IN TWO DIRECTIONS: GEOGRAPHY AS ART, ART AS GEOGRAPHY

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Experimental geography, like it sounds, is more experiment than answer. The term, coined by Trevor Paglen, might bring to mind landscapes, laboratories, obscure cartographies, or a didactic analysis of a remote region of the world. And, ultimately, experimental geography is all these things. Paglen, a writer and artist based at the University of California at Berkeley, produces projects that move between a variety of discourses including those of the art world, the military, journalism, and geography, and the work in *Experimental Geography* has similar variety. While this collection is inspired by Paglen's overarching analysis, the work on display does not illustrate a complete theory—his or anyone else's. Instead, *Experimental Geography* should be considered as a new lens to interpret a growing body of culturally inspired work that deals with human interaction with the land. That is to say, the work here gains more intellectual heft when interpreted with an understanding of both contemporary geography and contemporary art. Interpreted in relation

to either field alone, the work may become clouded or, possibly, be given short shrift.

As opposed to works that demonstrate a single technique or subject (a collection of landscapes, for example), this collection represents a constellation whose entirety allows us to appreciate and consider the dynamic possibilities in experimental geography. Think of the works here as operating across an expansive grid with the poetic-didactic as one axis and the geologic-urban as another.

While these dichotomies aren't necessarily set in stone—the didactic can be poetic, and the geologic can be urban, and vice versa—these binaries provide an opportunity to appreciate the range of works presented here.

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When Andy Warhol reflected obliquely, "If you want to know all about Andy Warhol, just look at the surface of my paintings and films and me, and there I am. There's nothing behind it," many interpreted his Pop Art sensibility as in line with the non-representational strategies being hailed during the rise of abstract expressionism.[1] The surface was the work. But Warhol's acute observation was more nuanced. His deadpan quip implied the death of the subject in the face of a growing industry of visual culture. The television and film industries, not art, had become the largest cultural forces in the world—the mother of us all. Warhol's interest in death was not simply a morbid fascination but a realization that the individual was a product of a growing cultural machine. "Before I was shot," he once remarked, "I always thought that I was more half-there than all-there—I always suspected that I was watching TV instead of living life. Right when I was being shot and ever since, I knew that I was watching television."

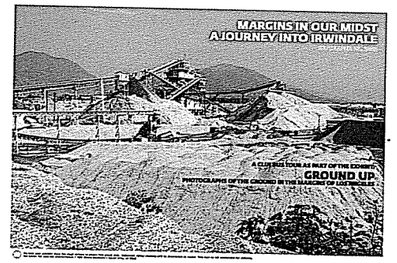
I begin with Andy Warhol because he is an accepted representative of the art canon. He is a complicated yet seminal figure, and his life and work define much of contemporary artistic practice. And while

Previous pages: Constant Nieuwenhuys, *Yellow Sector* (from the *New Babylon* project), 1958. Collection of the Gemeentemuseum Den Haag

Above: Andy Warhol, *Green Car Crash (Green Burning Car I)*, 1963 (detail). Synthetic polymer, silkscreen ink and acrylic on linen, 90 x 80 in. (228.6 x 203.2 cm)

his work did produce a genre like Pop Art inside the discourse of art, it also tore a hole in the fabric of that discourse as well. The field of experimental geography (and many other interdisciplinary practices) derives from similar moments of theoretic rupture. They are born when the extant frame is not wide enough and we must begin to understand the mechanisms of power, finance, and geopolitical structures that produce the culture around us. Because of Warhol's consistent belief in the power of spectacle, his work lent far more cultural power and credence to the post-Fordist mechanisms of capital that were shaping culture across the globe. Television, not art, made culture. And thus, if we are to understand Warhol's work, we must understand television and not art.

Of course, this radical shift in the focus of the interpretative lens has been slow to catch on. Art historians continue to interpret artworks via the canonical history of representation techniques of the West. And let's face it, it is a lot to ask of an art appreciator that he or she understand entire geopolitical conditions before a Warhol work becomes intelligible. However, slowly, a far more informed cross-disciplinary practice emerges that attempts to combine insights from a vast array of disciplines to make cultural actions and projects legible, and meaningful.



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I would like to posit that The Center for Land Use Interpretation can be seen as the Andy Warhol in the field of geography. Based in Culver City, California, since 1993, CLUI is dedicated to "the increase and diffusion of information about how the nation's lands are apportioned, utilized and perceived."[2] Clearly the polar opposite in terms of a relationship to glamour (Warhol was obsessed with celebrities; CLUI is obsessed with landfills, airstrips, and freeway on-ramps), they both retain a dry form of pointing as methodology. Acting as a facilitator, each artist simply points to the phenomena that condition our lives. While Warhol dryly points at Marilyn Monroe, CLUI points at a water-treatment plant. (For a selection of CLUI's work, see pages 42–47.) Warhol wasn't explaining what these images mean so much as placing a mirror in front of the viewer and implying, "This is who we are." We are these images. It is not that we simply watch television, but that we take the phenomena around us into our ourselves. We become what we experience. The same can be said of CLUI, which points toward the geologic and urban conditions around us and indicates that these forces produce our sense of self. Tour busses, placards, and informational kiosks takes us physically to the spaces that comprise the land we live in. It might seem fairly dry to say, "This is a court house." But the overall implication is that we are the courthouse. We are the water-treatment plant. We are the land we live on.

The core idea at the heart of experimental geography is that we make the world and, in turn, the world makes us. This insight brings into relief an intimate relationship between what we consider culture and the spaces around us. In Julia Meltzer and David Thorne's video *take into the air my quiet breath*, 2007, a Syrian architect discusses the

Above: The Center for Land Use Interpretation, *Untitled (image and text panels depicting the programs and projects of CLUI)*, 2007. Inkjet print. 16 x 24 in. (40.6 x 61 cm)

unfinished construction project to build a massive building complex over a fourteenth-century Mamluk mosque in Martyr's Square in Damascus. (See pages 60–61.) As the story of bureaucratic infighting and conflicting administrations emerges, we find that this urban space not only reflects the complicated and cultural forces at work in Syria, but also continues these tensions as an abandoned unfinished social space. In their work, *Erosion by Whispers,* 2007, Raqs Media Collective (see pages 56–59) contrast ephemeral cultural forces such as rumors and whispers with the supposed static nature of architectural space. The juxtaposition lies at the heart of much of the work featured in *Experimental Geography*.

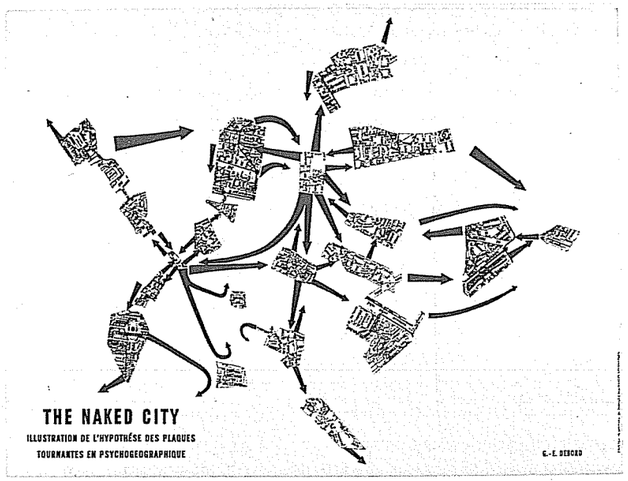
SPECTACLES IN SPACE

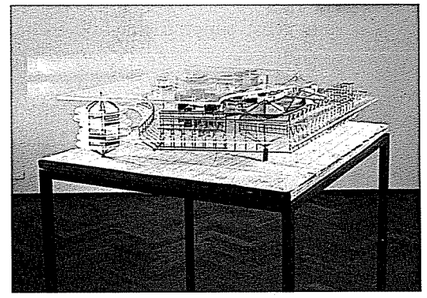
"At the opposite pole from these imbecilities, the primarily urban character of the *dérive*, in its element in the great industrially transformed cities—those centers of possibilities and meanings—could be expressed in Marx's phrase: 'Men can see nothing around them that is not their own image; everything speaks to them of themselves. Their very landscape is alive."

– Guy Debord[3]

In tracing historic antecedents for experimental geographic practice, an interesting location to begin is postwar France, with the works of Guy Debord and the eventual father of Marxist geography, Henri Lefebvre. Even before their intense discussions from 1958 to 1962, after Lefebvre had been expelled from the Communist Party, Lefebvre's writings exerted a profound influence on Debord and the avant-garde group CoBRA, particularly in his seminal book *Critique of Everyday Life* (1947).[4] In 1957, Guy Debord founded the Situationist International, a Marxist-inspired organization of artists and philosophers that came out of avant-garde associations including the International Movement for an Imaginist Bauhaus (an offshoot of CoBRA) and the Lettrist International.

Debord's early writings on what he called "unitary urbanism" and "psychogeography" clearly lay out a framework that is impressively consistent with the one employed in experimental geography: "Geography, for example, deals with the determinant action of general natural forces, such as soil composition or climatic conditions, on the economic structures of a society, and thus on the corresponding conception that such a society can have of the world. *Psychogeography* could set for itself the study of the precise laws and specific effects of the geographical environment, consciously organized or not, on the emotions and behaviors of individuals."[5] Taking this Situationist credo at face value, the artist kanarinka, in her *It Takes 154,000 Breaths to Evacuate Boston,* 2007, runs the Boston evacuation route as a spatial interpretation of the post-9/11 urban condition. (See pages 86–89.) Installed as a series of jars with speakers inside, this psychogeographic project allows visitors to listen to her breaths, a reflection of behavior and psychologic condition, as she runs across this suggested evacuation plan.





