

AR-402(ah)

**Studio MA2 (Malterre-Barthes)**

Malterre-Barthes Charlotte

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

Language of teaching	English
Credits	12
Withdrawal	Unauthorized
Session	Summer
Semester	Spring
Exam	During the semester
Workload	360h
Weeks	14
<b>Hours</b>	<b>6 weekly</b>
Courses	2 weekly
Project	4 weekly

**Number of positions**

**It is not allowed to withdraw from this subject after the registration deadline.**

**Remark**

Inscription faite par la section

**Summary**

This studio explores construction materials, their origins and supply chains, the norms that regulate their use, and deploys that as a brief to explore how a post-extractive architecture could emerge and become prevalent.

**Content****Halt Extraction**

Spring 2025 Design Studio

**Instructors:**

Charlotte Malterre-Barthes, charlotte.malterrebarthes@epfl.ch

Kathlyn Kao, kathlyn.kao@epfl.ch

Antoine Iweins, antoine.iweinsdeckhouette@epfl.ch

Elif Erez-Henderson, elif.erez@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. Note that some of the lectures may be online.

This class is taught in English.

**Course Description:**

Nota Bene: 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 but also as a powerful tool for change, if and when it is used as such.

**Halt Extraction**

"You know that we are living in a material world," Madonna, Matthew E. Marston / Paul Christopher Brown, © Sony/atv Songs Llc, Iagem Publishing Ltd.

'Halt Extraction' scrutinizes the intersection of design disciplines with extractivism and resource exploitation, focusing on developing post-extractive architectural and urban design strategies. The studio investigates how construction materials transform the Earth's resources into our built environment through global and local supply chains, and how design can contribute to post-extractive architectures. Grounded in arguments explored in the forthcoming book "A Moratorium on New Construction," we seek to address the political problems of construction as designers.

The course progresses through two main phases: 1) The research phase establishes a comprehensive understanding of how design disciplines intersect with extractivism and resource exploitation through mapping the global and local chains of construction materials and uncovering the normative systems in place that regulate their use in design strategies. By investigating construction materials (i.e., plaster, wood, concrete, brick, steel) and their political economy (how value is extracted from them), we hope to unpack how the industry translates the Earth's resources into our built environment. We also seek to understand the normative regulations, specs, and legal frameworks that dictate how these materials are deployed in construction. 2) Framed by these regulatory limits and equipped with critical thinking, we will devise design strategies that do not rely on destruction and exhaustion to produce spaces. During the design phase, building on this foundation, we will engage with mainly existing structures rather than defaulting to new construction, using current market conditions as testing grounds for alternative approaches.

### Site

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.[2] 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

### Teaching methods

#### Structure/Method

Choreographed by episodes that set the tone both graphically and analytically, the studio will explore the complex networks of material extraction, supply chains, and construction practices that shape our built environment. Students will be asked to engage with construction materials, their origins, and the normative systems that regulate their use. Investigating material lifecycles, from extraction sites to architectural applications, we will produce works in various formats (i.e., diagrams, drawings, supply chain maps, and material documentation) that will help us understand and articulate the interconnections between Earth's resources, global trade, and architectural production. While engaging in this research, we will gain literacy in material specifications, building codes, environmental regulations, and the political economy of construction materials. We will ultimately draft and draw strategies for post-extractive architectural interventions. The studio articulates design as the product of geological, environmental, economic, and political mechanisms while seeking to imagine futures liberated from destructive construction practices. Traditional architectural

representation methods will be employed (i.e., plans, sections, models) but reframed through the lens of material origins and impacts. Episodes are paced across the semester with a counter-crescendo, first rapid and later slowing down to let the project emerge.

In parallel, the studio also conducts a self-critical reflection on its format to question architecture attachment to solutionism, the expectation to 'fix problems', and other tropes that have led to socially and spatially unjust situations. It also acknowledges the limitations of critique within a discipline which has not faced its complicit role in the current climate and social crisis. We are aware that seeking engagements with actors and communities within the given format of the studio is limited. Yet within these given limits, we strive to produce works that have pedagogical value beyond the expected formats.

