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**STEFAN HELMREICH\***

## **The House of Kuhn, By the Water**

Thomas Kuhn's one-time vacation home in Wellfleet, Massachusetts, is a modest modernist box. Built in 1960 by Nathaniel Saltonstall and Peter Morton, and empty since the 1990s, it is now in some disrepair, here and there sagging and waterlogged. It remains, in spite of wear and mold, legible as an exemplar of Cape Cod modern, a Bauhaus-meets-Frank-Lloyd-Wright architectural style that adapts the sharp lines of modernism to the scrub and pitch pine landscapes of the Outer Cape, a thin neck of land fronted on its east by the Atlantic Ocean and on its west by the Cape Cod Bay.<sup>1</sup> Walking through the Kuhn cottage in May 2012, guided by architect Peter McMahan—head of a nonprofit dedicated to restoring mid-century modernist homes—I was taken, no surprise, by the house's structure.

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1. Modernist homes started going up on the Cape in the 1930s, built by self-taught American architects who admired European design. When Walter Gropius and other émigré modernists began arriving in the United States, more than a few joined in the construction of vacation homes on the Cape. The Kuhn house is one of seven modernist homes built on land that the National Park Service claimed by eminent domain in 1961, when it created the Cape Cod National Seashore. The Park Service granted twenty-five-year leases on houses like Kuhn's, built in 1959 and 1960, with the plan that these sites would revert to the state at the end of that time and be demolished. By the 1990s, the Park Service had taken possession of these dwellings, sometimes using them as ranger stations, though never quite getting around to tearing them down. The Cape Cod Modern House Trust, founded in 2006 to preserve these houses, reports that homes are "deteriorating due to a lack of funding for their maintenance. Five of these seven are on the Massachusetts Historic Commission's list of historic places," including the Kuhn house (Cape Cod Modern House Trust, "about us" page, <http://ccmht.org/about.html> (last accessed on 22 Aug 2012).

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The house sits on just one level, and unfolds as an easy jigsaw of rectangular spaces. A closed-in porch frames a prospect of trees—though before these pines grew, McMahon told me, it opened onto a view of the waters of Cape Cod Bay. The living room is compact, cool, and cozy (see Fig. 1). One wall is fitted floor to ceiling with built-in drawers and cupboards, a construction, from the looks of it, that might have given a certain form and order to work and leisure (a compartment to the left of the fireplace hosts a fold-out liquor cabinet).

Scientific work, according to Kuhn, was nothing if not structured. Science as usual —“normal science”—was, like a well-designed house, “firmly based” on a “foundation” (10): “One by one, in a process often compared to the addition of bricks to a building, scientists have added another fact, concept, law, or theory to the body of information supplied in the contemporary science text” (140). Science was held coherent by a “strong network of commitments—conceptual, theoretical, instrumental, and methodological” (42). Such a network was a “paradigm,” a framework offering a grid of intelligibility through which to see the world. Scientists, said Kuhn, “attempt to force nature into the preformed and relatively inflexible box that the paradigm supplies” (24). For Kuhn, what did not (yet) fit within such a box would



**Fig. 1** Interior of the Kuhn House, Wellfleet, MA. Designed by Nathaniel Saltonstall and Peter Morton, 1960. Photo, taken before today’s evident wear, provided by Park Service to Cape Cod Modern House Trust: <http://ccmht.org/saltonstallkuhn.html> (last accessed on 22 Aug 2012). Permission to print granted by Peter McMahon.

require “mop-up work,” and he argued that such “Mopping-up operations are what engage most scientists throughout their careers” (24). When these operations encountered phenomena that overflowed the paradigmatical box, crisis ensued. Only with a radical renovation—a revolution—could science proceed, with a “new paradigm impl[ying] a new and more rigid definition of the field” (19).