Debord's position (that our behaviors are a result of the ways we not only see the world but actually move through it) came out of a deep reaction to the largest French art movement of the early twentieth century, Surrealism. The Situationists, as well as precursors such as CoBRA with Asger Jorn, harshly critiqued the focus on the individual imagination that constituted the theories espoused by the Surrealist André Breton. "The error that is at the root of Surrealism is the idea of the infinite richness of the unconscious imagination."[6] For Debord, the individual was only a product of larger forces of capital, and the Surrealists' dependence on the individual unconscious was deeply misguided if not flagrantly status quo. The Situationists cleverly inverted the Surrealists' Freudian-inspired mandate and made the subconscious mind a product, not a producer, of urbanism. If one wants to change the mind, one must change the geographic conditions that shape it.

In demonstrating the potential for psychogeography, Debord turned to cartography. His collage of 1957 titled *The Naked City* is formed from cut-out sections of a map of Paris. In juxtaposing and combining different sections of the city, Debord took the exquisite corpse of the Surrealists and applied it directly to urbanism. And more maps began to emerge. The Dutch Situationist Constant Nieuwenhuys produced numerous maps for his utopian city, New Babylon, a city based on the organizing principle of play. Cartography as a medium through which not only to reflect existing conditions of power, but also to produce new urban relationships, became an aesthetic and geographic endeavor. Today, this legacy has hit full stride. In his *We Are Here Map Archive,* 1997–2008, *AREA Chicago* editor Daniel Tucker displays a tiny portion of the multitude of artistic cartographic materials that have emerged in the last decade, including the works of Ashley Hunt, the Beehive Design Collective, and the important urban mapping collective Repohistory. (See pages 118–159.)

While often deployed as a vehicle for empiricism, maps inherently contain political assumptions (think of the earth sitting at the center of the universe before the Copernican revolution, or the United States at the center of a map before Buckminster Fuller's Dymaxion map) and

Above left: Guy Debord, *The Naked City*, 1957. Screenprint.

Above right: Constant Nieuwenhuys, *Yellow Sector* (from the *New Babylon* project), 1958. Collection of the Gemeentemuseum Den Haag

some artists simply highlight these problematics. Artist Lize Mogel, who co-edited the book *An Atlas of Radical Cartography*, contributes a map of World's Fairs titled *Mappa Mundi,* 2008. (See pages 106–109.) The World's Fairs, which coincided with the rise of modernism and the city, embodied both the industrial and economic shifts transpiring across the globe but also the utopian dreams they inspired. Mogel's map shifts the arrangement of the world to reflect a lost history of dreams, power, and aspirations. Ellen Rothenberg interrogates a bias in the very form of cartography in her *De-Stabilized Geography: Map 3*, 2007–08. (See pages 110–113). A cartographic wall piece comprised of camouflage seams and orange pushpins, her abstract work implies a synergy between militarism and mapping. To what degree do the abstraction of space, the display of roads, fuel supplies, and bunkers, imply an abstraction of bodies and lives?

This question and many others force us to reconsider not only the obvious politics of mapping, but also which maps we choose to use. Whose life becomes abstract? Whose world gains precedence? How is value assigned and distributed? In *AREA Chicago*'s *Notes for a People's Atlas* (2007–ongoing), the power to answer these questions is given to community members living in the vicinity where a map is distributed: Asked, quite simply, to draw their own maps, individuals can privilege personal spaces, family lives, forces or conditions of oppression, in the spirit of Constant Nieuwenhuys, for play. (Samples from the project are reproduced on pages 114–117.)

In the Jorge Luis Borges story "The Exactitude of Science," a group of dedicated cartographers produce a map of a city in such fine exquisite detail that it replicates the city itself on a one-to-one scale. The map becomes that which it interprets. We find that maps also reflect not only the physical reality, but also the social realities that space produces. If biases exist in popular maps, these same biases are reflected in the manner in which we move and experience our world. The Situationists were eager to point out that the forces operating in cultural production (which they referred to as "spectacle") had a spatial corollary. If capitalism had made visual culture an excuse for the production of consumers, so too did the structure of the social space. Like Andy Warhol, the Situationists collapsed the difference between an emerging system of cultural production and that of artistic production. Unlike Warhol, the Situationists aggressively articulated this phenomenon as the next logical step of capitalism and were dedicated to subverting and overthrowing its mechanisms of control. While Warhol was poetically resigned to the flow of Brillo boxes and Campbell's soup cans, the Situationists were hard at work developing techniques to counter the effects of spectacle. They called forms of resistance to the visual aspects of advertising *détournement* and its spatial equivalent the *dérive* (the drift): "In a *dérive* one or more persons during a certain period drop their usual motives for movement and action, their relations, their work and leisure activities, and let themselves be drawn by the attractions of the terrain, and the encounters they find there."[7] In essence, the Situationists advocated walking.

A SIDEWALK HAS A PLAN

The art of the pedestrian has a longstanding relationship to the city. Looking at mid-nineteenth century Paris (the Second Empire), we find the emergence of the *flâneur* dovetailing with radical restructuring of Paris by Baron Georges-Eugène Haussmann in 1852. Haussmann was charged by Napoleon III to modernize Paris by broadening the avenues, which would facilitate troop movements as well as railway traffic, initiate better sanitation, and streamline the entire city. Haussmann produced a city whose composition clearly reflected an infusion of capitalism and military control into its shop windows and boulevards. In his never-completed *Arcades Project,* the magical Marxist Walter Benjamin evinced a fascination with the manner in which the new Paris shaped and produced responses to the city, particularly in the embodiment of the nineteenth century *flâneur*. As Rebecca Solnit writes, "the *flâneur* arose, Benjamin argues, at a period early in the nineteenth century when the city had become so large and complex that it was for the first time strange to its inhabitants."[8] The *flâneur* was a stroller who walked the streets of Paris peeking in shop windows and observing crowds. His attitude was of a refined distance that observed the evolving condition of modernity. During this period, the great poet of modernism Charles Baudelaire heralded the *flâneur* as the apotheosis of the artist in an emerging urban condition. Walking was the rage in the cities. Emile Zola would traipse the streets of Paris with a notebook gaining insights into the modern subject. Gustave Courbet would paint himself as the sojourner replete with walking stick. A sign of refinement and cultural reflection went hand in hand with a propensity for the stroll.

In his book *The Practice of Everyday Life*, Michel de Certeau considered the politics of walking, "The act of walking is to the urban system what the speech act is to language or to the statements uttered."[9] De Certeau's interest was in the forms of resistance and meaning that are produced in a mild sojourn through the city. Applying Foucauldian discipline to the antics of the pedestrian, de Certeau's strategy clarified the primacy of space and the walk as its interlocutor: "The walking of passers-by offers a series of turns (*tours*) and detours that can be compared to 'turns of phrase' or 'stylistic figures.' There is a rhetoric of walking. The art of 'turning' phrases finds an equivalent in the art of composing a path (*tourner un parcours*). Like ordinary language, this art implies and combines styles and uses."[10] The city could be considered a language: a place where a short-cut across a yard or jay-walking were moments of personal flair. Loitering could be an aside, skateboarding a sonnet.

Ultimately, the discussion so far has laid out a simple framework whereby acts in space can be interpreted via the various forces that produce that space—whether it is walking, bus riding, interventions, or mapping, that is, an analysis of how culture is produced in space and, in turn, how those spaces produce culture. When Vito Acconci famously followed people in his *Following Piece,* 1969, the work gained more clarity with an understanding of the *flâneur*; the distanced viewer observing the crowd. His nonutilitarian, deeply personal journey also finds resonance in the Situationist *dérive*, as well as the city-as-language

concepts of de Certeau. And finally, his walking in the city is all the more comprehensible as we understand the forces that produce the sidewalks he saunters on. To tear the meaning of the work away from the conditions and forces that shape its environment is to limit its relevance. There are many walking-based artistic projects, including those of Marina Abramović, Adrian Piper, Francis Alÿs, and Janet Cardiff.

The Center for Land Use Interpretation will often use the "tour" as a form to introduce their guests on a bus to the uses of the land around them. (See pages 42–47). Take for example a trip to the industrial city of Irwindale at the base of the San Gabriel Mountains. As CLUI tour guide Matt Coolidge stated at the onset, "We will be going to some of the most banal and dramatic landscapes in Los Angeles, and by the time we are done, we probably won't be able to tell the difference." The tour bus visited the Durbin Pit (a massive site for mining the residue of the mountain range), Hanson Spancreet complex (a company that designed concrete support beams for freeways), and the Santa Fe Dam, among other sites. In personally visiting the gears of the city-machine, one realizes that the banal activities of our daily lives (plugging in a light, commuting to work, washing dishes) actually require a vast network of structures that exist in the same cities we live in. The collective e-Xplo, consisting of Rene Gabri, Heimo Lattner, and Erin McGonigle, produces GPS-guided bus tours with synched sound. (See pages 98–101.) As an auditory environment, the tour is meant to disrupt assumptions about place in order to insert a poetic read on site. Like Debord's *Naked City*, this montage of sound and speed allows one to restructure the given map of a city.

Understanding the forces that act on any given space requires a handle on numerous fields of knowledge. The Situationists, Lefebvre, and de Certeau provide a useful template for understanding how space produces culture, but these sources are just entry points to a vast reading of spatial phenomena. Any act has economic, racial, and sexual aspects, and thus resists easy containment in a frame. In her book *Evictions* Rosalyn Deutsche criticizes urban geographers such as David Harvey and Edward Soja for discounting the roles that gender and race play in the construction of power in space. When Adrian Piper dresses like an African-American male walking in the city in *The Mythic Being*, 1973,

Above: Adrian Piper, *The Mythic Being* (film still), 1972-75

it would clearly be deeply limiting to interpret the work in a purely economic frame that excludes race and gender.

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Traveling through this environment, of course, can take many forms. Piper's intervention demonstrates a technique of performance that occurs throughout this exhibition. In tactically deploying their work into the parking lots, sidewalks, alleys, and bus benches of the metropolis, these artists either disrupt given power relations or reveal the power structures that remain hidden. Chaplinesque slapstick artist Alex Villar contrasts the basic functions of the body's movement to the structure of urban space itself. In his video *Upward Mobility,* 2002, Villar attempts to literally climb the building surfaces around him. Grasping onto corners and lifting himself on cornices, he flails in his attempt to move vertically as opposed to the designed horizontal nature of the city. (See pages 90–93.) In essence, Villar's videos make a viewer aware of just how coercive the city is as his efforts to resist appear almost comical in their futility.

