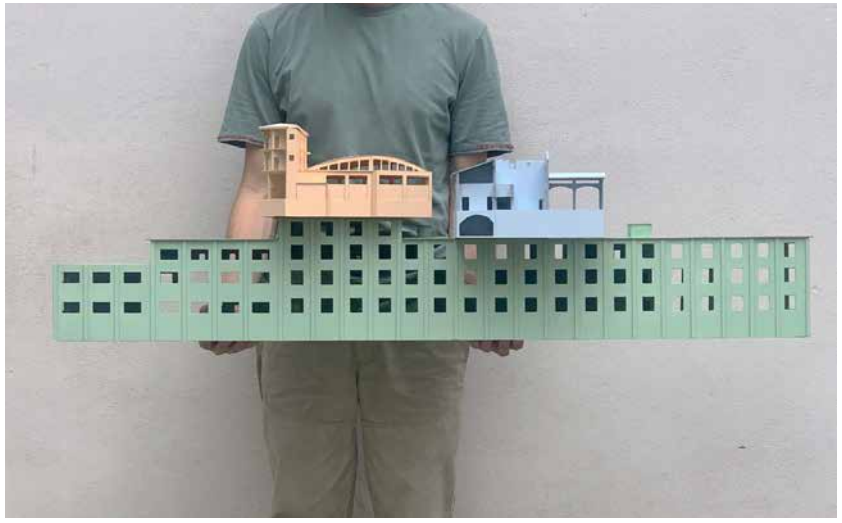
1 Martin Boesch, Joao F. Machado, "Why Yellowred?" in Martin Boesch, Laura Lupini, Joao F. Machado, Yellowred. On reused architecture (Silvana Editoriale, 2022; Mendrisio Academy Press,2017), 7.

2 The current condition means a precise place, the state of preservation of a building, necessities, a client, a budget, several specific conditions that are condensed.

Research by drawing

CC+ is not a quantitative but qualitative assessment of the existing heritage, it becomes a design verification tool while preserving the identity of buildings. The current condition is already a project; it does not have to be constructed, only interpreted and manifested.

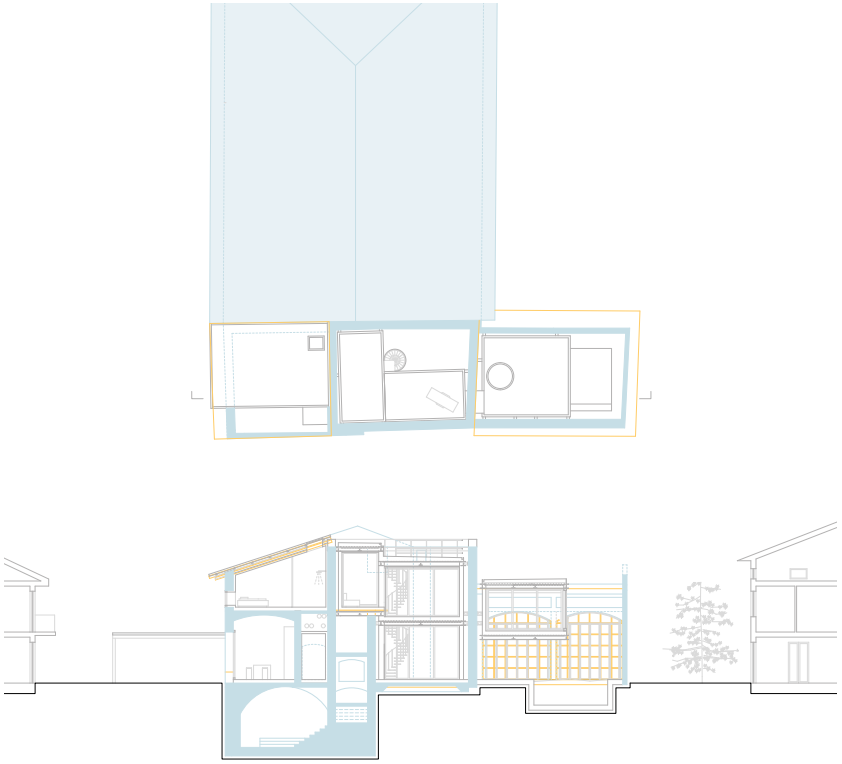
CC+ becomes research through drawings by analyzing some current projects. The projects proposed as possible solutions, emphasizing flexibility over dogmatic preservation or demolition.



Imaginary landscape. Overall representation of the case studies through the case study models.

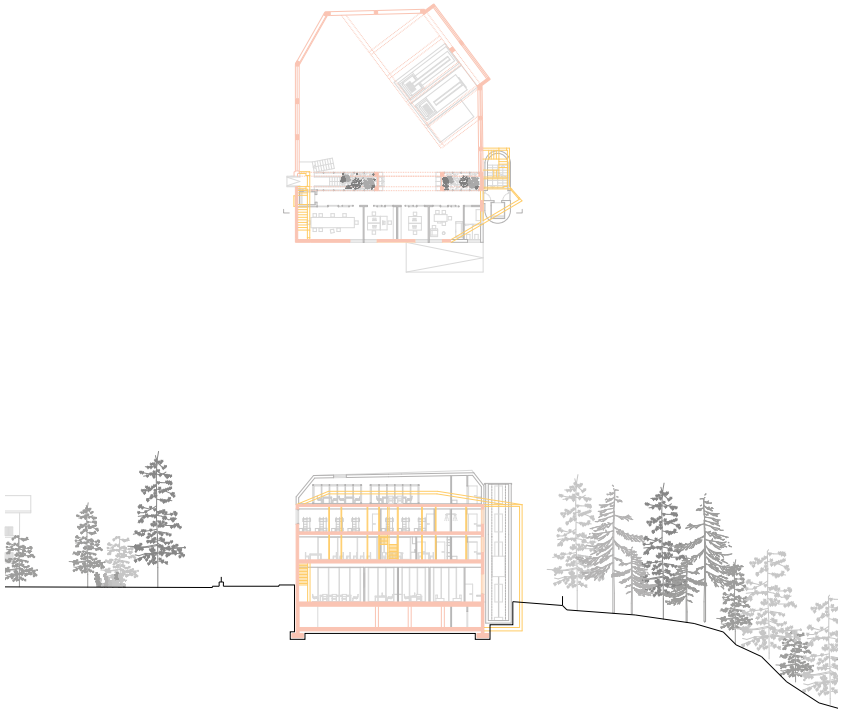
Through three case studies (A House Without a Roof, Legler Cotton Factory, SAB bus depot), one explores how constraints and resource scarcity generate new strategies for adaptive reuse. Using drawings and graphic coding, the method visually negotiates preservation, subtraction, and intervention, redesigning existing buildings as evolving artifacts.

The proposed projects are placed in rural suburban contexts, characterized by strong contrasts: naturalistic landscapes dotted with abandoned structures, large built areas completely empty, all crystallized in a state of decay.
The lack of a roof becomes an opportunity to reopen previously sealed possibilities, triggering a negotiation between interior and exterior, as in "A house without a roof." This is a small building with a strong state of decay in which, despite everything, the project implements a strategy of reuse instead of demolition and reconstruction. The scarcity of resources becomes an opportunity to rethink a large-scale industrial artifact as an infrastructure, where to arrange for flexible use of space, as in Legler Cotton Factory. Project interventions are limited to the demolition of superfetations to restore the original spatialities, such as the long nave, with the insertion of a single technological ceiling mechanism. In the project of the former SAB bus depot, in dissonance with the context, realized in an economy of means, finds in its resilient character and volumetric presence the main qualities to be valued.
The fact that all of these buildings have survived over the years, with their obvious visual deficiencies, and yet have not been demolished, has value and becomes a design tool.



A House without a roof. The lack of a roof becomes an opportunity for nature to reclaim a portion of land previously denied. Thus the project retreats and advances, balancing the new volume with the rediscovered space, in a continuous negotiation between inside and outside.

A House without a roof. View of the missing roof in the actual state.



On the left (Legler Cotton Factory) and above (SAB bus depot) one can see how the existing in both projects is set in a context of high historical and landscape value. The relationship between industrial archaeology and nature finds great expression in the project.

View of the generous spatiality of the concrete vault in the SAB bus depot.

KALÉIDOSCOOP

A collaborative project for a cross-border third place in Strasbourg

ARCHITECTURE
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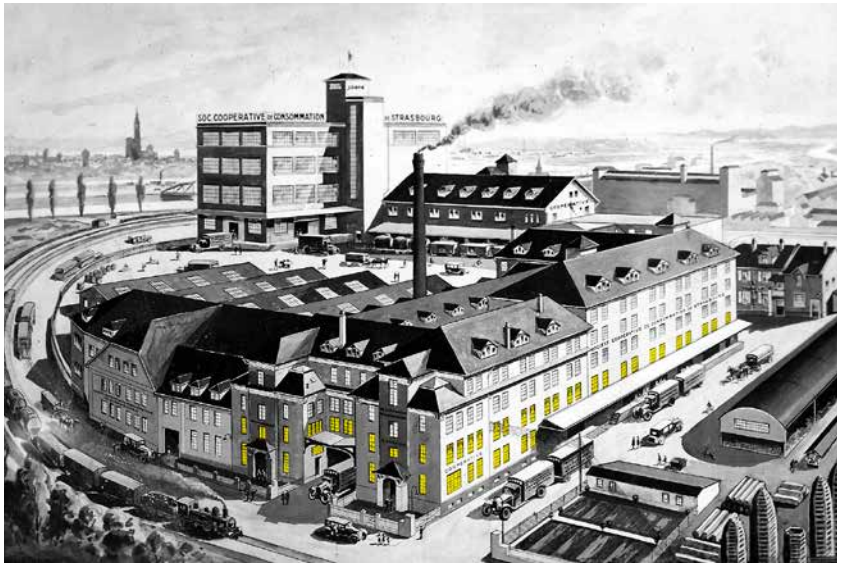
Florent Revel,
Benoît Streicher.
UN1ON

PHOTOGRAPHIES
Emilie Viallet,
Guillaume Greff.

