

# Toxics

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Niagara County home, near Love Canal, abandoned after eighty-one chemicals, including benzene, were found present in the suburb. UPI photograph, 1981.

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## Call for Proposals

Toxics. Toxins. Toxicants. Toxicity. These terms slip in and out of architecture, design, and urban planning discussions, shifting between scientific, medical, legal, and social meanings. But what does the history of toxics reveal about the history of architecture? From nineteenth-century arsenic-laden wallpaper to present-day chemical sensitivity-inducing formaldehyde, increasingly industrialized building practices have created both new products and new modes of consumption, production, regulation, and disposal. Over the last one hundred years, building materials have become increasingly composite—made by cutting, mixing, extrusion,

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cross-lamination, and even nanomaterial microscopic manipulation. These processes can covertly introduce toxic substances into the architectural spaces we inhabit. How should we narrate histories of dangerous materials that so often evade our consciousness, governance, and control? How do we understand the corporeal, environmental, and social responsibilities architects assume or reject under these evolving material conditions? Finally, how do we account for the methodological and practical challenges of writing about untraceable substances, mapping inaccessible supply chains, or navigating legal restrictions on material archives? Writing histories of deleterious building materials offers an opportunity to understand how the differences between nature and artifice, production and consumption, business-as-usual and environmental justice, and the toxic and nontoxic are produced and perpetuated.

In cultural theory much of the discourse on toxics examines contamination and cleanliness, echoing the conceptual frameworks unearthed by Mary Douglas in *Purity and Danger* and by Julia Kristeva in *Powers of Horror*.<sup>1</sup> Recent work in environmental justice, material feminism, science and technology studies, environmental history, critical race theory, and many other fields, however, offers new strategies for exploring the architectural history of toxic landscapes and building materials, allowing us to understand how toxic tensions co-constitute theoretical and material realities. Dorceta Taylor's work on how toxic communities exist in the tensions between wastelands and the core through "internal colonialism" that designates minority and impoverished communities as sacrificial is one such crucial intervention, bringing insights from environmental justice communities to studies of toxic spaces.<sup>2</sup> Architectural scholarship, with its focus on spatial practices, can draw from the insights of scholars in other fields and shed new light on these worlds' built dimensions, offering insights in return. Thus, this project seeks to "stay with the trouble" and interrogate the histories of toxics, toxins, toxicants, and toxicity in architecture in dialogue with critiques in environmental history, environmental racism, and toxic coloniality developing in our field and others.<sup>3</sup>

Scientific, industrial, and embodied knowledge of toxics has shaped how we understand them. At the turn of the twentieth century, scientific committees in the fields of industrial hygiene and public health (later known as toxicology) defined dilution theories, threshold values, and toxicity limits for human bodies, air, water, and soil. These limits delineated risk in terms of capacity, the assumption being that natural systems tolerated specific harmful

quantities; there was thus no consideration as to whether toxic substances should be allowed at all.<sup>4</sup> Yet, regulated substances shift from being harmless and inert to downright ruinous by “dose-makes-the-poison” claims. Scientific limits often miss durational, systematic, and interlinked effects as chemical residues, endocrine disruptors, and biological accumulation present exposures measured in decades and centuries.<sup>5</sup> Max Liboiron’s recent work on the distinction between “toxins”—harmful substances organically produced—and “toxicants”—substances industrially manufactured at increasing speeds in seemingly unlimited amounts—can help us distinguish between everyday harmful substances. In quantity, these substances make up brownfields, postindustrial landscapes, and waste economies, yet scientific narratives about these substances have helped them evade regulation.<sup>6</sup> As Michelle Murphy and others have argued, their varied presence in our environment forms part of these substances’ biopolitical history: they become media through which we stage debates about health and exposure.<sup>7</sup>

Exploring how forms of exclusion persist through the material opens other ways to write architectural histories of toxins and toxicants. Rather than fetishize the material or orient ontologies around it, we welcome work that takes into account the essential critiques of “new materialist” thought exercised by Zakiyyah Iman Jackson, Kyla Wazana Tompkins, Zoe Todd, and others, who make clear that materials are always embedded in embodied political histories.<sup>8</sup> How might we understand the architectural and landscape dimensions of Dorceta Taylor’s concept of internal colonialism? Or, drawing from Vanessa Agard-Jones’s work, how might we understand the connections between disarticulated bodies and the world-system of toxic commodities and peripheral landscapes?<sup>9</sup> Sara Ahmed’s work on spatial phenomenology could also open up new methods of writing about experience, embodiment, and positionality in toxic worlds.<sup>10</sup> Through these frameworks, we can trace how toxic inequalities are reproduced through both spatial experience and structural forces in spaces as diverse as riverbeds, mines, factories, playgrounds, and homes.

