Dedicated to Isabella DeRiso

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The Revolutionary Imperative: Engaging the Work of Neil Smith

Neil Smith's Long Revolutionary Imperative

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Abstract: Whether writing about gentrification or nature, the production of space or the politics of scale, uneven development or public space, globalization or revolution, the geographer Neil Smith was nothing if not provocative. Neither Festschrift nor hagiography, this special issue of *Antipode* critically engages Smith's work—not to unpick the rich tapestry, but to draw the threads out and spin them on in new directions. Consisting of newly commissioned essays by comrades from across the human sciences, it considers the entire range of Smith's oeuvre. This paper introduces the essays by offering not only some thoughts about Smith's intellectual contributions generally, but also new insight into the role he played in *Antipode*.

Keywords: Neil Smith, history of geography, revolution, knowledge production

Introduction

Neil Smith was born in 1954 in Leith, Scotland, something he was always proud of. And he passed away on 29 September 2012 in New York, a city he also came to love. Smith started his formal geographic training at the University of St Andrews under the mentorship of Joe Doherty, who would through the entirety of his life be a dear friend and close confidant. After completing a PhD at Johns Hopkins University, where he worked with David Harvey, Smith got his first faculty position at Columbia University, and then in the Department of Geography at Rutgers between 1988 and 2000. He then moved to the Graduate Centre at the City University of New York, where he was Distinguished Professor (in the Anthropology program)

until his death. As often happens when individuals who make important contributions to any community pass away, there was a great deal of grieving, celebration, and confusion when Smith died. All of this served to collectively memorialize his achievements, but also helps to consolidate his contributions and his intellectual legacy moving forward, so that his ideas can continue to be pondered, critiqued, adapted, and otherwise put to work. Smith's legacy is mixed, but his contributions certainly continue to help us understand the spatial politics that enable differential social power relations to unevenly shape the worlds we inhabit. At the same time, his contributions foster a revolutionary creativity that can be the wellspring for tactics, approaches, and strategies for tackling uneven development and its attendant injustices head on. There has already been a fair bit written about Smith's contributions and legacy (see Castree 2004; Cowen et al. 2012; Mitchell 2014). Despite the fact that Smith detested hagiography, as Don Mitchell (2014) observes in his extended essay about Smith's life and work, and a point that we reiterated to this project's contributors, we thought it was important to not only offer some thoughts about Smith's intellectual contributions generally, but also specifically offer some insight about the role he played in *Antipode*.

After Smith's death, Mitchell became the literary executor of his estate and spent countless hours organizing and reading Smith's wide-ranging catalog of letters, notes, and other archives. Those who knew Smith are aware that he built extensive archives with a keen eye, and produced substantial archival marginalia. Mitchell knew what we were doing, and generously shared with us a series of letters—yet to be made public (and given some of the personal details included might not ever be)—that shed light on Smith's unique role in the life of *Antipode*, and beyond. These letters led us to another set of letters between Doherty and Smith, and to oral history interviews with Joe Doherty and Eric Sheppard (the two edited *Antipode* together from the mid 1980s to the early 1990s). For this brief introductory essay, these archives were a veritable font of information to think with.

There was one letter, however, which stands out as perhaps the most interesting and prefigurative of any archival document we have seen. The 13-page, hand-written letter from Smith to Doherty, dated 8 December 1979, offers incredible insight into who Smith was, and who he was going to become. In it, Smith describes his early struggles with Marx and Harvey's interpretation of Marx while in the midst of offering Harvey extensive comments on a draft of *The Limits to Capital* (Harvey 1982). He connects this to his own political activism at the time in Baltimore. He talks about, as a graduate student, teaching two courses at Morgan State University (an important historically black college in Baltimore) and one at Johns Hopkins, and how it took a toll on his efforts to write. And, he talks about *Antipode*, which at the time he was heavily involved in, more so, perhaps, than most realize. We use this one letter to structure the introduction to this special bundle of essays, but also to offer some insights into Neil Smith beyond those that have emerged since his death.

In the letter to Doherty, Smith shares with excitement that he has figured out a plan for his dissertation. He then proceeds to outline some of the most important ideas that he would grapple with from the end of the 1970s through 2012. Three pages of the letter include a detailed sketch of how Smith envisioned the structure of his dissertation project. It mentions 10 chapters and the project's tentative title:

"Uneven Development and Capital Accumulation". Like many enthusiastic PhD students, Smith recognizes that his vision was ambitious, perhaps overly so, and says as much to Doherty: "Clearly, that's a handful for a dissertation, but whether the dissertation ends up being only a part of it or not, this is the project I am working on". Interestingly, there is no mention of "nature" in the outline to Doherty, which is of course one of the key ideas many people associate with Smith's work, especially his early work, and it looms large in his brilliant *Uneven Development* (Smith 1984a). The absence of "nature" and perennial questions about the "coherence" of *Uneven Development* were clarified on 26 March 2009 at the Las Vegas meeting of the American Association of Geographers in a session celebrating the 25th anniversary of the book. In a not uncommonly self-deprecating way, Smith shared that at "some point" during his PhD Harvey, his supervisor, proclaimed that it was time for him to be done; that he needed to just pull together what he had been working on, call it a dissertation, and "get on with it". Interesting, then, was the fact that the dissertation Smith (1982a) graduated with was titled "Uneven Development: The Production of Nature Under Capitalism", despite his original outline to Doherty having nothing in it about "nature". Laying the draft overview next to the table of contents of the actual book, *Uneven Development: Nature, Capital, and the Production of Space*, first published in 1984 (and re-issued in 1990a and 2008a), it becomes clear that what he envisioned writing in 1979 was condensed in the second half (Chapters 4–6) of the book.

Smith had, of course, already written about nature elsewhere, most importantly in two papers published in 1980—one with Phil O'Keefe in *Antipode* and one by himself in *Science and Society* (Smith 1980; Smith and O'Keefe 1980). Foreshadowing the sentiment he shared with Doherty—"whether the dissertation ends up being only a part of it or not, this is the project I am working on"—in the conclusion of the *Antipode* essay, Smith and O'Keefe (1980:38) proclaimed:

> As with nature, a sophisticated understanding of how space is produced depends on an equally sophisticated understanding of the capitalist mode of production. Space and place are produced as part of the mode of production. An understanding of *uneven development* is therefore central.

Doherty, after Smith's death, relayed to us that:

> The whole thing [writing the dissertation] took place in four months essentially. He hadn't written anything substantive really ... he'd written a lot ... nothing that could be directly related to the PhD, and then he kind of suddenly got the notion that he needed to finish it and just sat down and in four months wrote the damn thing. And of course this was in his head, it was obviously in lots of notes because he was a serious note taker. My sense is that Neil, in the end, went for the practical rather than the spectacular, if you see what I mean, with regard to the PhD, because he took David's [Harvey] advice that what he needed to do is get this thing written and satisfy the examiners, and then move on and publish the book. Which in some ways I think was quite substantially different from the actual PhD ... But my sense is also that the book itself actually lacked some of the radical, perhaps even speculative work that Neil wanted to put into it. So there was always a sense in which his revolutionary ardor was kind of, a little bit, compressed, subdued perhaps, in some of his former publications. Even in *Uneven Development* I think that was the case.

When asked, at the 2009 Las Vegas AAG, about the origins of *Uneven Development* and the motivations to mobilize Marxist geography, Smith offered a glimpse into the connections between political theory and the ultimate objectives he had in mind for his work, and also just how arduous that labor was:

> The book is of its period, where we were actually discovering Marx, and I think that comes through in every dense paragraph, every dense sentence, every dense phrase in the book, for which I apologize. But, I think the density of it is very much about the voice, that was, "how do you take Marx and make it relevant to geography?", and that was such a political project, I think, 25 years ago for us. In retrospect, I am going to defend that project tremendously. I think it was an extraordinary project to do. Because what Marx did for us was to give us the ability to connect, among other things, a language of nature and a language of space and a language of uneven development in terms of people's lives, working, trying to be involved in the social reproduction of daily life. So, that's where the voice comes from, and I think if it doesn't quite get to the more concrete kinds of questions in 1984, you have to understand it was ingrained in this deep reading of Marx.

While he wrestled with Marx, the ideas of uneven development and the various other issues busy PhD students must contend with, Smith was also helping shape a certain "radical journal of geography", which we turn to now.

Smith's Contributions to *Antipode*

Smith published both his first and his last substantive journal articles in *Antipode* (Smith 1977a, 2010). During his life he published as much in *Antipode* as any other journal (a total of nine, including Smith 1979a, 1987a, 1991a, 2000a, 2002, 2005a; Smith and O'Keefe 1980). Of course, he was also very committed to other journals. He published seven times in *Environment and Planning D: Society and Space* (Smith 1987b, 1987c, 1995, 1996a, 2000b, 2001; Smith and Desbiens 1999), six in *Progress in Human Geography* (1979b, 1990b, 1992a, 1994, 1998a, 2008b), five times in *Political Geography* (1984b, 1988a, 2005b, 2006a, 2006b), three times in the *Annals of the Association of American Geographers* (1987d, 1987e, 1988b), twice in *Social Text* (1992b, 1998b), twice in *The Professional Geographer* (1982b; Mitchell and Smith 1990), and once each in a number of other journals. It also is worth noting that his undergraduate thesis (Smith 1977b) provided the substance for his second publication in *Antipode* (1979a; see also Smith 1979c).

As the record shows, Smith was a guest editor of the journal in 1979 for volume 11, issue 3. Later he was co-editor for a longer period, between 1986 and 1987, while the journal was in an important moment that the archives suggest almost spelled the end. Those who know the history of *Antipode* know that it has had rough periods, like all journals probably, but there were moments during the 1980s in which those most closely aligned with it thought there was a real possibility that it would have to stop publishing as a result of a series of logistical issues related to production, distribution, and the maintenance of the funding stream to keep things going. While no doubt many people contributed to the decisions that ultimately prevented it from folding, Smith played his part too.

Thus, a letter from James Anderson, who was an early contributor to the journal, to Dick Peet, written on 31 March 1980, relays what Anderson thought was a consensus feeling about the sentiments of *Antipode*'s supporters outside the US. Anderson suggests that the:

> long-standing feeling that people outside N. America have difficulty getting it [*Antipode*] on time at least was reinforced this year when issues edited in Ireland and Scotland failed to arrive for the [IBG] conference. It is felt that an inadequate distribution system has seriously detracted from *Antipode*'s impact outside N. America.

Anderson went on to say that:

> [g]enerally it is felt that the time has come for *Antipode* to "change gear", editorially and administratively, if it is to develop its full potential, and particularly if those of us not on the East Coast of N. America are to contribute seriously to its development beyond occasional "guest editorship".