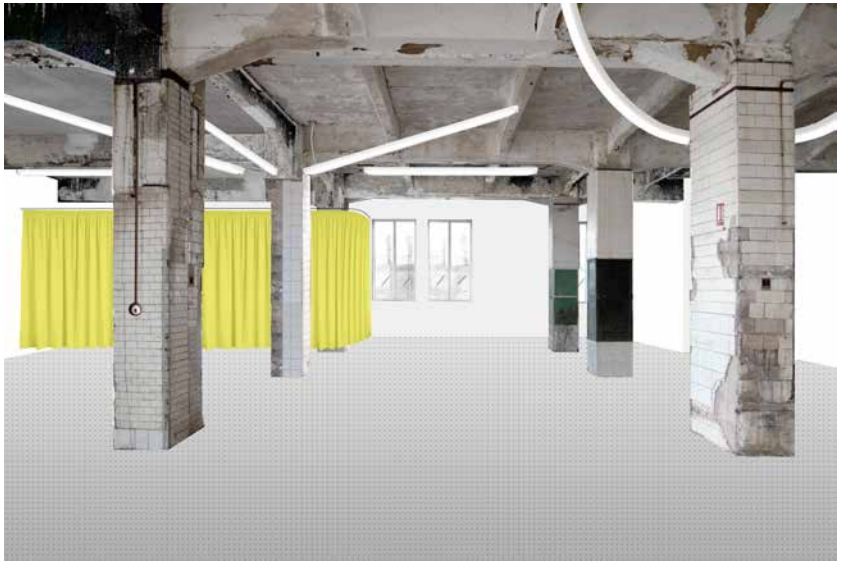
CO-OPERATE

KaléidosCOOP is an interior design project located in Strasbourg, near the border with Germany. It is situated in a building with significant historical value, which was once the headquarters of the first food distribution cooperative in Alsace, the COOP. This transborder third place hosts around twenty organizations dedicated to social and solidarity economy. These organizations, which are familiar with democratic processes that guide their governance, all wanted to actively participate in the design of the project.

During the competition, by reading between the lines of the brief, we understood that the multiple project owners did not want a “fixed” architectural design. On the contrary, it had to be conceived collectively, allowing everyone to participate in decision-making. Curious about participatory processes, we embarked on the journey with as much enthusiasm as questions. How can we share the design process with the project owners and users? To what extent can the design process be collective? How can we make participation active and effective? How can we collaboratively define architecture that reflects the philosophy and practices of the social and solidarity economy? More broadly, how can architectural practice serve a democratic process?



The COOP – An iconic building from Strasbourg’s industrial past.

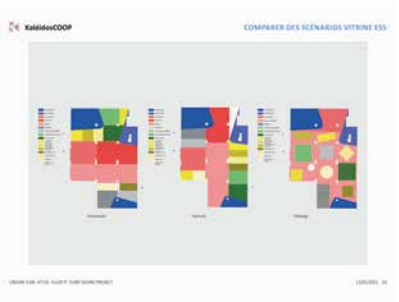


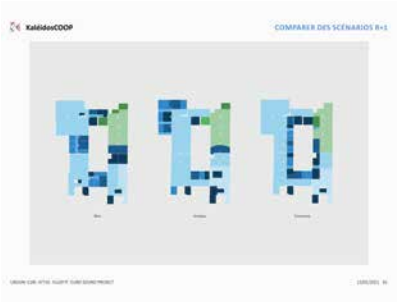
The Showcase _ Defining an attitude towards the existing.

TRAJECTORY

Rather than providing a “finished” project, as often required in competitions, we proposed a working method rather than a result. For us, the challenge was to invent a truly collaborative design process, so that the project could emerge collectively. We wanted this process to address fundamental issues, going beyond aesthetic or furnishing aspects. We saw this as an opportunity to avoid freezing the design too early, leaving room for research, iterations, and remaining open to discoveries and possibilities. We proposed a series of three complementary and interlinked thematic workshops to discuss and vote on all the key issues related to the project and its design.

In a first phase, through three contrasting scenarios, we focused on the spatial organization and the interactions between the program elements. The layout and its organization became the core of the debate, without losing sight of the accompanying technical aspects.
In a second phase, through a wide range of building materials, we discussed the atmosphere of the project, specifically addressing how to approach the existing structure for its enhancement.
Finally, specific furniture elements that would define the spaces were selected through a broad mosaic of proposals. By accepting that we could not predict the final result, we were ready to fully embrace uncertainty.





POST-IT

We deliberately put ourselves at risk by leaving open questions that we usually like to master so that the project doesn't slip away from us. We positioned ourselves as design architects as much as mediators, seeking the best compromise between a programme and an existing building, between multiple clients and a single project.

To ensure that everyone was able to express themselves and take part in decisions, it was essential that everyone was kept equally informed. We therefore needed to communicate our ideas as clearly as possible so that everyone could understand them. We used a number of tools, none of which were particularly revolutionary. Coloured post-it notes, for example, were an incredibly effective way of facilitating dialogue and summarising ideas.

This gave us the opportunity to talk about what we do, how and why we do it, more than just the intended result. It allowed us to preserve the existing concrete structures without covering them with a thick layer of white paint. We were also able to incorporate reused materials without any aesthetic preconceptions, making a modest contribution to the development of a local industry.

VECTOR

We saw the participatory process as an opportunity to challenge the usual methods of architectural production and design. Beyond this particular case, we continue every day to foster collective discussions, exploring paths without preconceptions, always on the lookout for spontaneous encounters. Through this open and inclusive practice, we aimed to re-examine our role as architects, exploring the potential of a method based on a broader sharing of knowledge, enriched by intense exchanges.

We believe the project demonstrates the possibility of a practice that places humans and users at the center of the architectural debate. It defines the outline of a practice that would be a truly democratic medium rather than a matter of authorship. Here, practice and design serve an ecosystem of relationships, where each actor's position remains free and open. The architect's role is more that of a catalyst than a master builder. KaléidosCOOP illustrates this vision, where architecture becomes a vector for cooperation and social transformation.

A shared workspace.

A showcase for the social and solidarity economy.

session 8
resilience and
human-centeredness 2

HOW TO BUILD LESS BY KNOWING MORE

Representing the Existing

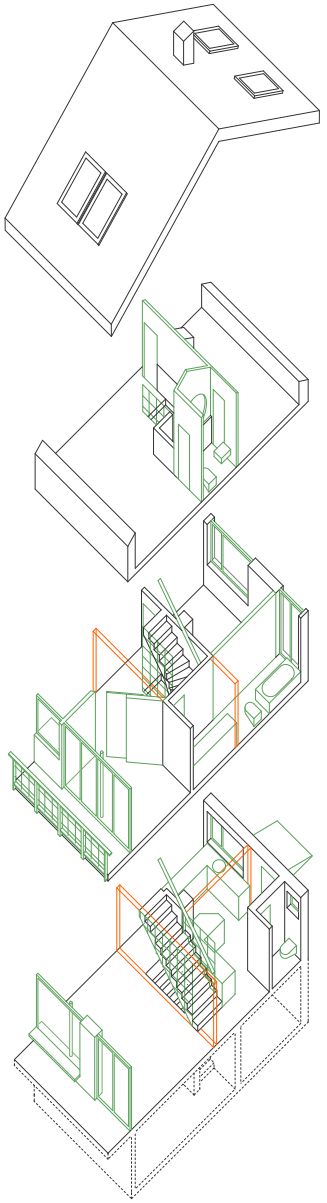
Tobias Fink
ana.institute
Technical University of Munich

Demolition and new construction have long been the default response to changing programmatic requirements of a building; prioritizing short-term economic gains over long-term ecological, social, and cultural values. This paper argues that working with the existing is not only an ecological necessity or an act of cultural preservation, but also a way for using unintended potential and for building upon existing ideas. Especially buildings from the postwar boom years carry extensive ecological and cultural implications while they account for nearly a third of Europe's current building stock. Department stores stand out as particularly prototypical of that period in Germany. Often located in city centers, these structures reflect the constructive pragmatism of their time and now constitute a substantial anthropogenic stock. While many of them reached the end of their first lifecycle, they are increasingly threatened by demolition. Their erasure results not only in vast material waste and carbon emissions, but also in the loss of collective memory and architectural intelligence. Despite growing awareness around the diffuse term 'sustainability', demolition continues to dominate – especially when it comes to buildings from this era, which are often considered aesthetically and technically problematic. The challenge here is not merely one of technical feasibility but very often of perception: can we shift from seeing the obsolete to recognizing the adaptable and aesthetic values beyond the image of the city?

Close reading of existing structures on a technical and material level – exploring how to avoid further wasteful practices. *Unfinished House*, 2022.

Kaufhof Rotkreuzplatz, Herbert Kochta / Peter Buddeberg, 1974.

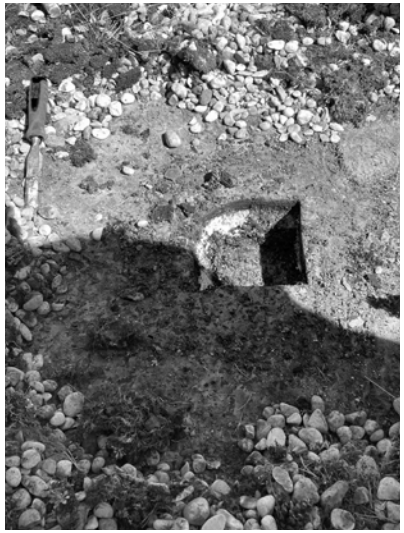
At *ana.institute*, we engage with the built environment from two main perspectives: through qualitative, explorative research using narrative strategies to understand the context and conditions during the emergence of architecture in the 1960s and 70s; and through built projects that work directly with structures from that period. In research such as *Offenbach Kaleidoskop*, we approached a building as a social and cultural document, shaped by formal ideas, ideology, material systems, and legal constraints. In projects like *Unfinished House* or the ongoing *HAMU*, we are confronted with the limitations and design opportunities of reuse. These interventions require constant evaluation of what can be retained, adapted, or removed.