We might imagine a paradigm slouching and drooping under mop-up work as something like Kuhn’s house itself when, after having been vacated, it “leaked and sagged.”<sup>2</sup> For people like later caretaker Gina Coyle, who “From living in the Kuhn cottage, ... had learned to love box life,”<sup>3</sup> the paradigm might be salvaged—perhaps through such interventions as were undertaken when the house received “a new rubber-membrane roof.”<sup>4</sup> Or it might not. Such patchwork fixes might make the structure *more* vulnerable, as did the rubber roof, which, McMahan told me, invited more, not less, water damage (see Fig. 2).

Outside the domain of science existed what Kuhn called an “inchoate pool of information” (17). That pool, in *Structure’s* model, might be swabbed up, absorbed into a paradigm, or, if it took the shape of a reservoir of anomalies, might lead to crisis and revolution. Kuhn’s friend and sometime opponent, philosopher Imre Lakatos, disagreed that anomalies on their own could undo scientific communities of commitment, which he said had a “hard” core surrounded by a “protective belt.” As Lakatos put it, “Theories grow in a sea of anomalies, and counterexamples are merrily ignored.”<sup>5</sup> Even as Kuhn and Lakatos disagreed on this matter, however, they both used watery images—the pool, the sea—to speak of that zone within and against which science sought order and structure.<sup>6</sup>

2. Mildred Schmertz, “Saving the Early Modernist Cottages of Cape Cod,” *Architectural Record* 193, no. 8 (2005): 60.

3. Eric Williams, “Seashore Houses Celebrated in Architectural Record,” *Cape Cod Times* 12 (2005): <http://www.capecodonline.com/apps/pbcs.dll/article?AID=/20050812/NEWS01/-308129953&cid=sitesearch> (last accessed on 22 Aug 2012).

4. Schmertz, “Saving” (ref. 2), 60.

5. Imre Lakatos, “Lecture Eight: The Methodology of Scientific Research Programmes,” in Imre Lakatos and Paul Feyerabend, *For and Against Method: Including Lakatos’s Lectures on Scientific Method and the Lakatos-Feyerabend Correspondence*, ed. Matteo Motterlini (Chicago: University of Chicago Press, 1999), 96–108, on 99.

6. One wonders how the house of Lakatos might withstand water damage. Thomas Kuhn, congratulating Lakatos on the unexpected purchase of a home, wrote, “I have trouble thinking of you as a home owner.” Thomas Kuhn to Imre Lakatos, 27 Sep 1971, Thomas S. Kuhn Papers, 1936–1996, Box 11, Folder 37; Lakatos, Imre, 1968–1973, MC 240, MIT, Cambridge, MA.



**Fig. 2** Exterior of the Kuhn House, Wellfleet, MA. Photo by and permission to print granted, Heather Paxson, 26 May 2012.

It would be easy to say that inchoate nature is claiming the house of Kuhn, with rot, rust, and mold undoing its paradigmatic neatness.<sup>7</sup> But Kuhn's figuring of the inchoate suggests something less immaculately allegorical. His "inchoate pool of information" is not so much ontological (about what is really out there) as it is epistemological (about what we think we know). His "inchoate pool," after all, is one of "information": structured knowledge.

So, yes, Kuhn's rhetoric about normal science—"firmly based," a "strong network," an "inflexible box"—rests on solids, whereas what is outside—"inchoate," fit for "mopping up"—floats on fluids.<sup>8</sup> But science's outside, for Kuhn, was always already inside. The "inchoate pool of information" held in its watery solution hypothesizes about the world (Kuhn once called himself a "Kantian with moveable categories"). Recall Kuhn's position on "water," a term he believed did not designate a natural kind, but exemplified a theory-laden descriptor; he differed with Hilary Putnam, who held that "water is and always was H<sub>2</sub>O," and maintained that H<sub>2</sub>O is a description that only makes sense in

7. The house has had its share of distress from people, too. The most recent residents of the house were scientist-rangers for the Cape Cod National Seashore studying reptiles. The place is now full of tokens from their stay, including jarring nonmodern elements: an overstuffed easy chair, a kitschy painting of a red barn, a sign on the kitchen door reading "This way for a Guinness." This is not the modern, light and evanescent, but a cluttered postmodern.