That Smith was keenly aware of this sense of disquiet is evident from the 8 December 1979 letter to Doherty, where Smith devotes a whole page to what was going on at *Antipode*. He describes the results of discussions about how the editorial structure of the journal was poised to change in response to concerns that it was being managed in too localized and insular a way. He says that a new three-tier editorial system would be adopted, with (1) an editorial committee of three or so people at Clark who will oversee day-to-day work; (2) an editorial board that will be composed of "big names for sake of prestige"; and (3) a "management board" (in scare quotes with "?!" after it), which was to be composed of people at Johns Hopkins, Clark, and McGill, who would meet approximately twice a year at the Union of Socialist Geographers meetings to do the "actual editorial work". He speaks about the importance of all this being implemented by Phil O'Keefe. We also have access to a series of other letters and memos that get into these kinds of editorial minutia. While this is not the place, these sorts of details seem important from a "history of geography" perspective because they give us firsthand insights into the labor that goes into intellectual production and offer a deeper sense of how critique prompts changes, at a granular level, in the production and distribution of knowledge, especially self-proclaimed political or "radical" knowledge (see Hague 2002, for instance).

Jumping ahead to 1984, in a letter written on 25 January to Doherty, we see evidence of the "behind the scenes" role Smith played in the evolution of the journal in a way not captured in other historical accounts. Smith writes:

> On to happier subjects. I talked to James Anderson about *Antipode* while in London and both of us were a bit concerned about its future. Eric Sheppard is supposed to take it over but the situation is not at all clear. We are looking around still, still, for a publisher but having nothing firm yet. Both James and I wondered (although we obviously have no official "authority") whether you would be interested in taking it over as an editor. We thought that this would be a mutually rewarding relationship: *Antipode* would have a reliable committed editor and *functioning* [original emphasis] editorial board, and you would have a means of being less isolated.

Of course, as the historical record shows, Doherty did indeed agree to come on as the journal's co-editor, and this letter from Smith was very likely the impetus. This detail is important as it was under the editorship of Sheppard and Doherty that *Antipode* was on the verge of shutting down and made the move to Basil Blackwell to continue operating. In a letter from Smith to Doherty, dated 10 March 1988, Smith begins in a way that many early career scholars will appreciate when he says: "Yes, things have been quite crazy here. The tenure decision is due in a month, and while everyone assures me that it's no problem, you never know ..." Toward the end of the letter, Smith writes:

> On *Antipode*, I really think we are going from strength to strength. You and Eric really are working out well ... I would support four issues a year and smaller print, and indeed a reshuffling of the editorial board. Would it be appropriate for you and Eric to talk over deletions and additions ...?

Smith went on to suggest several people for the board.

In a letter from Sheppard to Smith dated 21 March 1988—keeping in mind that Smith still would not have yet heard if he was to be awarded tenure at Rutgers—Sheppard wrote that:

> part of the agreement under which Blackwell agreed to take over publication of the journal [starting in 1986 with volume 18, issue 1] was that *Antipode* would provide a subsidy of some $8,000 a year for the first two years of operation. According to our records you contributed to raising these funds during the first year, and we have raised only about one quarter of the total subsidy promised to Blackwell's.

The letter went on to say that "[i]n order to reach our goal, and free *Antipode* from financial obligations to the publisher, we need your help".

In a letter from Doherty and Sheppard to Smith dated 4 October 1988, the "growing crisis" at *Antipode* becomes more clear when they start their letter by saying that:

> [w]e are writing to you because a crisis has developed in the relationship between *Antipode* and Basil Blackwell. As you will recall the original agreement called for us to subsidise Blackwell for two years ... So far, far we have been able to raise about $6,500 of the $16,400.

Later in the letter Doherty and Sheppard wrote that:

> [i]n late July, Blackwell responded to demand both the balance of the subsidy AND greatly increased subscription rates: threatening in effect to discontinue publishing the journal in 1989 unless we agreed to their "suggestions". In conversations we have determined that they are very serious about the threat to stop publishing.

Five years later, after many more exchanges, Doherty and Sheppard wrote to Smith and other editorial board members on 4 March 1993 saying:

> *Antipode*'s transition to a commercial publisher was difficult at times and, according to the publishers, its future was at one point questionable in terms of financial viability. However, with contributions to the "fighting fund" from yourselves and a variety of other sources, the journal survived and went on to grow and develop.

These letters shed vital behind-the-scenes insight into the stresses progressive journals like *Antipode* have to withstand during periodic contract negotiations. However, the only existing public record of Smith talking about his time at *Antipode* came per invitation that went to all former editors when we were creating the journal's first website in 2006. It is worth sharing an extended extract from Smith's reflection, given how he recounts so little of his involvement with the journal relative to the archival record. It a gripping story of the exhilaration, exhaustion, vibrant materiality of giving shape to the journal's issues, each a collective labor of love. Here is Smith:

> I was an accidental editor of *Antipode*. It all happened while I was a graduate student in Baltimore. Baltimore was exciting, but I was in an engineering school and the geography department was filled with sewage engineers and economic systems analysts while all I wanted to do was read Marx and urban theory. I plunged into political organizing but academically, strange as it may now seem, graduate student life there in the late 1970s was a little isolated from the excitement of a burgeoning "radical geography". Toronto or Vancouver, for sure, but especially Worcester, Mass.—that was the place to be. Partly because it produced *Antipode*, but also because for some still unfathomable reason a critical if motley mass of radicals, feminists, socialists, environmentalists, and all-round malcontents had colonized its School of Geography, Clark Geography seemed to be the center of the radical universe, geographically speaking, and I used to visit whenever I could, especially during the period when a visiting Phil O'Keefe was filling in for Dick Peet as editor. It was then that I accidentally co-edited a single volume of the journal.
>
> Trips to Clark mixed extreme work with extreme recreation and were always followed by exhilarating fatigue. A certain spatial division of labour obtained—writing and reading group meetings, editing and journal assemblage in the School of Geography or in student flats around the town, and fun in Moynihan's Bar down Main Street. But we were socialists not capitalists and the division of labour was fluid: there was fun at work, while not a few ideas, sentences and fuzzy political plans saw first light at Moynihan's. The buzz about the School of Geography was palpable and there was a certain collectivity among many people's projects. The boundaries between *Antipode*, someone's PhD dissertation, and the writing up of research projects were not always clear, at least to me; indeed there was a sense abroad that the oppressive US system of academic tenure could be outfoxed quite simply by a little socialist cooperation whereby each paper written by an individual in this undefined group would be submitted with a host of authorial names, and we would all benefit ...
>
> In this context, *Antipode* was a quite different journal from today. Articles were submitted, certainly, but just as likely someone would say: "Hey, we should do a piece about X. Who could do that?" A phone call would be made or a couple of letters sent, or else an unsuspecting someone in the hall was roughly grabbed by the collar, escorted to Moynihan's, and injected with the idea of writing the article that had so excited those who came up with said idea. Political visuals—Who could design an ambitious cover? Who could draw a biting cartoon for such and such an article by 5 o'clock this afternoon (OK, next week)?—were omnipresent before the revolution of the image in the humanities and social sciences. And then there was production. As many others will surely relate, production was a messy business involving typed "skins", mimeo machines, and ink everywhere. The thrill of getting a new issue in your hands, of sensing yourself on the cutting edge (even if the content was highly uneven) was only dimmed by the

recognition that the mailing list, pens, and piles of large envelopes in the corner meant a mailing party and another late night. So many to mail. Why was such a radical rag so damned popular?

I was not only an accidental editor. I was a peripatetic editor. I did serve later on the editorial board when such an official thing was inaugurated and kept contributing that way. But actually, I was only really a weekend editor. I think I left Clark the Monday after we put together volume 11(3) with no sense that my name would appear on the cover as co-editor, and I was quite surprised when the bright white and red volume appeared in my Baltimore mailbox.

Public Intellectual Pursuits and Activism

Few have characterized *Antipode* as a vehicle for public intellectuals (see Waterstone 2002, for instance). This is in part because, as per Smith's confessions about his early struggles with Marx, the journal has aspired to be a place of theoretical innovation pushing the ways in which geographers (and others) go about framing a heterodox radical politics. So it is an interesting corollary to ponder Smith's efforts at public intellectual endeavor and how it related to his ongoing activism.

The archives illustrate what many of us came to know as the roots of Smith's earliest thinking, blended with the activism he was engaged in as ideas took shape. The urge to praxis, indeed the revolutionary imperative, redolent of Smith's career shines through in the 8 December 1979 letter to Doherty, the same letter we foregrounded at this introduction's outset: "Although I've spent all this time [the first six pages of the letter] going on about intellectual work", Smith writes:

> that's only because I'm finally getting back into it now. I've spent much more time since August getting an ISO [International Socialist Organization] branch together here [in Baltimore]. It's a bit of an irony because I'm so green myself. But I just felt the necessity both personally and for the movement ... My job is to be the *Socialist Worker* coordinator for the branch. I love it.

As far as we can tell, Smith was a founding member of the Baltimore ISO, and at a time when he was teaching at Morgan State.

It is interesting to scrutinize contemporary work in the *Socialist Worker* in relation to Smith's political engagements in Baltimore. One of the most far-reaching, persuasive voices is that of Keeanga-Yamahtta Taylor who, in a 2011 essay titled "Building a multiracial Occupy movement", suggested that the "blanket criticism of Occupy as 'too white' ignores the way in which the movement, though it varies greatly from city to city, is actively grappling with how to include all of the 99 percent". Connecting the themes of space, place, nature, class, race and gender Taylor writes:

> In Oakland, for example, activists renamed their encampment Oscar Grant Park to honor the young African American man who was shot in the back and killed by police almost three years ago. Atlanta renamed its park after Troy Davis ... Too often, the core

organizers in many cities, those who constitute an informal leadership, are young white men. While this may have been where the movement started in particular locales, there is no justifiable reason for it to remain that way.

There are powerful resonances here with Smith's reply at the Las Vegas AAG when asked about the connections between *Uneven Development* and the politics that helped inspire his argument:

> The question of social reproduction seems to be more important to me than ever and the environmental justice movements are the ones bringing it out. They know the production of nature very directly about how it affects their lives and it seems to me that's the kind of bottom-up connection that we need to be making. It's communities of color living in toxic waste dumps, it's people living in polluted environments in cities all over the place. I think the point of the environmental justice movement is that you learn from the bottom up about what an environmentally just production of nature looks like. They're living in produced nature. But I think the tragedy for us, and I think in geography it's a particular thing, we have an opportunity to change that; we have this quite sophisticated set of ideas about political ecology, which tend to be very international but don't connect to the environmental justice movement. And the environmental justice movement doesn't connect to the more internationally focused political ecology movement.