In Deborah Stratman's *Park*, 2000, the artist produced a mobile facsimile of a parking-attendant booth. (See pages 94–97.) She then transported the quasi-security booth throughout the city of Chicago, letting it rest near abandoned lots. The introduction of this booth transformed the psychological nature of an abandoned space by implying an architecture of control. Drivers trying to park near the structure immediately wondered how to interact with this vacated station. In moving this structure throughout the city, Stratman makes evident the manner in which we, as participants in an urbanism produced via control, accept and expect this type of social interaction.

Through the work of Villar and Stratman, we gain an immediate understanding of concepts that might at times feel theoretically abstract or altogether mystifying. How does the city make us who we are? Simply put, a sidewalk is meant for non-loitering movement. A parking structure implies power that we immediately obey. But these works contain more than these simple ideas. They demonstrate play, and their implications far exceed such reductiveness. But nonetheless, these elegant and facile interventions allow us to appreciate one of geography's most critical contributions: culture and politics happen in space. We can point at them. In the wake of the art world's romance with post-modern theory, the fact that some artists and thinkers now find solace in an approach grounded in real sites with real histories might appear more reasonable. A postmodern critical malaise might find comfort in the arms of contemporary geography.

THE GLOBAL AND THE GENTRY

In Trevor Paglen's essay, he expands the reach of experimental geography to include the structures of the forces that produce culture itself. That is to say, culture does not happen in a vacuum, and neither do the ideas, careers, dreams, and exhibitions promulgated in the art world. The art world has buildings. It has offices. It exists in space. In taking this necessary leap, we must go from interpreting simply how the city works to how

the physical spaces of our world produce the various cultural discourses that comprise it (the art world, music, television, radio, film, computers, social networking, education, and on and on). If to understand Warhol we need to understand television, then today, in order to understand cultural phenomena, we must understand neoliberalism.

Because mid–nineteenth century Paris has been a touchstone for thinking about the rise of the city, we can use some if its basic characteristics as a template for uneven development in cities across the globe. As populations move toward the cities of the world (due to complex phenomena including post-Fordist manufacturing and the consolidation of agri-business), culture becomes increasingly streamlined by capitalism. As the bohemian lifestyle emerged in concert with the growing function of cities during the nineteenth century, in the twenty-first century this relationship to culturally produced space became an oft-touted new economy of "the creative class," to use a term coined by Richard Florida. In her book *Evictions*, Rosalyn Deutsche compellingly points out the manner in which cities have been restructured not by artworks, but by artists' lives: "When galleries and artists, assuming the role of the proverbial "shock troops" of gentrification, moved into inexpensive storefronts and apartments, they aided the mechanisms by driving up rents and displacing residents."[11] The term "gentrification," which fills the conversations of most city residents, brings to light the close proximity that cultural production has to spatial production. In his essay on experimental geography, Paglen asks practitioners to reconsider their relationship to economic status as cultural producers. That is, to use the argument Walter Benjamin articulates in "The Artist as Producer," to ask all participants in cultural production to be aware of the production part of their work. These conditions are not only produced by the role of culture within a city; but they produce the culture of that city in turn.

Gentrification and many of its various city-restructuring forces are certainly results of shifting global markets. As the role of the city increases, the city itself is being reshaped according to neoliberal principles. Chinese artist Yin Xiuzhen reflects this porous intra-city connection with a series of suitcases with sewn-together cities inside made from the discarded clothes of the city's residents. (See pages 102–103.) This series, aptly titled "Portable Cities," reflects the manufacturing base that makes these cities possible while also highlighting an increasing sense of global mobility.

Globalism clearly dominated the discourse of the 1990s. After the fall of the Berlin Wall and the ushering in of a neoliberal agenda devoid of a Marxist counter-argument, the jet-setting fever of global capitalism took hold. By the end of the 1990s, global biennials were sprouting up around the world, and the arts community saw an expanding function for the arts, not just in terms of global reach, but in effecting the production of urban space in general. Biennials were used for a variety of reasons, but many had to do with the positioning of the city in the global imagination. Museums such as the Guggenheim Bilbao took Milton Friedman's economics and applied them concretely to the production of a tourist-generated, post-manufacturing city.

As the initial gestalt of global capitalism wore off, certain tendencies in urban restructuring emerged. While the face of gentrification in the arts focused on the complicated role artists played in displacing themselves, the more obvious function was the rezoning of a city along racial lines. Gentrification has more than a capital component; on a global level, its effects are distributed unevenly. As the immigrants in the suburbs of Paris erupted in riots and the largely African-American city of New Orleans began to tear down the public housing after the traumatic damage of the Hurricane Katrina floods, the racialization of city planning became much more evident.

In their provocative look at the territory that defines Israel and Palestine titled *The Road Map*, 2003, the collective Multiplicity used a simple empirical formula: they compared the time it took for a person holding an Israeli passport and a resident of Palestine to go the same distance. (See pages 70–73.) The time for the Israeli citizen was one hour and that of the Palestinian citizen, five and a half hours. The inequity is unsurprising, given the vast array of checkpoints and obstacles to which a Palestinian resident is subjected. But what also becomes clear is the spatialization of a politics along religious and ethnic lines. This has implications in many aspects of everyday life. While this contested border region with its checkpoints and delays becomes a condition of daily existence, it simultaneously produces a political and cultural condition.

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But let us not forget the lochs, the mesas, the bluffs, the meadows, and the canyons. As much as I have focused on the increased role of the urban, these same conditions operate in what we typically understand as the natural world. Jeffrey Kastner's essay points out the collision that the Land Art works of Heizer, Smithson, and de Maria are facing as industrial forces rapidly encroach on them. The natural world does not appear to be as separated from the unnatural world as one might assume. While the illusory qualities of the term "natural" would have been difficult to discuss only ten years ago, today global warming has accelerated the specious dichotomy of natural/unnatural. As carbon emissions reduce the salmon run in southern Alaska, the globe wakes up to a startling and useful fact: It is all one system.

Artist Ilana Halperin had a sudden realization of this fact when she learned that tectonic plates move at the same pace your fingernails grow. To operate on a time scale equivalent to massive geologic phenomena produces a sense of connectedness that she describes as "geologic intimacy." She takes the process one step further in infusing the geologic with the domestic. In *Boiling Milk (Solfataras)*, 2000, Halperin attempts to boil milk in a natural hot spring. (See pages 52–55.) The gesture, while poetic, also provides an ambiguous key into the potential of a collapsed distance between the natural and unnatural.

Francis Alÿs deploys the power of metaphor similarly in *When Faith Moves Mountains*, 2002. (The work is also represented here on page 48 by a selection from *The Making of Lima*, which is about the making of *When Faith Moves Mountains*.) On April 11, 2002, five hundred

volunteers gathered at the base of a large sand dune outside Lima, Peru. Equipped with shovels, the collective mass attempted to move the dune forward by four inches. Like Halperin's, this work operates on the level of allegory and metaphor (Alÿs says as much in the title). Clearly, moving the sand dune forward four inches was an impossibility, but the rumor of its movement, and the power of the metaphor in attempting the impossible, are actually what were created. In a collection such as *Experimental Geography,* where the urge toward the didactic is healthy and at times productive and eye-opening, gestures such as those of Halperin and Alÿs make way for a more ambiguous relationship to landscape.

CULTURE MAKES DUST

To shift gears at the end of this essay, I would like to also question the concept of an interdisciplinary practice. While I have so far explicated in shorthand some of the historic and theoretic elements that produce a lens for interpreting the work included in *Experimental Geography*, I have not discussed the vicissitudes of the interaction between artistic and academic disciplines. If one were to ask those who are clearly working in the complicated terrain between fields of aesthetic and empirical investigation, the term "interdisciplinary" would produce an incredulous response. The term strikes many practitioners as grossly antiquated. But clarifying this relationship is important, as it is clearly a stumbling block for many who are involved. As this practice grows, and a field combining ambiguity, empiricism, techniques of representation, and education makes its way into popular practice (in art and in other fields) the question of what makes something "art" or "geography" will inevitably arise.

In answering this question, let's turn to two projects highlighted here by collectives whose very organizing principles imply a radical departure from traditional dichotomies of art and academia. Let's look at a project by the diffuse art collective Spurse. In *Micromobilia: Machines for the Intensive Research of Interior Bio-Geographies,* 2005–08, Spurse attempts to study all phenomena at the bacterial level. As they write, "This mobile laboratory allows visitors to understand the material reality by which supposedly separate phenomena (particularly the cultural and material) in fact, coexist and that there are simple strategies to investigate this." Spurse's project is a laboratory replete with cotton swabs, Petri dishes, dry agar medium, chalkboards, microscopes and refrigerators. (See pages 64–69). The goal is a participatory form of investigation intended to break down accepted semiotic categories of the cultural and the material. Reflecting the organizing principle of this exhibition, Spurse dramatically refuses to distinguish between phenomena that most of us consider absolutely discrete. How can a person be the same as a rock? How can the effects of a rumor be measured in the same manner as those of a river? By not privileging phenomena that we identify with humanity, we root out some of the biases underpinning the distinctions made between that art and geography. In an altogether different but equally radical

shift, the collective the Center for Urban Pedagogy (CUP) uses the mantle of pedagogy to deploy a myriad of information-delivery mechanisms. As pedagogy is the art of teaching, surely art and most academic disciplines should find common ground here. How do we communicate with one another in order to understand the world around us? In pursuit of an answer to this question, we find techniques throughout this collection reflected ranging from the didactic to the poetic, from the urban to the geologic, that allow a unified field to emerge.

Ultimately, all phenomena resolve themselves in space. Cultural and material production are not simply abstract ideas, but are forces that shape who and what we are, and they do so in places we can walk to, intervene in, and tour. The work collected here emerges from this understanding and, ideally, provides a glimpse into a form of cultural production that we are just beginning to understand. Exactly fifty years ago, Henri Lefebvre and Guy Debord began a discussion that went in two directions (one toward geography, one toward art), and it seems fitting that their seminal works dovetail here. For if who we are is a result of the cultural and material production existing today, then this subject requires the attention and fealty of every discipline across the board.

