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What counts as being healed?
Interview with Elsa MH Mäki

Christopher Alton, Émélie Desrochers-Turgeon et Zannah Mae Matson

Aller au sommaire du numéro

Découvrir la revue

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ELSA MH MÄKI

Elsa MH Mäki is a designer/ writer/teacher in Brooklyn who comes from Finnish, Armenian, and Anishinaabe family. Her practice includes cartography, sculpture, immersive theater, and architectural design. Elsa's drawing and writing have been featured in volumes including *Material Acts: Experimentation in Architecture and Design* (forthcoming), *Architectures of Care* (2024), *Architecture of Migration* (Siddiqi, 2023), and *Non-Extractive Architecture* (2021). She got degrees in architecture at Columbia University–where she received the Marcia Mead Design Award– and Harvard GSD. Elsa is an editor with *Avery Review* and has held design and teaching positions in Minnesota, Massachusetts, and New York. She is Assistant Director of the Temple Hoyne Buell Center for the Study of American Architecture at Columbia GSAPP.

***Architecture and Extraction* thematic issue editors (AE):** What "geographies of extraction" have been formative in your research and projects?

Elsa MH Mäki (EM): Given architecture's broad, fuzzy disciplinary boundaries, my attention goes to several things. A formative geography of extraction, for me, involves waterways. I grew up in Minneapolis, Minnesota, a place with Indigenous communities in the city, in Greater Minnesota, and across the USA-Canada border. Within and beyond this urban context, the stories traditionally told about waterways are ones of connection and sustenance: geographies that connect different Indigenous nations. Those stories intersect with the ways water systems are taught in school as economic infrastructures that can be crossed, mediated, or stopped. They might be part of shipping routes, sometimes associated with human trafficking; waterways are also subjected to pollution, invasive species, contaminants, algal blooms, etc. The Great Lakes constitute an expansive tale of the development of Anishinaabek nations that includes political histories, relations between nations, and contact with settlers. They carry constructed boundaries—both material and imagined—such as political border checkpoints and industrial behemoths, like massive dams and other twentieth-century infrastructure projects, pushed to the edges of territory. That tends to be where I gravitate: toward a set of logics and their contradictions, whether or not they are directly related to water systems.

AE: In your piece for *Non-Extractive Architecture* "On the Water," you claim that the architect "lives among atomized relations," instead calling for a field where "[t]he slow stewardship that unfolds in tending land as a whole, not in parcels, offers lessons to the design community from outside the academic realm and beyond the systematic constraints of practice."[1] Could you elaborate on the characteristics and origins of these constraints?

EM: As designers, we might ask: Where do we locate our expertise, our ability to contribute, or our limitations? Where do those disciplinary boundaries originate? In 2015, I took a course with Professor Karl Jacoby at Columbia University on the environmental histories of North America, and many of the texts we read pointed towards the origins of property rights regimes and how land might become a medium of exchange. Being able to ask those questions of land and property remains a kind of architectural premise as well. A Master of Architecture curriculum in the United States will mention contracts and legal systems, all of which are founded on common law. In this context, the architect's ability to mediate or intervene is bounded by private property. Yet, from the lot line all the way to the international border, none of these boundaries are *real*.[2] There is a philosophical history of settler colonialism underpinning the role that an architect is able to take.

Within this broad regime, the architect must mediate between trade and craft, construction and infrastructure, cities and states. They sit in between those delineated land relationships that are fairly unquestioned: lot lines, neighbors, jurisdictions, and so on. In contrast, water

is a difficult medium. It tends to erode concepts of delineated property, practice, and building responsibility.

AE: And yet, architects direct the provision of a very real set of materials, all of which contain their own particular properties and histories.

EM: From the materials standpoint, it's practically impossible to trace where things come from, what kinds of energy, labor, long-lasting climate impact, and social effects are carried into these materials. That's by design: we are not supposed to know these things. The way that materials *even reach* a given place, or how architects and tradespeople gain expertise in order to work with them, is largely predetermined. Once a building is complete, its stewardship and its subsequent maintenance are beyond the architect's conventional scope of work. The mining cycle within architecture and the longevity of a space are just not considered the architect's responsibility.