Katherine McKittrick—who had Smith as an external member of her PhD committee—brought his work into conversation with black studies, and geographers such as Ruth Wilson Gilmore, Clyde Woods, and Gillian Rose. Smith's work provided a grammar for thinking through how race informs uneven development, including "Black Geographies". In *Demonic Grounds: Black Women and the Cartographies of Struggle*, after some set up discussion regarding Smith's work on deep space and scale, McKittrick (2006:83) says: "Smith's argument is particularly salient here because it refuses a finality in what I have mentioned above—about oppressive discursive and capitalist constructions of black womanhood—without erasing how place and identity are mutually constructed under bondage. More clearly, the scale of the body is a site of racial-sexual differentiation, which holds in it struggle over being, making the self, and what Donna Haraway (1988) calls 'situated knowledge'" (see also Mitchell and Smith 1990).

We can move from these notions of situated knowledge to consider Smith's efforts at public intellectualism, or put differently, talking about the politics of the day with larger groups of individuals than academic geographers. In a 2006 article in *Antipode*, titled "Geography's New Public Intellectuals?", ex-editor Noel Castree wrote about the aspiring public intellectualism of efforts by Smith, as well as those of Harvey and the Retort Collective (which includes the geographer Michael Watts). Of Smith, Castree (2006:401) wrote that he:

> has been less forthcoming about his intended audiences, but reading between the lines I'd suggest he now sees himself as having the profile to reach well beyond geography and even critical social science more generally. In this regard, it's arguably telling that playwright and essayist Tariq Ali is one of Smith's dust-jacket endorsers [for *The Endgame of Globalization*].

Castree goes on to suggest that Smith's public intellectualism as evidenced in *The Endgame of Globalization* (Smith 2005c) (although he perhaps should also have discussed Smith's [2003] *American Empire: Roosevelt's Geographer and the Prelude to Globalization*, given that it was awarded the *L.A. Times* Book Prize for biography, which suggests a particular kind of "traveling") was largely based on the fact that he is "academically very secure and there is little or no professional risk in him writing ... 'not conventionally academic' books or essays" (2006:405). There is clearly some logic to Castree's career path argument. However, assessing "a life's work" after that life has ended, it is possible to tell a different story, one that stands in contrast to Castree's.

Smith was, we would argue, always politically motivated to reach broader audiences. This is evident from a range of other writings that he started to publish long before his reputation would have "carried" in outlets that were unconventional for human geographers. The first that jumps out—"Expertease: Making M/other Nature"—appeared in the internationally influential magazine *Artforum* (Smith 1989a). Another piece, published in the same year, was an essay on Tompkins Square in *Portable Lower East Side* (Smith 1989c), an outlet perhaps more local (it published "gritty, memorable short stories and articles reflecting the area's geographical context and artistic sensibility"). There was a related piece, "Tompkins Square Park Timeline", in the catalog for artist Krzysztof Wodiczko's exhibition "New York City Tableaux: Tompkins Square, the Homeless Vehicle Project" (Smith 1990c), as well as a piece on gentrification seemingly meant for an activist audience in an edited collection titled *If You Lived Here: The City in Art, Theory, and Social Activism* (Smith 1991b). Several years later, Smith (1996b) published an essay on the revanchist city in *Polygraph*, arguably another effort to reach beyond the discipline (it's a magazine of "visually-driven essays" that "incites water cooler discussion about complex topics"). After the devastation wrought by Hurricane Katrina, the US Social Science Research Council brought together a group of scholars to write accessible essays for an online forum on the causes and consequences of the storm. Smith (2005d) wrote his "There's No Such Thing as a Natural Disaster" for this. It has circulated widely within academic and activist circles alike.

Given his career-spanning attention to revolutionary political thought, it should not have been surprising when for *Antipode*'s 40th anniversary collection, *The Point is to Change It*, Smith was invited to write what would be one of the last essays published while he was living. Smith's willingness to engage in this 40th anniversary project, and the personal support he offered to successive *Antipode* editors seeking to develop a more encompassing definition of radical geography even as he retained his personal commitment to Marxism, underlined his commitment to the ongoing search for a more humane future. "The revolutionary imperative" (Smith 2010) helped bring his intellectual aspirations full circle if in an abbreviated way.

The Long Revolutionary Imperative

In the 8 December 1979 letter to Doherty, in the outline of what would be his dissertation, Smith's concluding chapter was tentatively titled "Logic of revolution". Its discussion includes notes about "uneven development under socialism?" and the

possibilities of "collective ownership." Smith contends that, "the logic of revolution begins from within capitalism but necessitates a workers' movement to carry the logic into practice". We encounter this in *Uneven Development*, albeit in a modified form, when Smith (2008a:89) writes that the:

> struggle for socialism is the struggle for social control to determine what is and is not socially necessary. Ultimately it is the struggle to control what is and is not value. Under capitalism, this is a judgment made in the market, one which presents itself as a natural result. Socialism is the struggle to judge necessity according not to the market and its logic, but to human need, according not to exchange-value and profit, but to use-value.

Smith turned to the idea of "revolution" toward the end of his life. Doherty told us:

> my impression is this is what he was working on when he died ... the whole notion of revolution ... It's a shame he didn't have a couple more years to write all that up because I think it would have been extraordinarily influential, even perhaps more influential than *Uneven Development* and work on gentrification in terms of identifying ways forward in the neoliberal bind we're currently finding ourselves.

While Smith was always interested in revolution as a political strategy, toward the end of his life he began to write about revolution and revolutionary theory in a more determined and deliberate way. A series of late writings indicate he was clearly building momentum and working to integrate the notion into whatever he was working on. Closing the third, and what would be final, afterword to *Uneven Development* (authored in 2007), Smith wrote:

> One of the stunning things about the present is the extent to which the prospect and affect of revolutionary social change have been blanked from the imaginary of political possibility. It may not be too optimistic to begin again to encourage a revolutionary imaginary (2008a:266).

In concluding his *Antipode* essay, "The revolutionary imperative", Smith invoked C. L.R. James, declaring:

> Revolution may ... come like a thief in the night, but if there is going to be a heist on capitalism, the thief needs to come with a few tools. Some tools are intellectual ideas; others are tools of the imagination about other possible worlds; still others are our human bodies, but most importantly they are social and political organization for a more humane future (2010:64).

In the very last essay he published while alive, which was a response to a forum published in *New Political Economy* (2011) that resulted from a panel on the 25th anniversary of *Uneven Development* at the 2009 Las Vegas AAG (see Prudham and Heynen 2011), Smith wrote:

> Some of the patterns of uneven development, global to local, were predictable in the early 1980s but many others were not. When we made the decision to issue a third edition [of *Uneven Development* in 2008], I was on the edge of thinking that a new book was really what was required. Yet it seemed like a massive task. I do think this would be a highly useful project today. Yet so much work has been done in the last 25 years that it would be an immense challenge (2011:264).

He went on to say:

> The central argument I would still like to make is that we need to understand the varied patterns and processes of uneven development across scales. Nowhere was this more obvious than in the ways that a mortgage crisis in the United States became an almost immediate economic and financial meltdown. Even more to the point, this has become a social crisis for that part of the world not already in social crisis; for those already in social crisis it only became much worse. In many ways, and linking together some of these commentaries on the book, it is the social crisis, orchestrated via the local/global economy, that is the crucial point. The answer will be equally social (and political).

This special collection of essays offers great insight into how Smith contributed not just to the tradition of Marxist political economy that has become so recognizable within geography, but also the nuanced and complicated ways his politics opened the doors to so many other possible ways of thinking about politics, society, nature, and geography. They are testament to a life animated by and, in spite or perhaps because of its many vicissitudes, exemplary of the long revolutionary imperative and the political, social and spatial imaginaries it engenders.

Acknowledgements

References

Castree N (2004) Neil Smith. In P Hubbard, R Kitchin and G Valentine (eds) *Key Thinkers on Space and Place* (pp 264–268). London: Sage
Castree N (2006) Geography's new public intellectuals? *Antipode* 38(2):396–412
Cowen D, Harvey D, Haraway D, Rameau M, Bacon N, Bissen M, Brady M, Glück Z, Kanuga M, McFarland S, Miller J, Sibilia E, Siodmak E, Mei Turbin L, Kearns G, Ramírez B, Pratt G and Jaar A (2012) Neil Smith: A critical geographer. *Environment and Planning D: Society and Space* 30(6):947–962
Hague E (2002) *Antipode*, Inc.? *Antipode* 34(4):655–661
Haraway D (1988) Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies* 14(3):575–599
Harvey D (1982) *The Limits to Capital*. Oxford: Basil Blackwell
McKittrick K (2006) *Demonic Grounds: Black Women and the Cartographies of Struggle*. Minneapolis: University of Minnesota Press
Mitchell D (2014) Neil Smith, 1954–2012: Marxist geographer. *Annals of the Association of American Geographers* 104(1):215–222
Mitchell O and Smith N (1990) Bringing in race. *The Professional Geographer* 42(2):232–234
Prudham S and Heynen N (2011) *Uneven Development* 25 years on: Space, nature, and the geographies of capitalism. *New Political Economy* 16(2):223–232
Smith N (1977a) Symbol, space, and the bicentennial. *Antipode* 9(2):76–83
Smith N (1977b) "The Return from the Suburbs and the Structuring of Urban Space: State Involvement in Society Hill, Philadelphia." Unpublished BA thesis, University of St Andrews
Smith N (1979a) Gentrification and capital: Theory, practice, and ideology in Society Hill. *Antipode* 11(3):24–35
Smith N (1979b) Geography, science, and post-positivist modes of explanation. *Progress in Human Geography* 3(3):356–383
Smith N (1979c) Toward a theory of gentrification: A back to the city movement by capital not people. *Journal of the American Planning Association* 45(4):538–548

Smith N (1980) Symptomatic silence in Althusser: The concept of nature and unity of science. *Science and Society* 44(1):53–81

Smith N (1982a) "Uneven Development: The Production of Nature Under Capitalism." Unpublished PhD thesis, Johns Hopkins University

Smith N (1982b) Theories of underdevelopment. *The Professional Geographer* 34(3):332–337

Smith N (1984a) *Uneven Development: Nature, Capital, and the Production of Space*. Oxford: Basil Blackwell

Smith N (1984b) Isaiah Bowman: Political geography and geopolitics. *Political Geography Quarterly* 3(1):69–76

Smith N (1987a) Dangers of the empirical turn: Some comments on the CURS initiative. *Antipode* 19(1):59–68

Smith N (1987b) Of yuppies and housing: Gentrification, social restructuring, and the urban dream. *Environment and Planning D: Society and Space* 5(2):151–172

Smith N (1987c) Rascal concepts, minimalizing discourse, and the politics of geography. *Environment and Planning D: Society and Space* 5(4):377–383

Smith N (1987d) "Academic war over the field of geography": The elimination of geography at Harvard, 1947–1951. *Annals of the Association of American Geographers* 77(2):155–172