Notes

1. Gretchen Berg, "Andy: my true story," *Los Angeles Free Press* (March 17, 1967), p. 3.
2. See www.clui.org.
3. Ken Knabb, "In Theory of the Dérive," *International Situationniste #2* (December 1958), p. 51.
4. See www.notbored.org/space.html
5. Ken Knabb, ed., *Situationist International Anthology,* Berkeley: Bureau of Public Secrets, 1981, p. 5.
6. Ibid, p. 19.
7. Ken Knabb, "In Theory of the Dérive," from *International Situationniste #2,* p. 50.
8. Rebecca Solnit, *Wanderlust: A History of Walking,* New York: Viking, 2000, p. 199.
9. Michel de Certeau, *The Practice of Everyday Life,* ed., Berkeley: University of California Press, 2002, p. 97.
10. Ibid, p. 100.
11. Rosalyn Deutsche, *Evictions: Art and Spatial Politics*, Cambridge: MIT Press, 1996, p. 151.

EXPERIMENTAL GEOGRAPHY: FROM CULTURAL PRODUCTION TO THE PRODUCTION OF SPACE

TREVOR PAGLEN

When most people think about geography, they think about maps.[1] Lots of maps. Maps with state capitals and national territories, maps showing mountains and rivers, forests and lakes, or maps showing population distributions and migration patterns. And indeed, that isn't a wholly inaccurate idea of what the field is all about. It is true that modern geography and mapmaking were once inseparable.

Renaissance geographers like Henricius Martellus and Pedro Reinel, having rediscovered Greek texts on geography (most importantly Ptolemy's *Geography*), put the ancient knowledge to work in the service of the Spanish and Portuguese empires. Martellus' maps from the late fifteenth century updated the old Greek cartographic projections to include Marco Polo's explorations of the East as well as Portuguese forays along the African coast. Reinel's portolan maps are some of the oldest modern nautical charts. Cartography, it turned out, was an indispensable tool for imperial expansion: if new territories were

to be controlled, they had to be mapped. Within a few decades, royal cartographers filled in blank spots on old maps. In 1500, Juan de la Cosa, who accompanied Columbus on three voyages as captain of the *Santa Maria*, produced the *Mappa Mundi*, the first known map to depict the New World. Geography was such an important instrument of Portuguese and Spanish colonialism that early modern maps were some of these empires' greatest secrets. Anyone caught leaking a map to a foreign power could be punished by death.[2]

In our own time, another cartographic renaissance is taking place. In popular culture, free software applications like Google Earth and MapQuest have become almost indispensable parts of our everyday lives: we use online mapping applications to get directions to unfamiliar addresses and to virtually "explore" the globe with the aid of publicly available satellite imagery. Consumer-available global positioning systems (GPS) have made latitude and longitude coordinates a part of the cultural vernacular. In the arts, legions of cultural producers have been exercising the power to map. Gallery and museum exhibitions are dedicated to every variety of creative cartography; "locative media" has emerged as a form of techno-site-specificity; in the antiquities market, old maps have come to command historically unprecedented prices at auction. Academia, too, has been seized by the new powers of mapmaking: geographical information systems (GIS) have become a new lingua franca for collecting, collating, and representing data in fields as diverse as archaeology, biology, climatology, demography, epidemiology, and all the way to zoology. In many people's minds, a newfound interest in geography has seized popular culture, the arts, and the academy. But does the proliferation of mapping technologies and practices really point to a new geographic cultural *a priori*? Not necessarily. Although geography and cartography have common intellectual and practical ancestors, and are often located within the same departments at universities, they can suggest very different ways of seeing and understanding the world.

Contemporary geography has little more than a cursory relationship to all varieties of cartography. In fact, most critical geographers have a healthy skepticism for the "God's-Eye" vantage points implicit in much cartographic practice. As useful as maps can be, they can only provide very rough guides to what constitutes a particular space.

Geography is a curiously and powerfully transdisciplinary discipline. In any given geography department, one is likely to find people studying everything from the pre-Holocene atmospheric chemistry of northern Greenland to the effects of sovereign wealth funds on Hong Kong real estate markets, and from methyl chloride emissions in coastal salt marshes to the racial politics of nineteenth-century California labor movements. In the postwar United States, university officials routinely equated the discipline's lack of systematic methodological and discursive norms with a lack of seriousness and rigor, a perception that led to numerous departments being closed for lack of institutional support.[3] The end of geography at Harvard was typical of what happened to the field: university officials shut down its geography department in 1948, as CUNY geographer Neil Smith tells it, after being flummoxed by their "inability to extract a clear definition

Previous pages: Trevor Paglen, *The Salt Pit (Shomali Plains northeast of Kabul, Afghanistan)*, 2006 (detail). Chromogenic print, 24 x 36 inches (61 x 91.4 cm)

of the subject, to grasp the substance of geography, or to determine its boundaries with other disciplines." The academic brass "saw the field as hopelessly amorphous."[4] But this "hopeless amorphousness" is, in fact, the discipline's greatest strength.

No matter how diverse and transdisciplinary the field of geography may seem, and indeed is, a couple of axioms nevertheless unify the vast majority of contemporary geographers' work. These axioms hold as true for the "hard science" in university laboratories as for human geographers studying the unpredictable workings of culture and society. Geography's major theoretical underpinnings come from two related ideas: materialism and the production of space.

In the philosophical tradition, materialism is the simple idea that the world is made out of "stuff," and that moreover, the world is only made out of "stuff." All phenomena, then, from atmospheric dynamics to Jackson Pollock paintings, arise out of the interactions of material in the world. In the western tradition, philosophical materialism goes back to ancient Greek philosophers like Democritus, Anaxagoras, and Epicurus, whose conceptions of reality differed sharply from Plato's metaphysics. Later philosophers like Thomas Hobbes, David Hume, Ludwig Feuerbach, and Karl Marx would develop materialist philosophies in contradistinction to Cartesian dualism and German idealism. Methodologically, materialism suggests an empirical (although not necessarily positivistic) approach to understanding the world. In the contemporary intellectual climate, a materialist approach takes relationality for granted, but an analytic approach that insists on "stuff" can be a powerful way of circumventing or tempering the quasi-solipsistic tendencies found in some strains of vulgar poststructuralism.

Geography's second overarching axiom has to do with what we generally call "the production of space." Although the idea of the "production of space" is usually attributed to the geographer-philosopher Henri Lefebvre, whose 1974 book *La Production de l'Espace* introduced the term to large numbers of people, the ideas animating Lefebvre's work have a much longer history.[5] Like materialism, the production of space is a relatively easy, even obvious, idea, but it has profound implications. In a nutshell, the production of space says that humans create the world around them and that humans are, in turn, created by the world around them. In other words, the human condition is characterized by a feedback loop between human activity and our material surroundings. In this view, space is not a container for human activities to take place within, but is actively "produced" through human activity. The spaces humans produce, in turn, set powerful constraints upon subsequent activity.

To illustrate this idea, we can take the university where I'm presently writing this text. At first blush, the university might seem like little more than a collection of buildings: libraries, laboratories, and classrooms with distinct locations in space. That's what the university looks like on a map or on Google Earth. But this is an exceptionally partial view of the institution. The university is not an inert thing: it doesn't "happen" until students arrive to attend classes, professors lock themselves away to do research, administrative staff pays the bills and registers the students, state legislators appropriate money for campus operations,

and maintenance crews keep the institution's physical infrastructure from falling apart. The university, then, cannot be separated from the people who go about "producing" the institution day after day. But the university also sculpts human activity: the university's physical and bureaucratic structure creates conditions under which students attend lectures, read books, write papers, participate in discussions, and get grades. Human activity produces the university, but human activities are, in turn, shaped by the university. In these feedback loops, we see production of space at work.

Fine. But what does all of this have to do with art? What does this have to do with "cultural production?"

Contemporary geography's theoretical and methodological axioms don't have to stay within any disciplinary boundaries whatsoever (a source of much confusion at Harvard back in the mid-1940s). One can apply them to just about anything. Just as physical geographers implicitly use the idea of the production of space when they inquire into the relationship between human carbon emissions and receding Antarctic ice shelves, or when human geographers investigate the relationships between tourism on Tanzanian nature preserves, geography's axioms can guide all sorts of practice and inquiry, including art and culture. A geographic approach to art, however, would look quite different than most conventional art history and criticism. The difference in approach would arise from the ways in which various disciplines rely on different underlying conceptions of the world. A geographer looking into art would begin with very different premises than those of an art critic.

To speak very generally, the conceptual framework organizing much art history and criticism is one of "reading culture," where questions and problems of representation (and their consequences) are of primary concern. In the traditional model, the critic's task is to describe, elaborate upon, explain, interpret, evaluate, and critique pre-given cultural works. In a certain sense, the art critic's role is to act as a discerning consumer of culture. There's nothing at all wrong with this, but this model of art criticism must (again, in a broad sense) tacitly assume an ontology of "art" in order to have an intelligible starting point for a reading, critique, or discussion. A good geographer, however, might use her discipline's analytic axioms to approach the problem of "art" in a decidedly different way.

Instead of asking "What is art?" or "Is this art successful?" a good geographer might ask questions along the lines of "How is this space called 'art' produced?" In other words, what are the specific historical, economic, cultural, and discursive conjunctions that come together to form something called "art" and, moreover, to produce a space that we colloquially know as an "art world?" The geographic question is not "What is art?" but "How is art?" From a critical geographic perspective, the notion of a free-standing work of art would be seen as the fetishistic effect of a production process. Instead of approaching art from the vantage point of a consumer, a critical geographer might reframe the question of art in terms of spatial practice.[6]

We can take this line of thinking even further. Instead of using geographic axioms to come up with an alternative "interpretive" approach to art (as I suggested in the previous paragraph), we can use them in a normative sense. Whether we're geographers, artists, writers, curators, critics, or anyone else, we can use geographic axioms self-reflexively to inform our own production.