Axonometric drawing of the *Unfinished House* (2022), illustrating the selective removal and addition of building elements.

Kaufhof Rotkreuzplatz, Herbert Kochta / Peter Buddeberg, 1974.

They raise broader questions: how can we unpack the values of existing ideas? And to what extent must we critically revisit the societal or ideological assumptions embedded in their original construction? In my academic work at the Technical University of Munich, I seek to further strategize the transformation of existing structures. The department store typology is used as a case study to develop transferable strategies for evaluating the built environment through different representational media.



Transformation and adaptation of existing structures demand in-depth physical analysis of systems and materials – often revealing unforeseen challenges and new potentials during construction. *HAMU*, ongoing.

Within this paper I want to look at different strategies to engage with the existing from a representational point of view: analytical drawings, layered by systems as well as materials to reveal levels of permanence and transformability. The process of redrawing can be a tool for close reading – an architectural analysis that represents the lifespan, hierarchies, and entanglements of the existing. It serves as both a perceptual and cognitive shift: before we can like or use something, we must understand it. The image-text narrative is conceived as a photo-essay interwoven with written observations or street interviews. This storytelling approach is not merely illustrative but acts as a critical framework for reinterpreting the existing. It proposes that architectural practice should foreground knowledge production, not only to avoid demolition, but to support more intelligent, culturally responsive, and structurally sensitive interventions. I want to argue for reuse not as a reactive, technical exercise, but as a proactive approach grounded in analysis, narration, and the close representation of the built environment. Because the key to transforming buildings lies in understanding them – so that we may build less by knowing more.

[Photographic] investigation of one building, the *Gothaer Haus* in Offenbach from 1977. Scans from: Engelke, Jan, Lukas Fink, und Tobias Fink. 2022. Offenbach Kaleidoskop – Geschichten eines Hauses. 1. Auflage. Leipzig: Spector Books.

A LIVING LAB

Design, Development and Implementation of Circular Renovation Strategies

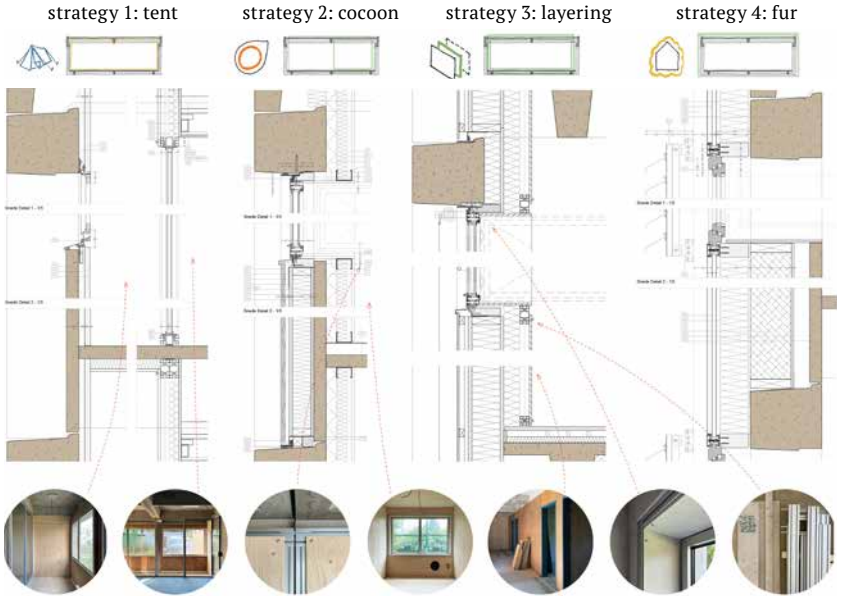
Lieven De Groote
Ana Castillo
MAKER architecten

More than 300 modular student dormitories on the VUB campus, originally designed by modernist architect Willy Van Der Meeren in 1972, were once at risk of demolition. Today, they are being repurposed to create a versatile new use. The 12 modules involved in this pilot project not only serve as a catalyst for preservation but also pave the way for transitioning the remaining buildings to a circular renovation model. The project focuses on material reuse both on-site and off-site, with preservation at its core.

The WVDM Living Lab bridges theory and practice in circular construction. For this project, MAKER conducted research into circular renovation strategies, which were subsequently implemented in the pilot project.

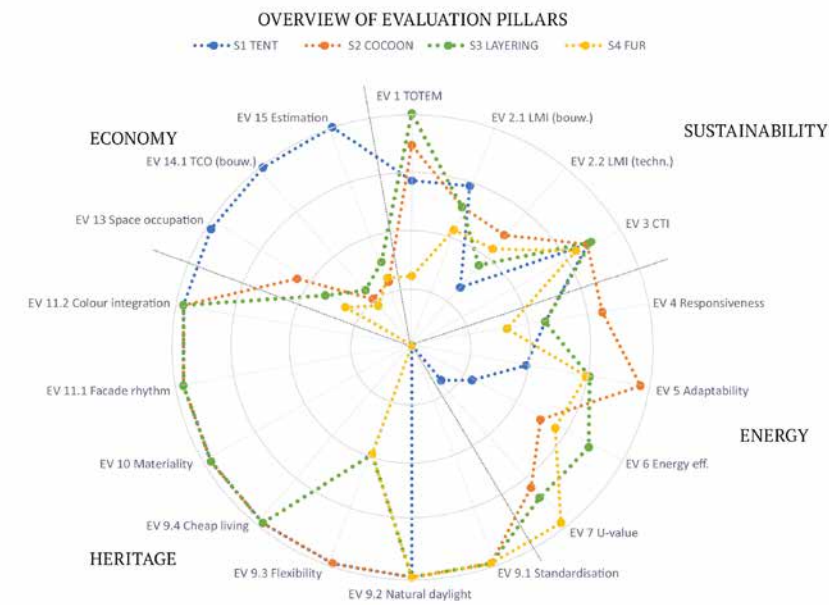
© Séverin Malaud

The four developed renovation strategies vary in nature and offer circular solutions for different specific challenges and conditions.
One strategy questions the excessive use of materials in renovations by focusing on maximizing the preservation of existing structures with minimal material input. A second approach questions the need for uniform comfort levels throughout a building, advocating for tailored comfort—and energy use—based on the function of each space. A third strategy emphasizes adaptability and the use of demountable components in the building envelope, while the final approach prioritizes materials with a low environmental impact and incorporates passive techniques. Each strategy was elaborated through detailed design, implementation, and evaluation.



details and application of the four strategies

The assessment was based on four key pillars: energy, heritage, sustainability, and economy.



Spider diagram showing evaluations by pillar and application of the strategies

Circular construction inherently requires tailored solutions—each project faces different constraints related to existing structures, the availability of reclaimed materials at a certain time and place, spatial and technical constraints in terms of reversibility, and client requirements. These four strategies were deliberately designed to be specific, ensuring the lowest possible environmental impact for each unique context.

At the same time, the broader challenge was to develop scalable and replicable solutions without losing the project-specific adaptability that circular construction demands.

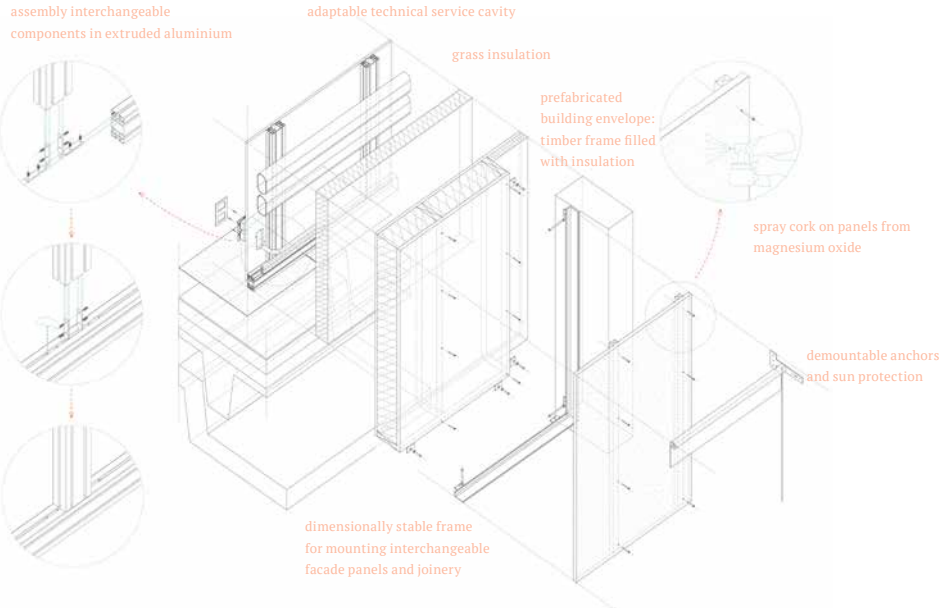
Research was carried out into system-based approaches, prefabrication, and standardization. These efforts support the development of an open material bank—composed of interchangeable, reusable, and standardized components and detailing.

overview application of the strategies

We start with a ‘casco’ that meets basic needs and comfort for any program. The strengths of the ‘as found’— such as its thermal inertia and the modularity of its concrete elements—are fully leveraged and enhanced with a well-performing envelope made of bio-ecological materials. This provides a flexible base onto which reversible layers can be added, depending on specific use cases.

Our focus lies on the process rather than a fixed end result.