Smith N (1987e) Gentrification and the rent gap. *Annals of the Association of American Geographers* 77(3):462–465

Smith N (1988a) The region is dead! Long live the region! *Political Geography Quarterly* 7(2):141–152

Smith N (1988b) For a history of geography. *Annals of the Association of American Geographers* 78(1):159–163

Smith N (1989a) Expertease: Making M/other Nature. *Artforum* 28(4):17–18

Smith N (1989b) Tompkins Square: Riots, rents, and redskins. *Portable Lower East Side* 6:1–36

Smith N (1990a) *Uneven Development: Nature, Capital, and the Production of Space* (2nd edn). Oxford: Basil Blackwell

Smith N (1990b) Geography redux? The history and theory of geography. *Progress in Human Geography* 14(4):547–559

Smith N (1990c) Tompkins Square Park timeline. In Exit Art (ed) *Krzysztof Wodiczko's New York City Tableaux: Tompkins Square, the Homeless Vehicle Project* (pp 14–20). New York: Exit Art

Smith N (1991a) What's Left? A lot's left. *Antipode* 23(4):406–418

Smith N (1991b) Housing: Gentrification, dislocation, and fighting back. In B Wallis (ed) *If You Lived Here: The City in Art, Theory and Social Activism—A Project by Martha Rosler* (pp 108–114). Seattle: Bay Press

Smith N (1992a) History and philosophy of geography: Real wars, theory wars. *Progress in Human Geography* 16(2):257–271

Smith N (1992b) Contours of a spatialized politics: Homeless vehicles and the production of geographical scale. *Social Text* 33:54–81

Smith N (1994) Geography, empire, and social theory. *Progress in Human Geography* 18(4):491–500

Smith N (1995) Trespassing on the future. *Environment and Planning D: Society and Space* 13(5):505–506

Smith N (1996a) Rethinking sleep. *Environment and Planning D: Society and Space* 14(5):505–506

Smith N (1996b) The revanchist city: New York's homeless wars. *Polygraph* 8/9:44–63

Smith N (1998a) El Niño capitalism. *Progress in Human Geography* 22(2):159–163

Smith N (1998b) Giuliani time. *Social Text* 57:1–20

Smith N (2000a) Who rules this sausage factory? *Antipode* 32(3):330–339

Smith N (2000b) Global Seattle. *Environment and Planning D: Society and Space* 18(1):1–5

Smith N (2001) Scales of terror and the resort to geography: September 11, October 7. *Environment and Planning D: Society and Space* 19(6):631–637

Smith N (2002) New globalism, new urbanism: Gentrification as global urban strategy. *Antipode* 34(3):427–450

Smith N (2003) *American Empire: Roosevelt's Geographer and the Prelude to Globalization*. Berkeley: University of California Press

Smith N (2005a) Neo-critical geography, or, The flat pluralist world of business class. *Antipode* 37(5):887–899

Smith N (2005b) Geographers, empires, and victims. *Political Geography* 24(2):263–266

Smith N (2005c) *The Endgame of Globalization*. New York: Routledge

Smith N (2005d) "There's No Such Thing as a Natural Disaster." Understanding Katrina: Perspectives from the Social Sciences, SSRC. http://understandingkatrina.ssrc.org/Smith/ (last accessed 1 November 2016).

Smith N (2006a) The endgame of globalization. *Political Geography* 25(1):1–14

Smith N (2006b) On liberalism: A response. *Political Geography* 25(1):37–41

Smith N (2008a) *Uneven Development: Nature, Capital, and the Production of Space* (3rd edn). Athens: University of Georgia Press

Smith N (2008b) Book review essay–Noel Castree and Derek Gregory, *David Harvey: A Critical Reader*. *Progress in Human Geography* 32(1):147–155

Smith N (2010) The revolutionary imperative. *Antipode* 41(s1):50–65

Smith N (2011) Uneven development redux. *New Political Economy* 16(2):261–265

Smith N and Desbiens C (1999) The International Critical Geography Group: Forbidden optimism? *Environment and Planning D: Society and Space* 17(4):379–382

Smith N and O'Keefe P (1980) Geography, Marx, and the concept of nature. *Antipode* 12(2):30–39

Taylor K-Y (2011) Building a multiracial Occupy movement. *Socialist Worker* 3 November. http://socialistworker.org/2011/11/03/multiracial-occupy-movement (last accessed 1 November 2016)

Waterstone M (2002) A radical journal of geography or a journal of radical geography? *Antipode* 34(4):662–666

Calculating the Debt Gap

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Abstract: Using the debate over Scottish independence as a case study, this article analyses how calculating creditworthiness—or "sovereign risk"—has increasingly become the investment yardstick used by the political class to chart the limits to national self-determination. In considering other species of predatory lending—municipal debt and household debt-the article also charts the migration of the so-called "debt trap" from Southern countries to the North over the last decade. It assesses the progress of advanced societies towards a state of creditocracy, in which the goal of the creditor class is to wrap debt around every social good, generating long-term income streams and repayment obligations that are unsustainable in a functional democracy. The conclusion argues that debt refusal is a legitimate method of salvaging popular democracy.

Keywords: debt, the debt gap, nation states, the city

By birth and upbringing Neil and I shared the same ecosystem—the industrial belt of Scotland that stretches from the Clyde Valley to the Firth of Forth. Its ample coal deposits had helped drive the Industrial Revolution to great heights, but, in the years of our youth, deindustrialization was scudding through the region at a pace faster than almost any other location in the world's advanced economies. In the early 1970s, the focus of economic attention shifted quite rapidly with the discovery of large oil fields in the North Sea. Exploitation of these new fossil fuel reserves transformed the political economy of Scotland, as it did in many postcolonial countries struggling to turn the "resource curse" of their newfound oil revenues into a productive development asset. Armed with a new slogan—It's Scotland's Oil!—advocates of Scottish independence were no longer marginal voices; their cause was now linked to a slick dream of domestic affluence. The political momentum that flowed from the resulting nationalist renaissance has been uneven but steady in the decades since then.

Early on, Neil and I agreed to disagree on the national question—he had little time for the Scottish National Party (SNP). In later years, however, I recall that he was impressed by the party's record of governance after it came to power in 2007. Nor could he ignore how strenuously the SNP had sought to supplant the Labour Party's claim to be a steward of Scotland's enduring socialist traditions. But his untimely death cut short the long, though fitful, conversation we kept up about the destiny of our native land. At the very least, however, I am sure he would have been engaged by the debate about the economic underpinnings of the case for independence, which was decided, at least for the time being, in a national referendum in September 2014. In a vote that drew an 85% turnout, the margin for staying in the UK was 55% to 45%. It is commonly agreed that the result was swayed by a last minute pledge, or bribe, on the part of the multi-party Westminster establishment, to deliver more devolved powers to the Scottish Assembly.

The future of North Sea oil revenue loomed large in the vibrant public debate preceding the vote, influenced by widely varied estimates (by a factor of 60%) of how much oil and gas remained to be extracted from Scottish waters. But the oil factor was overshadowed by a bitter face-off over what share of UK public debt an independent Scotland would inherit. This financial liability became a bargaining chip in the public exchange of threats on the part of leading politicians on both sides of the issue. It is surely indicative of the state of popular democracy that this singular factor was pushed into such prominence. Several formulae for measuring Scotland's likely debt obligation were proposed, all in response to the overarching question: for a country intent on sovereign statehood, what is a credible, or sustainable, ratio of debt-to-GDP? All other factors of history, cultural distinction, and social logic—each bolstering arguments for national self-determination that have stretched over centuries—paled in significance before this dull metric of our financialized times. The only criterion that seemed to matter in the end was "sovereign risk"—the investment yardstick used by the international banking community to assess whether a country's past, or potential, record of debt service will comfort the bond markets.

In this respect, the outcome of Scotland's drive for independence was shaped by the punitive example made of Europe's peripheral economies—Portugal, Ireland, Italy, Greece, Spain. In the wake of the 2008 financial crash, these countries were hammered by German, French, Swiss, Dutch, and US banks for their high sovereign debt obligations, and their most vulnerable populations featured prominently in a cynical morality tale about "spending beyond their means" favored by the international creditor class. Now, more than ever, nations pursuing statehood have to win investor confidence by passing the test of creditworthiness as approved by a variety of multilateral institutions: the IMF, the EU's Troika, World Bank, Paris Club, and London Club.

Palestine, another small country with an influential, far-flung diaspora, is another good example. Under the recent administration of ex-World Bank economist Salam Fayyad, the Palestinian Authority embarked on a program of "state readiness", grooming the nation for sovereignty according to the template required by these unelected authorities. Preparing for sovereign creditworthiness involves jumping through their hoops; assurances of public austerity, unrestricted access for foreign investors, deregulated markets, and relaxation of lending requirements. Also implied in this courtship is acceptance of the say-so of these financial institutions to override elected governments and set policy directly, either to ensure that foreign bondholders are paid in full or to quell civic instability. These are the terms under which modern democracies are permitted to subsist. For anyone who doubts that popular sovereignty can be eroded so decisively, the ruthless dismantling of Greece serves as an object lesson.

The working formula that emerged from neoliberalism's struggle to survive and prevail in the years following 2008 might be referred to as the "debt gap", and I will use the term here quite loosely, in homage to Neil's much-debated concept of the "rent gap" as applied to land development in particular (Smith 1987). The debt gap measures the difference between the current and potential (future) rates of extraction from any financed asset or income source. Of course, calculation of this debt gap includes many variables; most notably, the question of whether private debts incurred by creditors will be wrung free of risk by transforming them into public obligations, as was accomplished most visibly by the 2008 bank bailouts. One of the biggest factors of

calculation applies to the conditions under which vital social goods—housing, education, healthcare, infrastructure—that benefit from some level of public provision or subsidy can be further transformed into privately debt-financed sources of revenue. The surge in extractive profit from these sources, and the eccentric medley of derivatives conjured up around them, has been one of the chief hallmarks of the neoliberal era, with its concomitant growth of a creditocracy whose beneficiaries derive their primary income from wrapping debt around every possible asset. For the creditor class that feeds off the debt-money system, calculating the debt gap takes priority as the principal actuarial procedure governing the use of capital for investments.