Architecture's intransigence around disciplinary fixity—in how it operates and how it's taught—makes me think that it might become obsolete if it doesn't find ways to be more expansive, more interdisciplinary, to take on more risks and more responsibilities, and question what the role actually fulfills.

AE: As you discussed, the atomization of space is enabled through borders and the parceling of land, but time and risk are also atomized when architecture is discussed in relation to extractive activity. How did your master's thesis "Building Backward: Archaeology of a Queer Built Future,"[3] address this, and exemplify the potential of cross- or transdisciplinary efforts that you just discussed?

EM: When I started my research, I focused on water, queerness, and extraction. I produced a research book, trying to figure out all of the possible avenues, material geographies, and histories in the built environment, that would produce a set of questions that could constitute a Master of Architecture thesis, which meant a design project.[4]

Through this research and in working with Alfredo Thiermann and Charlotte Malterre-Barthes,[5] I ran across the work of artist Lara Almarcegui who creates films, sculptural installations, and books on sites of extraction, mostly in Western Europe. In 2020, Lara was finishing a residency at Tuilerie Monier of Marseille,[6] where her project focused on a former gravel quarry in L'Estaque, a small town at the fringe of Marseille.[7] The quarry later became an industrial chemical production facility and witnessed different industrial generations. As France's second largest city, sitting firmly on the Mediterranean coast, Marseille caught my interest because it is so tethered to the history of global water infrastructure. The region has developed an expertise in water management because of intense environmental pressures like aridity, but also because of the coastline's fraught human histories of migration, climate, pollution, and war. Marseille has also been known for its production of clay tile since Antiquity. Since the 1950s, it has been notorious in the construction industry for the extraction of gravel, exported around the world for concrete. Within France, the city is characterized, often negatively for the sort of lawlessness that many French associate with Mediterranean cities that have large migrant and non-White communities. This is a form of environmental racism that rationalizes the city as a sort of sacrifice zone, resulting in the spread of contamination from local industrial sites.

I started researching how the contamination of water was understood during the eighteenth and nineteenth centuries, up until recently. The extracting industries have no motive to carefully record what they do to the earth and make that information public. Consequently, there are few records that can be used to hold them responsible for environmental damage. However, there is one place where that dynamic fails: with water. In the region of Marseille, from the eighteenth century onward, access to potable water was made possible through a series of canals that originate in the Alps, all the way down to the Mediterranean. This set of water infrastructures—anywhere that a new pipe needed to be added, a new drain fixed, a kind of infrastructural change at the building scale—created archival records. I was therefore able to dig into a long record of drawing and writing about this site in L'Estaque over hundreds of years.[8] The archival documents revealed negotiations between mine operators and municipal leaders with, for example, faxes with furious hand annotations in red ink, and site photos wherever the black box of the private site intersected with the common realm. When permits were needed to add security doors to remediation zones, or where aerial photography was used to prove the site's buildings were made of materials no longer allowable on shared rail lines, the site left a record.

This archive demonstrates how public interests and private extractive capital moved within these property boundaries; where they crossed each other was the only place that a mark was created. Water as a medium inspired me to collect a series of documents: maps, air pollution diagrams, contracts, property records, information requests, complaints about damage or toxicity, remediation cost estimates, and limited records of what types of remediation actually took place (fig. 1).