If we accept Marx's argument that a fundamental characteristic of human existence is "the production of material life itself" (that humans produce their own existence in dialectical relation to the rest of the world),[7] and, following Lefebvre (and Marx) that production is a fundamentally spatial practice,[8] then cultural production (like all production) is a spatial practice. When I write an essay such as this, get it published in a book, and put it on a shelf in a bookstore or museum, I'm participating in the production of space. The same is true for producing art: when I produce images and put them in a gallery or museum or sell them to collectors, I'm helping to produce a space some call the "art world." The same holds true for "geography": when I study geography, write about geography, teach geography, go to geography conferences, and take part in a geography department, I'm helping to produce a space called "geography." None of these examples is a metaphor: the "space" of culture isn't just Raymond Williams' "structure of feeling" but, as my friends Ruth Wilson Gilmore and Clayton Rosati underline, an "infrastructure of feeling."[9]

My point is that if one takes the production of space seriously, the concept applies not only to "objects" of study or criticism, but to the ways one's own actions participate in the production of space. Geography, then, is not just a method of inquiry, but necessarily entails the production of a space of inquiry. Geographers might study the production of space, but through that study, they're also producing space. Put simply, geographers don't just study geography, they create geographies. The same is true for any other field and any other form of practice. Taking this head-on, incorporating it into one's practice, is what I mean by "experimental geography."

Experimental geography means practices that take on the production of space in a self-reflexive way, practices that recognize that cultural production and the production of space cannot be separated from each another, and that cultural and intellectual production is a spatial practice. Moreover, experimental geography means not only seeing the production of space as an ontological condition, but actively experimenting with the production of space as an integral part of one's own practice. If human activities are inextricably spatial, then new forms of freedom and democracy can only emerge in dialectical relation to the production of new spaces. I deliberately use one of modernism's keywords, "experimental," for two reasons. First is to acknowledge and affirm the modernist notion that things can be better, that humans are capable of improving their own conditions, to keep cynicism and defeatism at arm's length. Moreover, experimentation means production without guarantees, and producing new forms of space certainly comes without guarantees. Space is not deterministic, and the production of new spaces isn't easy.

In thinking about what experimental geography entails, especially

in relation to cultural production, it's helpful to hearken back to Walter Benjamin, who prefigured these ideas in a 1934 essay entitled "The Author as Producer."

While he worked in exile from the Nazis in Paris during much of the 1930s, Benjamin's thoughts repeatedly turned to the question of cultural production. For Benjamin, cultural production's status as an intrinsically political endeavor was self-evident. The intellectual task he set for himself was to theorize how cultural production might be part of an overall anti-Fascist project. In his musings on the transformative possibilities of culture, Benjamin identified a key political moment in cultural works happening in the production process.

In Benjamin's "Author as Producer" essay, he prefigured contemporary geographic thought when he refused to assume that a cultural work exists as a thing-unto-itself: "The dialectical approach," he wrote, "has absolutely no use for such rigid, isolated things as work, novel, book. It has to insert them into the living social context."[11] Right there, Benjamin rejected the assumption that cultural works have any kind of ontological stability and instead suggested a relational way of thinking about them. Benjamin went on to make a distinction between works that have an "attitude" toward politics and works that inhabit a "position" within them. "Rather than ask 'What is the *attitude* of a work to the relations of production of its time?'" he wrote, "I should like to ask, 'What is its *position* in them?'"[12] Benjamin, in other words, was identifying the relations of production that give rise to cultural work as a crucial political moment. For Benjamin, producing truly radical or liberatory cultural works meant producing liberatory spaces from which cultural works could emerge. Echoing Marx, he suggested that the task of transformative cultural production was to reconfigure the relations and apparatus of cultural production, to reinvent the "infrastructure" of feeling in ways designed to maximize human freedom. The actual "content" of the work was secondary.

Experimental geography expands Benjamin's call for cultural workers to move beyond "critique" as an end in itself and to take up a "position" within the politics of lived experience. Following Benjamin, experimental geography takes for granted the fact that there can be no "outside" of politics, because there can be no "outside" to the production of space (and the production of space is ipso facto political). Moreover, experimental geography is a call to take seriously, but ultimately move beyond cultural theories that equate new enunciations and new subjectivities as sufficient political ends in themselves. When decoupled from the production of new spaces, they are far too easily assimilated into the endless cycles of destruction and reconstitution characterizing cultural neoliberalism, a repetition Benjamin dubbed "Hell."

The task of experimental geography, then, is to seize the opportunities that present themselves in the spatial practices of culture. To move beyond critical reflection, critique alone, and political "attitudes," into the realm of practice. To experiment with creating new spaces, new ways of being.

What's at stake? Quite literally, everything.

Notes

1. Many of the ideas in this essay have been developed over almost two decades of conversations with my longtime friend and interlocutor Nato Thompson.
2. See for example Miles Harvey, *The Islands of Lost Maps*, New York: Random House, 2000.
3. For an institutional history of geography in the U.S., see William Koelsch, "Academic Geography, American Style: An Institutional Perspective," in Gary S. Dunbar, ed. *Geography: Discipline, Profession and Subject Since 1870*, Dordrecht: Kluwer, 2001, pp. 245-280.
4. Neil Smith, "'Academic War over the Field of Geography': The Elimination of Geography at Harvard, 1947-1951," *Annals of the Association of American Geographers*, vol. 77, no. 2 (June 1987), pp. 155-172.
5. Lefebve's analysis, like much critical geography, relies on a spatial reading of Marx.
6. Rosalyn Deutche's book *Evictions* is the best example of what a critical art-historical project along these lines might look like. I would like to see more art historians take this project up. See Rosalyn Deutsche, *Evictions: Art and Spatial Politics*, Cambridge: MIT Press, 1996.
7. Karl Marx and Friedrich Engels, *The German Ideology*, C.J. Arthur, ed. New York: International Publishers, 1947, p. 48.
8. Henri Lefebvre, *The Production of Space*, Donald Nicholson-Smith, trans., Oxford: Blackwell, 1991.
9. See Ruth Wilson Gilmore, "Tossed Overboard: Katrina, Abandonment and the Infrastructure of Feeling," Conference Paper, *Anxiety, Urgency, Outrage, Hope: A Conference on Political Feeling*, University of Chicago, October, 2007; Clayton Rosati, "The Terror of Communication: Critical Infrastructure, Property, and the Culture of Security," *American Studies Association National Meeting*, Washington, DC, November 2005.
10. Walter Benjamin, *Reflections*, Peter Memetz, ed., Edmund Jephcott, trans., New York: Schocken, 1978, p. 222.
11. Ibid.
12. Ibid.

STEPS TO AN ECOLOGY OF MIND

COLLECTED ESSAYS IN ANTHROPOLOGY, PSYCHIATRY, EVOLUTION, AND EPISTEMOLOGY

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Pathologies of Epistemology[*]

First, I would like you to join me in a little experiment. Let me ask you for a show of hands. How many of you will agree that *you see me?* I see a number of hands—so I guess insanity loves company. Of course, *you* don't "really" see *me.* What you "see" is a bunch of pieces of information about me, which you synthesize into a picture image of me. You make that image. It's that simple.

The proposition "I see you" or "You see me" is a proposition which contains within it what I am calling "epistemology." It contains within it assumptions about how we get in-formation, what sort of stuff information is, and so forth. When you say you "see" me and put up your hand in an innocent way, you are, in fact, agreeing to certain propositions about the nature of knowing and the nature of the universe in which we live and how we know about it.

I shall argue that many of these propositions happen to be false, even though we all share them. In the case of such epistemological propositions, error is not easily detected and is not very quickly punished. You and I are able to get along in the world and fly to Hawaii and read papers on psychiatry and find our places around these tables and in general function reasonably like human beings in spite of very deep error. The erroneous premises, in fact, *work.*

On the other hand, the premises work only up to a certain limit, and, at some stage or under certain circumstances, if you are carrying serious epistemological errors, you will find that they do not work any more. At this point you discover to your horror that it is exceedingly difficult to get rid of the error, that it's sticky. It is as if you had touched honey. As with honey, the falsification gets around; and each thing you try to wipe it off on gets sticky, and your hands still remain sticky.

Long ago I knew intellectually, and you, no doubt, all know intellectually, that you do not see me; but I did not really encounter

[*] This paper was given at the Second Conference on Mental Health in Asia and the Pacific, 1969, at the East-West Center, Hawaii. It will also appear in the report of that conference and is here reprinted by permission of the East-West Center Press, Hawaii

this truth until I went through the Adelbert Ames experiments and encountered circumstances under which my epistemological error led to errors of action.

Let me describe a typical Ames experiment with a pack of Lucky Strike cigarettes and a book of matches. The Lucky Strikes are placed about three feet from the subject of experiment supported on a spike above the table and the matches are on a similar spike six feet from the subject. Ames had the subject look at the table and say how big the objects are and where they are. The subject will agree that they are where they are, and that they are as big as they are, and there is no apparent epistemological error. Ames then says, "I want you to lean down and look through this plank here." The plank stands vertically at the end of the table. It is just a piece of wood with a round hole in it, and you look through the hole. Now, of course, you have lost use of one eye, and you have been brought down so that you no longer have a crow's-eye view. But you still see the Lucky Strikes where they are and of the size which they are. Ames then said, "Why don't you get a parallax effect by sliding the plank?" You slide the plank sideways and suddenly your image changes. You see a little tiny book of matches about half the size of the original and placed three feet from you; while the pack of Lucky Strikes appears to be twice its original size, and is now six feet away.

This effect is accomplished very simply. When you slid the plank, you in fact operated a lever under the table which you had not seen. The lever reversed the parallax effect; that is, the lever caused the thing which was closer to you to travel with you, and that which was far from you to get left behind.

Your mind has been trained or genotypically determined —and there is much evidence in favor of training—to do the mathematics necessary to use parallax to create an image in depth. It performs this feat without volition and without your consciousness. You cannot control it.