Scale matters, and Neil was particularly interested in geographies of scale (Smith 1992). Any analysis of the debt gap must consider that creditors do not treat countries, cities, and individuals in anything like the same way. Sovereign debt is quite a different beast from household debt, and both have to be distinguished, in turn, from public debt in the form, say, of a municipality's financial obligations. These are sometimes at odds with one another. After all, squeezing one kind of debtor too hard minimizes the prospects of reliable debt service from another. For example, loading debt on students by cutting education funding will limit their capacity to take on mortgages, or loans for automobiles and other big-ticket consumer items. Yet the differences between these three species of debt are deliberately glossed over through the universal application of payback morality, the self-serving mystique that cements the interests of finance. According to this rule of probity, it is considered the highest moral duty of debtors at all times to make their creditors whole, even though lenders do not approach their own debt obligations in the same spirit. In the wake of the 2008 bailouts, and public revelations about the fraudulent misconduct of the banks, this mystique has eroded somewhat in the public mind, but it is strongly enforced by the courts, and, if necessary, by the police, who have the authority, once more, to arrest and lock up debtors in more than a third of all US states (debtors prisons, abolished in the 1840s, have seen a brisk revival). In the pages that follow, I will examine some examples of how the debt gap operates, at each of the three levels noted above.

The National Question

In the case of national debts, Scotland's case for sovereignty is instructive because it concerns a nation with a tradition of strong popular support for the public provision of social services. Most notably, the recent decision to hike university fees in England was not replicated north of the border, where access to college is still free, and where the principle of free education enjoys broad public backing. Unfortunately for advocates of Scottish independence, their case was put to the vote at a time when austerity politics had dampened the appetite for experiments in democracy. The rationale for austerity in most countries was a public debt crisis cooked up to validate spending cuts that would have been politically impossible to achieve in normal circumstances. Notwithstanding that the debts in question were incurred to bail out banks after the 2008 crash, the resulting deficits have been manipulated to guarantee that bondholders' rights are given priority over the welfare rights of the citizenry. Given the balance of power in the Eurozone, national political representatives were powerless to challenge this order of priority. When elected officials

stood in the way of the European Commission, European Central Bank, and International Monetary Fund, they were replaced by Troika-approved technocrats, like Lucas Papademos, in Greece, and Mario Monti, in Italy, who could be relied on to ensure the smooth repayment of external debts. The unelected, apolitical status of these two finance industry proxies underlined the reality that the democratic process had to be suspended for the highly unpopular policies—No Bondholder Left Behind—that favored foreign creditors to prevail.

Rather than wait for a domestic electorate to vote against the fiscal wishes of the Troika, as happened twice in Ireland (where recognition of the Treaty of Nice in 2001 and the Treaty of Lisbon in 2008 were both rejected, after which the Irish were asked to vote again until an acceptable outcome resulted), no such risk could be taken with Scotland. In the event of a positive vote for independence, the Scots would have to be trained for a career of respect toward the international creditor class. The lesson in austerity meted out to the Irish would have to resonate more than the bold example set by the Icelandic people who successfully repudiated the bankers' claims, and put some of them in prison. So, too, there would have to be some assurance that the debt gap might be wide enough to guarantee a healthier flow of revenue than could currently be extracted from the UK, or its Scottish portion.

On the face of it, the debate about the fiscal stability of an independent Scotland was framed overwhelmingly as a discussion about the country's capacity to subsist and thrive on its own. How would it be able to afford the generous welfare state and social justice traditions so cherished by its citizens? How could it diversify its economy without giving away the store to multinational corporations looking for a cutprice haven? But the overriding capitalist interest was dictated by the speculative concerns of the financial sector. Would the sovereign state be a reliable source of debt service, and what were the prospects for increasing the rate of extraction? Every estimate of the country's economic standing was, in one form or another, a calculation along these lines, sharpened by the high drama we had seen play out in the smaller economies of the Eurozone.

Estimates of Scotland's inherited share of UK debt varied greatly, depending on whether the calculation drew on a geographic or a per capita basis. The strongest precedent for allocating assets and obligations was the "velvet divorce" between Czechs and Slovak republics. Physical assets went to the state in which they were located, while debt was divided on the basis of population share. Using that formula, the SNP's Fiscal Commission Working Group concluded that if Scotland assumed a population share of UK debt in 2017–2018 (the projected date of independence), it would be worth £126 billion, or 72% of Scottish GDP, and therefore lower than the equivalent UK figure of 77%. However, basing the calculation on an estimate of Scotland's previous contributions to the Treasury yielded a figure of only £40.6 billion, or 27.6% of Scottish GDP (including its majority geographic share of North Sea oil and gas) (Fiscal Commission 2013). With the post-independence advantage of full fiscal powers and greater control over the North Sea revenue, the SNP's economists argued that the books could readily be balanced. The National Institute of Economic and Social Research (NIESR) on the other hand, put forth a much higher estimate for the inherited debt of £153bn, or 86% of GDP, well above the 60% ratio of debt-to-GDP recommended for national governments in the

Maastricht Treaty. According to neoliberal precepts, reducing that ratio would require austerity policies even more harsh than those implemented by Westminster, especially if the costs of borrowing were set at higher interest rates, as is likely, than those currently enjoyed by the UK (Armstrong and Ebell 2013).

The volatility of oil prices was a strong variable in these equations. In that respect, the most innovative proposal in the original NIESR report was an "oil for debt swap", whereby all North Sea revenues would be ceded to the UK in exchange for a hefty write-down of the inherited debt. The outcome, according to the NIESR, would greatly reduce the risks that came with independence. The more attractive feature of this proposal, which the report did not consider however, was the prospect of escaping the addiction to fossil fuel revenue that has plagued so many other countries in pursuit of self-determination. Even in those states, mostly in South America, where petroleum profits are no longer captured by oligarchs but are used to expand social service funding, there is a political price to paid for diverging from the ecological pathways laid out by advocates of low-carbon development. In recent years, champions of the Cochabamba ethos of protecting the rights of nature and Pachamama (Mother Earth) have been dismayed that the new, left-wing rulers of Andean states are committed to continuing the colonial patterns of resource expropriation (Fabricant 2013). An oil-for-debt-swap would not absolve a newly independent nation of responsibility for hydrocarbon extraction (the oil would still be pulled up), but it would probably propel Scotland further along the road of tapping its vast proven potential for harnessing tidal and wind power.

More interesting yet, John Swinney, Cabinet Secretary for Finance, Employment and Sustainable Growth, suggested that Scotland may not be liable for any share of the debt. If the UK were to be defined as the "successor state" coming out of the break-up, it would then be obliged, he argued, to hold on to all of the debt. Swinney's suggestion was put forth in an April 2013 war of words with the British chancellor George Osborne over whether Scotland would be "allowed" to use the pound sterling (Worrall 2013). Swinney's comment was made in the heat of the moment, but, in the lead-up to the September 2014 vote, the SNP leader Alex Salmond utilized the threat of Scottish debt default to mount a high-stakes PR assault against a Westminster political class that had closed ranks around the pound (Maddox and Whitaker 2014). Leaving aside its temporary use as a Yes campaign weapon, the threat invites closer scrutiny of the composition of UK public debt, swollen, as it is, by the costs of the Iraq war, the bailout of banks, and the continuing consequence of lax regulation of the financial sector. That war violated international law, and so the portion of the debts incurred for joining George Bush's "coalition of the willing" could be considered "odious", according to international legal doctrine. Neither should the cost of bailing out the big banks and of continuing to subsidize them through quantitative easing be readily borne by taxpayers. So how much of the aggregate debt ends up being cast as illegitimate and subject to repudiation? Was there a moral and legal case (not made by the SNP) for rejecting a large portion of it on these grounds alone?

The history of sovereign debt default is quite a busy file. According to Carmen Reinhardt and Kenneth Rogoff, there have been at least 250 sovereign defaults on external debts since 1800, many of them the result of a disinclination to pay, as

opposed to an inability to afford payments. Indeed, their survey, dating back to twelfth century China and medieval Europe, shows that serial defaults were "an almost universal rite of passage for every country as it matured from emerging market economy to an advanced developed economy" (Reinhart and Rogoff 2009:30). In modern times, many different legal and moral rationales for debt repudiation have been put forth—including fraud or corruption on the part of negotiators, coercion on the part of creditors, the illegal transfer of private debts into public ones, and the application of loans to uses considered harmful to human and environmental rights. Since its founding in 1990, the Committee for the Abolition of Third World Debt has built up a persuasive agenda for debt cancellation, expanding far beyond the established, though still contested, legal doctrine of odious debt (Toussaint and Millet 2010).

The Eurozone crisis generated a wave of interest in economic disobedience along the same lines, raising hopes that tools and processes, like citizens debt audits, could be used to question the legitimacy of dubious public obligations to foreign banks (International Citizen Debt Audit Network 2014). An independent Scotland might have set a new standard, not only by cancelling unjust or odious debts owed to it by vulnerable countries in the global South, but also by auditing all the debts it was likely to inherit from the UK. "Drop the Debt", the slogan used by the Jubilee South movement to promote debt abolition in the developing world, could have also applied to a new nation intent on distancing itself from the creditocracy of the City of London. Among other things, that would have been an ironic endnote to the circumstances under which Scotland lost its independence three centuries ago. At that time, moneyed Scots—who had suffered great losses from the disastrous efforts to establish a colony in Darien on the Isthmus of Panama—proposed that the national debt be forgiven in return for ceding sovereignty. The request was rejected by England, but the 1707 Acts of Union, Article 14, did grant £398,085 10s to offset future liability towards the English national debt.

In the end, the leaders of the Yes campaign wielded debt default only as an expedient tool, and not as a credible act of democratic legitimation. In the last frenzied weeks of the referendum debate, debt refusal was used to counter the Bank of England's position, strongly backed by all the national parties and the media, that an independent Scotland would not be able to use the pound sterling. This imbroglio over currency and debt obligations all but eclipsed discussion of the political, social and cultural considerations that had dominated earlier referenda about the devolution of power in 1979 and 1997. The ubiquity of the finance talk owed a great deal to the more decisive shift to sovereignty that would be decided in the 2014 vote. But it also signaled the growing ascendancy of the interests of the creditor class. Accordingly, the heavy artillery used by the established powers to intimidate the Scottish electorate was overwhelmingly financial in nature. Many chilling scenarios were projected: sharp rises in mortgage rates, mass currency and corporate flight, shriveling of household income and escalation of personal debt, crushing sovereign debt service obligations, and macro-economic crash. The No campaign's relentless focus on punitive consequences required equally laborious counter-efforts to portray a bright and sustainable fiscal future for a small national economy that was quite affluent by comparison with its likely peers. Given

the volatility of the global economy, none of the futures on offer were re-motely predictable, but the dismal preoccupation with fiscal matters absorbed the lion's share of public attention, reflecting the steady financialization of political debate itself.