Conceiving the building as permanent limits flexibility and experimentation. Instead, the resilient framework of the modular structure allows us to work with standardized, compatible, and interchangeable components—assembled like a Meccano set. The open material bank is scalable and generic in concept but can be customized to suit different applications.



exploded axonometry of the facade layers

The goal is not only to standardize solutions through modularity but also to enhance reuse opportunities and reduce financial impact by maximizing compatibility. This approach fosters a dynamic, user-driven architecture—one that continuously reinvents itself in response to change and emerging challenges.

During the implementation phase, significant effort was made to reuse materials released during the renovation, such as the modular concrete structure, concrete sanitary units, terrace tiles and pressed wood panels (Fontex panels). From ex situ projects, sanitary fixtures, lighting fixtures, insulation materials, carpet tiles, and kitchens were recovered.


terrace tiles


lighting fixture


carpet tiles


Fontex panels


sanitary fixture


kitchen

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The form follows the assembly method and the availability of materials. Like a machine à habiter, the renovation is part of an ongoing process of activating materials and functions—a living system in constant transformation.

RECLAIMING THE INFORMAL

Ruins, Reconstruction, and the Aesthetics of Adaptation in a Polarized Architectural World

Ayla Azizova
Atelier Azizova

In the polarized architectural landscape, where some regions witness excessive new development and others face war, displacement, and material scarcity-informal architecture emerges as a living practice of adaptation. Moving beyond traditional planning models, this abstract proposes to rethink the architect's role: not as a master planner, but as a mediator of ruins, repair, and reuse. Across postwar cities, refugee landscapes, and evolving urban peripheries, architecture without architects reveals itself as a powerful, resilient force- shaped by necessity, improvisation, and collective agency rather than formal design.

This research situates informal architecture as both aesthetic and political resistance: a spatial act of survival and an alternative framework of design. Scarcity becomes opportunity; imperfection becomes principle. Informality challenges modernist ideals of control and perfection, instead proposing organic growth, layered adaptations, and participatory construction methods. Through the lens of three typologies: architect-designed informal completions, purely user-driven adaptations, and *punkspace* vernaculars, this study explores how architecture evolves when left to its own devices under post-crisis conditions.

"We need to change the paradigm.
... accept decentralization as a new paradigm for decision making processes.

We need to accept informality because we can no longer create normative, beautiful, grand solutions that are not going to be implemented"

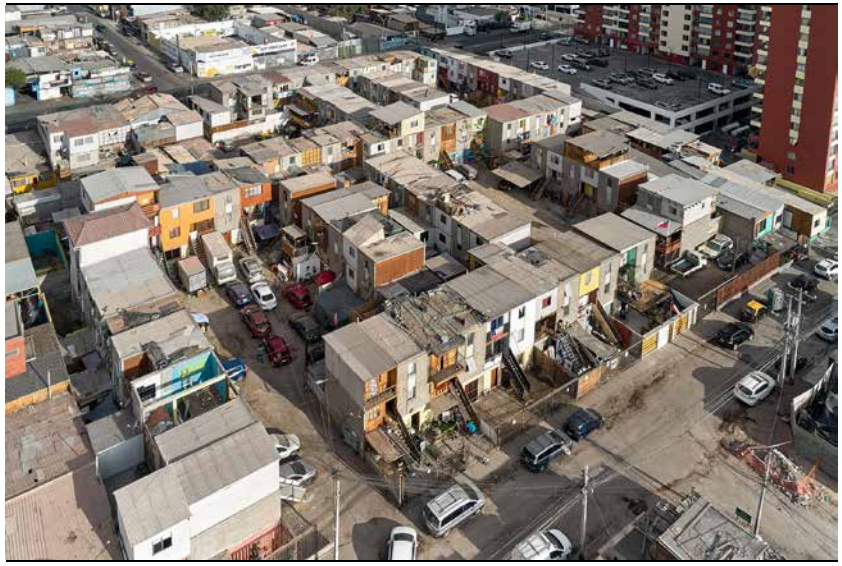
Omar Abdulaziz Hallaj, "Reconstruction and Informality," lecture, Department of Integrated Urbanism and Sustainable Design, University of Stuttgart, summarized in Global Voices, 2017, https://globalvoices.org/2017/10/15/syrian-architects-challenge-post-war-reconstruction-with-real-time-designs/.

Architectural Frameworks for User Completion

In projects like *Torre David* (Caracas, Venezuela) and *Quinta Monroy* (Iquique, Chile), architects have initiated frameworks that allow users to complete and adapt their environments over time.

Urban-Think Tank, Torre David / Gran Horizonte, 2012. Photograph by Iwan Baan, https://divisare.com/projects/209495-urban-think-tank-iwan-baan-torre-david-gran-horizonte

Torre David - an unfinished skyscraper turned vertical settlement by squatters illustrates how existing structures can be retrofitted through community-led adaptation.[1] Similarly, Alejandro Aravena's *Quinta Monroy* housing project in Chile provided half-built homes, enabling residents to expand and adapt based on personal needs and resources.[2] These cases embody a hybrid model: architects create a core structure, while users complete and personalize their spaces. This incremental, participatory model bridges formal and informal processes, offering a resilient response to economic collapse and housing inequality.



Quinta Monroy Housing by ELEMENTAL," Dezeen, January 10, 2025, https://www.dezeen.com/2025/01/10/quinta-monroy-housing-elemental-alejandro-aravena-21st-century-architecture/.

1 Urban-Think Tank, "Torre David: Informal Vertical Communities," https://urban-thinktank-hk.ch/utt-archive/project/torre-david/

2 Alejandro Aravena, "Quinta Monroy," Arquitectura Viva, https://arquitecturaviva.com/works/viviendas-quinta-monroy-1

Postwar Informal Evolution within Ruins

Ryan Koopmans, "One Photographer Spent Five Years Capturing the Interiors of Abandoned Soviet-Era Spas," Architectural Digest, March 7, 2019, https://www.architecturaldigest.com/gallery/one-photographer-interiors-abandoned-soviet-era-spas.

In the aftermath of war, architecture often evolves without architects, as ruins are inhabited and transformed through necessity. In Tskaltubo, Georgia, abandoned Soviet sanatoriums were informally occupied by internally displaced persons (IDPs) after the Abkhaz-Georgian conflict.[3]

3 Ryan Koopmans, "Abandoned Soviet Spas," Wired, https://www.wired.com/story/abandoned-soviet-spas/

Families reconfigured grand ballrooms, treatment rooms, and hotel lobbies into makeshift homes, using saved materials and self-organized utilities.

Similarly, in Palestine, Bedouin communities in Khan al-Ahmar constructed the "Tire School"- an informal educational structure built from recycled tires and earth-in defiance of displacement threats.[4]

Both examples show architecture as a living organism: ruins are absorbed, reinterpreted, and continually evolved through user agency, resilience, and improvisation.

Al Khan Al Ahmar Primary School, Al Khan Al Ahmar Bedouin Camp, Palestinian Territories, 2014. Architecture in Development, https://architectureindevelopment.org/project/357

4 ARCò, "The Tire School of Khan al-Ahmar," Architecture in Development, https://architectureindevelopment.org/project/357

Punkspace and Vernacular Informalism

Beyond postwar survival, architects can also intentionally engage informal methods to challenge dominant systems. The concept of *punkspace*, as explored in contemporary cultural studies, frames informal architecture as a critical, subversive act. DIY structures, squats, and recycled interventions reflect a raw, communal form of spatial production rooted in resistance.[5]
Richard Greaves' "anarchitecture" in rural Québec[6] embodies this spirit, as he assembled asymmetrical structures from salvaged timber without nails, using ropes to emphasize flexibility and evolution. *Punkspace* suggests an architecture of resilience: spontaneous, layered, deeply human, and free from rigid regulations.

Richard Greaves, *Anarchitect*, b. 1952. Left Photo by Richard-Max Tremblay; Right Photo by Valérie Rousseau. Source: Spaces Archives, https://spacesarchives.org/explore/search-the-online-collection/richard-greaves-anarchitect/

5 Letícia Cabeçadas Do Carmo, "Resistance & Compromise: Spatial & Aesthetic Approaches of Alternative Cultural Spaces," Doctoral Thesis.

6 "Richard Greaves," Spaces Archives, https://spacesarchives.org/explore/search-the-online-collection/richard-greaves-anarchitect/

It reclaims the aesthetics of decay and improvisation, transforming spaces of abandonment into sites of participation, creativity, and collective resistance.

Across regions shaped by war, displacement, and material scarcity, informal architectures demonstrate that resilience arises not through grand masterplans, but through the adaptive ingenuity of users and communities. By studying these evolving spaces, we see that architecture's future lies not in rigid control, but in facilitating open-ended, participatory processes.
Embracing imperfection, adaptation, and collective creativity offers a powerful framework for navigating contemporary crises—and reimagining architecture's social, political, and aesthetic possibilities.

Richard Greaves, *Anarchitect*, b. 1952. Photograph by Valérie Rousseau. Spaces Archives, https://spacesarchives.org/explore/search-the-online-collection/richard-greaves-anarchitect/

URBAN MINING AND REASSEMBLED ARCHITECTURE.

The case of a Social Housing in Palma de Mallorca by Harquitectes.