FIG. 1.
THE "HOLE-PUNCH MAP OF MARSEILLE" SHOWS THE CITY'S EXTANT REMEDIATION SITES, RUINS, QUARRIES, AND OTHER EXCAVATIONS INCLUDING TRAIN TUNNELS, CANALS, AND SUBTERRANEAN WASTEWATER TREATMENT. MY THESIS SITE ABOVE L'ESTAQUE IS OUTLINED BY AN ORANGE BAND AT THE MUNICIPALITY'S NORTHWEST TIP.
MÄKI, ELSA MH, 2022, "BUILDING BACKWARD: ARCHAEOLOGY OF A QUEER BUILT FUTURE," MASTER OF ARCHITECTURE THESIS, HARVARD UNIVERSITY GRADUATE SCHOOL OF DESIGN, ADVISED BY PROFESSOR YASMIN VOBIS.
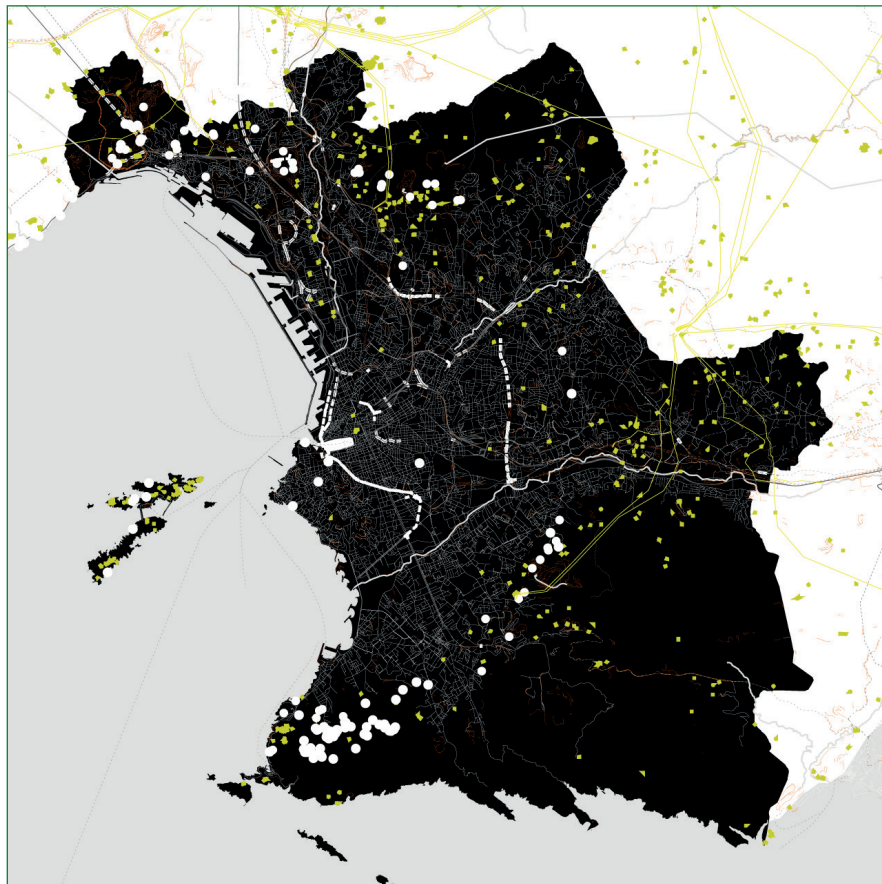
I reached out to Lara Almarcegui to talk about how she observed the site and photographed it. She coined the term "territory awaiting development," which I found especially helpful as a framing device for the thesis because there is an assumption that remediation is fundamentally about putting something back into use, or covering over something, or finding another purpose, to keep making money. I proposed a project stretching the concept of "remediation" where I asked: what counts as being healed? Can something be remediated to its past state? The L'Estaque site was, regardless, inheriting a long-term remediation, with no obvious ownership, boundaries, or active surveillance, and consequently it is casually occupied and repurposed by people (fig. 2). That peripheral designation of the site undergoing remediation seemed to me a typology of space that could be expressed with a series of architectural interventions (figs. 3 and 4).

FIG. 2.
THE CLOSED REMEDIATION SITE ALONG THE ROAD CALLED MONTÉE DES USINES IS A PATCHWORK OF RUINS, SECURITY WALLS, PILES OF RUBBLE, AND ILLEGALLY DUMPED CONSTRUCTION WASTE. AMONG THE PILES, NEW GROWTH, WILDLIFE, REPURPOSED FURNITURE, AND GRAFFITI APPEAR. THE SITE IS A PLACE FOR UNSEEN REVELERS AND ARTISTS, AND SLOWLY SHIFTING SOIL.
MÄKI, 2022, "BUILDING BACKWARD."

