

symmetry. As a result, when these essays are good, they are very good indeed. Lave's analysis of scientific controversy convincingly uses the categorical character of specific forms of consultant argumentation and the political economy of stream restoration to help explain the production and resolution of complex political-environmental battles. Duvall's ferricrete soils have material qualities that matter but that are only animated within colonial networks. Much of the work shares this thoughtful balance. Most refreshing of all, the book transcends the topical (and tropical) tendencies inherited from political ecology's rural-developmental past, to address issues and objects as far-flung as cell and microbial biology, Yukon wolves, and India's dams.

If there is something amiss in the volume, it might be the slight narrowness with which STS is itself treated. A few concepts and authors, albeit extremely important ones, are examined repeatedly in the book's essays, whereas others are avoided almost entirely. Actor network theory receives a thorough working over. Indeed, Latour and Callon's highly clinical networks appear repeatedly, but nothing is heard from Isabelle Stengers's more passionate vision of a scientific authorship of creation. Gieryn's concept of boundary work gets terrific exposition and usage, but there is very little meditation on such problems as technological momentum and reverse adaptation, following the work of STS scholars like Thomas Hughes or Langdon Winner, all of which

might have political ecological purchase. Indeed, whole areas of STS do not seem to be trending as much as others, in this sense.

Some of these essays, for a number of reasons, just do not make the case for the PE/STS dialogue as well as others do. At times, STS only appears as sort of window dressing. In other essays, conversely, the political purchase of the work seems obscure. Finally, each section of the book performs differently in meeting its goals. In particular, the first section—on the production of knowledge—is remarkably thematic and abstract (with the possible exception of Campbell). Here is an opportunity to work through and demonstrate the material politics of actual sites of knowledge production—labs, workshops, or offices—but the essays focus largely on language and metaphors of entire general fields or areas of concern. As a reader with an abiding interest in language and metaphors, I have no problem, but it does slightly undermine the repeated remonstrations of the editors on the importance of both site and materiality.

This is probably all just fine, however. *Knowing Nature* is a major, coherent, and explicit work aimed at putting STS in dialogue with PE. If there is yet more ground to cover, that is all to the good.

Key Words: dialogue, knowledge, political ecology, science and technology studies.

Henri Lefebvre on Space: Architecture, Urban Research and the Production of Theory. Łukasz Stanek. Minneapolis: University of Minnesota Press, 2011. 392 pp., illustrations, notes, appendices, and index. \$30.00 (ISBN 978-0-8166-6617-1).

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In 1968, Henri Lefebvre's work first surfaced in English with a striking call to end the unceasing "interpretation" of Marx. What was needed, he said in a swipe at the new school of structuralists, was not another "new reading" of *Capital* but "first and foremost an attempt to reconstruct Marx's original thought" (Lefebvre 1968, p. 3). *The Sociology of Marx* proved to be something of an exception in his bibliography, translated only two years after its 1968 publication in France. It was well into the 1970s, however, before Lefebvre's compelling concepts of "the right to the city" and "the production of space" began to attract the attention of Anglo-American scholars.

More than four decades later, during which Lefebvre's spatial *oeuvre* was marked by its own gradual pattern of exegesis, Łukasz Stanek's illuminating new study reconstructs the conditions that shaped this highly original thinker. In it, Stanek makes the convincing case for a return to Lefebvre's empirical "project" and the revival of the critique of architectural space. More broadly, in drawing attention to the impasse separating the architectural and geographical imaginations, this book is an opportunity to consider why the dialectical critique of space is "indispensable for understanding the present-day world" (Lefebvre 1968, p. 188).

Whereas the leading figures of postwar continental philosophy are often subject to the seasonal nature of theoretical fashion, Lefebvre's enduring influence has perhaps gotten under the skin of urban studies scholars. For example, where Deleuze and Foucault's concepts are applied, often piecemeal, to the problems of the space and society, Lefebvre seems to have a more direct connection to the subject. This might help explain why the trajectory of Lefebvre's Anglo-American reception overshadows the recent evolution of critical urbanism itself. As Stanek notes in his preface, Lefebvre's work has unfolded through a sequence of intellectual conjunctures that have conditioned the debate on capitalism and "social space." For the growing number of Lefebvre scholars, the historiography is familiar enough. First, and most famously, came the encounter among Lefebvre, David Harvey, and Manuel Castells in their co-respective but discombobulating formulation of what comprises an effective critique of urban political economy. Later, following Edward Soja's heroic (and still ongoing) efforts to correct many of the distortions that accompanied Castells's and Harvey's initial readings of Lefebvre, *The Production of Space* was absorbed into Fredric Jameson's conclusion that the "cultural logic of late capitalism" was galvanized by a new mode of spatial production.