I want to use this example as a paradigm of the sort of error that I intend to talk about. The case is simple; it has experimental backing; it illustrates the intangible nature of epistemological error and the difficulty of changing epistemological habit.

In my everyday thinking, *I see you,* even though I know intellectually that I don't. Since about 1943 when I saw the experiment, I have worked to practice living in the world of truth instead of the world of epistemological fantasy; but I don't think I've succeeded. Insanity, after all, takes psycho-therapy to change it, or some very great new experience. Just one experience which ends in the laboratory is in-sufficient.

This morning, when we were discussing Dr. Jung's paper, I raised the question which nobody was willing to treat seriously, perhaps because my tone of voice encouraged them to smile. The question was whether there are *true* ideologies. We find that different peoples of the world have different ideologies, different epistemologies, different ideas of the relationship between man and nature, different ideas about the nature of man himself, the nature of his knowledge, his feelings, and his will. But if there were a truth about these matters, then only those social groups which thought according to that truth could reasonably be stable. And if no culture in the world thinks according to that truth, then there would be no stable culture.

Notice again that we face the question of how long it takes to come up against trouble. Epistemological error is often reinforced and therefore self-validating. You can get along all right in spite of the fact that you entertain at rather deep levels of the mind premises which are simply false.

I think perhaps the most interesting—though still incomplete—scientific discovery of the twentieth century is the discovery of the nature of *mind*. Let me outline some of the ideas which have contributed to this discovery. Immanuel Kant, in the *Critique of Judgment,* states that the primary act of aesthetic judgment is selection of a fact. There are, in a sense, no facts in nature; or if you like, there are an infinite number of potential facts in nature, out of which the judgment selects a few which become truly facts by that act of selection. Now, put beside that idea of Kant Jung's insight in *Seven Sermons to the Dead,* a strange document in which he points out that there are two worlds of explanation or worlds of understanding, the *pleroma* and the *creatura.* In the pleroma there are only forces and impacts. In the creatura, there is difference. In other words, the pleroma is the world of the hard sciences, while the creatura is the world of communication and organization. A

difference cannot be localized. There is a difference between the color of this desk and the color of this pad. But that difference is not in the pad, it is not in the desk, and I cannot pinch it between them. The difference is not in the space between them. In a word, *a difference is an idea.*

The world of creatura is that world of explanation in which effects are brought about by ideas, essentially by differences.

If now we put Kant's insight together with that of Jung, we create a philosophy which asserts that there is an infinite number of *differences* in this piece of chalk but that only a few of these differences make a difference. This is the epistemological base for information theory. The unit of in-formation is difference. In fact, the unit of psychological in-put is difference.

The whole energy structure of the pleroma—the forces and impacts of the hard sciences—have flown out the window, so far as explanation within creatura is concerned. After all, zero differs from one, and zero therefore can be a cause, which is not admissible in hard science. The letter which you did not write can precipitate an angry reply, because zero can be one-half of the necessary bit of information. Even sameness can be a cause, because sameness differs from difference.

These strange relations obtain because we organisms (and many of the machines that we make) happen to be able to store energy. We happen to have the necessary circuit structure so that our energy expenditure can be an inverse function of energy input. If you kick a stone, it moves with energy which it got from your kick. If you kick a dog, it moves with the energy which it got from its metabolism. An amoeba will, for a considerable period of time, move *more* when it is hungry. Its energy expenditure is an inverse function of energy input.

These strange creatural effects (which do not occur in the pleroma) depend also upon *circuit structure,* and a circuit is a closed pathway (or network of pathways) along which *differences* (or transforms of differences) are transmitted.

Suddenly, in the last twenty years, these notions have come together to give us a broad conception of the world in which we live —a new way of thinking about what *a mind is.* Let me list what

seem to .me to be those essential minimal characteristics of a system, which I will accept as characteristics of mind:

The system shall operate with and upon *differences*.

The system shall consist of closed loops or networks of pathways along which differences and transforms of differences shall be transmitted. (What is transmitted on a neuron is not an impulse, it is news of a difference.)

Many events within the system shall be energized by the respondent part rather than by impact from the triggering part.

The system shall show self-correctiveness in the direction of homeostasis and/or in the direction of runaway. Self-correctiveness implies trial and error.

Now, these minimal characteristics of mind are generated whenever and wherever the appropriate circuit structure of causal loops exists. Mind is a necessary, an inevitable function of the appropriate complexity, wherever that complexity occurs.

But that complexity occurs in a great many other places besides the inside of my head and yours. We'll come later to the question of whether a man or a computer has a mind. For the moment, let me say that a redwood forest or a coral reef with its aggregate of organisms interlocking in their relationships has the necessary general structure. The energy for the responses of every organism is supplied from its metabolism, and the total system acts self-correctively in various ways. A human society is like this with closed loops of causation. Every human organization shows both the selfcorrective characteristic and has the potentiality for runaway.

Now, let us consider for a moment the question of whether a computer thinks. I would state that it does not. What "thinks" and engages in "trial and error" is the man *plus* the computer *plus* the environment. And the lines between man, computer, and environment are purely artificial, fictitious lines. They are lines *across* the pathways along which information or difference is transmitted. They are not boundaries of the thinking system. What thinks is the total system which engages in trial and error, which is man plus environment.

But if you accept self-correctiveness as the criterion of thought or mental process, then obviously there is "thought" going on inside the man at the autonomic level to maintain various internal

variables. And similarly, the computer, if it controls its internal temperature, is doing some simple thinking within itself.

Now we begin to see some of the epistemological fallacies of Occidental civilization. In accordance with the general climate of thinking in mid-nineteenth-century England, Darwin proposed a theory of natural selection and evolution in which the unit of survival was either the family line or the species or subspecies or something of the sort. But today it is quite obvious that this is not the unit of survival in the real biological world. The unit of survival is *organism* plus *environment.* We are learning by bitter experience that the organism which destroys its environment destroys itself.

If, now, we correct the Darwinian unit of survival to include the environment and the interaction between organism and environment, a very strange and surprising identity emerges: *the unit of evolutionary survival turns out to be identical with the unit of mind.*

Formerly we thought of a hierarchy of taxa—individual, family line, subspecies, species, etc.—as units of survival. We now see a different hierarchy of units—gene-in-organism, organism-in-environment, ecosystem, etc. Ecology, in the widest sense, turns out to be the study of the interaction and survival of ideas and programs (i.e., differences, complexes of differences, etc.) in circuits.

Let us now consider what happens when you make the epistemological error of choosing the wrong unit: you end up with the species versus the other species around it or versus the environment in which it operates. Man against nature. You end up, in fact, with Kaneohe Bay polluted, Lake Erie a slimy green mess, and "Let's build bigger atom bombs to kill off the next-door neighbors." There is an ecology of bad ideas, just as there is an ecology of weeds, and it is characteristic of the system that basic error propagates itself. It branches out like a rooted parasite through the tissues of life, and everything gets into a rather peculiar mess. When you narrow down your epistemology and act on the premise "What interests me is me, or my organization, or my species," you chop off consideration of other loops of the loop structure. You decide that you want to get rid of the by-products of human life and that Lake Erie will be a good place to put them. You forget that the

eco-mental system called Lake Erie is a part of *your* wider eco-mental system—and that if Lake Erie is driven insane, its insanity is incorporated in the larger system of *your* thought and experience.

You and I are so deeply acculturated to the idea of "self" and organization and species that it is hard to believe that man might view his relations with the environment in any other way than the way which I have rather unfairly blamed upon the nineteenth-century evolutionists. So I must say a few words about the history of all this.

Anthropologically, it would seem from what we know of the early material, that man in society took clues from the natural world around him and applied those clues in a sort of metaphoric way to the society in which he lived. That is, he identified with or empathized with the natural world around him and took that empathy as a guide for his own social organization and his own theories of his own psychology. This was what is called "totemism."

In a way, it was all nonsense, but it made more sense than most of what we do today, because the natural world around us really has this general systemic structure and therefore is an appropriate source of metaphor to enable man to under-stand himself in his social organization.

The next step, seemingly, was to reverse the process and to take clues from himself and apply these to the natural world around him. This was "animism," extending the notion of personality or mind to mountains, rivers, forests, and such things. This was still not a bad idea in many ways. But the next step was to separate the notion of mind from the natural world, and then you get the notion of gods.

But when you separate mind from the structure in which it is immanent, such as human relationship, the human society, or the ecosystem, you thereby embark, I believe, on fundamental error, which in the end will surely hurt you.

Struggle may be good for your soul up to the moment when to win the battle is easy. When you have an effective enough technology so that you can really act upon your epistemological errors and can create havoc in the world in which you live, then the error is lethal. Epistemological error is all right, it's fine, up to the

point at which you create around yourself a universe in which that error becomes immanent in monstrous changes of the universe that you have created and now try to live in.

You see, we're not talking about the dear old Supreme Mind of Aristotle, St. Thomas Aquinas, and so on down through ages—the Supreme Mind which was incapable of error and incapable of insanity. We're talking about immanent mind, which is only too capable of insanity, as you all professionally know. This is precisely why you're here. These circuits and balances of nature can only too easily get out of kilter, and they inevitably get out of kilter when certain basic errors of our thought become reinforced by thousands of cultural details.

I don't know how many people today really believe that there is an overall mind separate from the body, separate from the society, and separate from nature. But for those of you who would say that that is all "superstition," I am pre-pared to wager that I can demonstrate with them in **a** few minutes that the habits and ways of thinking that went with those supersitions are still in their heads and still determine a large part of their thoughts. The idea that *you can see me* still governs your thought and action in spite of the fact that you may know intellectually that it is not so. In the same way we are most of us governed by epistemologies that we know to be wrong. Let us consider some of the implications of what I have been saying.

Let us look at how the basic notions are reinforced and expressed in all sorts of detail of how we behave. The very fact that I am monologuing to you—this is a norm of our academic subculture, but the idea that I can teach you, *unilaterally, is* derivative from the premise that the mind controls the body. And whenever a psychotherapist lapses into unilateral therapy, he is obeying the same premise. I, in fact, standing up in front of you, am performing a subversive act by reinforcing in your minds a piece of thinking which is really nonsense. We all do it all the time because it's built into the detail of our behavior. Notice how I stand while you sit.

