

Local 'Repair Ecologies'

Building on circular and solidarity economy networks in Querétaro

AR2049 Research Seminar +
AR3004 Advanced Architecture Studio

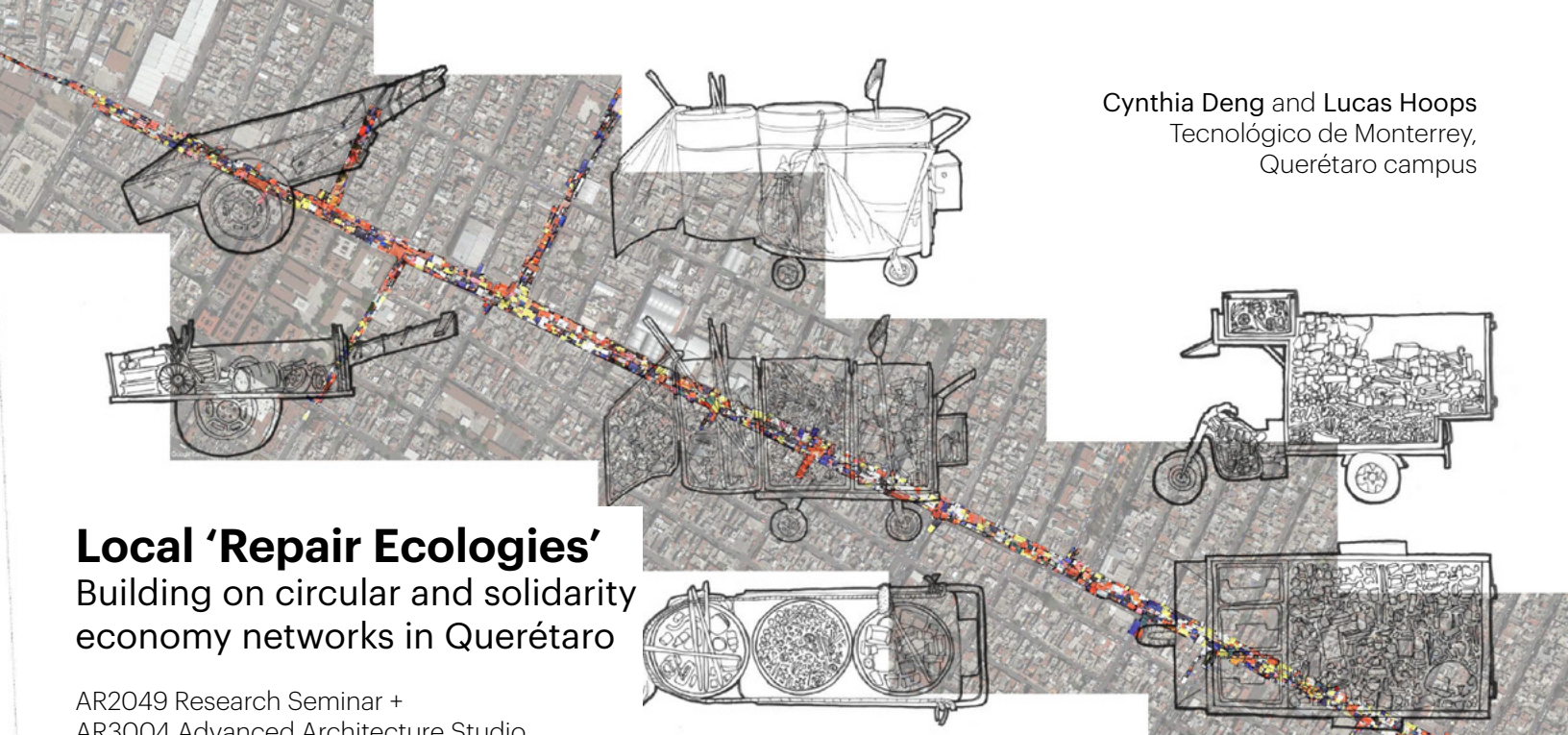
The linear "take, make, use, waste" model of production and consumption is apparent in Querétaro, Mexico, where the new and the innovative take priority in an industry-forward neoliberal environment. Urban sprawl driven by real estate speculation continues rapidly expanding the metropolitan area, fed by resource extraction and cement production just beyond city limits and producing thousands of tons of waste. Industrial production and consumption patterns estrange relationships with the earth and are predicated on extractive practices that most affect marginalized groups. Indigenous communities, migrants, and poorer communities are disproportionately affected by resulting water shortages, infrastructure failures, and other climate impacts. In this studio, we operate from Querétaro as a local testing ground and site of learning, recognizing the city as impacted by and inextricably implicated within planetary crises. In the face of climate change and intertwined systemic issues that arise from ideologies of never-ending growth, we interrogate the impulse for expansion and newness.