Despite the notion that "(social) space is a (social) product" (Lefebvre 1991, p. 26) undergirds the critical edge of urban theory, making use of Lefebvre's work presents many challenges. What does it mean to say that social relations exist *only* through their materialization in space and time? If it is meaningful, then how do we test the empirical basis of this proposition? What is its significance for tackling the political, environmental, and economic implications of urbanization? The elliptical and open nature of Lefebvre's "spatial problematic" has led many philosophers, sociologists, and geographers, both Marxist and mainstream, to pour cold water on the excitement, enthusiasm, and joy, even, that this fundamentally creative and gregarious thinker inspired. As Stanek points out, however, in Lefebvre's case the picture is more complicated than old-fashioned Anglo-American prejudice reacting against high Parisian theory. In France, sociologists claim that his methodology is unsystematic and overly philosophical, and neo-Marxian philosophers claim that his concepts are just too eclectic and incoherent. Through archival work exploring Lefebvre's postwar research *habitus*, Stanek attempts to demolish simplistic dismissals of Lefebvre's thought as too open and wide ranging. In doing so, Stanek shows that

Lefebvre's philosophical project was always animated by a clearly defined and characteristically mischievous urge (given that his formative contacts were with Tristan Tzara and André Breton) to see what happens when the urban space of everyday life is dragged kicking and screaming into the austere arena of social theory.

Stanek aligns himself with what has been called the "third constellation" of Lefebvorean studies. This is a position staked out in a recent critical reader, in which the editors argue that Lefebvre should be freed from what they perceive to be the political economic and postmodern emphases of the first and second waves of interpretation (Goonewardena et al., 2008, pp. 1–23). Certainly, Stanek's approach and insights complement the most creative readings of Lefebvre since the late 1990s. In its methodological approach and analytical orientation, his book achieves a kind of synthesis between Andy Merrifield's distinctive intellectual biography-cum-philosophical investigations of "metro-Marxism" and the politico-theoretical archeologies of scale, place, and territory promulgated by Neil Brenner, Christian Schmid, and Stuart Elden. What distinguishes Stanek's book are three reference points that lay out a new line of inquiry. First, there is an engagement with the arm's-length treatment of Lefebvre in the French social sciences. Second, there is a consideration of the fate of socialist urbanism in the aftermath of the Soviet Bloc's collapse. Third, and forming the central critical arc, is an effort to position the problem of modernist urbanism as a spatial question "guiding," as Lefebvre put it, his dialectical adventures "through the complexification of the modern world" (p. 16).

Nonetheless, the most obvious distinction of Stanek's book is the wealth of archival images of documents and photos of Lefebvre that accompany the narrative. One photograph in particular, showing Lefebvre's face bobbing up to the camera above a sea of students at the University of Nanterre, resonates with the popular idea of Lefebvre *in media res* during the buildup to France's spring "explosion" of 1968. Stanek, however, harks back to Lefebvre's earlier research on the Campan Valley undertaken at the Centre d'études sociologiques (CES). Here, Lefebvre, a product of the Pyrenees' foothills, began to sketch out with colleagues a conceptualization of a "sociogeographical space of multiple dimensions." All of this is familiar enough from other studies, but what makes Stanek's approach so compelling is the reconstruction of the intellectual and institutional events surrounding Lefebvre's path-breaking formulation of *The Production of Space*.