FIGS. 3-4.
AN OPERABLE SITE MODEL FOR THE "TERRITORY AWAITING DEVELOPMENT" ABOVE L'ESTAQUE AND MARSEILLE. THE TABLE, COVERED IN LOOSE SAND, WAS ALLOWED TO FALL "TOWARD" THE MEDITERRANEAN AND THE CITIES ALONG ITS COAST, AS PREVAILING WINDS REARRANGE THE SITE. FIVE EVIDENTIARY ARCHITECTURES DEMONSTRATE AND PROCESS THE CHANGING SITE FOR PEOPLE WHO USE IT DURING ITS LONG REMEDIATION.
MODEL BY ELSA MÄKI WITH CARPENTRY BY LIAM COOK, DECEMBER 2022.

AE: As you mention, there is not a clear determination of how or when something is "healed." Considering the question of the mining cycle itself then, what are the architectural possibilities of a mine's afterlife? Is there a way of thinking about "perpetual care" in the range of practice?

EM: "Afterlife" as a term intersects with writing on gender and sexuality, queerness, disability, but also architecture and architectural history.[9] The idea of an "afterlife" differs from the mining cycle, where the idea of remediation is about a final *entombing*. When there's a post-extraction plan for a site, it's often governed by contexts that include the environment, the material, the means of extraction, the legislative and historical confines, and the gray areas on the edges of all those things. That plan, if there is one, typically involves moving something contaminated to a tomb or reservoir, or releasing and diffusing the contaminants. In pit mining sites similar to where my thesis project was located, geologic expertise was employed to extract things in the first place, leading mining industries and governments to naively assume that once it is well-sealed, it will stay buried. That a tomb is permanent is such a fascinating premise. It suggests hauntings—questions of past responsibility and untold histories, like scary family stories that people don't discuss. This typology of space helps me to locate and become specific about relations among land, people, infrastructure, globalization, and remediation that are exemplary not just for France, but globally because of the extents of French and European colonization.

AE: Here we are reminded of the Giant Mine Remediation Project outside of Yellowknife.[10] It is a federally managed former gold mine whose waste is now frozen and buried deep below ground. John Sandlos and Arn Keeling of Memorial University in Newfoundland initiated a project called "Toxic Legacies," where they organized a design charrette on this topic with members of the Yellowknives Dene First Nation.[11] They tried to imagine perpetual care around this mine. A lot of the comments that came out at that workshop were that to ensure this as a place whose hazards are understood in perpetuity, one needs to build a story around it—to build a mythology. It is not something that can be actively maintained in a technical or engineered manner.

EM: This also reinforces the significance of building as a human practice. Whether or not we spend a lot of time stirring up anxiety about the definition of "capital-A" Architecture and extraction, building has long traditions and is not restrained to humankind. Each nation defines these origins or building practices in a different way. Building practices are not inherently "unsustainable" or unsustaining of human life; they are sort of the opposite. Looking to which kinds of building practices result in architecture that lasts long enough to signal the duration of contaminants from gold mining to many future generations, for instance, is a really interesting way of introducing a temporal, cyclic thinking, as opposed to a sort of clear linearity of progress or a techno-positivist view of development where one innovation will inevitably save the world. Or, thinking that we don't need to look backward because forward will be so different.

AE: The term "afterlife" maybe also necessarily implies coexistence with toxic half-lives.