Too often mainstream discourse about circular economies is led by multinational corporations and powerful institutions, to ensure business as usual. Without a focus on social and environmental justice, any movement towards circular economies is a superficial change that maintains the status quo of inequity and perpetual growth. This course seeks to understand ultra-local everyday practices - such as improvised repairs dubbed 'ingenio mexicano' ("Mexican ingenuity") or the metal collector shouting for old stoves and washing machines or the massive secondhand toy stall at the weekly tianguis market - as the already existing seeds of a more just circular economy that benefits a range of socioeconomic levels. Wastepickers, recyclers, trash truck workers, metal collectors, repair shops, repair clubs, swap groups, material banks, street markets selling found items or used

clothing -- these are some of many examples that are part of a network of reuse, repair and circularity in Querétaro. Led primarily by women and indigenous elders and youth, wide-ranging networks of mutual aid, repair, and traditional practices of material exchange are present on street corners and barrios throughout the city.

The course expands on the idea that each region has distinctive 'repair ecologies' as coined by scholar Steven Jackson or local systems of repair, improvisation, and material recirculation. Such systems often arise in response to unreliable infrastructures, particularly in regions with a history of colonization and extraction like much of Mexico. In this context, resourcefulness is often borne out of uneven wealth distribution, colonial power differences, and conditions of imposed scarcity; so broader speculations on repair would question the systems that create these disparities as well. The work of repair is a site of possibility, distributed creativity, difference, and innovation. Such repair ecologies are made up of dynamic relationships between people, materials, infrastructures, culture, and tools. In the case of Querétaro it includes maintenance rituals, distributed repair shops and open repair gatherings, many material reuse exchange networks, and indigenous labor-pooling practices. It also includes the local movements for water rights with La Red en Defensa del Agua y la Vida, the struggle for indigenous sovereignty with the Confederation Indígena del barrio de San Francisquito, the many feminist movements, and other community-led movements for climate justice. We recognize these circularity and solidarity practices as signals of the future to come, the tendrils growing through the cracks in the current extractive economic regime. How do we nurture these seeds and harness them as building blocks for a more just, caring, and regenerative Querétaro?

Material collection nodes over an aerial view of a tianguis street market. Graphics by author.



We will focus on understanding and making visible the political and social relationships as well as the material flows that define Querétaro's distinctive repair ecologies. Here, 'repair' does not seek to restore past conditions, but adapts to future ones — it is a transformative act of care. Repair includes fixing things and spaces, and of course includes practices of structural repair and reuse, but it also includes ecological repair, reparations, land back, repair of relationships, and disciplinary repair of (happily, waning) prioritization on new and autonomous object-architecture.