In Stanek's presentation, Lefebvre's magnum opus evolves as a critique of built form, through a sequence of collaborative studies of French rural settlements, the vernacular form of domestic dwellings, and the emergence of French new towns. This research offered Lefebvre a laboratory to elaborate his 1930s idea of everyday life into a broader critique of the social and economic relations of production. In this context, Lefebvre began to think about "the dwelling"—and the practices of domesticity—as not just an existential datum but as a spatial product that culturally variegates the social and economic relations of capitalism. Here, in passing, Stanek notes a fascinating link between Lefebvre's evolving multidimensional notion of space and the multilevel theorization of duration developed by Fernand Braudel and the Annales School. But the leap forward that Stanek identifies as a breakthrough is Lefebvre witnessing "the birth" of the new town of Moux in the late 1950s, which he evocatively described in his autobiographical work, *Le temps des méprises* (Lefebvre 1975):

Next to the village where I have spent several months per year since my childhood, a new town was founded in Lacq: oil, gas, sulphur . . . I saw bulldozers razing the forest, I saw the first stones placed for the new city, which became a small laboratory. . . . Since then I became interested in the city: I suspected that this irruption of the urban in a traditional rural reality was not a local coincidence but that it was linked to urbanization, to industrialization, to a worldwide phenomenon. (p. 17)

This quote encapsulates Lefebvre's revitalization of the dialectical method. Alive to the modulations of the landscape's fabric, Lefebvre says that one has to abstract both mentally and spatially to understand the undulating complex of human relations that constitute society. Stanek thus argues that we should see Lefebvre as more than simply an antagonist of modernist urbanism but a dialectical theoretician who viewed the production of architecture and social infrastructure as the manifestation of three dimensions of the same process: the postwar reconstruction of social and economic activity; the recapitulation of the state; and the emergence of technocratic planning—all materialized and modified by the spatial transformation of everyday life.

In a series of lectures and articles presented in the mid-1960s, the Marxist economist Ernest Mandel coined the term *neocapitalism* to describe the period of unprecedented growth the United States, Western Europe, and Japan experienced from 1954 to 1964. Mandel (1964) suggested that neocapitalism (which prefigured his more famous periodization, late capitalism) embod-

ied a new "modus operandi of the capitalist system" in response to the need to reconstruct the capital wiped out through war and technical change and socially and militarily defend itself against the "worldwide progress of anticapitalist forces (the Soviet bloc and the colonial revolutions)." In *The Urban Revolution*, Lefebvre (2003) employed—without referencing (another, more unfortunate characteristic)—this idea to argue that the role of state planning, in preparing for a recapitulation of capital accumulation on a global scale, was entwined with the reconstitution of the social relations of capital in cities. Just as Lefebvre had loaded a prosaic notion like everyday life with dialectical firepower, now "the urban" was reconceptualized to indicate that "the survival of capitalism," the political and legal reproduction of social property relations, was wrapped up with the expanded technological production of built form and urban space. In effect, "[u]rban reality becomes a productive force, like science. Space and the politics of space 'express' social relationships but react against them" (Lefebvre 2003, p. 15).

Castells, a colleague of Lefebvre at Nanterre, objected to the idea that urban space manifested its own *élan vital*; but what Lefebvre was developing was the critical theory that later appeared, but only partially developed, in *The Urban Question* (Castells 1977). Why was it that (1) the organs of the state and monopoly capital were both animated by a drive to produce cities on larger scales and (2) with an ever increasing scientific interest in the habits and habitats of urban dwellers? The reason, Castells explained, was that the expanding rate of capital accumulation and investment in new technology necessitated a strategic (i.e., political and economic) "collective consumption" of social goods like urban housing, streets, transport, education, health care, the public realm, and so forth. But what Castells did not pursue, and what might distinguish "the grandeur of Lefebvre," was the idea that the expanding productive consumption of urban space becomes a global operating system that allows capitalism to manage the problems of economic growth. Space, for Lefebvre, was becoming the medium that allowed capitalism to systematically bypass all logistical, environmental, political, and cultural limits to its growth on a worldwide scale. This idea is summarized in a famous passage in *The Survival of Capitalism*:

Capitalism has found itself able to attenuate (if not resolve) its internal contradictions for a century, and consequently, in the hundred years since the writing of *Capital*, it has succeeded in achieving "growth." We cannot calculate at what price, but we do know the means: by

occupying space, by producing a space. (Lefebvre 1976b, p. 21)

Today, following global city theory, the notion of the place-based command and control of the economic space of capital is well understood. What Lefebvre drew attention to, however, was the dominantly spatial causes and effects of these processes at the local scale of everyday life. It is here, Stanek says, that the critique of architecture and urban design has much to offer for understanding the fortification of state spaces at the regional, national, and global levels. From this vantage point, Stanek presents a crisp philosophical reading of *The Production of Space*, contextualized against Lefebvre's eventful tenure at the University of Nanterre, his growing alarm about the "machinofactured" new towns, and the fomenting of worker and student unrest that surrounded Lefebvre.