In the 1960s and 1970s, Northern banks poured their rent-seeking surpluses into the global South, creating a "debt trap" that resembled re-colonization by other means. In recent years, as the debt trap migrated to the North, sovereign nations in the Eurozone became prime investor targets. Hedge funds placed bets on their performance under pressure (as happened in Greece and Spain), and international financial overseers treated elected governments like collection agencies for bond-holders and other foreign creditors. It is no surprise, then, that a prospective sover-eign like Scotland would be sized up as a potential source of reliable and lucrative debt service. What were the odds that its strong communitarian commitment to public provision would crumble under heavy fiscal pressure from bondholders, opening up its education, health, and infrastructure sectors to debt-financed privateering? How would its traditions of economic fairness sit with the neoliberal embargo on raising taxes or capping usurious interest rates? No doubt, Scottish elites would like to hold on to their own, bloated finance sector, but would behe-moths like RBS and HBOS flee south anyway to escape firmer regulation and bank levies, as they were alleged to be planning to do, in the final weeks before the vote?

Questions like these are endemic to a geopolitical landscape that is more and more governed by the interests of finance. Countries set on charting an indepen-dent course for themselves have to contend with predacious assessments of their public debt profile. To diverge from the say-so of the creditor class is to indulge in high-risk behavior as defined by the actuarial logic that holds sway over so much of our political life. Under such circumstances, following the most recent examples of Ecuador, Iceland, and Argentina in repudiating and refusing debts may be the only way of salvaging popular democracy.

Cities Under Siege

The manipulation of sovereign debts commanded most of the high-profile atten-tion in the years following the financial crash. Governments strapped from bailing out banks were forced to borrow more to meet their debt service obligations, while hedge funds placed bets on their chances of default. Forcing officials to privatize social services created even more income streams for banks. In the meantime, a similar creditocratic blueprint was applied to local governments. Increasingly cut off from federal aid, starved of revenue due to anti-tax fiscal conservatism, and pressured by the recession's impact to increase social service spending to newly vulnerable populations, municipal and state governments struggling to balance their budgets became hostage to Wall Street's ratings agencies in their desperate search for credit (Larson 2012). In turn, Wall Street trained its ravenous eye on pools of public money—state or city pensions, along with the multi-trillion dollar municipal bonds industry.

Private equity funds, like Mitt Romney's Bain Capital, had perfected the art of targeting companies that were ripe for liquidation and restructuring for leveraged

buy-outs; the firms were loaded down with debt and ruthlessly used as vehicles for extracting finance fees and interest. Very soon, the same predatory formula was being applied to stressed local governments looking for high-risk/high-yield investments to make up for stock market losses sustained by their pension funds. The state of Rhode Island exemplified this new arrangement when it handed over $1 billion of state pension money to several hedge funds pursuing strategies like short-selling, risk arbitrage, spread trading, and structured credit. State Treasurer Gina Raimondo, a former venture capitalist, became the new darling of Wall Street when she overhauled the pension portfolio in this way, generating massive management and performance fees for the fund owners. Yet the result of this gambling was dismal—the state's hedge funds portfolio earned much less than if it had been invested in stocks. Retirees suffered substantial losses while the finance tycoons raked in fees to the tune of 700% more than the projected estimates (Taibbi 2013).

Speculation around public pension liabilities also lies at the heart of the urban fiscal crisis that has pushed many cities close to the point of default. In the case of Detroit, the largest US city to ever file for bankruptcy, in 2013, public employees were asked to forgo a large chunk of their pensions so that creditors like UBS and Bank of America could get repaid for derivatives transactions which had already returned handsome profits. Federal bankruptcy law allowed Michigan's constitutional protection of these pensions to be overridden. This was not the only circumvention of state or municipal law. Kevyn Orr's 2013 appointment by Republican governor Rick Snyder as an "emergency financial manager" allowed him to seize full control of the city's resources from elected officials. Operating in a democracy-free capacity, Orr was able to magnify Detroit's liabilities—the city, it was projected, owed more than $18 billion in long-term debt to a variety of secured and unsecured creditors. Critics who questioned that sum argued that short-term cash flow was a much lesser challenge, and that the big Wall Street creditors had deceived city officials with the intent of selling them toxic loans (Turbeville 2013). But the mayor and the city council had no authority to contest Orr, who was accountable only to a governor who had put unilateral powers at his disposal. As in the case of Papademus and Monti, appointed to override representative democracy in Greece and Spain respectively, Detroit's emergency manager had been put in place not simply to ensure that the big creditors were prioritized, but also to dismantle union power, seize public assets, erode the will of the electorate, and define the public narrative of the city's debt crisis as the result of unsustainable pension legacy costs rather than the outcome of deindustrialization and predatory financialization.

Forcing the city into insolvency and bankruptcy filing proved to be the most effective way of accomplishing these goals, so prized by the new wave of right-wing governors who took power in the 2010 elections. For local governments that want to get out of pension contracts, the extreme treatment of Detroit is an obvious template to follow. Others, desperate to stave off a Detroit-style default, are encouraged to open new lines of credit to make their interest payments, ensuring that an ever larger portion of their public revenue is captured by Wall Street debt service. The net outcome is that more and more cities (and states) will be converted into

revolving customers, the preferred clients of credit card issuers, who never clear their monthly balance, and who pay dearly for their continued access to credit that rolls over.

The fiscal crises of the mid-1970s are often viewed as the proving ground for neoliberal policymaking. These largely artificial crises were manipulated to make way for public payroll cuts, slashed social programs, hiked education fees, and new forms of regressive taxation. In New York City, fiscal oversight was handed to the Municipal Assistance Corporation, composed of financiers that functioned as the de facto equivalent of Detroit's emergency manager, and public pension funds were used to bail out the city by stabilizing its bond ratings (Lichten 1986; Tabb 1982). After 30 subsequent years of neoliberalization, the 2008 financial crash occasioned a new wave of austerity urbanism that Jamie Peck (2012) has profiled as an "extreme economy", allowing owners, creditors and other elites to reassert and consolidate their right to capture resources. The preferred promotional rhetoric for this new austerity employs terms like "belt-tightening" and "shared sacrifice", but these are a smokescreen for an ever more efficient transfer of wealth and resources to the creditor class.

As was the case with the sovereign debt crisis, the debt gaps of cities are now subject to close creditworthy assessment. How much more can be squeezed out of public budgeting? What rents can be extracted from pension funds? How can targeted services or infrastructural operations be turned into debt-financed income for the banks? A now infamous example of the latter was the city of Chicago's 2008 decision to lease its parking meters to a consortium of buyers led by Morgan Stanley. The $1.2 billion contract was hastily rammed through the city council, and when the smoke cleared, it was estimated that the city had sold off its property for about one-tenth of its actual worth over the course of the 75 years that the consortium would be extracting elevated parking rates (now the highest in the country) from the citizenry. Urban transit authorities are some of the biggest income generators for Wall Street creditors. For example, debt service consumes 23% of New York City's MTA annual budget, and in Boston almost every dollar in fares collected by the Massachusetts Bay Transportation Authority (MBTA) goes to pay down its own debt burden, the highest of any US transit agency (Refund Transit Coalition 2012). MBTA officials were pressured into a series of dodgy interest-rate swap deals, and are now forking over tens of millions of dollars annually to Deutsche Bank, JPMorgan Chase and UBS.

Many municipalities and public institutions are prohibited from using public funds to speculate on toxic loan products peddled to them by banks. But officials are easily duped, and no one wins when the system is rigged, as demonstrated by the LIBOR rate-fixing scandal, which generated a series of lawsuits against Barclays and other banks from Baltimore, Houston, and Philadelphia along with the California counties of San Diego and Sacramento. Government officials in these cities and counties had been persuaded to buy hundreds of billions of dollars' worth of interest-rate swaps or credit default swaps that were reduced in value when the major banks artificially depressed the LIBOR. But even without the rate-rigging, many of the deals went sour, since officials were promised variable interest

rates (which plummeted after the crash) in return for fixed rate payments that are now much higher by comparison.

When the outcomes of such deals, involving public monies and resources, are beneficial only to the finance industry, are there grounds for non-repayment? Again, citizens' audits of public debts are a method for determining which ones should be honored and which ought to be repudiated. The audits are also a way to assess the accountability of local officials, whose fiduciary responsibilities are all too often sidetracked under pressure from lobbyists or paymasters. Arguably, they are a more ethical mode of adjudication than a bankruptcy proceeding. Most important, audits conducted by ordinary citizens are ways to promote transparency and restore democratic authority over common resources. Audits of local institutions with control over such resources—water and energy utilities, transportation authorities, hospitals, universities—can empower citizens to take responsibility for reducing the yawning democratic deficits produced by the manipulation of public debts. In some cities, especially in Brazil, the audits are utilized as part of a participatory budgeting process, with the goal of producing more equitable public spending. Public budgeting does not need to turn into a debt trap, designed to ensnare the disingenuous, and to burden those who depend most on social services. It should be an opportunity for empowerment, an exercise in self-organization and common managements of resources.

Governments that cannot check the power of the creditor class often prove too weak to persuade taxpayers to pony up when it comes to meeting public debt obligations. Under these circumstances, creditors looking to extract every last cent of debt service elect to use enforcers like the IMF, the Troika, or emergency city managers to bypass elected representatives and impose austerity measures on highly unpopular terms. In taking this route, the financial oligarchs risk losing the state's capacity to maintain political control on their behalf (rule by consent is a more effective form of oligarchy than rule by coercion), and so populist protest and deepening class conflict is almost certain to follow. At that point, the choices for any democracy become quite stark.

The Home Front

Household debt is a different beast from public, or even sovereign, debt. Analogies that equate the respective budget-balancing obligations of individuals and states (by using "belt-tightening" or other folksy metaphors) are entirely spurious. Nonetheless, the creditors in question are often the same ones who have manipulated public deficits and reduced vital social goods—housing, education, healthcare, and infrastructure—to revenue streams. The neoliberal pattern of withdrawing from public provision and turning the funding of these goods over to private debt-financing is a paramount reason for the rapid growth of household debt in recent decades.

Overall US household debt has decreased from its sky-high pre-2008 levels. Debt service, which reached more than 14% of after-tax income by the end of 2007, had fallen to 10.5% by April 2013 (Madrick 2013). Much of the deleveraging was due to low interest rates, and to a reduction in mortgage debt, though it is not clear how

much of the decrease came from banks writing off delinquent loans rather than from repayment. Yet, in the third quarter of 2013, mortgage debt saw a rise, by $56 billion, heralding a reversal of this pattern (Federal Reserve Bank of New York 2013). Auto loans also showed an increase, and the steady ascent of student debt, which never faltered during the recession, has now hit $1.3 trillion.