8. Imagine a counterfactual Kuhn, one thinking from fluid rather than solid metaphors. Think not so much of Kuhn teleported into our 2012 moment, when what we might call "liquid theory" is on the ascendant; such works are resolutely structuralist, appealing to the form of water—as, among other things, H<sub>2</sub>O—in their conceptualization. Think rather of Kuhn conjuring something like *the swirl of scientific revolutions* ... though might we be on the way to a rereading in this vein already? I cannot help but notice how cover designs for *Structure* have transformed over the decades. *Structure's* famous second edition, from 1970, puts its modernist cards on the table with a Gestalt stack of now-in-relief/now-in-recess cubes. The third edition, from 1996, pictures a stylized Earth from space (a reference to the Copernican revolution, the Earth revolving around the sun, and all that), covered on its South Pole by a fractal-ish eddy (a reference perhaps to the then-growing hole in the ozone layer, and therefore a call for a new set of scientific revolutions?). This year's fiftieth anniversary edition makes the move from modernist boxes to amodern swirls complete, beckoning new and counterintuitive readings (in addition, perhaps, to fresh claims that *Structure's* argument is circular); its watery whirlpool recalls in its revolution a strangely stirred superfluid, a state of matter in which a fluid has zero entropy and zero viscosity, the anomalous become the ontological. On "liquid theory," see Zygmunt Bauman, *Liquid Modernity* (Cambridge, MA: Polity Press, 2000), and Peter Sloterdijk, *Bubbles: Spheres*, vol. 1, *Microspherology* (New York: Semiotext(e)/Foreign Agents, 2011).

9. Thomas Kuhn, with Aristides Baltas, Kostas Gavroglu, and Vassiliki Kindi, "A Discussion with Thomas Kuhn," in *The Road since Structure: Philosophical Essays, 1970–1993, With an Autobiographical Interview*, ed. James Conant and John Haugeland (Chicago: University of Chicago Press, 2000), 255–323, on 264.

the language of chemistry.<sup>10</sup> H<sub>2</sub>O can be solid, liquid, gas; “water” has had historical usages that do not pick out this particular mutability.

Kuhn’s house embeds a set of theories about the world in which it sits—but also poses questions about what it will mean when those theories are not well met by the surrounding world. Will a mop fix it? Will different species of water—ground water, pond water, drinking water, salt water, waste water—reveal the need for different sorts of adjustments? Or will a full crisis arrive, requiring renovation? The Cape Cod Modern House Trust, seeking to save houses from the disuse into which they have fallen, places its hopes on a respectful mop-up, preserving the Kuhn house as an historical artifact.

That seems to me the right way to go—to treat the house, like Kuhn’s *Structure* itself, as a living archaeology, to be recalled, explored, revisited.<sup>11</sup> Filmmaker Malachi Connolly, who has given his forthcoming documentary about neglected Cape Cod modernist homes the title *Spectral Houses*, has it exactly right; these are apparitions of what once was, and caring for them can keep us aware of how they haunt our own histories and presents.<sup>12</sup> At the same time, to keep such material constructions “perching lightly on the land” (as the Trust describes modernist houses) cannot but require new managements of the effects of water, salt, and rain; one cannot read structures except through the later architectural shoring-up, revisions, and innovations they prompt.

10. Thomas Kuhn, “Possible Worlds in History of Science,” in Conant and Haugeland, eds., *The Road since Structure* (ref. 9), 58–89.

11. Reading *Structure* for the first time in Peter Galison’s “Modernism and Postmodernism in Science and Technology” graduate seminar at Stanford University in the spring of 1992, I have long thought of the book as a modernist text. No surprise that one of Kuhn’s living spaces should also participate in a modernist moment. If Latour held that *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1993), Kuhn seems to have been, starting in the 1960s, modern for at least a little while. Kuhn’s second wife, Jehane Kuhn, whom he married in 1982, worked for ten years in the office of Charles and Ray Eames, continuing a set of Kuhnian modernist associations. See Jehane Kuhn, “A Consistent Man,” *Constructivist Foundations* 6, no. 2 (2011): 138.

12. See <http://www.spectralhouses.com> (last accessed on 22 Aug 2012).