EM: Mining waste brings to mind a movement that I was very tangentially involved in and supportive of: a community called Nimkii Aazhibikong, north of Lake Huron, within traditional Anishinaabek territory. Led by youth, directed by elders, and supported by community, the project is a space dedicated to language revitalization and land-based practices.[12] The

organizers intentionally chose a former quarry for language reclamation, bush skills, and traditional building for Indigenous youth, many from Anishinaabek nations in the area. The site, already seized by the Crown and mined, logged, and otherwise altered, was also one of many proposed sites for uranium mining waste disposal serving the nuclear reactors of Ontario.[13] The community organizers refused to ask permission to return to the land because it had been taken through policies that Canada itself admits were illegal. Ultimately, the government decided to locate the uranium disposal site elsewhere, though a final site is still under contention.

At Nimkii Aazhibikong, people told stories about the land. Because uranium is naturally occurring in this region, there are, of course, stories and pictographs that mark the presence of the substance. This shows the contrast between the technological scale that engineering casts into energy regimes, and the fact that we do have very long human traditions of how to handle toxic substances. This experience was instructive in a way that I don't think a conventional architecture education could be.

AE: Since we are discussing the afterlives of mining sites, could you elaborate on "man camps" as a particular urban typology, with a particular set of harms? "Man camps" are very much designed and constructed as impermanent structures anticipating closure, where often there isn't a plan for one.

EM: In the essay that I wrote for the *Avery Review*,[14] I was interested in figuring out what the "man camp" was: sometimes an infinitely repeatable system, like trailers or the custom-built, modular snap-together homes for workers, whether or not they were temporary, and how they became permanent. When I wrote this essay, my education to that point had emphasized the difference between urban and rural, a binary conventionally used inside and outside academic contexts.[15] That didn't necessarily match my experience and my understanding of place within or outside Indigenous communities. That's where I started to adopt a position on infrastructural networks, or network thinking. At the time, I became interested specifically in the "man camp" typology because of its genericism typical of American building conventions: a low-cost, architect-less construction system broadly promulgated since settler arrival in North America, but especially throughout a period of westward expansion and sticking around to today. "Man camps" are similar to the typology most reflective of private property: the single-family home. I was curious to know how "man camps" did and didn't follow those building and property conventions, how they atomized laborers and grouped them in this almost unfathomable serial way. I was interested in how an architectural reading of this particular kind of space could be deployed to consider its scalability, flexibility, temporality, mobility and adaptability, regardless of what was being extracted, or where, or who was doing it.

It was a way to talk about spatial conditions in reservation border towns, where "man camps" essentially drop hundreds or thousands of overworked (mostly) men on small communities, which overwhelms social and medical services, fundamentally reshapes economies and social relationships within these places, and is one of the causes of settler violence against Indigenous people, particularly women and girls.[16] These circumstances are mediated by the architecture of the "man camp." The dwellings tend to be used and reused in ways that would sound almost progressive if they weren't intended and built to be temporary. It is possible to track the origins and movement of different "man camps" through their ownership. You can look at a boom-and-bust cycle of a particular site of extraction, where funding

runs dry, or where there's regulatory upheaval, or where market shifts mean that suddenly it's not financially valuable to extract oil, say, at the Bakken Formation or somewhere else. And so these camps pack up. Many housing units are sold at very low prices to other companies that will deploy them as "man camps" or other types of seasonal housing such as farmworker lodging.

Many of those "man camps," especially the trailer modules, were initially deployed by the Federal Emergency Management Agency (FEMA) to disaster sites, such as in the aftermath of Hurricane Katrina in 2005. Sometimes they are sold to Indigenous communities as housing on tribal land, which cannot itself be owned individually. It is also fairly common to see housing units on reservations in the Western United States where land has been taken out of tenure, parceled and sold.[17]

Communities end up living in these structures built to last for one or two locations, with cheap materials that deteriorate and create uncomfortable structures unsuitable for extreme winter or summer conditions. They are carted around continentally, going into drastically different climates, hot or cold, wet or arid. I don't care how modular it is, it's really not meant to be transported. Instead of being used for two or five years at a particular location, they sometimes end up in use for thirty years with families living in them. That type of housing, designed for a single guy making thousands of dollars a week and then leaving within a few months, is improper as a dwelling for an extended family. The weathering of material in those structures often causes mold growth; the houses become toxic, thus inflicting another form of harm on folks living in them.