Honing in on what Lefebvre (1968, p. 26) called Marx's "head-on" philosophical "collision" with the Hegelian dialectic, Stanek draws out the premises behind Lefebvre's assertion that, under capitalism, space becomes abstracted as a factor of production. Just as the metallic qualities of gold allowed it to take on the form of money—what Marx called the universal equivalent for all types of goods and services—Lefebvre argues that the manifold uses of urban centrality takes on similar powers of concrete abstraction. The urban mediation of a multiplicity of social, economic, and cultural functions demanded by the centralizing, "coercive laws" of competition produces, in Lefebvre's analysis, a new category of social space. The subsuming of social use values to the demands of market exchange manifests an abstract space shaped by the struggles over the capitalist ownership, control, and reproduction of the sociotechnical conditions of everyday life. In the final analysis, the *ultima ratio* of these struggles materializes in the way the market stratifies who is spatially included, and excluded, from enjoying the cultural and social privileges that cities offer specific classes of urban dwellers. The "politics of space," as Lefebvre called it, was the result of spatial practices and representations that conceal and regulate the dispersion and concentration of human populations via-à-vis urban centers. In doing so, what Marx once called the potential "species being" of human society was abstracted (and alienated) as labor power—what urban economists now call human capital.

The power of Lefebvre's critique of space, however, is that it follows the fault lines produced by capitalist abstraction. Once architectural form becomes harnessed

to political economic strategy, Lefebvre suggests that one should be alert to the spatial contradictions of capitalism. This is not because the symbolic form of architectural monuments simply antagonizes the oppressed but rather the "successful" falsification of urban social space as a market (e.g., the pricing of such basic goods as housing, health, and education by the supply–demand characteristics of urban land markets) is likely to undermine the social institutions on which capitalism depends. Further, the urban centrality required for the capitalist production of surpluses could, as the revolutionaries of the 1871 Paris Commune made quite clear, equally trigger the conditions for a new society. So just as Lefebvre was alarmed by the urban formation of technocratic space in the new towns and suburban *grands ensembles* of the 1950s and 1960s, he was also delighted by the eruption of a differential space out of the rationalist functionalist campus of Nanterre, spilling over onto the streets of Paris. But what puzzled Lefebvre, reflecting on the failures of both 1871 and 1968 in *The Urban Revolution*, was why "the spatial" had not become a primary focus for socialist thought and politics. At a conference in 1975, Lefebvre developed this notion into a catastrophe theory of urban design: "One should always when studying a space specify its space of catastrophe, that is to say, the limits where this space explodes" (p. 180). From this, Stanek concludes that Lefebvre's urban study of French neocapitalism made Nanterre, "the space of catastrophe for the *trente glorieuses*."

In arguing that Lefebvre's elaboration of Marxian critical theory was precipitated by the urban reconstruction of postwar France, Stanek isolates the key spatial–economic problematic concerning architectural modernity. Although Charles Fourier conceived of the Phalanstery as a utopian architecture to unify both the sensuous and the organizational demands of a collective society, such "spatial architectonics" were more likely to be dominated, Lefebvre warned, by the logistical infrastructure and luxury consumption of economic growth prosecuted on a global scale. If this is the case, where does it leave the practice of architecture and the role of the architect in the age of what Lefebvre termed *planetary urbanization*?

Answering this question, Stanek rejects the view that Lefebvre saw architecture as a form hopelessly determined by capitalism, arguing that Lefebvre's analysis evolved into a project exploring the urban cultural conditions that could propagate the collective appropriation of space.

Here Stanek pulls off a scholarly coup by revealing the existence of a hitherto unknown manuscript

unearthed late in his book's preparation. Called *Toward an Architecture of Jouissance*, this text was originally written alongside *The Production of Space*, and ostensibly comprises a "dialectical understanding of the conflict between a specifically architectural imagination and the forces aiming at instrumentalizing it" (p. 250). As exciting as this prospect seems, however, the consideration of Lefebvre's engagement with architectural projects nevertheless forms the least satisfying component of the book.