Note: The structure and method of this studio follows prior RIOT-led design studios. As such, we do not recommend students to take studio with us more than once.

## Expected student activities

### Learning Outcomes

The studio seeks to bridge the gap between material extraction and architecture and to articulate questions about designers' role in inventing futures liberated from the destructive systems construction relies upon. In the face of an unprecedented social and climate crisis, we seek to critically engage with the tensions brought by modernity, without relying on romanticized pre-modern materialities. On the one hand, we will deploy and expand the 'classic' tools of spatial representation at our disposal (sketches, 3d, plans, sections, details, model, renderings, etc.). We will use drawing as a research device, in particular, to uncover supply chains and architectural precedents. On the other hand, we will seek to expand our design toolbox to engage with the complexities of what a post-extractive architecture can be and new tools (various media, narratives, performances, etc.).

The course recognizes that construction materials are deeply embedded in complex historical and contemporary contexts. Through research, readings, and field work, we will get insights on how materials used in construction today are grounded in "past, present, and future extraction and production processes (...) extracted from lands with a long history of unjust exploitation of colonized or marginalized group - racialized and gendered bodies - processed through energy-hungry, mechanized methods that have disastrous impacts on ecologies and populations globally, then and now." [1]

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

- Critique a specific project brief and a specific context and respond with a meaningful data-driven design concept.
- Translate a data-driven design concept into meaningful architectural and/or urban practice propositions at appropriate scales and levels of granularity.
- Produce coherent architectural representations at sufficient levels of detail.
- Formulate the morphogenetic narrative and create convincing arguments for the design propositions.
- Develop convincing final diagrams, drawings, renderings, simulations, and digital or physical models.

## Assessment methods

### Evaluation/assessment

The grading will be based on the 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 questionnaire to help the grading.

- Episode 01: 10%
- Episode 02: 20 %
- Interlude: 10%
- Episode 03: Phase 01 > 20 %
- Episode 03: Phase 02 > 35 %
- Reading Sessions & Overall Participation: 5%

### Critical Reading Sessions/Lectures

A lecture series "Architecture of Extraction" (half in-person/ half online) is integrated into the studio, with 4 lecturers

invited to tackle topics relevant to the topic. Readings chosen by the guests will be used to prepare the lectures. We will dive into these readings, which will be discussed in a guided *Critical Reading Session* before every talk. At the semester start, a group of students will be designated 'experts' to prepare the reading for each Critical Reading Session, and another group 'respondents' - During the reading session, the students 'experts' are expected to prepare the readings and give background info on the text/author/topic/context, etc. and what they have learned, and ask questions. Active participation from all is required. The 'experts' students group will be the first to ask the lecturer questions after their talk - respondents may prepare questions. Everyone else is welcome to join the conversation at their leisure. Attendance to reading sessions and online lectures is mandatory.

### Hello Sessions

The Hello Session is the check-in, arrival, Monday morning dread-shaking entry into the studio, the week, and the present. We will have an open round of discussion on the state of the world, our mental health, and our workload, and we hope to create an environment as safe as possible where we can discuss how we wish to step into the week/work ahead. This is a place to voice respectfully topics that we care about, that may or may not concern the studio directly but allow us to feel comfortable in our work environment.