AE: This example is useful to complicate extraction. There are contradictions in how these units get briefly used by transient (extraction) laborers, removed, and relocated to become part of broader disaster relief networks or emergency housing—circumstances often produced or exacerbated by extractive processes.

EM: As architects, we are not reinventing much in terms of reuse, regimes of cyclic building, habitation, structure, circular economy, etc. These things exist; they are practiced every day, but they are not honored in that way largely because they are practices of people who do not have another option under capitalism. These are poor people's design practices.

The repurposing that happens with housing is often simply because people need a place to live, even if it's not a good one. Overcrowding often happens when people make sure that their loved ones are not sleeping outside. The intelligence of reusing things, especially in places that are unsurveilled or considered "waste," is fertile for community building that simply doesn't conform—cannot conform—to regimes of property, finance, respectability, and all of the mechanisms that tend to reinforce those things under forms of policing. Peripheral or marginal spaces offer a lot of wisdom in the way that things are put back together. Those are really intense sites of creativity; I would like for them to be understood as such, as a set of extremely practical teachings.

AE: What is so compelling in your answer is that you're not describing just a site of extraction and a site of consumption. This is a reminder that the site of extraction and architecture must be dispersed; in other words, there is a set of relationships that go beyond "a hole in the ground." Breaking away from the simplistic urban-versus-rural binary is critical to think into more nuanced architectures of extraction understood in terms of infrastructural networks.

This might be an opportunity to think about building counter-networks and forms of political action or agency around those sites of consumption of financialization. For example, if we think about the dispersed geographies of the protests that took place against the Dakota Access Pipeline (DAPL), or the numerous rail blockades and solidarity protests along rail networks in Canada, it helps us see the world through these kinds of extended infrastructures that you're speaking about.[18]

EM: At the time of the No Dakota Access Pipeline movement (No DAPL), I was working with the grassroots collective *NYC Stands with Standing Rock*,[19] who implicated the site of extraction and crude oil transportation with the site of financialization (or the financial center) as parts of that particular harm. Basically, it undercuts the understanding of "city" as the center, with rural spaces on the edges feeding it.

That movement built upon people's different sets of skills and labor, whether that was academic or community organizing, protest art, or financial reporting—all kinds of different strategies across multiple centers. It designated many epicenters of the problem that require different means of resistance.

One thing that the New York contingent of this movement was interested in doing was bringing the fight to New York City and organizing with people who were less directly involved with Lakota and Dakota history, or who were not directly environmentally impacted by this pipeline, and to raise awareness of their connections with long colonial histories. But the goal was not to get people to go out to Standing Rock as a sort of Burning Man–style pilgrimage; youth leadership of those resistance camps were actually saying: we don't need bodies out here. Indigenous folks are coming out, they've rearranged their lives, or they're already living very seasonal lives, and they're able to support us in this way. What we need is financial support, we need educational programming, we need to teach history better. Can you create tools for this? We want to deliver public health education at these camps; can you create resources for this? Can you deliver them over the distance? Can people protest where these actual decision-makers are? It's not only about the men building the pipelines, though they're certainly complicit. The policing itself is horrific. We have means of reporting and resisting this violence through art, action, and our affirmative occupation of our land. What we actually need is action directed at people who are making these decisions from a distance. Those people are in many places, but specifically in New York City, in the middle of Manhattan.

This was possible thanks to digital communication. But the means of trans-continental resistance—that choreography as a set of kinship networks and ability to communicate with each other in that way—was not at all new. Those movements go back generations and generations; Indigenous communities have been resisting many types of extraction or incursion, developing and honing those networks and practices.[20] The youth leadership at Standing Rock were trying to teach community organizing, and people outside those movements living in large Northeastern cities— Indigenous and living away from home, or not Indigenous—learned how to take up that mantle without appropriating or trying to copy methods, and ultimately worked in these two different kinds of centers.

