AR-402(ah)

# Studio MA2 (Malterre-Barthes)

Malterre-Barthes Charlotte

| Cursus | Sem. | Type |
|---|---|---|
| Architecture | MA2, MA4 | Obl. |
| Mob. AR | E | Opt. |

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| Language of teaching | English |
| Credits | 12 |
| Withdrawal | Unauthorized |
| Session | Summer |
| Semester | Spring |
| Exam | During the semester |
| Workload | 360h |
| Weeks | 14 |
| **Hours** | **6 weekly** |
| Courses | 2 weekly |
| Project | 4 weekly |
| **Number of positions** | |

**Il n'est pas autorisé de se retirer de cette matière après le délai d'inscription.**

## Remark

Inscription faite par la section

## Summary

How is architecture made? 'Revolutionize Construction' unpacks the political economy of construction, examining who commissions, finances, and builds, and interrogating architects' roles. It explores how these systems might be revolutionized to enable the emergence of post-extractive architecture.

## Content

**Revolutionize Construction**
Spring 2026 Design Studio
Date/Time: Mondays and Tuesdays
Monday: 10:00-12:00, 13:00-19:00
Tuesday: 10:00 - 12:00, 15:00-19:00

Office Hours as requested
Credits: 12
Location: Varies, See Studio Schedule
SG XXXX - Studio Space (tbd)

This class is taught in English.

Teaching Team: Charlotte Malterre-Barthes charlotte.malterrebarthes@epfl.ch; Elif Erez-Henderson elif.erez@epfl.ch; Antoine Iweins antoine.iweinsdeeckhoutte@epfl.ch; Nathalie Marj nathalie.marj@epfl.ch
Student Assistants: Lydia Genecand lydia.genecand@epfl.ch; Eva Outstric eva.oustric@epfl.ch.

**Teaching Format:**
Depending on enrollment, students will work in groups of two/three after the first week. Each desk crit will require the attendance of at least 2 student groups for peer-to-peer feedback. Desk crits will happen on a weekly or bi-weekly basis. All group attendance is required for episode reviews, guest lectures, mid-term, and final reviews. Please note that some lectures may be held online.

**Estimated Costs**
Day trips: max- 150-200.- (travel + food)
Prints: All materials can be printed on A3 black and white printers. Plotter prints are optional.

Model Materials: We encourage working with discarded/reused materials.

**Course Description:**
"While the construction industry participates energetically in the economic engine which is the base, architecture operates in the realm of culture, allowing capital to do its work without its effects being scrutinized." Peggy Deamer, "Introduction," in Architecture and Capitalism: 1845 to the Present, ed. Peggy Deamer (London: Routledge, 2014), 1-2.

Clients, investors, and construction companies-'Revolutionize Construction' is interested in unpacking and challenging how architecture is made, specifically the political economy of construction, including who commissions, finances, and constructs architecture and the role of architects within this construction ecology. The construction sector represents a US$10 trillion annual expenditure on construction goods and services, contributing 13% to global GDP and employing 7% of the worldwide workforce. Yet this industry-responsible for 40% of global carbon emissions, 70% of material consumption, and concealing 18% of forced labor victims-operates through obscured power structures and invisible externalities absent from balance sheets.

In Switzerland, the construction industry represents approximately 9% of GDP and employs over 500,000 people. Yet the sector operates through opaque networks of subcontracting, international supply chains extracting materials from toxic sites globally, speculative development models driven by pension fund investments, and procurement systems that prioritize cost and speed over all else. The industry is simultaneously a major contributor to carbon emissions (embodied and operational), a site of labor exploitation (particularly of precarious workers), and a vehicle for capital accumulation through land and property speculation-all wrapped under the invisible cloak of sustainability.

To truly engage with the climate crisis, housing inequity, and labor justice, we must understand the flows of capital (68% of capital invested yearly in space production), how contractors operate, how insurance companies constrain material choices, and how financial and regulatory instruments shape what gets built. The studio seeks to trace these hidden architectures of construction-the concealed agents operating behind the scenes-not as problems to be solved through design, but as complex material and political conditions that require new analytical and strategic capabilities. It is by making visible these shadow architectures that we can identify where and how to intervene, to understand these greedy systems and revolutionize them so that a post-extractive architecture can emerge and become prevalent. Informed by this critical research, we will develop projective works that imagine alternative construction ecologies. Through strategic interventions targeting both systems and buildings, we shall articulate speculative proposals for how architecture might operate within-and against-existing construction frameworks.

NB: This studio is part of the 'Moratorium on New Construction' cycle, one of RIOT's meta agenda, following a series of topics seeking to center systemic change in architecture and the building industry. This means the class will prioritize radical designs that engage with repair, remediation, care, tactical interventions, system design, and policy making, and interrogate architecture as the sole 'art of building buildings.' Architecture is here at the forefront, considered both as a problem and as a powerful tool for change, if and when it is used as such. The title of the present studio refers to Chapter 05 of the book "A Moratorium on New Construction" (Sternberg, 2025), understanding that a moratorium is not an end but a beginning-a design brief for reimagining how we commission, finance, construct, maintain, and inhabit our built environment without devastation.