The bottom of the debt deflation trend turned out to be not very shallow at all. Now that people are persuaded it is safe to start borrowing again, interest rates will soon be hiked—an invitation for the banks to stop hoarding their cash reserves and embark on a new season of predatory lending, bolstered by the proven willingness of governments to bail them out even in the face of high rates of personal default and mass immiseration among the citizenry. Such assurances that the banks will always be made whole are critical to any creditors' calculation that higher levels of debt service are sustainable. The gap between the deflated bottom and projected, or aspirational, levels of rent extraction is now large enough for them to jump back into the lending game, an outcome that no amount of quantitative easing has been able to bring about. Equally serviceable is the gathering consensus among economists that the so-called "debt overhang" from the 2008 crash has largely been resolved and that it is not only safe to begin borrowing again but also necessary if GDP-driven growth is to get back to business as usual. This is not a particularly good analysis nor is it good advice. Debt overhang is one of these dodgy concepts economists use to rationalize an otherwise unsustainable condition. Aggregate household debt, after all, is still at a staggering $11.63 trillion. As for GDP-driven growth, the evidence suggests it is a recipe for ecological collapse.

Leaving aside these rationales, how much more can be squeezed out of people who may still harbor the perception that they are up to their necks in debt that can never be paid off? And how does this prospect gibe with the deeply ingrained mindset of payback morality that serves the finance industry so well? If repaying our loans is the highest moral test of personal responsibility (a test that Wall Street itself fails routinely), surely it is irresponsible to take on more debt that can never be paid down? These questions, and apparent contradictions, are reflective of the deeply schizoid composition of debtor psychology.

It is important to understand that, in a creditocracy, lenders do not want us to pay off our debts entirely, for the same reason that credit card issuers do not want us to clear our balance at the end of every month. Customers who do this diligently are known in the industry as "deadbeats", because they appear to get credit for free. The ideal citizens in a creditocracy are the revolvers who cannot make ends meet, and who pay the minimum along with merchant fees and penalties every month, rolling over their credit from month to month. In 2013, according to one estimate, average US household credit card debt was at $15,185, and with APRs around 15%, credit card issuers were effectively collecting $2277 annually from households with unpaid balances (in finance charges and penalty fees, and a much greater amount if the interest compounds daily as most now do (Chen 2014).

Creditors' profits come from extending our debt service as long as they possibly can. After all, if we pay down our debts, we are no longer serviceable to the banks. The goal is to keep us on the hook until we die, and even beyond the grave,

especially now that so many student loans are required to be co-signed by parents or grandparents. Not surprisingly, there has been a marked generational shift in the debt burden toward the elderly. In the postwar model of life-cycle lending, it was more or less assumed that middle class borrowers would earn the right, in their senior years, to live debt free, and it was a source of pride among the elderly, especially debt-abhorrent Depression babies, to have never paid a finance fee. That is no longer the case, and not just because debt-tolerant boomers have entered the ranks of the retired. Patterns of capitalist profit have shifted, and are much more tied to lifelong financial extraction. As financialization penetrates every corner of the household economy, the say-so of the creditor class has become common sense, normalizing ever higher levels and more various kinds of debt service.

In a rampant market civilization, vital social goods are converted into transactional commodities. A creditocracy emerges when the cost of accessing these goods, no matter how staple, has to be personally debt financed (Ross 2014). For most people, that means borrowing simply to get by. Indebtedness becomes the precondition not just for material improvements in the quality of life, but for the basic requirements of life. The creditors' goal is to put tollbooths on every possible asset and income stream, ensuring a steady flow of interest from each. The more advanced level of extraction requires borrowers to seek out fresh sources of credit to service existing debt. This technique was institutionalized most visibly in IMF lending to developing countries caught in the debt trap of the 1970s and 1980s. To this day, debtor nations are forced to borrow from one loan instalment to another simply to service interest repayments on their existing debts. There is no expectation that the principal will ever be paid down, but the pattern of uninterrupted receipts is highly profitable in itself.

For the working poor, this permanent indebtedness has been a familiar arrangement for much longer, and the past legacy of their debt bondage (feudal indenture, slavery, sharecropping, company scrip, loan sharking) is alive and well today on the subprime landscape of fringe finance, where payday lenders and check-cashers and other poverty banks all thrive. But the bonds generated by household debt have spread upwards in recent decades, and now affect the majority of the population, tethering two generations of the college educated. That is why the education debt crisis in particular has attracted more than its share of attention.

In the US, aggregate student debt stands at $1.3 trillion, average debt on graduation is $33,000, and nearly one-third of borrowers in repayment are in default (Izzo 2014). The nation's economic managers are understandably flummoxed by the prospect of graduating a middle class that may never be able to afford to buy a house, raise children, or make the kind of purchases that sustain a consumer society.

The student loan burden is not just an economic problem, it is also a relationship of power. Beginning with Ronald Reagan's declaration of war on Berkeley's campus activists—"the state should not subsidize intellectual curiosity"—the strategy of hiking tuition fees has proven very effective in dampening the ardor of student protesters (Bady and Konczal 2012). Over time, the state's role in broadening access to federal loans (rather than access to the right to education) and pushing up the debt burden has helped to stifle the optional political imagination of students. Protest is

no longer a rite of passage on campus as it was several decades ago. Many students are now compelled to seek out low-pay jobs to stay in college and stave off further debt; they are encouraged to think of their degree as a transaction in which their future wages have been traded; and they are increasingly directed toward fields of study that provide "value" through the earning potential to repay their loans. These are not conditions under which an agile critical mind is likely to be cultivated, but they are perfectly serviceable to elites who do not want an educated and active, free-thinking citizenry on their hands.

Similar arguments have been made about the longstanding adoption of homeownership as a national policy. Beginning with the efforts of Herbert Hoover's Better Homes movement of the1920s, the promotion of homeownership was urged as a hedge against the socialist threat. Indeed, access to credit would be a staple of the great public relations war against socialism for the next several decades, initially to ward off its influence in the US and then in the worldwide contest with the Soviet bloc from the late 1940s onward. For those who saw the New Deal itself as a communist plot, the Federal Housing Administration's (FHA) innovative use of private capital (no public monies were used to back the FHA loans) was a reassuring move. Indeed, one future FHA commissioner described it as "the last hope of private enterprise. The alternative was socialization of the housing industry" (Hyman 2011:53).

Even so, the fear of a damaged credit score, or threat of a foreclosure, helped to reinforce the rigid status quo that was so distinctive of the Cold War culture of conformity. Debt service was the key to enforcing social norms, and so the mortgaged home became the cornerstone of capitalist ideology in this period. As William Levitt, the masterbuilder of mass suburban homes, so concisely put it: "No man who owns his own house and lot can be a communist" (quoted in Jackson 1985:231). Yet he was simply expressing an opinion that, for 20 years, he had guided a generation of urban planners, like John Nolen, and housing reformers, like Lawrence Veiller, in their bid to foster "a conservative point of view in the working man" (Hayden 2002:49).

Many populations—minorities and female-headed families—were shut out of the cheaply financed postwar boom in suburban housing. As with student loans, their right to access credit was broadened in response to civil rights pressure in the course of the 1960s and 1970s. For the burgeoning financial services industry, the right to expand the pool of long-term debtors was the only form of civil rights that mattered. Rather than more fully realize the right to basic social goods, like healthcare, education, and housing, what was reinforced was the right to privately debt-finance these goods. This formula is not simply an economic arrangement, it can more accurately be described as a principle of governance, soundly embedded in the American way of life, and increasingly attractive to creditocracies in other countries.

The Power of Refusal
Whatever popular credibility the financial industry once enjoyed was sharply eroded by the 2008 crash and by the double standard displayed by the lavish bank

bailouts. The corresponding inability of governments to provide debt relief to the citizenry inspired the great encampments of 2011–2012 (15 M, Syntagma, and Occupy) while resistance to debt-driven austerity fueled the mass mobilizations in North Africa, Turkey, and Brazil. In their calculations of the current debt gap (ie how much more of the economic surplus can be captured through debt service?) the masters of the universe on Wall Street and other banking centers have surely factored in the volatility of the appetite for economic disobedience. Perhaps they have concluded that large-scale debt refusal is not on the cards, and that household debtors are too isolated, or cowed by the fear of default, even debtors' prison, to pull off debt strikes in a unified fashion. The door is always open for individuals, as with sovereign nations, to seek relief through renegotiating or restructuring their loans, but the threat of collective action is taken very seriously. Witness the fate of Thomas Sankara, the charismatic leader of Burkina Faso in the early 1980s, who was assassinated just three months after he made his famous speech about the debt crisis at the Organization of African Unity in Addis Ababa in July 1987. In that speech, which called for Southern debtors' solidarity in the face of their Northern creditors, he drew public attention to the Paris Club, the powerful, low-profile organization which functions as a debt collector for the creditor states, and the London Club, which represents the unified interest of private creditors. Sankara declared: "It is normal that we too have our own club—the club of Addis Ababa. It is our duty to create a unified front against debt. That is the only way to assert that refusing to repay is not an aggressive move on our part, but a fraternal move to speak the truth."

Sankara's words still resonate today, but their relevance is no longer confined to the developing countries of the global South. The conditions that inspired his call to create "a unified front against debt" have spread to the advanced economies and are now foreclosing the future of populations that were once on the "good" side of the International Division of Credit. Just as wage conflict was the great strife of the industrial era, the struggle over debt is shaping up to be frontline battle of the years to come. Not because wage conflict is over (it never will be) but because debts, for most people, are the wages of the future, to which creditors lay claim far in advance. Each new surrender of a part of our lives to private debt-financing further consumes the fruit of labor we have not yet performed, in the form of compensation we have not yet earned. That is why the debt gap, to put it crudely, is a form of wage theft.