### Supervision

Assistants                      Yes

### Resources

#### Bibliography

- Arboleda, Martin. *Planetary Mine: Territories of Extraction under Late Capitalism*. Brooklyn: Verso Books, 2020.
- Bennett, Jane. "Vibrant Matter : A Political Ecology of Things," in *A Life of Metal*. Durham: Duke University Press, 2010.
- Clement, Gilles. *The Planetary Garden*. Philadelphia: University of Philadelphia Press, 2015.
- Coole, Diana and Samantha Frost, eds, *New Materialisms: Ontology, Agency and Politics*, Durham and London: Duke University Press, 2010
- Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspectives" in *Feminist Studies*, 1988. pp. 575-599.
- Demos, T. J. *Beyond the World's End: Arts of Living at the Crossing*, Edited by collection e-Duke books scholarly. Durham: Duke University Press, 2020.
- Dolfijn, Rick and Iris van der Tuin, eds, *New Materialism: Interviews and Cartographies*. Ann Arbor: Open Humanities Press, 2012.
- Eskilson, Stephen. "Structural Glass," in *The Age of Glass : A Cultural History of Glass in Modern and Contemporary Architecture*. London ; New York, NY: Bloomsbury Academic, an Imprint of Bloomsbury Publishing Plc, 2018. pp. 121-159
- Grosz, Elizabeth. "Feminism, Materialism, and Freedom," in Diana Coole and Samantha Frost, eds, *New Materialisms: Ontology, Agency, and Politics*. Durham and London: Duke University Press, 2010. pp. 140.
- Förster, Kim. "Triangular Stories: Cement as Cheap Commodity, Critical Building Material, and a Seemingly Harmless Climate Killer." in FHNW - Institut Architektur, A Helle & B Lenherr (eds), *Beyond Concrete: Strategies for a post-fossil Baukultur*. Triest Verlag, Zurich, 2022. pp. 35-65.
- Hughes, Francesca ed. *The Architect: Reconstructing her Practice*. Cambridge, Massachusetts: MIT Press, 1998.
- Hutton, Jane. *Material Culture: Assembling and Disassembling Landscapes*. Berlin: Jovis Berlin, 2018. pp. 236-251
- Hutton, Jane Mah. *Reciprocal Landscapes, Stories of Material Movements*. Routledge, 2020.
- Ibañez, Daniel, Jane Elizabeth Hutton, and Kiel Moe. *Wood Urbanism : From the Molecular to the Territorial*. New York: Actar Publishers, 2019. pp. 47-63
- Kullack, Tanja. *Architecture: A Woman's Profession*, Berlin: Jovis, 2011.
- Lebovici, Elizabeth. "This is not my Body" in ric Alliez and Peter Osborne, eds. *Spheres of Action: Art and Politics*. London: Tate Publishing, 2013, pp. 65-77.

- Lloyd Thomas, Katie. ed., *Material Matters: Architecture and Material Practice*. London: Routledge, 2007.
- Lowenhaupt Tsing, Anna. "A History of Weediness" in *Friction : An Ethnography of Global Connection*. Princeton: Princeton University Press, 2015. pp. 171-203
- Macarena Gómez-Barris, "Submerged Perspectives," in *The Extractive Zone: Social Ecologies and Decolonial Perspectives*. Durham: Duke University Press, 2017.
- Malterre-Barthes, Charlotte. "The Devil Is in the Details- Who Is It That the World Belongs To?," in *Non-Extractive Architecture- Designing without Depletion*, ed. Space Caviar. Berlin: Sternberg Press, 2021.
- Makhoul, Nagy. "(De)Colonial Social Housing. A French Legal-Architectural History," in *Unearthing Traces, Dismantling Imperialist Entanglements of Archives, Landscapes, and the Built Environment*, eds. Denise Bertschi, Julien Lafontaine Carboni, et al. Lausanne: EPFL Press, 2023.
- Marcuse, Peter. "Sustainability Is Not Enough." in *Environment and Urbanization* 10, no. 2, 1998.
- Martinez Alier, Juan. *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation*. Northampton, MA: Edward Elgar Publishing, 2002.
- Material Cultures, *Material Reform : Building for a Post-Carbon Future*, First edition. London: MACK, 2022.
- Moe, Kiel. *Empire, State & Building*. New York City: Actar D, 2017.
- Moe, Kiel. *Insulating Modernism, Physiology, Insulation, Climate and Pedagogy*.
- Ouassak, Fatima. *Pour Une Écologie Pirate: Et Nous Serons Libres*. Paris: La Découverte, 2023. pp 76-93.
- Petrescu, Doina ed., *Altering Practices: Feminist Politics and Poetics of Space*. London: Routledge, 2007.
- Rendell, Jane, Barbara Penner, Iain Borden, eds. *Gender Space Architecture: An Interdisciplinary*. London: Routledge, 2000.
- Sheena Wilson, Adam Carlson and Imre Szeman (Eds.), *Petrocultures. Oil, Politics, Culture*. Montreal, 2017.
- Solnit, Rebecca. *A Paradise Built in Hell: The Extraordinary Communities That Arise in Disaster*. New York: Viking, 2009.
- Stead, Naomi ed. (2012) "Special Issue: Women, Practice, Architecture" in *Architectural Theory Review*, Issues 2-3, Vol. 3.
- Tsing, Anna Lowenhaupt, Elaine Gan, and Nils Bubandt. *Arts of Living on a Damaged Planet*. Minneapolis: University of Minnesota Press, 2017.
- Tuck, E., & Yang, K. W. (2012). "Decolonization is not a metaphor." in *Decolonization: Indigeneity, Education & Society*, 1(1), pp. 1-40.
- Virilio, Paul. *The Original Accident*, Reprinted ed. Cambridge: Polity Press, 2008.
- Welland, Michael. *Sand: The Never-Ending Story*. Berkeley, LA: University of California Press, 2010.
- Woudhuysen, James. *Why Is Construction So Backward?*, Edited by Ian Abley. Chichester Hoboken, NJ: Wiley-Academy, 2004.
- Yusoff, Kathryn. *A Billion Black Anthropocenes or None*. Univ Of Minnesota Press, 2018.