**Site & Trip**
We will work in real-life conditions in the context of Switzerland.

**Scales**
This studio is based on a conception of urban design as a multidimensional trans-scalar discipline. Not only political, economic, social, cultural, and geo-tectonic forces affect and shape the built environment at the planetary and global scale, at the territorial and landscape scale, at the neighborhood and urban scale, down to the architectural and material scale - and to the body of the human and more-than-human, but space and its arrangements have a reciprocating effect on these forces, humans, and non-humans acting upon them. We will design within these gradations, positing that each constituent scale is distinct and can be considered on its own, yet the piece as a whole is only complete with each scale, resulting in the sum of all the small scales producing a large-scale total. The studio engages with complex issues surrounding the political economy of space production, the actors, forces and mechanisms that generate the spaces we inhabit. We will also think around temporal scales to challenge "impatient capital" as it dictates architectural, urban, and landscape projects for immediacy, exploring seemingly contradictory notions of ephemeral and impermanent, durable, and longevity as frameworks for operation.

## Keywords

architecture, urbanism, practice, labor, political economy

## Learning Outcomes

By the end of the course, the student must be able to:

- Critique
- Structure
- Compose
- Argue
- Analyze

## Expected student activities

The studio's goal is to articulate questions about design's role in inventing futures liberated from the debilitating inert structures we find ourselves entrenched in, facing social and climate crises. We will deploy designers' skills and organizational abilities to propose emancipated urban design and architecture projects. We shall develop the ability to think critically about the status quo while exploring ways of engaging with both the built and unbuilt environments, pushing forward forms of spatial practice. For this, we will develop literacy in policy, economics, technology, intersectional activism, care, preservation, and other related fields, borrowing from different disciplines and learning to doubt while staying hopeful as we help planning disciplines pivot toward better practices of stewardship.

**Learning Outcomes**
The studio's goal is to develop literacy in the political economy of construction -understanding finance, investment, labor, supply chains, regulation, and technology as architectural questions. Students will learn to

- Map complex actor networks and capital flows in construction
- Analyze how invisible actors shape what gets built
- Identify intervention points within construction systems
- Deploy design skills toward systemic change rather than individual building
- Articulate strategies for post-extractive construction practices
- Think critically about architecture's role and complicity in extractive industries
- Develop abilities to work across scales: from material specifications to financial instruments to policy frameworks

We aim to develop practices that challenge the status quo, exploring how architects can leverage their organizational proficiencies and positional knowledge to revoluzionize the sector.

## Assessment methods

The grading will be based on consistent engagement and learning/unlearning curve of the students with each episode in the Studio. The grades will be proportionately distributed over the episodes listed as follows. The studio relies on self-assessment questionnaires to help with the grading.

- Episode 01: 10%
- Episode 02: 15%
- Interlude: 5%
- Episode 03, Phase 01: 20%
- Episode 03, Phase 02: 50%

## Supervision

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| Assistant.e.s | Yes |

## Resources

### Bibliography

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• Zimmerman, Claire. Albert Kahn Inc. Architecture, Labor, and Industry, 1905-1961. Cambridge: MIT Press, 2025

• Malterre-Barthes, Charlotte (ed.). On Architecture and Work, Berlin: Hatje Cantz, 2025.

**Real Estate and Development:**

• Stevens, Sara. Developing Expertise: Architecture and Real Estate in Metropolitan America. New Haven, CT: Yale University Press, 2016.

• Oosterman, Arjen, ed. Volume 14: Art & Science of Real Estate. Amsterdam: Stichting Archis, 2014.

• Andrachuk, James, Avi Forman, Christos Bolos, and Marcus Hooks, eds. Perspecta 47: Money. Cambridge, MA: MIT Press, 2014.

**Political Economy of Construction**

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• Ferro, Sérgio. "Concrete as Weapon." In Architecture and Labor, 2002.

• Dharia, Namita. The Industrial Ephemeral: Labor and Love in Indian Architecture and Construction. Duke University Press, 2023.

**Extraction and Material Flows**

• Mameni, Salar. "Petrorefusal: Toward a Theory of Refusal in the Terracene." Catalyst, 2024.

• Mejía Moreno, Catalina. Environmental Violence in Colombia. [Publication details TBD]

• Mezzadra, Sandro and Brett Neilson. The Politics of Operations: Excavating Contemporary Capitalism. Duke University Press, 2019.

• Hutton, Benjamin. "Material Politics." [Publication details TBD]

**Property, Law, and Speculation**

• Bhandar, Brenna. Colonial Lives of Property: Law, Land, and Racial Regimes of Ownership. Durham, NC: Duke University Press, 2018.

• Blomley, Nicholas. Unsettling the City: Urban Land and the Politics of Property. Routledge, 2004.

• Abramson, Daniel. Obsolescence: An Architectural History. University of Chicago Press, 2016.

• Madden, David and Peter Marcuse. In Defense of Housing: The Politics of Crisis. Verso, 2016.

• Stein, Samuel. Capital City: Gentrification and the Real Estate State. Verso, 2019.

**Post-Extractive Futures**

• Ouassak, Fatima. Une Écologie Pirate. La Découverte, 2023.
• Tsing, Anna. The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins. Princeton University Press, 2015.