AE: As you talk about transcontinental resistance, we hope to express the trans-border nature of extraction in the context of this issue of the Journal of the Society for the Study of Architecture in Canada, a publication whose name already lends itself to enclosing a set of

expectations around a colonial-professional identity. Given your work and the fundamental act of architecture—of drawing a line—how have you been able to trouble borders and, in doing so, better articulate alternative relations, when borders themselves are lines drawn on paper?

EM: The funny contradiction that I always come back to is that borders are that fundamental act of drawing a line, but there is very rarely such a thing as a boundary. As humans, especially within the settler state, we rely on *things* to enact boundaries. If you want an actual border, you do have to draw it and then you do have to build it. But it does not exist; it is a concept. Even if you build it and draw it, it still does not work. It becomes this sort of stretchy zone of different kinds of risks, threats, or exclusions. To concretize something so nebulous, we look to things that have a lot more permanence, like water bodies. Water bodies are often used as borders but they, of course, move and change.

It becomes such an interesting drawing problem. In other words, one-to-one: an adage of network thinking is that the most accurate map would be exactly the same size and scale as the area described, and therefore perfectly useless.[21] The level of precision with which borders are described or attended increases with new technologies. For instance, the US government reports with great precision the border region with Mexico, but certain sites are totally blotted out because they are government or military facilities, and so they are shielded from public view both digitally and physically. Different communities have also made agreements to engender some imprecision in order to protect sacred sites. I am thinking of Caitlin Blanchfield and Nina Valerie Kolowratnik's work with the Tohono O'odham Nation, in the US border region.[22] To study borders is to realize that they aren't a thing.

This conversation between Elsa MH Mäki and the Architecture and Extraction *thematic issue editors, Christopher Alton,* Émélie *Desrochers-Turgeon and Zannah Matson, was held on July 17, 2023. The interview has been edited for length and clarity.*

Notes

1. Hoover, Elsa, 2021, "On the Water," In Space Caviar (ed.), *Non-Extractive Architecture: On Designing Without Depletion*, London, Sternberg Press, p. 263.

2. See some of the students' work in Daniel D'Oca's planning studios at GSD that I helped organize and was a teaching assistant for in 2020-2021. Shafaieh, Charles, 2020, "This Land Is Your Land: Students interrogate why 'urban' and 'Indigenous' are cast as opposing identities," Harvard University Graduate School of Design, [https://www.gsd.harvard.edu/2020/11/this-land-is-your-land-students-of-daniel-doca-engage-with-indigenous-architecture-in-minneapolis-and-british-columbia/], accessed July 20, 2023.

3. Mäki, Elsa MH, 2022, "Building Backward: Archaeology of a Queer Built Future," Master of Architecture Thesis, Harvard University Graduate School of Design. Advised by Professor Yasmin Vobis.

4. This independent study was supervised by Alfredo Thiermann at Harvard GSD; he is now Assistant Professor for History and Theory of Architecture at the École polytechnique fédérale in Lausanne.

5. Charlotte Malterre-Barthes, who is from Marseille, was Assistant Professor of Urban Design at the Harvard Graduate School of Design before joining the Swiss Federal Institute of Technology Lausanne (EPFL).

6. Ministère de la Culture, "Résidence de l'artiste Lara Almarcegui à la Tuilerie Monier de Marseille," [https://www.culture.gouv.fr/Regions/Drac-Provence-Alpes-Cote-d-Azur/Actualites/Residence-de-l-artiste-Lara-Almarcegui-a-la-Tuilerie-Monier-de-Marseille], accessed July 20, 2023.

7. Lara's work was on display from October 16, 2021 to January 16, 2022, "Les Friches Rio Tinto à L'Estaque, Marseille," [https://p-a-c.fr/les-membres/fracsudcitedelartcontamporain/lara-almarcegui-les-friches-rio-tinto-a-l-estaque-marseille], accessed July 20, 2023.

8. I conducted this archival work at Archives de Marseille in the summer of 2022.

9. The term "queer afterlife" often refers to a posthumous embrace of an artist/figure's true life experience, from the queering of canonically straight characters to real-life deathbed outings during the AIDS crisis.