### Ressources en bibliothèque

- [Arboleda M. Planetary Mine](#)
- [Bennett J. Vibrant Matter](#)
- [Clement G. The Planetary Garden](#)
- [Coole, D. et al \(ed.\) New Materialisms](#)
- [Demos T. J. Beyond the World's End](#)
- [Dolphijn R. et al. \(ed.\) New Materialism](#)
- [Eskilson S. The Age of Glass](#)
- [Förster K. Triangular Stories. In: Beyond Concrete](#)
- [Haraway D. Situated Knowledges. In: Feminist Studies \(1988\) 575-599](#)
- [Hughes F. \(ed.\) The Architect](#)

- Hutton J. Material Culture
- Hutton J. Reciprocal Landscapes
- Ibañez D. et al. Wood Urbanism
- Kullack T. Architecture: A Woman's Profession
- Lebovici E. This is not my Body. In : Spheres of Action
- Lloyd Thomas K. (ed.) Material Matters
- Gomez-Barris M. The Extractive Zone
- Makhoul N. (De)Colonial Social Housing. In: Unearthing Traces
- Malterre-Barthes C. The Devil Is in the Details. In: Non-Extractive Architecture
- Marcuse, Peter. Sustainability Is Not Enough. In: Environment and Urbanization, 1998, 10(2)
- Martinez Alier J. The Environmentalism of the Poor
- Material Cultures. Material Reform
- Moe K. Empire, State & Building
- Moe K. Insulating Modernism
- Ouassak F. Pour une écologie pirate
- Petrescu D. (ed.) Altering Practices
- Rendell J. et al. (ed.) Gender Space Architecture
- Solnit R. A Paradise Built in Hell
- Stead N. (ed.) Special Issue: Women, Practice, Architecture. In: ATR (Architectural Theory Review), 2012, 3(2-3)
- Tsing A. L. Arts of Living on a Damaged Planet
- Tsing A L. Friction
- Tuck E. et al. Decolonization is not a metaphor. In: Decolonization, 2012, 1(1), 1-40
- Virilio P. The Original Accident
- Welland M. Sand: The Never-Ending Story
- Wilson S. (ed.) Petrocultures
- Woudhuysen J. Why Is Construction So Backward ?
- Yusoff, K. A Billion Black Anthropocenes or None