Andrea Crudeli, Francesca Molle and Xavier Ros Majó
University of Pisa
Harquitectes / Universitat Politècnica de Catalunya

In a social housing competition in Majorca, the brief required us to demolish the existing school on the site and construct a new building using wood. That was the theory. In practice, we decided to do something different. We followed the mandate to demolish the school, but we suggested using new bricks made of the material from the demolition and concrete. After winning the competition—which was awarded based on a written proposal and a diagram illustrating the construction process—we discovered that the existing building was made of local Mallorcan sandstone, a material commonly used in house construction. It's a very soft stone, easy to cut and much lighter than concrete. This was a revelation, and it inspired us to experiment with a different construction method. [...][1]

Amidst the growing global call for greater attention to resource conservation and waste reduction, architects are increasingly challenged to work with pre-existing materials and structures. Following the Circular Economy Action Plan (CEAP)[2] adopted by the European Union, many architectural firms have embarked on experimental processes to reuse on-site resources. Urban mining, a practice rooted in the extraction of valuable materials from urban environments, emerges as a transformative strategy within this framework. Unlike traditional mining, which relies on natural and limited deposits, urban mining capitalizes on the latent potential of anthropogenic resources, such as buildings,

1 Portion of the full text written by Xavier Ros Majó, principal of Harquitectes, for the paper of this conference.

2 European Commission. (2020). A new Circular Economy Action Plan: For a cleaner and more competitive Europe. Retrieved from https://ec.europa.eu/environment/strategy/circular-economy-action-plan_en.

infrastructures, objects, and demolition waste[3]. Although the term "urban mining" is modern, its principles date back to ancient civilizations like the Roman Empire, where materials such as bricks and stones were commonly recycled for new constructions[4]. Today, urban mining encompasses advanced techniques for sorting, recycling, and repurposing materials like concrete, wood, and metals. This evolution aligns with the European Union's goal of achieving a zero-carbon building stock by 2050, emphasizing reduced emissions in material production and transportation. Jane Jacobs envisioned this potential in 1969, predicting that:

"Future cities will become huge, rich, and diverse raw material mines. These mines will differ from any now to be found because they will become richer the longer they are exploited; new veins, formerly overlooked, will be continually opened.[5]"

A contemporary practice that explored innovatively the urban mining is Harquitectes. Established in 2000 in Sabadell, Barcelona, the firm is directed by David Lorente, Josep Ricart, Xavier Ros Majó, and Roger Tudó. Their architectural approach is grounded in a profound understanding of site, climate, and available resources, reflecting an existential and material-driven

3 Urban mining, as interpreted by Ghosh, refers to «a frame of actions for the systematic management of the anthropogenic resources (products and buildings) and waste, featured by long-term goals for the environmental protection, stressing both the protection of renewable resources and the economic advantage». In Gosh, S. K. (2020) Urban Mining and Sustainable Waste Management. Springer.

4 The historical practice of recycling materials, such as bricks, and stones, in ancient civilizations like the Roman Empire is documented in discussions on the evolution of resource reuse and sustainability. See, for example, Park Associati. (s.d.). Urban Mining. Park Associati. Retrieved April 20, 2025, from https://parkassociati.com/urban-mining.

5 Jacobs, J. (1969). The Economy of Cities. Random House, p. 56.

theory of architecture[6]. Rather than emphasizing stylistic representation, Harquitectes focuses on the intrinsic performance of materials and structures, allowing construction techniques and environmental conditions to shape the design. In this sense, their projects avoid rigid functional definitions, instead creating spaces determined by structural character, wall thickness, and tactile qualities[7].

By working predominantly within their native region, they maintain a close relationship with the climatic and material context, reinforcing architecture as an extension of existing cultural and environmental conditions[8]. Harquitectes advocate for a transhistorical perspective, seeing historical structures not as static artifacts but as living layers to be reorganized and extended; their work embodies a quiet permanence, rooted in the elemental realities of construction and human experience, as they stated, "Architects manage what already exists and must reorganize it"[9].

The social housing project in Palma de Mallorca by Harquitectes exemplifies the application of urban mining

6 This concept is described in Márquez, F., C., Levene, R., C. (2020). "Aprender a vivir de otra manera: learning to live in a different way". In El Croquis, Harquitectes: 2010 2020, n. 203.

7 These design concepts are discussed in depth in Fernández-Galiano, L. (2018). "Harquitectes: appropriate, attractive, affordable". In AV monografías, n. 202. Arquitectura Viva SL. Or in Harquitectes (2016). Harquitectes. 2G (74). Koenig Books.

8 This concept relates directly and profoundly to the theory of Critical Regionalism as articulated by Kenneth Frampton. Critical Regionalism advocates for an architecture that is rooted in the specificities of place — climate, topography, and material culture — while resisting the homogenizing forces of global modernism. Frampton, K. (1983). "Towards a Critical Regionalism: Six Points for an Architecture of Resistance.". In The Anti-Aesthetic: Essays on Postmodern Culture, edited by Hal Foster, pp 16-30. Bay Press.

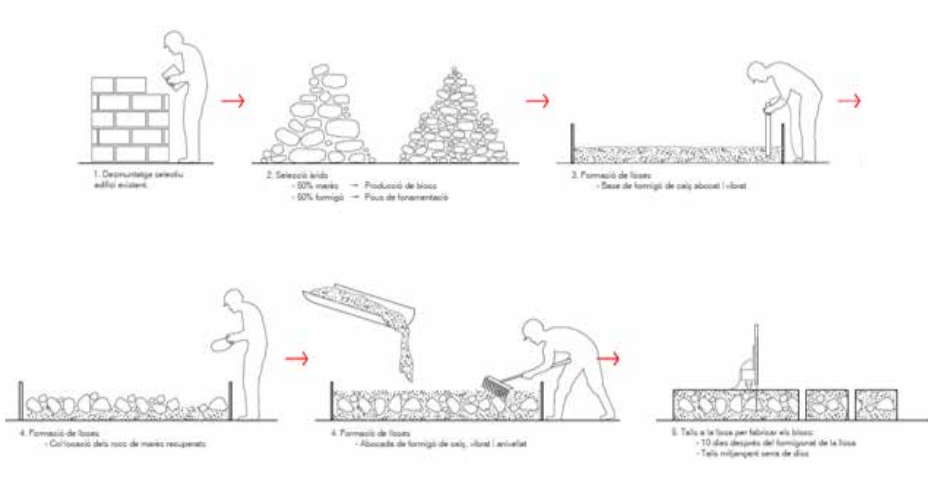
9 See the interview of Andrea Crudeli to Harquitectes in Crudeli, A. (2021). "Building a Cultural Identity. A Focus on Catalonia, Spain, and the Works of H Arquitectes". In Cities' Identity Through Architecture and Arts, edited by Mohareb, N., Cardaci, A., Maruthaveeran, A., Cavalagli, N. Springer Nature Switzerland, Cham, pp. 97-102.

principles to contemporary architecture. Situated on a deteriorated, disused school, the project reuses materials from the demolition to construct a new building, minimizing environmental impact and material waste. Structural marès stone walls[10], ceramics, and concrete were selectively processed: ceramic and concrete rubble were poured into foundation pits, while sandstone was incorporated into large, prefabricated lime-cyclopean concrete blocks. These blocks, decreasing in thickness with each floor, structure the building's load-bearing walls, supporting laminated timber ceilings and informing the spatial layout. The façade reveals the progressive thinning of walls and the embedded aggregates, highlighting the expressive quality of the reused materials. Prefabrication enabled rapid construction, with only three workers assembling one level per month. Initially experimental, the process evolved through hands-on trials, with an aesthetic appreciation emerging from the visible textures of exposed stones and saw marks. The project demonstrates how adaptive reuse[11], through careful material experimentation and innovative assembly techniques, can create sustainable, architecturally distinctive buildings. As Harquitectes explains: "When you don't use fossil energy, you get closer to what the real experience of architecture is"[12].

10 Marès stone is a traditional sandstone native to the Balearic Islands, particularly Mallorca. Soft and easy to carve when freshly quarried, it hardens over time, making it a durable and versatile material widely used in Mallorcan architecture for centuries. Its warm color and porous texture give historic buildings in the region their characteristic natural appearance.

11 To explore more the concept of adaptive reuse in the works of Harquitectes see: Crudeli, A., Tesei, L. (2024), "Riuso adattivo del patrimonio culturale per la valorizzazione dei centri storici e l'incremento della resilienza climatica, un caso studio a Barcelona". in Beyond the Gaze, Interpreting and Understanding the City, edited by Svalduz, E., Ippoliti, A. AISU, Ferrara, pp. 766-767.

12 Crudeli, 2021.



Building technique. Drawings by Harquitectes

Reused material, marès stone. Photo by Harquitectes

Precast concrete blocks mixed with recycled marès stone. Photo by Harquitectes

Construction site. Photo by Harquitectes

Social housing 2104, the final structure. Photo by Harquitectes

session 9
pedagogy

DEBRIS*MOVERS*

a new park typology constructed from demolition waste

Zofia Krupa
ETH Zürich

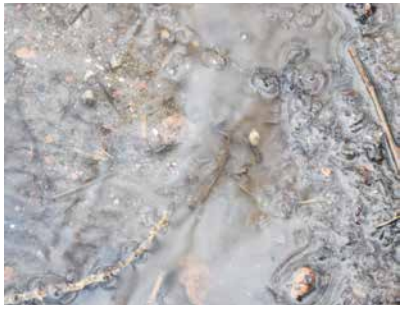
Four movements

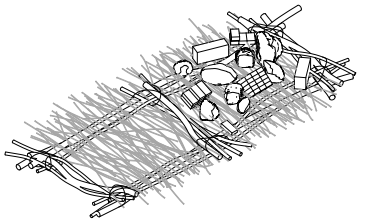
Building on the historical context of post-WWII debris removal in Poland, my master's thesis addresses construction and demolition waste in contemporary Warsaw. To initiate systemic change, I propose repurposing an existing landfill and its surrounding area as a testing ground for a new approach to debris disposal. By redirecting material flows to this site on the city's outskirts, I aim to create a park composed of debris deposits. The site offers an opportunity to transform a neglected area into a space for residents and the broader Warsaw community.

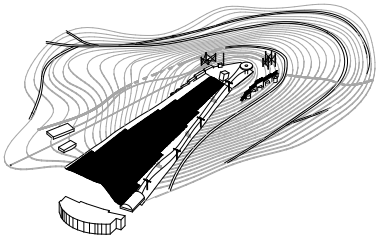
During WWII, 12,738 buildings were destroyed in Warsaw, amounting to 75.2% of the city's urban fabric and leaving behind 22 million cubic meters of debris. A 1946 report highlights this devastation, which prompted new urban developments and innovative uses of rubble. The rebuilding process introduced new construction technologies and architectural expressions.