10. Underground chambers at the Giant Mine store 237,000 tonnes of arsenic trioxide dust. Government of Northwest Territories, "Giant Mine Remediation Project," [https://www.gov.nt.ca/ecc/en/services/giant-mine-remediation-project], accessed July 20, 2023.

11. Sandlos, John and Arn Keeling, "Toxic Legacies Project," [http://www.toxiclegacies.com/about/], accessed July 20, 2023.

12. For more information on Nimkii Aazhibikong, see "A language community for Anishinaabemowin language revitalization, land-based practices, and the arts," [https://nimkiiaazhibikong.com/], accessed July 20, 2023.

13. For background on the ongoing search for a location for this uranium waste disposal site, please see "Blind River, Elliot Lake won't house spent nuclear rods," *The Sudbury Star*, December 6, 2017, [https://www.thesudburystar.com/2017/12/06/blind-river-elliot-lake-wont-house-spent-nuclear-rods], accessed September 10, 2023. The Canadian Press, "Indigenous community votes down proposed nuclear waste bunker near Lake Huron," *Canadian Broadcasting Corporation*, February 1 2020, [https://www.cbc.ca/news/canada/toronto/ont-nuclear-bunker-1.5448819], accessed September 10, 2023. Northern Ontario Business Staff, "Nuclear waste site selectors delay announcement to 2024," *Northern Ontario Business*, August 15 2022, [https://www.northernontariobusiness.com/industry-news/design-build/nuclear-waste-site-selectors-delay-announcement-until-2024-5697570], accessed September 10, 2023.

14. Mäki, Elsa MH, April 2018, "The Temporary Logics of Extraction: Tracing Architecture's (Neo)Colonial Deployment at Three Scales," *Avery Review,* vol. 31, [http://averyreview.com/issues/31/logics-of-extraction], accessed July 20, 2023.

15. I started this research as a part of Ignacio Galán's seminar on Architecture's Global Territories in the first year he taught it in 2016, and he encouraged me to engage with these important critiques of urban and rural binaries.

16. Montoya, Teresa, *Permeable: Diné Politics of Extraction and Exposure*, forthcoming manuscript. Montoya, Teresa, 2017, "Yellow Water: Rupture and Return One Year after the Gold King Mine Spill," *Anthropology Now,* vol. 9, p. 91-115. Spice, Anne, 2018, "Fighting Invasive Infrastructures: Indigenous Relations Against Pipelines," *Environment and Society: Advances in Research*, vol. 9, p. 40-56.

17. See, for example, the Indian Land Tenure Foundation (ILTF), whose mission is "to ensure that Land within the original boundaries of every reservation and other areas of high significance where tribes retain aboriginal interest are in Indian ownership and management." The Indian Land Tenure Foundation, "Mission & Strategies," [https://iltf.org/about-us/mission/], accessed July 20, 2023.

18. Scott, Cam, 2021, "Below the Barricades: On Infrastructure, Self-Determination, and Defense," Viewpoint Magazine, October 11, [https://viewpointmag.com/2021/10/11/below-the-barricades-on-infrastructure-self-determination-and-defense/], accessed July 20, 2023; LaDuke, Winona, Deborah Cowen, 2020, "Beyond Wiindigo Infrastructure," *South Atlantic Quarterly*, vol. 119, nᵒ 2, p. 243-268; Betasamosake Simpson, Leanne, 2021, *A Short History of the Blockade – Giant Beavers, Diplomacy, and Regeneration in Nishnaabewin*, Calgary, University of Alberta Press, p. 88; Szeman, Imre, May 2018, "On the Politics of Region," *E-flux Architecture*, [https://www.e-flux.com/architecture/dimensions-of-citizenship/178284/on-the-politics-of-region/], accessed July 20, 2023.

19. "NYC Stands with Standing Rock," [https://nycstandswithstandingrock.wordpress.com/],accessed July 20, 2023.

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