The work we solicit for this project would also build on existing foundational research addressing toxic worlds in architectural and landscape design and history. Extensive research on wastelands, hinterlands, reservations, and cancer alleys and postindustrial landscapes conducted by Vittoria di Palma, Kate Orff, Lindy Roy, Anita Bakshi, Jill Desimini, and many others grapples with how polluted

spaces can be recorded and remediated.<sup>11</sup> Others examine how the aesthetics of ruined landscapes have been both contested and recuperated in art and design projects.<sup>12</sup> Work on regulatory frameworks, architectural industrialization, and the industries associated with the architecture profession parse how agency is dispersed and distributed.<sup>13</sup> Emerging research by Anooradha Siddiqi, Samia Henni, and others argues for a geopolitical framing that makes clear how toxicities form and perpetuate colonial occupations.

All of these approaches can help us explore new methods for looking at toxics in architecture. We hope that the essays in this collection will demonstrate and/or examine possible narrative and research methods for investigations on toxics. Possible topics include, but are not limited to:

- Studies of toxic materials and their supply chains and geopolitics
- How toxicity is understood and contested in professional contexts
- Linkages between toxicity and labor in architecture and building
- Corporations and their impact on architectural production
- Engagements with theories of toxic materiality and materialism, as well as intersections of historical case studies with these theories
- Histories of architectural theory related to toxicity and building
- Work on indigeneity and toxicity
- Work on remediation, futurism, and futurity
- Public history methods and projects
- Methodological and other questions that arise when working in a disciplinary space in which history and public health overlap

We envision a multi- and transdisciplinary project; therefore, we welcome work from scholars in architectural history and allied fields—science and technology studies; science, environmental, or business history; cultural studies; race or postcolonial theory; landscape and urban history—and from any others who feel their work attends to the intersections of toxicity and building. While we intend this project to explore new scholarly methods, we also hope to open new conduits to and from academia. Therefore, we welcome participation in this project from environmental justice practitioners, public historians, activists, and designers whose work deals with toxic spaces.

For additional sources, see the [Toxics Project's in-process bibliography](#).

## Project Timeframe

We anticipate the following schedule for three separately released sections of two to three papers each in order to make progress on this project:

- **January 25, 2021:** Due date for proposals submitted in response to the call
- **February 1:** Announcement of selected projects

### Section 1

- **Early February, 2021:** First Zoom workshop to discuss scope and plan of work
- **March 15:** Section 1, first draft due date
- **Late March:** Workshop for discussion of drafts
- **May 2:** Final draft due date

### Section 2

- **Late March, 2021:** First Zoom workshop to discuss scope and plan of work
- **June 30:** Section 2, first draft due date
- **July 15:** Workshop for discussion of drafts
- **August 31:** Final draft due date

### Section 3

- **July 15, 2021:** First Zoom workshop to discuss scope and plan of work
- **October 30:** Section 3, first draft due date
- **November 10:** Workshop for discussion of drafts
- **January 15, 2022:** Final draft due date

## Format

We welcome proposals for traditional scholarly essays of up to 7,500 words for consideration through *Aggregate's* open peer-review publication process. We also welcome proposals for work in other formats: slideshows, annotated images or primary materials, discussions of archival challenges, maps, videos, thought exercises, teaching assignments, glossary entries, or other original works in a web-compatible format. *Aggregate* is a free, open-source online venue that publishes

under Creative Commons protocols; authors do not incur any costs to publish on the site.

This project will be collectively edited by participants using Aggregate's practice of transparent peer review. Participants who wish to have their work anonymously reviewed will be accommodated.

## Proposals

Proposals should include an abstract of 250 to 500 words describing the scope, form, research methods, and description of the scholarly interventions you wish to make, as well as a brief CV; proposals are due **January 25, 2021**. Please submit them via [this Google Form](#). Submissions will be reviewed with the aim of creating a coherent working group for this project.

Please note that Aggregate cannot offer financial assistance for travel to participate in editorial meetings (should travel be possible in this period) or honoraria for participation. However, it will be possible to participate fully in this project via Zoom meeting and authors need not incur any costs for participating.