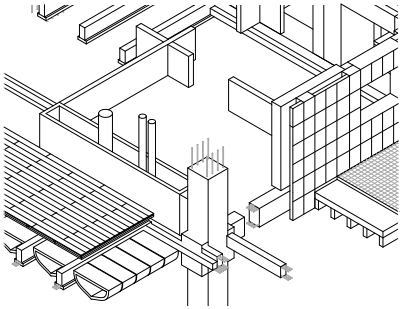
I have identified four approaches to using debris after WWII: Earthwork, Landfill, Transformation, and Reuse.

However, much of this knowledge was lost after Poland's transition from socialism to capitalism in 1989, alongside building industry growing back after the war.









1-2 Earthwork - regulation of the Vistula River, 3-4 Landfill - ski slope on the Szczesliwicka Mount, 5-6 Transformation - rubble concrete used in Kolo II Housing Estate, 7-8 Reuse - railway tracks from destroyed airport - my Family House

Radiowo

Landfilling remains the primary method for managing debris. The City of Warsaw tackles old landfills by "naturalising" them. In Radiowo, a new ski slope will be built on top of four million cubic meters of waste. However, to take over its activities, a new waste facility was built on the other side of the city. This story poses a paradox, with history repeating itself as precious knowledge is forgotten and debris once more reduced to waste.

Radiowo, landfill heap.

My intervention focuses on Radiowo, an industrial area featuring a 44-meter-high landfill and a waste processing facility. Although plans exist to transform the landfill into a ski slope, Radiowo's isolated location, high energy demands for ground stabilization, and lack of biodiversity make this model unsuitable. Unlike Warsaw's successful post-war debris ski slope in a central park, Radiowo requires a different vision.

My proposal seeks to integrate the industrial landscape with the surrounding forest with habitats like meadows and heathlands, creating a new type of park.

The park's main elements include:

- A central axis along a 15-meter-wide ride created during recent gas pipeline construction,
- The landfill heap,
- And the waste facility, to be reopened and expanded for sorting activities.

Organisation

Upon arrival, debris is sorted and then moved along the central axis. Walking along the main axis offers an experience of the constantly evolving deposits of debris, which change with the addition or removal of materials and the influence of seasons and vegetation. These deposits gradually form a new forest "facade" opposing the omnipresent forest on the side. Behind the debris piles, where the debris meets the forest, the most biodiverse environment is created—ecotone - border of different ecosystems. The visitors are constantly contradicted by the "wild" nature of the forest and the "other" nature of debris piles.

Map of the park in Radiowo.

Debris is organized in two ways, simultaneously growing and decaying:

- Architectural Elements: seating, ramps, stairs, retaining walls, and fountains.
- Piles: Smaller debris fractions are heaped to create habitats for vegetation and wildlife.

	element	*size*	*angle of repose*	*structure*	*ecology*	*body*	*use*	
A	pieces of walls, beams, lintels, paving slabs	max 0,4 x 1 m / 0,3 x 2m	90 °	+++	+		sheds, ramps, stairs, walls, fountains	
B	bricks, breeze-blocks	0,25 x 0,12 x 0,65 m / 0,25 x 0,238 x 0,375 m	90 °	++	+	++	ponds, benches, stairs, fountains	
C	<1 brick >½	0,125 x 0,06 x 0,65 m	90 °	+	++	+	ponds, benches, stairs, fountains, piles	
D	debris fraction	> Ø 40 mm	35 °	+	+++		piles	
E	debris fraction	Ø 5 - 40 mm	30 - 35 °	+	+++		piles	
F	debris fraction	< Ø 5 mm	25 - 30 °		+++		piles, bricks	

Table, sorting of debris and their possible use.

The park reflects both resisting and yielding to gravity, as seen in the work of post-war debris-movers. These forces interact, creating a dynamic system where materials intersect, overlap, and continually shift between states of growth and decay.

Representation

Designed for perpetual transformation, the park will never be “finished.” It will evolve with the climate, seasons, vegetation, and human activities while serving as a repository of historical construction materials, documenting their use and persistence over time.

To illustrate these concepts, I used collage as a primary medium, combining site photographs with models of debris structures. Photoshop AI tools helped simulate seasonal changes, emphasizing the park’s continual evolution.

Collages of the park.

SYMVIOSIS
Children Cemetery

“..If the greatest lesson is a matter of death, then it is a matter of life..”

Eleni Yiapoutzidi Karra
KU Leuven , Faculty of Architecture (Master)

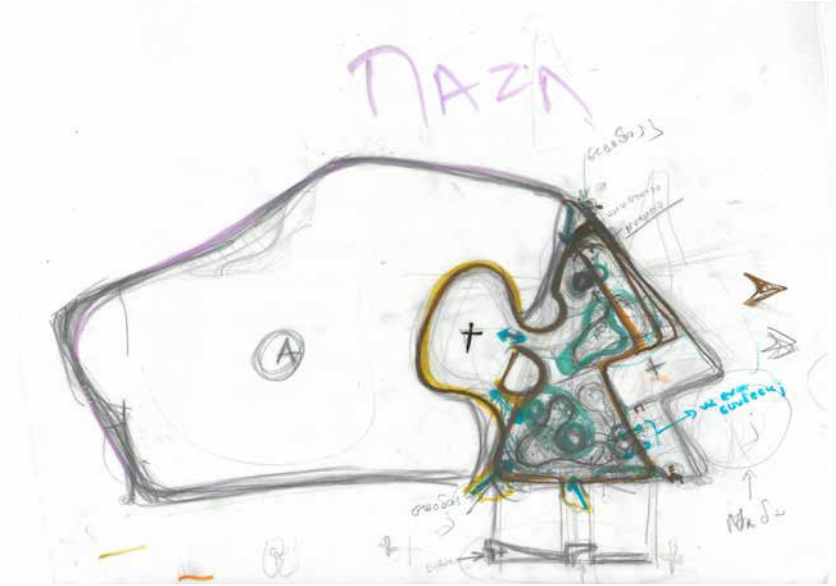
Eleni's Yapoutzidi Karra architectural practice:

Eleni's architectural practice is grounded in conceptual research and driven by a desire to critically and emotionally engage with the complexities of contemporary life. She sees architecture not just as building, but as a medium for reflection, transformation, and inquiry. Her practice uses architecture to convey emotions and experiences, provoking reflection through experiential designs. She blends different artistic mediums like film, draws etc. The practice emphasizes empathy and creative resistance, fostering connections among humanity and the built environment.

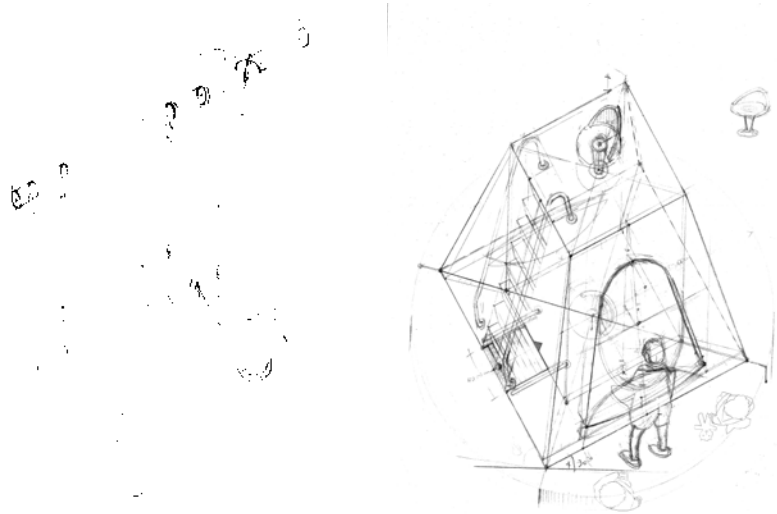
«...Lots of time I metaphor our world as a big luna park. This interpretation of noetic "playgrounds" often helps me to explore unexplained concepts, values in the context of a complicated society. The concept of "playgrounds", for me, is capable of creating images and relationships able to blur the boundaries between different disciplines. .....As an architect I feel that sometimes it's more radical to design the "end" than trying to create systems to design the future. Following that phrase, we will be more ambitious rather than pessimists because we understand better our actual problems in our society. Creating the "end" will give birth to a new life....I believe that we, Architects must harness the tensions of our contemporary era as catalysts for transformation, using them to help reshape and regenerate more resilient and humane societies.»

This research project is part of my individual thesis for my first Master's degree and is about urban transformation. Its design tries to encourage as much osmosis as possible between different creative fields. Final scope is to mirror the importance of each form of public space in our lives and in our deeper educational development, through the experience they offer us. More specifically, it explores radical architectural strategies that transform infrastructures of fear into spaces of creative resistance and "health" heritage.

source: Al Jazeera



Draws of the process. Finding the wright shape to adopt on the existing situation.



Axonometric draws of selected symbols-toys of koimeterion

World is suffering from intense crises, whether environmental, wars, racism, pandemics, discord...
Also, the world's population is increasingly living in a confined, densely populated area. This puts great pressure on existing infrastructure. This should lead us to rethink existing space into multifunctional places. Our planet is facing countless, unstoppable losses of species, ecosystems and land due to human activity.

The research is linked to a personal traumatic experience and a wider reflection on ways of familiarising children with loss, considering the negative impact it can have on their mental health causing them psychosomatic, post-traumatic problems later, due to lack of preparation & educational background.

The future is intertwined with children, who are the main axis of this project.The project regards a thematic park based on the experience of death revolving around two main aspects: a symbolic playground and a children cemetery.