The same thinking leads, of course, to theories of control and to theories of power. In that universe, if you do not get what you want, you will blame somebody and establish either a jail or a mental hospital, according to taste, and you will pop them in it if

you can identify them. If you cannot identify them, you will say, "It's the system." This is roughly where our kids are nowadays, blaming the establishment, but you know the establishments aren't to blame. They are part of the same error, too.

Then, of course, there is the question of weapons. If you believe in that unilateral world and you think that the other people believe in that world (and you're probably right; they do), then, of course, the thing is to get weapons, hit them hard, and "control" them.

They say that power corrupts; but this, I suspect, is non-sense. What is true is that the *idea of power* corrupts. Power corrupts most rapidly those who believe in it, and it is they who will want it most. Obviously our democratic system tends to give power to those who hunger for it and gives every opportunity to those who don't want power to avoid getting it. Not a very satisfactory arrangement if power corrupts those who believe in it and want it.

Perhaps there is no such thing as unilateral power. After all, the man "in power" depends on receiving information all the time from outside. He responds to that information just as much as he "causes" things to happen. It is not possible for Goebbels to control the public opinion of Germany be-cause in order to do so he must have spies or legmen or public opinion polls to tell him what the Germans are thinking. He must then trim what he says to this information; and then again find out how they are responding. It is an inter-action, and not a lineal situation.

But the *myth* of power is, of course, a very powerful myth and probably most people in this world more or less believe in it. It is a myth which, if everybody believes in it, becomes to that extent self-validating. But it is still epistemological lunacy and leads inevitably to various sorts of disaster.

Last, there is the question of urgency. It is clear now to many people that there are many catastrophic dangers which have grown out of the Occidental errors of epistemology. These range from insecticides to pollution, to atomic fallout, to the possibility of melting the Antarctic ice cap. Above all, our fantastic compulsion to save individual lives has created the possibility of world famine in the immediate future.

Perhaps we have an even chance of getting through the next twenty years with no disaster more serious than the mere destruction of a nation or group of nations.

I believe that this massive aggregation of threats to man and his ecological systems arises out of errors in our habits of thought at deep and partly unconscious levels.

As therapists, clearly we have a duty.

First, to achieve clarity in ourselves; and then to look for every sign of clarity in others and to implement them and reinforce them in whatever is sane in them.

And there are patches of sanity still surviving in the world. Much of Oriental philosophy is more sane than anything the West has produced, and some of the inarticulate efforts of our own young people are more sane than the conventions of the establishment.

Introduction: The Point Is To Change It

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The title we have chosen for this book, borrowed from one of Marx's most famous injunctions, is an invitation to think and a provocation to act. We're in the midst of some exceptionally challenging, complex and momentous changes to the global economy, polity, society and ecology. Disease, starvation, malnutrition, hunger, poverty, torture, unlawful imprisonment, poverty, marginalization, racial discrimination, cultural chauvinism, ethnic prejudice, gender inequality, religious intolerance, sexual discrimination, and environmental destruction are all signature features of the early twenty-first century. Democracy, in its various imperfect actually existing forms, is something that only a small minority of the world's people enjoy. Material wealth exists in abundance, but is commanded disproportionately by an elite of financiers, land developers, property tycoons, commodity traders, corrupt politicians and owners of various transnational corporations. "Uneven development" is, today, extreme in both social and geographical terms. Equality of opportunity (never mind outcome) is still an idealist's dream in most of the twenty-first century world.

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Militarism is also writ-large: the legal and illegal trade in weaponry helps to sustain the economies of supply countries and underpins seemingly endless conflagrations in the global South. Geopolitical tensions bubble under the surface where they are not already made manifest. Virtually all of the world's problems have an international dimension to them, yet cross-governmental efforts to enact joined-up policy—such as the Kyoto protocol—are routinely foiled or attenuated. On top of this, the new powerhouses of capitalism—such as China and India—seem to be following a Western road to development, with all this implies for the world's ecology. And we haven't even mentioned the effects of the recent world financial crisis. But like any crisis moment, the late noughties are also a crossroads, a crucial interregnum of immense opportunity and new possibilities.

The essays in this volume have been commissioned to mark the 40th birthday of *Antipode: A Radical Journal of Geography*. The journal was founded during an extraordinary period in modern history, one in which hopes for progressive change were exceedingly high. Four decades on, and Leftists have an awful lot to contemplate. We think this is especially true for those of us who work with ideas and books, abstractions and words, among the sundry tools of the academic trade as we are faced with the task of using them to engage with the world in progressive ways. Plying the tools of our trade to reveal more effectively the multiple relations of power along with bolstering efforts for thwarting these relations continues to be an urgent challenge confronting academic leftists. It is the challenge that *Antipode* has embraced since its founding in 1969 as its many contributors endeavor to generate knowledge and pedagogy that sustain resistance to all manner of injustice and exploitation in a world in which the best ways to do so are not patently clear.

Engaging with this challenge is the de facto obligation of any journal that proudly claims the word "radical" in its masthead. Linguistically, the term originates from the Latin word, *radix*, meaning "root" that links the term to the idea of foundational truth, as is commonly used in mathematics, chemistry and also in politics, as radicals seek to expose political truths and not shy away from the consequences of doing so. Political truths in this meaning of the term "radical" are twinned always with subversion. As Rosa Luxemburg notably opined: "The most revolutionary thing one can do always is to proclaim loudly what is happening." Or as Gloria Steinem quipped: "The truth will set you free, but first it will piss you off." Whether advocating for political rights under fascism or for a woman's right to control her own body within limited democracies, the point is not only to expose the many truths concerning how power corrupts all manner of social relationships. The point of radical leftist academic work, as Karl Marx famously announced, is also to conjoin revelation with revolution, not

necessarily of the violent variant, but in its most basic sense of turning power around, however and whenever it corrodes the bonds of justice and humanity. As Antonio Conti, the Italian autonomous Marxist, said: "The goal of research is not the interpretation of the world, but the organization of transformation." We are in this game to change things, directly or otherwise.

As a journal of radical geography, *Antipode* was founded with this point in mind. When it was the birth-child of a handful of Left-wing academics and graduate students at Clark University in 1969, the journal was the only one of its kind within the field of human geography, and not only because it was produced on a shoestring and eschewed the conventions of normal "academic" writing. It was the only geography journal that called itself "radical" at a time when universities were expunging faculty and expelling students so-labelled. By calling some four dozen pages "a journal", the founders of *Antipode* created an outlet for the publishing of work that was unapologetically critical of the status quo and dedicated to ideals of social justice. And with this opening, the journal joined an incipient list of others across a variety of fields to turn the topics and approaches within its pages into legitimate academic concerns. Over the last four decades, *Antipode* has played an important role within and beyond geography in making capitalist exploitation, social justice, radical movements, gender inequality and other such topics into staple intellectual themes. But as *Antipode*'s contributors to this volume agree, now is not the time to settle into some middle-aged complacency. Around the world there is clearly a desperate need for progressive scholars and activists to challenge the notion that "business as usual" is not acceptable—and that we are willing to work as hard as we can, and in concert with others, to change things for the better.

Addressing this challenge is what we had in mind when we invited some 14 contributors (as we said in our letter to them) "to offer informative, illuminating and sophisticated analyses of 'the state of the world' in the early twenty-first century and how it might be changed for the better". In response, we have received a collection of essays that seek to align commitments to social and environmental justice to political strategies for addressing complex political realities and our roles as radicals within the academy. This volume is topically and intellectually diverse, reflecting the microcosm of the broad Left comprised by our authors. The contributors speak to multiple concerns and use diverse examples to illustrate their assessments. And yet, they all converge around a common desire to unravel the meanings of power, inequality, injustice and progressive politics in the current period. While we do not want to impose an artificial interpretation that finds common ground across a wide-ranging set of essays, there is a coherent call within this volume for refining of conceptual tools that can be better used as instruments of political change in specific places and in response to

specific issues in the world today. The essays are not oriented toward polemics or for theorizing for its own sake. They, rather, seek to hone and craft ideas into implements of progressive change.

Toward this end, the authors address the following sets of questions: How do our conceptions of justice contribute to social justice activism in diverse parts of the world? How do our analyses of social and economic crises assist those who are struggling against mean-spirited processes of neoliberalization, the ravages of privatization and the biopolitics of international development? How can we apply our analytical insights in ways that are accessible beyond our narrow disciplines and specialties and that address the devastation of racism and xenophobia? How can we on the left continue to be effective as we do our jobs in institutions that are conservative and corporate? How can we make the principal medium of our craft—the written and spoken word—more accessible to international publics that do not have access to our publications or to the languages of our medium and to less educated populations who are eager to engage our radical theory? How can we reach the youth of today who read less and communicate through Twitter and Facebook? How can we be relevant from our places of privilege to the people whose outrage, suffering and political commitments provide the material of our conjoined political and academic interests?

In raising such questions, the authors brought together in this collection are agreed on the continued need for radical scholarship. Less clear, however, is the form radical scholarship should take in the current period. Whereas 40 years ago when *Antipode* was founded there may have been a broad consensus that variants of Marxism offered the best intellectual platform on which challenges to injustice and exploitation should be based, this is no longer the case. While Marx, Polanyi and Gramsci remain key theorists for many of our authors, we also see clearly in these contributions how the challenges of, and ongoing encounters with, feminist, postcolonial, "green" and poststructural theorizing have indelibly reshaped the contours of radical scholarship. Even those who remain committed to a Left theoretical orthodoxy no longer take for granted the centrality of the industrial worker as the potential revolutionary subject, the economism of some Marxian frameworks, or the nation-state as the container within which capitalism operates. In addition to a more internationalist stance, there is also a new emphasis on plurality, contingency and a richer sense of the validity of multiple political sensibilities. Indeed, overall there is a notable reluctance to be overly prescriptive about the forms that left alternatives should or could take in the current period.