To reach the current editors, or to make a suggestion for our reading list, please email either of us:

- Meredith TenHoor, Professor, School of Architecture, Pratt Institute, mtenhour [at] pratt.edu
- Jessica Varner, Lecturer, HTC Department of Architecture, Massachusetts Institute of Technology, varnerj [at] mit.edu

<sup>1</sup> Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (Middlesex, England: Penguin, 1970); Julia Kristeva, *Powers of Horror: An Essay on Abjection* (New York: Columbia University Press, 1982). [↑](#)

<sup>2</sup> Dorceta E. Taylor, *Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility* (New York: New York University Press, 2014). [↑](#)

<sup>3</sup> Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2016). Helpful texts on histories of environmental racism include Andrew Szasz and Michael Meuser, "Environmental Inequalities: Literature Review and Proposals for New Directions in Research and Theory," *Current Sociology* 45, no. 3 (1997): 99–120; Stacy Alaimo, *Exposed: Environmental Politics and Pleasures in Posthuman Times* (Minneapolis: University of Minnesota Press, 2016); Laura Pulido, "A Critical Review of the Methodology of Environmental Racism Research," *Antipode* 28, no. 2 (1996): 142–59; and Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard University Press, 2013). [↑](#)

4 We look to recent and forthcoming research on the limits of toxic governance, including Max Liboiron, *Pollution Is Colonialism* (Durham: Duke University Press, forthcoming in 2021); and Sara Ann Wylie, *Fractivism: Corporate Bodies and Chemical Bonds* (Durham: Duke University Press, 2018). [↑](#)

5 Soraya Boudia, Angela N. H. Creager, Scott Frickel, Emmanuel Henry, Nathalie Jas, Carsten Reinhardt, and Jody A. Roberts, "Residues: Rethinking Chemical Environments," *Engaging Science, Technology, and Society* 4 (2018): 165–78, accessed September 30, 2020, <https://doi.org/10.17351/ests2018.245>. [↑](#)

6 Max Liboiron, "Toxins or Toxicants? Why the Difference Matters," *Discard Studies*, September 11, 2017, accessed September 1, 2020, <https://discardstudies.com/2017/09/11/toxins-or-toxicants-why-the-difference-matters/>. [↑](#)

7 Michelle Murphy, *Sick Building Syndrome and the Problem of Uncertainty: Environmental Politics, Technoscience, and Women Workers* (Durham: Duke University Press, 2006). [↑](#)

8 See, for example, Zoe Todd, "An Indigenous Feminist's Take on the Ontological Turn: 'Ontology' Is Just Another Word for Colonialism," *Journal of Historical Sociology* 29, no. 1 (2016): 4–22, <https://onlinelibrary.wiley.com/doi/10.1111/johs.12124>; Zakiyyah Iman Jackson, "Outer Worlds: The Persistence of Race in Movement 'Beyond the Human,'" *GLQ: A Journal of Lesbian and Gay Studies* 21 (2015): 215–18; and Kyla Wazana Tompkins, "On the Limits and Promise of New Materialist Philosophy," *Lateral* 5.1 (2016), <http://csalateral.org/issue/5-1/forum-alt-humanities-new-materialist-philosophy-tompkins/>. [↑](#)

9 Vanessa Agard-Jones, "Bodies in the System," *Small Axe* 17, no. 3 (2013): 182–92. [↑](#)

10 Sarah Ahmed, "Orientations: Towards a Queer Phenomenology," *GLQ: A Journal of Lesbian and Gay Studies* 12, no. 4 (2006): 543–74. [↑](#)

11 For a brief sampling, see Vittoria di Palma, *Wasteland: A History* (New Haven: Yale University Press, 2014); and Pamela Karimi and Thomas Stubblefield, eds., "Reinventing the American Postindustrial City," special issue, *Journal of Urban History* 41, no. 2 (2015). In the field of design research, see Anita Bakshi, *Our Land, Our Stories: Excavating Subterranean Histories of Ringwood Mines and the Ramapough Lunaape Nation* (New Brunswick, NJ: Department of Landscape Architecture, Rutgers University, 2019); and Lindy Roy and Kristine Synnes, *Roy: Architecture of Risk* (Ann Arbor: University of Michigan, College of Architecture & Urban Planning and Distributed Art Publishers, 2004). See also Kate Orff and Richard Misrach, *Petrochemical America* (New York: Aperture Foundation, 2012). [↑](#)

12 See, for example, Antoine Picon, "Anxious Landscapes: From Ruin to Rust," *Grey Room*, no. 1 (Fall 2000): 64–83. [↑](#)

13 See Jessica Varner, "Chemical Desires: Dyes, Additives, Foams, and the Making of Architectural Modernity (1901–20xx)" (PhD diss., Massachusetts Institute of Technology, 2020); and Meredith TenHoor, "Toxic Geographies," *Perspecta* 53 (Fall 2020): 218–35. Related work might include research on industries of architecture and technical specifications; see, for example, Michael Osman, *Modernism's Visible Hand: Architecture and Regulation in America* (Minneapolis: University of Minnesota Press, 2018); and Katie Lloyd Thomas, Tilo Amhoff, and Nick Beech, eds., *Industries of Architecture* (London: Routledge, 2016). [↑](#)