Various globally recognized symbols and meanings of loss from different cultures are used, while at the same time they are transformed into playground equipment-toys, giving children the opportunity to discover them through play. All this indicates the peaceful coexistence of nations and cultures in a space accessible & open for all with final aim of shaping the future through the re-education of new generations.

In Homo Ludens, Johan Huizinga talks about the playground as a 'sacred space':

" the Arena, the card table, the magic circle, the temple, the stage, the screen, the tennis court, are all in form and function playgrounds, forbidden spots, isolated, hedged round,hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart. Inside the playground an absolute and peculiar order reigns.Into an imperfect world and into the confusion of life it brings a temporary, limited perfection".

Finally, the project is supported by a personal research-analysis, which includes three videos recorded during the research, partly conducted in Greece and the Netherlands. One of the videos features an in-depth interview with Dr. Bargiotas, a Psychiatrist–Psychotherapist and member of the Royal College of Psychiatrists of Great Britain. The other videos explore children's relationship with death and their level of familiarity in and with cemeteries, as well as what "form" death takes over time—examining its societal representations and transformations from the past to the present.

scenes of different places through research video / process

top plan

section A- A'

THE DESIGN

The research takes place indicatively in the city of Hermoupolis on the island of Syros. More precisely, the cemetery-park is situated between the orthodox cemetery of Aghios Georgios and the British cemetery.

The cemetery-park design utilizes the terrain. The path, on the northern side, provides elevated views of both the British cemetery and the children's cemetery-park, giving the space a museum-like quality.

At the main eastern entrance, Zone (A) features a play area where children's first encounter with the symbols and concepts of death occurs. Here, symbols are transformed into toys, creating a playful atmosphere- a space to explore. Zone (B) is an underground burial area with subdued lighting, offering a quieter, contrasting experience. Upon exiting the "underworld", the path out is illuminated, guiding children the path to "return". On their way out, children encounter a large wall where they can draw, allowing them to capture and process their experience, which may aid in reflecting on and analyzing their emotional journey.

«....When this fear becomes public panic, it's when we have the greatest decadence. In the cruel reality we live in, the familiarity with loss in general is an important key for a more balanced symbiosis both with one's own self and with society in general. This will foster a society that supports all life.

Obviously we cross a time of great mourning. Our reality is that we can't get rid of grief.....»

source: Getty Images

Faking it or Making it

Scarcity and Abundance: Making Architecture with What Is at Hand

Tomas Ooms
KU Leuven
studio tuin en wereld

The design studio Faking it or Making it explored how architecture could emerge from the constraints of material scarcity and the hidden abundance found in what was already at hand. It critically examined the current discourse on circularity, moving beyond the promises of future reuse to engage directly with the unpredictable, often messy reality of working with reclaimed and salvaged materials. Through urban mining and material reclamation, students confronted fluctuating material availability, inconsistent quality, and the absence of standardized resources.

At the core of the studio was a central provocation: what did it mean to "fake it" or "make it" in architectural practice? Participants navigated this spectrum by experimenting with approaches ranging from authentic reuse to imaginative simulation. Constraints were not treated as limitations but as opportunities for innovation. Scarcity became a catalyst for design exploration, while abundance was redefined as the latent potential of overlooked, discarded, or undervalued materials.

The studio engaged with a series of active construction sites, where originally planned materials had become (fictionally) unavailable. Students responded by sourcing alternatives from demolition sites, salvage yards, and local networks. These shifting, real-world conditions demanded an adaptive and flexible design process—one capable of evolving in response to material discoveries and logistical uncertainties.

The fragment and the architectural detail became key sites

of experimentation. Rather than being seen as peripheral, these elements were treated as entry points for reimagining spatial and material strategies. Students embraced imperfection, irregularity, and mismatch, uncovering new aesthetic and conceptual possibilities in the process. Through iterative prototyping, physical modeling, and speculative design proposals, they developed responses that were both contextually grounded and materially inventive.

The studio emphasized agency: students acted as designers, fabricators, researchers, and critical thinkers. "Making" served as the primary method of inquiry, encouraging hands-on engagement with material constraints and opportunities. Participants defined their own architectural stance within the continuum of "faking it" and "making it," challenging conventional notions of authenticity, completeness, and perfection in architecture.

Throughout the semester, the studio focused on the unpredictability of material flows, energy, and information. Students worked with reclaimed materials of varying quality and quantity, learning to accept—and even celebrate—uncertainty as an integral part of the design process. Adaptive reuse was not treated as a fallback but as a creative act that allowed architecture to thrive within the tension between scarcity and abundance.

The studio culminates in a small exhibition held during the conference, where students presented works-in-progress that documented their design approaches, material

experiments, and speculative spatial interventions. The exhibition showcased how reclaimed fragments could drive innovative architectural thinking, and how unexpected constraints could yield surprising design solutions.

In rethinking what it meant to “make” architecture in a world defined by ecological challenges and shifting material realities, the studio offered participants a platform to test, question, and redefine their design values. Faking it or Making it enabled students to embrace the unpredictable, discover new forms of agency, and explore how architecture could respond—resourcefully and resiliently—to the conditions of our time.

Students: Ester Barteková, Markéta Marie Elbel, Sólveig María Gunnarsdóttir, Judith Hoerder, León Hülsenbeck, Romy Khoury, Lennart Eric Knospe, Remi Koumakpayi, Duncan Manthous, Pedro de Abreu Lopes Francisco Nunes, Noa Richard, Tianfang Shi, Yifeng Sun, Hugo Villa Gamboa, Leonhard von Zumbusch, and Mirte De Wever.