Although it is understandable that Stanek wants to preserve the view that the practice of architecture is not a lost cause, the switch to the voice of architectural speculation cancels out Lefebvre's spatial critique of political economy. Perhaps the single contribution that makes Lefebvre's work most relevant today is his view of the role of urban production in the global reproduction of capital. Lefebvre hypothesized in 1970 that capitalism's primary circuit, which realizes the production of surpluses (distributed in the form of profits, rents, interest, etc.), would eventually be eclipsed by the overproduction and overaccumulation of fixed capital, locked into a rent-seeking secondary circuit of urban real estate. Shortly after Lefebvre (1976a, p. 34) observed (in 1970) that the "liquidity of real estate wealth must be understood as one of the great extensions of financial capital within recent years," a new era of neoliberal capitalism began to unfold. Following the Nixon shock of August 1971, when the U.S. government terminated the conversion of dollars to gold, a regime of capital overaccumulation was set into motion that, as we now know, subsisted in large part because of the global overproduction of the built environment.

Stanek acknowledges the idea as well as the fact that Harvey modified and significantly expanded it to generate an influential theory of capital switching and uneven geographical development. But, as Gottdiener (2000) pointed out, this notion still has to be fully engaged within the critical terms Lefebvre set forth. In particular, Harvey's version of capital switching lacks the sensitivity Lefebvre had to what Fredric Jameson called the spatial "poetics of social form." Having produced a subtle analysis of the concepts of concrete abstraction and centrality, it would be interesting to have Stanek's view on the way the dialectic of fiat money and real estate have redimensioned spatial form and urban aesthetics. Although the consideration of Lefebvre's influence and involvement regarding such projects as Constant's New Babylon, Bofill's *City in Space*, and New Belgrade are engaging portraits, the analytical momentum of the book dissipates—concluding without considering how

a critique of architectural space might expose the actually existing political mechanisms and economic forces that instrumentalize spatial practices.

Perhaps what really prevents the capacity to project a critique of the political economy of architecture are the obstacles that the third constellation of Lefebvrians have erected. As discussed earlier, their stated intention is to rescue the reading of Lefebvre from political economy and cultural theory and to establish a more empirically grounded, comparative theorization of urban space. This seems like an enervating call to arms, however, especially for those, both within and beyond academia, trying to improvise an understanding of how the economy and culture totally affect the conditions of everyday life. In fact, what comes from reading Lefebvre against the backdrop of the fallout of the recent global economic crisis is the sense that works such as *The Production of Space*, *Limits to Capital*, and *The Cultural Logic of Late Capitalism* are all contingent efforts aimed at bringing to life a critical political theory of space. Therefore, if we take Lefebvre's advice and regard such work as the contingent products of a Marxian sociology immersed in capitalism's historical-geographical problematic, and not simply academic artifacts of their time, they appear as accessible, open expressions of the vibrancy, inspiration, and fallibility of dialectical thought. The danger otherwise lies in constructing a school of "Lefebvrianism" that binds him to a particular period; even worse, it locks him into a grid of scholarly interpretation.

More compelling than the idea of the new reading of Lefebvre is Stanek's invocation of Blanchot's "three voices" of Marx in Lefebvre (p. viii). Here it is worth recalling what Lefebvre (1968, p. 187) said in the conclusion to *The Sociology of Marx* about the "three sources of inspiration" for Marx's critical theory. What Marx criticized in British political economy, German philosophy, and French socialist politics was an idealism that overruled praxis—a thought that disengaged from everyday life. The requirement, Lefebvre said, was not an interpretation of the world that produced theoretical synthesis or scholarly acuity for its own sake. Rather, what was needed was an engagement with contradictions in logic and society to overcome the disciplinary and institutional strictures that limit what Marx, in the sixth thesis on Feuerbach, called the sensuous realization that the "human essence" is in reality "the ensemble of social relations" (Marx 2005, p. 423).

At a time when the richness of dialectical thought is being diluted through interpretation—witness the reduction of Deleuze to the "plug-and-play" nomenclature

of assemblage theory—Stanek’s insightful book is refreshing for its emphasis on the production of thought as a truly creative and politically engaged act. Perhaps the divergences and contradictions surrounding Lefebvre’s work are what make him such a fascinating prospect for each new generation. Thus, whoever reads Lefebvre is provided with the opportunity to grasp everyday life by the root and look beyond urban ideologies that obviate the production of “another space.”

Key Words: architecture, critical theory, history, Lefebvre, urbanism.

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