In the research seminar students begin by identifying nodes and drawing and mapping this network, to understand and make visible these networks and exchanges and to center the work of the carers and repairers. This set of courses uses an interdisciplinary approach to explore the possibilities of repair as a point of departure. That might include architectural strategies that enable or scaffold these repair ecologies now, as well as speculations about architecture that will unfold given the future prevalence of these repair ecologies - from material and tectonic possibilities, to shifts in how we practice; from transformations of design and construction processes, to changes in distribution of authorship. The studio asks how architecture can participate in and build on-within-among the existing intertwined networks of solidarity and collective care throughout the city, and speculate on reparative futures and new economies.

This is necessarily an interdisciplinary undertaking, so among the teaching team and invited speakers we will hold space for dialogue between architects, urban planners, landscape architects, artists, various government officials, activists, community organizers, anthropologists, repair professionals, and care workers. Jackson asks "Can the fixer know and see different things, different worlds, than the better known figure of designer, creator, or user?" There is an epistemological advantage to breakdown, maintenance, and repair - a more intimate and embodied understanding of how a thing or a system works, where its dysfunctions are, and what it could become. A reparative lens forefronts and follows the leadership of maintainers and repairers. To that end, we will be working with organizers of various repair networks and community-led initiatives to speculate on reparative futures for Querétaro (see Collaborators section for more information).

AR2049 Research Seminar (6th semester students. Spring 2025)

Students will engage in spatial analysis, mapping, and visualization of practices and spaces of circularity in Querétaro. Includes fieldwork to investigate repair shops, material collection centers, community centers, tianguis flea markets, and other sites, infrastructures, and practices that students identify as nodes within Querétaro's repair ecologies. In the classroom students will participate in QGIS workshops, reading discussions, and talks with various community organizers; In the field they will engage in relationship-building, interviews, drawing and other documentation, all to create inputs for an Atlas of Local Repair Ecologies. This will include an interactive digital map in collaboration with the local Club de Reparadores, to be directed towards a wider public.

AR3004 Advanced Architecture Concentration (7th semester students. Fall 2025)

This advanced studio will build on the research seminar and translate the investigations to speculate on reparative futures of the city.

Module 1. Reorient (where we situate ourselves, meet our community partners, deepen material research in the Atlas of Local Repair Ecologies, and fill our toolbox with methods, skills, and frameworks.)

Module 2. Recast (where we layer material experiments, narratives, and world-building; where we explore legal analysis and intervention as a place for speculation on repair and reparations.)

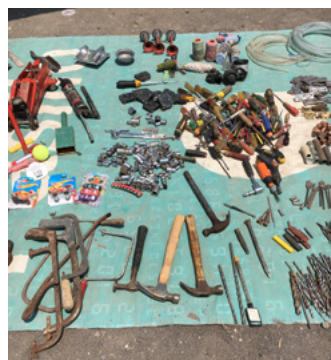
Module 3. Repair (where we build a collective installation from collected discards and develop our speculative projects).

"Repair occupies and constitutes an aftermath, growing at the margins, breakpoints, and interstices of complex sociotechnical systems as they creak, flex, and bend their way through time. It fills in the moment of hope and fear in which bridges from old world to new worlds are built..."

-Steven Jackson

"The world we want is one where many worlds fit"

-Ejército Zapatista de Liberación Nacional



(left) Tools of repair in the historic downtown. Collage by Adrián Huacuja, 2022. (middle) Secondhand tools for sale at a tianguis market. (right) Guerrilla urban milpa in sidewalk. Photos by author.

Community Collaborators and Institutional Partners

Institutional partners:

- Desarrollo Territorial Sostenible research group
- Qro Circular, committee of academic institutions interested in circular economies

Community partners:

- Ana Jimena Luna of Revuela and Club de Reparadores
- Virginia Covarrubias and Ericka Flores of BRED Banco de Ropa y Enseres Domesticos
- Roberto Ledezma of ReUrba, a material bank for construction waste
- Melissa Garcia of Punto Organico
- Rudy of the organizing committee of the Tianguis Tepetate street market
- Braulio and Juan Carlos of the Indigenous Confederation of San Francisquito Barrio
- Liz and Christian of the Mu'Ta urban garden

Work Plan

August 2024 - January 2024

- Meet with local branch of Club de Reparadores to develop protocol for collaborative Atlas that would integrate into their existing mapping projects in Latin America.
- Meet with other community collaborators to develop research seminar.