Then there are those who aspire to even broader conceptualizations of radical politics. Foucault, Negri, Latour, Plumwood, Said, Nancy, Ranciere, Agamben and Haraway, among others, are also part of the conceptual repertoire on which our contributors draw to the effort to

understand and address the challenges of the present. Such accounts are attempting to develop new ways of thinking about politics that are genuinely progressive, but move away from the revolutionary ideals and utopian desires that have tended to characterize leftist accounts. This often takes the form of more specific and situated approaches, in which already existing politics and practices are reframed and interrogated for their transformative potential. Whereas economies, states and markets tend to feature as the dominant categories in more conventional leftist political-economic analyses, spatialized, gendered and racialized bodies become more visible in these alternative accounts, as do geographically specific processes and practices of imagination and assembly, and the micro-politics of emotion, affect and ethics. There is also a politics of prefiguration flagged-up here ("be the change you want to see" as Ghandi said), which aims to build achievable future aspirations in the present through an accumulation of small changes. It is about embracing "power together" rather than power over.

There is, of course, a variety of views herein about the analytical and political utility of these diverse theoretical positions, and also of the actual and potential relationships between them. We would not wish it to be otherwise. However, what we do want to do is foster the linking of these critical analyses to contemporary political struggles, understanding that these struggles encompass, among others, issues such as finance, poverty, environment, indigeneity, enclosure, work, education and citizenship. None of these struggles are new foci in broader political ambitions to further economic and social justice. However, in the present political-economic conjuncture they may appear to be taking on new characteristics both because the world itself has changed—in both epochal and quotidian ways—but also because we are coming to understand this changing world in new ways.

Radical scholars have taken many cues from the emergence of anti-globalization activism often inflected with a strong anti-capitalist sentiment. The term "movement of movements" is often used to describe this latter turn, a vibrant hydra-like disorganization with no clear centre, defined through the idea of "one no, many yeses", and which has networked groups across the world and mobilized large international days of action. The spaces opened up by this new anti-capitalist internationalism are fraught with tensions, disagreements and conflict, often reflecting the well worn divisions on the Left between majoritarian and minoritarian politics—or the horizontals and the verticals. Part of this is because it represents a clear tension and desire for a break with traditional models of Left political organizing, a rejection of ideological dogma in favour of fluid, creative and more shifting political affiliations. Well-worn routes to political change—central committees, organized marches and the ballot box—are rejected or questioned, and a much more complex definition of the enemy, political programmes

and relations to state power are embraced. In the writings and actions of leftist scholars, there is a recognition that taking on capitalism is far from a simple process. Social change is usually not well organized, coherent and easily defined—and nor should it be. We are simultaneously in, against and beyond capitalism.

The contribution of this collection is not simply "academic". Indeed, our initial intention was that these essays not be overly introspective, and certainly not simply exercises in rehearsing philosophical, theoretical, methodological or evidential debates. We asked the authors for pieces that offer informative, illuminating and sophisticated analyses of "The state of the world" in the early twenty-first century and how it might be changed for the better. We encouraged them to use concepts and evidence unselfconsciously and imagine a readership keen to know about the why and wherefore of twenty-first century power, inequality, injustice and progressive politics in all their complexity. In all cases, we sought essays which can both offer diagnosis and say something about political strategy and tactics looking into the future. We were not seeking polemics but, rather, well argued and evidenced assessments of our current conjuncture and the short-to-medium-term future.

Each of the authors asks us to think about changing the world in provocative and instructive ways. We open with Michael Watts, who recalls the context in which this journal was born and the aspirations of its founders. At the moment of *Antipode*'s inception, he reminds us that there was never a single understanding of the term "radical", and that the tensions between liberalism, social democracy and socialism were always apparent within even its early pages. What can we take from this account as we consider the political possibilities of the current conjuncture? For Watts there is no going back to the political certitudes and orthodoxies of the 1970s; however, he concludes that a key reference point for the contemporary Left continues to be a critical stance towards capital. This is a reference point shared by all our contributors, even as they differ as to how this critical stance might be made manifest.

Hugo Radice is concerned to recuperate the tenets of socialism for the present, arguing for an "authentic and popular socialism" that reckons with the failures of the actually existing socialisms of the last century. He stresses the need for an internationalist vision of social justice based on radical egalitarianism, which begins in day-to-day workplace interactions. Concerns about the quality of work, the need for a new internationalism of labour, and calls for workplace democracy might allow the building of a new socialist commonsense that might realize the radical potential he saw in the events of 1968. Neil Smith has an even grander vision. He argues that we have lost the political imagination (and perhaps the intellectual ambition?) to think outside of capitalism. One consequence of this is that, until recently, revolutionary change was no longer seen as viable. Today, however,

in the context of an apparent global economic crisis, social change and political transformation have once again become possible. This crisis, he emphasizes, is fundamentally a crisis of capitalism. Returning to Marx, he argues that just as feudalism was eventually replaced by capitalism so too might we be finally witnessing the difficult birth pangs of a new way of organizing social life.

Tania Murray Li is agreed that we should re-read Marx, but for her it is his analysis of spatial and temporal unevenness that gives us insight into the current conjuncture. In her analysis of rural dispossession, she's concerned to show how both capitalist development strategies and biopolitical programmes need to be examined in their historical and spatial specificity. Unlike Smith, however, she's not convinced there is a capitalist master-plan but rather regards political economy as "assemblages pulled together by one set of social forces, only to fragment and reassemble". Consequently, she seeks the advancement of social justice in specific sites and conjunctures that are only very occasionally revolutionary.

Jamie Peck, Nik Theodore and Neil Brenner are also concerned with uneven spatial development, but in the context of a discussion about the analytical and political status of neoliberalism and postneoliberalism. While using the financial crash of 2008 to ponder what a postneoliberal order might entail, Peck, Theodore and Brenner are quick to urge us that progressive postneoliberal projects need to think deeply about the entrenched forms and processes that led to neoliberalism in the first place. Their astute political economic analysis offers much by way of insights regarding the next steps toward toppling these hegemonic forms. Just as Gillian Hart emphasizes the difference between "Development" as a postwar international project, and development as a creative project of creation and destruction, so too do Peck and his co-authors highlight the distinction between Neoliberalism as a fully formed political agenda, and neoliberalization as a polymorphous, relational, process that involves ongoing reconstructions and reorientations.

Robert Wade underlines this point in his discussion of the resilience of the globalization consensus, showing that even though much of the evidence mobilized to justify the deregulated market model is surprisingly weak, this may not lead to a decline in the dominance of finance capital. He emphasizes the importance of the politics of the policy-making process in determining the future of dominant economic narratives. Similarly James Ferguson makes an analytical distinction between the ideological project of neoliberalism and the politics of social policy and anti-poverty initiatives. Provocatively, he suggests that while certain political initiatives and programmes may appear to be aligned with the ideological project, they can also be used for quite different purposes than the term usually implies. Using the examples of Basic Income Grants and Food Aid and Cash Transfers, he shows

how these might create situations in which markets play a redistributive role. Importantly, he stresses that this focus on the mundane real world debates around policy and politics is not simply to engage in reformist strategies, but rather illustrates that the need to develop new progressive arts of governing.

The next four essays focus on the so-called "neoliberal heartlands". Noel Castree focuses on the coincidence of economic and environmental crises, and is interested in the possibility of post-neoliberal futures. Taking the case of the UK's domestic politics and European Union emissions trading scheme, he's concerned to identify the barriers to creating a new political-economic and social order. He argues that the legacies of neoliberalism are such that while progressive ideas abound the conditions to make them flesh are currently absent—even in a moment of apparent "crisis". John Agnew and Katharyne Mitchell highlight distinctive features of the US financial and racial economy respectively. Agnew is also focused on the so-called global financial implosion of 2008, arguing it signals the decline of US-led Anglo-American model of global capitalism. He speculates about the emergence of new currency regimes, arguing that the world economy created and enforced by the USA is no longer sustainable. Mitchell is concerned with processes of racialization and new modalities of surveillance that—not for the first time—belie the classic American ideals of personal liberty and freedom.

Juxtaposed, Agnew and Mitchell's essays depict an America whose slow decline on the global stage is accompanied by intensified domestic control and repression. Paul Cammack echoes Agnew, but with a twist. His account of institutions of global economic governance post-Bretton Woods suggests that mainstream and radical commentators alike have over-emphasized US dominance. Cammack shows that new hegemons and blocs have been in-the-making for some time, emerging under the aegis of globalizing capital and a transnational capitalist class.

Our last group of contributors emphasize the new cartographies of justice, conceptions of political agency, processes of subjectification, and solidarity demanded by contemporary political economies and ecologies. Nancy Fraser focuses on what a post-Westphalian notion of community and justice should look like. As she says:

> a viable approach must valorize expanded contestation concerning the 'who', which makes thinkable, and criticizable, transborder injustices obscured by the Westphalian picture of political space. One the other hand, one must grapple as well with the exacerbated difficulty of resolving disputes in which contestants hold conflicting views of who counts. What sort of justice theorizing can simultaneously meet both of those desiderata?

Her essay provides an extended answer to this critical question.

Erik Swyngedouw emphasizes how the financialization of both nature and affect are giving rise to new forms of capitalism that in turn demand that we rethink the meaning of communism. Rather than being a claim taking the form of demands for self-management and self-government that would eliminate the need for the state, he calls for a reinvention of the communist hypothesis based on "equal, free and self-organizing being-in-common". In this context we have deliberately given J.-K. Gibson-Graham and Gerda Roelvink the last word. Theirs is the most profound political challenge offered by the assembled authors in that they move even further away from the human-centred conceptions of human agency found in the other essays in the book and explicitly argue for a new economic ethics appropriate to a world in which the being-in-common of both humans and more-than-humans is recognized. While the language of their contribution draws from Marxism, the hybrid research collectives they call for demand radically new conceptions of political agency that proliferate actions and identities that may give rise to as yet barely visible progressive futures.

We believe that this volume is a fitting way to mark *Antipode*'s 40th year in existence. Perhaps in another four decades there will be no need for a "radical" journal in geography or any other field—but we doubt it.