Fig 1 Construction site as site of interest

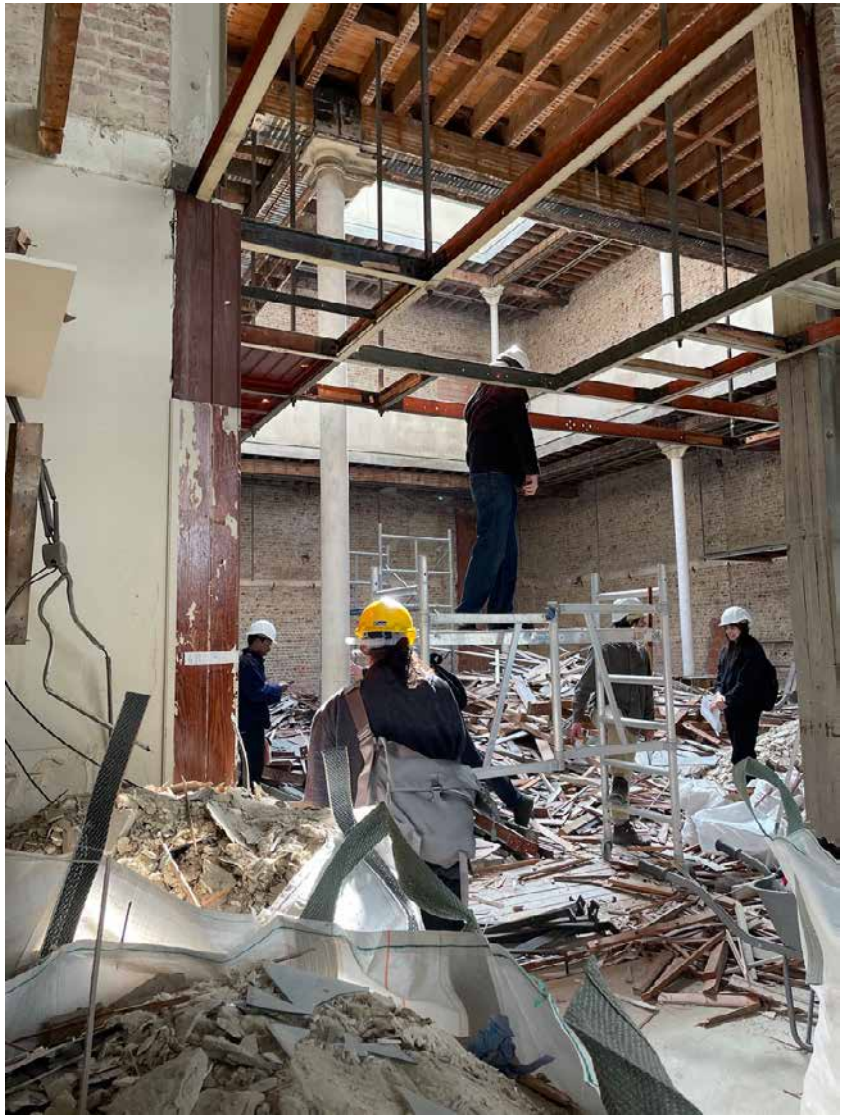


Fig 2 Construction site mapping 5

Fig 3 document inventory documenting Judith Hoerder and León Hülsenbeck

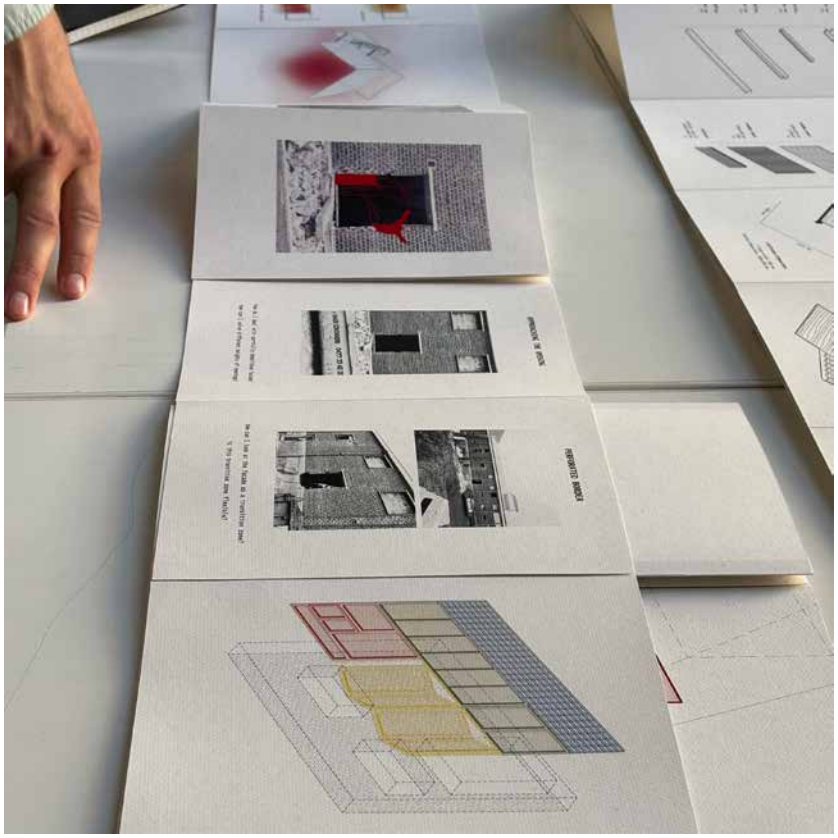


Fig 4 Construction site mapping Markéta Marie Elbel

Fig 5 construction site mapping copy Sólveig María Gunnarsdóttir

Fig 6 On site serendipitous interventions Noa Richard

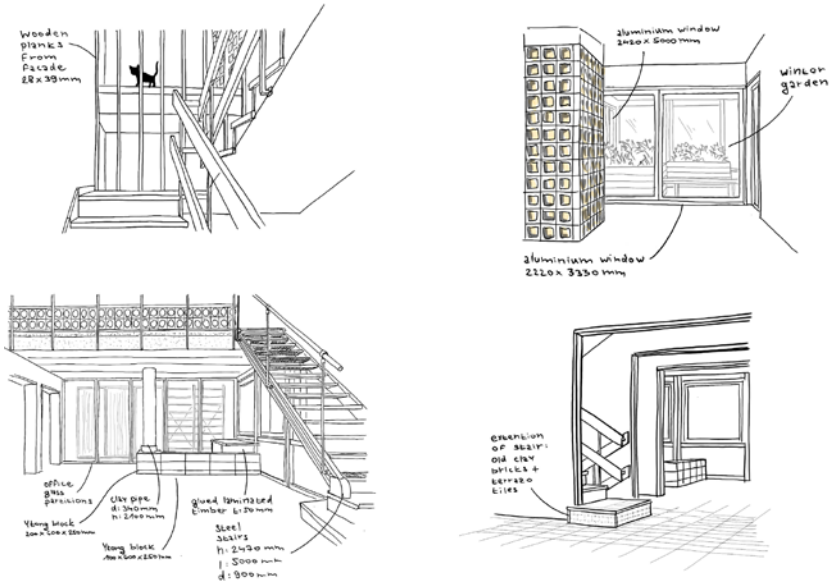


Fig 7 working with_Ester Barteková

RECLAIMING UNCERTAINTY

Pedagogy for material flows in architecture

Matthew Dylan Anderson and Nicolas Ibaceta Zamora
Experimental Construction
The Oslo School of Architecture and Design

Rethinking material flows

The radical redistribution of building materials through demolition and transformation is a reality that architects must critically engage with. Increasingly, practitioners are turning to reclaimed and harvested materials – not just out of necessity, but to rethink architecture's relationship to material flows. This shift challenges design approaches and pedagogies that traditionally subordinate materials to authorial intent, demanding instead an architecture that begins with what is at hand and embraces unpredictability as a generative tool.

Yet uncertainty is not confined to reclaimed materials. 'New' materials, too, are subject to fluctuating costs, supply chain disruptions (as exemplified by the 2021 Suez Canal obstruction), geopolitical instability, and climate change. Recognizing material instability as systemic, architectural methodologies must reorient to work within, rather than against, such volatility. This requires moving material reuse beyond an aesthetic or ethical niche into a central practice engaged with the complexities of contemporary material flows.

Pedagogy as real-world practice

This contribution reflects on an ongoing experimental pedagogical project – a collaborative design/build course led by the authors and implemented in two European architecture schools to date. While recognising that pedagogical environments differ from autonomous architectural practice, we frame the course as a mode of pedagogic practice – a space where students confront real-world material uncertainties to develop reflexive, adaptive design methodologies that challenge disciplinary norms. Here, design shifts from controlling outcomes to negotiating relationships between materials, users, sites, and broader contingencies of supply and logistics.

Even within architecture education, institutions often remain ill-equipped to handle materials that have already lived lives. Small discoveries – such as a 110 year old nail in a piece of reclaimed wood – can disrupt planned processing methods and alter entire project trajectories.

Materials as active agents

The course challenges students to engage reclaimed materials from the outset, framing them as active agents within an iterative design/build process. Students explore material affordances through physical experimentation and handcraft, liberating materials from their original purposes. This materially grounded approach is paired with a focus on collective representation – students across the two schools develop shared drawing methods and narrative devices that capture the evolving nature of the project.

We situate this reflection within broader theoretical discussions of material agency, non-anthropocentric design practices, and the role of pedagogy in preparing architects for unstable conditions. Conceptually, the work is anchored in “new materialist” approaches that challenge human-centred notions of material passivity, and in discourses on producing “newness” through recombination and reactivation of existing things. It contributes to ongoing experimentation with democratic design methodologies aimed at overcoming tendencies to subordinate and impose.

Through these lenses, the course operates as a laboratory for emergent forms of practice that prioritize responsiveness over control, collaboration over authorship, and resilience over optimization.

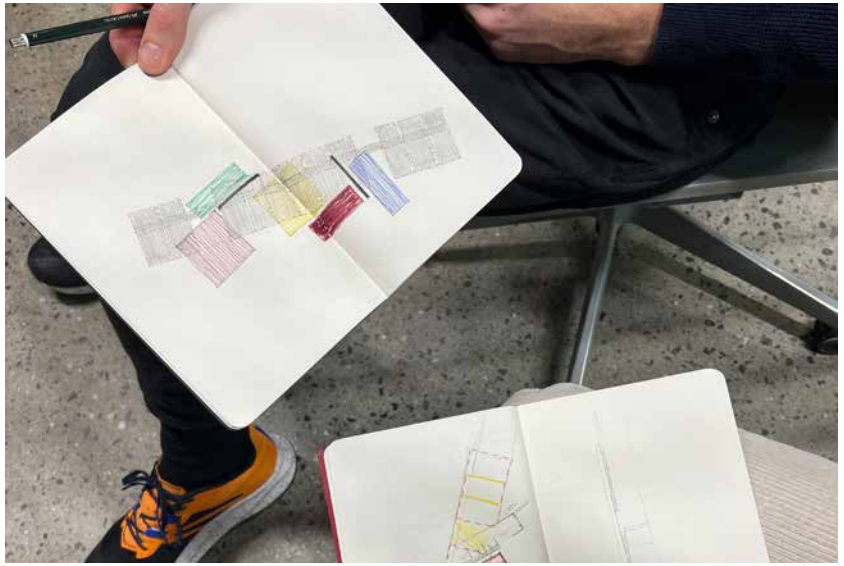
Construction as process

The culminating construction – a public sauna built primarily from reclaimed materials and scheduled for completion in June 2025 – serves not as an endpoint but as a materialized moment within longer material lifespans. The sauna embodies the tensions, adaptations, and negotiations that unfolded throughout the process. More than a structure, it is a spatio-temporal artifact of training future architects to attune to material and situational realities.

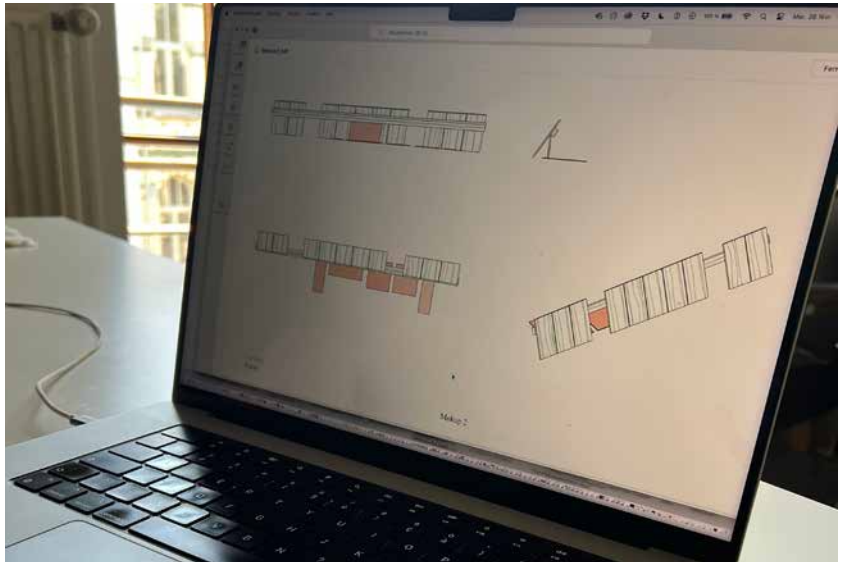
By framing reuse within an adaptive, emergent pedagogical model, this project questions dominant aesthetic and economic paradigms and proposes an alternative trajectory for architectural education – one emphasizing situated knowledge, direct engagement, and collective authorship. In doing so, it suggests that in an era of material and ecological uncertainty, pedagogic spaces can become critical sites for reimagining architectural practice.

Students return to school with sample materials from local reclamation centre. 28.01.2025, photograph by authors.

“Putting things together” – practical experiments in composing with reclaimed materials. 04.02.2025, photograph by authors.



Analogue representation – “Putting things together”. 04.02.2025, photograph by authors.



Collaborative development across schools of digital representation tools – “Putting things together”. 26.02.2025, photograph by authors.











Workshop 1:1 - stage 1 of construction to complete the structural frame and detailing. 22-25.04.2025, photographs by authors.

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