February - June 2025

- Implement research seminar.

July 2025

- Pending potential funding, interactive digital Atlas of Local Repair Ecologies goes live.
- Convene gathering with the community partners to develop intensive studio inputs.
- Development of course website, tools, methods.

August - December 2025

- Implement studio.
- Studio ideas and outputs shared to public Atlas.

Background

This is an update and expansion of an existing intensive studio course called "Arquitectura Avanzada" which would connect it to a research seminar. The proposal builds significantly on the two inaugural iterations of the Advanced Architecture studio ("Museo Regional as Laboratory of Experimental Repair" centered around a local anthropology museum, and "Re-practices: material recollections to remember the future" centered around an abandoned water park) by foregrounding a multidisciplinary pedagogical approach and by expanding a network of on-the-ground collaborators outside of academia.

Selected Readings

REPAIR:

De Coss-Corzo, Alejandro. "Patchwork: repair labor and the logic of infrastructure adaptation in Mexico City." 2020.

Graham, Stephen and Thrift, Nigel. "Out of Order: Understanding Repair and Maintenance." 2007.

Jackson, Steven. "Rethinking Repair." *Media Technologies: Essays on Communication, Materiality, and Society*, 2014. pp. 221-240.

Klein, Naomi, *The Intercept + The Leap. A Message from the Future II: The Years of Repair*. 2020. <https://www.youtube.com/watch?v=2m8YACFJIMg>

Mattern, Shannon. "Maintenance and Care: A working guide to the repair of rust, dust, cracks, and corrupted code in our cities, our homes, and our social relations." *Places Journal*, 2018.

Parks, Lisa. "Media Fixes: Thoughts on Repair Cultures." *Flow Journal*, 2013.

Wilson, Mabel. "Radical Repair". *Log 48: Expanding Modes of Practice*. 2020. pp. 21-26.

OTHER ECONOMIES:

Gibson-Graham, J.K. "Diverse economies: performative practices for 'other worlds'." 2008. pp. 1-20.

Hickel, Jason. "The anti-colonial politics of degrowth" 2021.

Davidson, Carl. *Solidarity Economy: Building Alternatives for People and Planet*. 2008.

Le Guin, Ursula K. *The Dispossessed*. 1974.

DECOLONIZATION:

Leon, Ana Maria and Herscher, Andrew. "At the Border of Decolonization." *e-flux Architecture*. 2020.

Mason-Deese, Liz. "Countermapping." 2020.

Rivera Cusicanqui, Silvia. *Ch'ixinakax utxiwa. Una reflexión sobre prácticas y discursos descolonizadores*. 2010. pp. 53-73.

Tuck, Eve., & Yang, K. Wayne. "Decolonization is not a metaphor." 2012.

CLIMATE, CHANGE, ARCHITECTURE:

Iturbe, Elisa. "Architecture and Carbon Modernity". *Log 47, Overcoming Carbon Form*. 2019.

Latour, Bruno and Yaneva, Alben. "Give Me a Gun and I Will Make All Buildings Move." 2017.

DeSilvey, Caitlin. "Introduction." *Curated Decay: Heritage beyond saving*, 2017.

Fitz, Angelika, et al. *Critical Care : Architecture and Urbanism for a Broken Planet*. MIT Press, 2019.

"On one hand, a fractal world, a centrifugal world, an always-almost-falling-apart world. On the other, a world in constant process of fixing and reinvention, reconfiguring and reassembling into new combinations and new possibilities... The fulcrum of these two worlds is repair." -Steven Jackson

"What the world will become already exists in fragments and pieces, experiments and possibilities." -Ruth Wilson Gilmore