References

Armstrong A and Ebell M (2013) *Scotland's Currency Options*. Edinburgh: National Institute of Economic and Social Research

Bady A and Konczal M (2012) From master plan to no plan: The slow death of public higher education. *Dissent Fall*. http://www.dissentmagazine.org/article/from-master-plan-to-no-plan-the-slow-death-of-public-higher-education (last accessed 13 November 2014)

Chen T (2014) American household credit card debt statistics. *NerdWallet*. http://www.nerdwallet.com/blog/credit-card-data/average-credit-card-debt-household/ (last accessed 13 November 2014)

Fabricant N (2013) Climate debt: Who profits, who pays? *NACLA Report on the Americas* Spring:19–21

Federal Reserve Bank of New York (2013) New York Fed report shows household debt rises in third quarter. 14 November. http://www.newyorkfed.org/newsevents/news/research/2013/rp131114.html (last accessed 13 November 2014)

Fiscal Commission (2013) *Working Group First Report: Macroeconomic Framework*. Edinburgh: Scottish Government

Hayden D (2002) *Redesigning the American Dream: The Future of Housing, Work, and Family Life*. New York: W.W. Norton

Hyman L (2011) *Debtor Nation: The History of America in Red Ink*. Princeton: Princeton University Press

International Citizen Debt Audit Network (2014) International Citizen Debt Audit Network–Don't owe! Won't pay! http://www.citizen-audit.net/ (last accessed 13 November 2014)

Izzo P (2104) Congratulations to class of 2014, most indebted ever. *Wall Street Journal* 16 May. http://blogs.wsj.com/numbers/congatulations-to-class-of-2014-the-most-indebted-ever-1368/ (last accessed 13 November 2014)

Jackson K (1985) *Crabgrass Nation: The Suburbanization of the United States*. New York: Oxford University Press

Larson A (2012) Cities in the red: Austerity hits America. *Dissent* 16 November. http://www.dissentmagazine.org/online_articles/cities-in-the-red-austerity-hits-america (last accessed 13 November 2014)

Lichten E (1986) *Class, Power, and Austerity: The New York City Fiscal Crisis*. New York: Praeger

Maddox D and Whitaker A (2014) Scottish independence: Debt threat "chilling"—PM. *The Scotsman* 4 September

Madrick J (2013) A bit of good news. *Harper's* April

Peck J (2012) Austerity urbanism: American cities under extreme economy. *City* 16(6):626–655

Refund Transit Coalition (2012) *Riding the Gravy Train: How Wall Street Is Bankrupting Our Public Transit Agencies by Profiteering off of Toxic Swap Deals*. New York: Refund Transit Coalition

Reinhart C and Rogoff K (2009) *This Time is Different: Eight Centuries of Financial Folly*. Princeton: Princeton University Press

Ross A (2014) *Creditocracy and the Case for Debt Refusal*. New York: OR Books

Smith N (1987) Gentrification and the rent gap. *Annals of the Association of American Geographers* 77(3):462–465

Smith N (1992) Contours of a spatialized politics: Homeless vehicles and the production of geographical scale. *Social Text* 33:54–81

Tabb W (1982) *The Long Default: New York City and the Urban Fiscal Crisis*. New York: Monthly Review Press

Taibbi M (2013) Looting the pension funds. *Rolling Stone* 19 December

Toussaint E and Millet D (2010) *Debt, the IMF, and the World Bank: Sixty Questions, Sixty Answers*. New York: Monthly Review Press

Turbeville W (2013) The Detroit bankruptcy. *Demos* 20 November. http://www.demos.org/publication/detroit-bankruptcy (last accessed 13 November 2014)

Worrall P (2013) Can Scotland avoid paying UK debt? *Channel Four FactCheck* 23 April. http://blogs.channel4.com/factcheck/factcheck-can-scotland-avoid-paying-uk-debt/13362 (last accessed 13 November 2014)

On the Image of the Country and the City

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Abstract: We know from the *Grundrisse* that Marx felt the division of town and country to be as vital to political economy as the division of classes. From the *Manifesto* we know that he saw this division as a homological version of the dependency created by capitalism of global South on global North. It was, however, the cultural theorists of twentieth-century Marxism who internalized this geopolitical imagination and significantly developed it in the form of scales and configurations of spatial meaning contained in the concepts "city" and "country". The structuralist revolt against history, then, as a bid to arrest historical becoming, must really be seen as a perverse analogue of earlier twentieth century Marxist innovations in the spatialization of time. Thinkers like Ernst Bloch, Henri Lefebvre, and Raymond Williams, although unheralded for this aspect of their work, developed Marx's nascent city/country pairing, exploring the materiality of its metaphor. In geography, it is Neil Smith's *Uneven Development* that follows in the footsteps of this "classical" motif in literary and cultural theory.

Keywords: the country and the city, cultural materialism, imperialism, Western Marxism

There is the city, there is the country. There is the capital, there is the province. Apparently the problem in the mother country [France] is the same [as in Martinique] (Frantz Fanon 1967:19).

Difficult to choose between the big city, where life is stunted, and the small town, where it wastes away (Ernst Bloch 1998:357).

As close friends, Neil Smith and I shared many things over the years, but never a discipline. Given my interest in the humanities, I was always correcting him on his use of philosophers, and he returned the favor with mounds of data on housing in the Lower East Side of New York, where I lived for 20 years, reimagining for me the neighborhood I thought I knew.[1] But we came out of similar traditions, and read many of the same classics, and I worked side by side with him as a humanist in seminars and institutes dominated by social scientists. There we experienced the frustration of mixed signals and cross-purposes, for the role of the nature/culture divide signified quite differently in each disciplinary encampment, replete with subtle deviations of style; and, even more, with a different sense of *metaphor* as a natural weapon in the political arsenal ("space" as "spatial imagination" rather

than a measurable configuration of territory). From a humanist's vantage point, the uses of metaphor in the social sciences tended to be seen as a rhetorical choice rather than a fundamental phase of all social meaning; to literary criticism, this appears naive, an unfounded hostility to metaphor that diminishes the force of Marx's treatment of the country/city motif.

Equally chafing against a predominantly psychoanalytic and discursive "theory" which was entering the social sciences *from* the humanities in the years Neil was writing *Uneven Development: Nature, Capital, and the Production of Space* (Smith 1984), he and I came to know one another in the Columbia University anti-apartheid sit-ins of the mid-1980s. In our own way, we were testifying to the primacy of material over linguistic effects and the necessity of *will* in the presence of theoretical trends premised on the evacuation of the subject. Trends that would later become variants of a posthumanist wave in the academy—among them, political ecology and antiphilosophy—were already in formation at the time, all drawing on the image of an ontological subject conceived as an indifferent part of an inanimate nature. This was, among other things, the environment of Neil's complaint in *Uneven Development* with what he called bourgeois theories of nature based on "a grand universal in which human beings are but small and simple cogs" (Smith 1984:xvi). And yet his focus on the production of nature in that book (echoing though it did the French communist philosopher, Henri Lefebvre) struck the same note as "theory" when it came to "constructed" identities resistant to the naturalization of desire, sexuality, or racial character. He actually mounts a critique in the book not of "theory" but of Alfred Schmidt and the Frankfurt School who are explicitly labeled "bourgeois". At the same time, the "poststructuralist and postmodernist language of 'subject positions', 'conceptual space'," are characterized as "fruitful" (Smith 1984:167).

Whether a deft catholicity of outlook or a stealth critique, his critical posture was unexpected if only because the intellectual triumph of Neil's career came in part from his training in organizations of what used to be called the old left. His political ecumenicism—or just plain populist tact—allowed him to navigate a postmodern age while offering an alternative that many eagerly took up, redeploying classical Marxism in a contemporary idiom. His project was at odds, ultimately, with those many currents around him—particularly but not exclusively in the social sciences —annoyed by the relentless idealism of '68ist modes of "thinking the unthought". By the same token, there were problems with the reaction to that movement as well, as he understood. These could be found in the more scientific alternatives offered by infrastructural, non-agential studies of macro-patterns of the economy: what we find, for instance, in certain aspects of political Marxism and distant reading in the work (among others) on "commodity logic" of Moishe Postone, in the quantitative data-mining of novels by Franco Moretti, and in the class analyses of Ellen Meiksins Wood—all vigorously anti-"theory", but so put off by the excesses of culturalism as to discount the force of the cultural itself. While not appearing to do so, Neil traversed these various zones, defying the famous Althusserian move to rescue the early, philosophical and anthropological Marx from the later "scientific" one: "I do not accept that there is a radical break between the so-called young Marx and the mature Marx" (Smith 1984:33).

In this way, then, he passed along with aggressive sincerity an older wisdom and focus, bringing these earlier configurations (Trotsky's concept of "uneven and combined development", for example) into play again, without however developing its many implications for the imperial system of spurious comparisons—that is, the decisive rhetorical dimension of the regime of cultural value in globalization—or fully acknowledging the eloquence and depth to which Trotsky's own, early formulations had attained. And even more consequentially in his classicism, he returned (like his mentor David Harvey in the last two decades) to Marx's texts themselves to demonstrate their hints of a theorization of nature—a nature not found, enveloping, or separate from the human (as in political ecology), but entwined with the human social subject in such a way that it was possible to speak of the person as part of nature while not rendering him or her inactive or involuntary. It was Neil's strength, in short—as conduit, preserver, and also, of course, as innovator of the historical memory of the old left that catapulted him to the fore in intellectual crowds hungry for a politics of material effects. This involved a theory of what is "material" that took most of its leads from earlier traditions of *cultural* Marxism. Raymond Williams and Henri Lefebvre are the most obvious models upon which he draws in this most formative period of his career (Smith 1984:30–31, 90–93, 169–172).

The Colonial Nexus

We know from the *Grundrisse* that Marx felt the division of town and country was as vital to political economy as the division of classes, the mode of production, and geopolitical location. We also know from the *Manifesto* that he explicitly saw this division as not only analogous to, but a homological version of, the dependency created by capitalism of East on West, agricultural countries on industrialized ones, the global south on global north. What has gone unremarked is that the cultural theorists of twentieth century Marxism internalized this geopolitical imagination and significantly developed it in ways that have remained largely unexplored within the social sciences, or else borrowed from Marxist literary theory without acknowledgement.

The great turn to the spatial imagination in structuralism and poststructuralism—Michel Foucault's archaeologies of knowledge; Louis Althusser's ideological "levels" inspired in part by Freud's topographical method; Fredric Jameson's cognitive mapping; and so on—were fashioned not only in a milieu of structuralist mania for the synchronic or with an appetite for universal applicable models of pure relationality. They reflected, rather, a wider hostility to temporality itself. And yet it is striking that this apparent insurrection against the relentless historicizing of Marxism (with its intellectual sympathies for greater, and not necessarily political, intellectual fields like philology) only offered a twist on the preoccupations already evident in these theories' opponents.

The spatialization of time popularly associated with the structuralist revolt against history was, one could say, the perverse analogue of the geographic imagination of mid-century Marxism itself—that is, an intentional subversion of an original attempt to theorize territory, scales of production, and situations of life-objects in the quest to arrest change and defy becoming. It was, after all, Lefebvre (1991), a Hegelian

Marxist, and not, say, Jacques Lacan or Julia Kristeva, who reoriented the spatial/temporal divide in *The Production of Space* in a gesture that might be seen as the inverse image of Foucault's "archaeology" of knowledge (a static, vertical cross-section of the episteme taking the place of an historical unfolding). He conceived the study in a setting that had already paved his way: in Antonio Gramsci's identification of a place-specific ideology ("Southernism") and his sardonic response to the "super-city" and "supercountry" themes of interwar fascist literary journals; in Leon Trotsky's theory of permanent revolution, which shifted political action dramatically from Europe to the global periphery; in José Carlos Mariátegui's essays on Peruvian "reality"—a volatile mix of literary regionalism, ladino culture, and metropolitan allure; in Lefebvre's own earlier and little-studied collection of essays on *urban* sociology (the bungalow, the megalopolis, agro-cities, the links between a vaunted nomadism and bourgeois individualism) explicitly counterposed by him to a set of studies on *rural* sociology (the *paysan* as *païen* [pagan] in Christian Europe; peasant culture; internal colonization); and, perhaps most interestingly since unexpected, in the work of Ernst Bloch where the country/city relationship is a prominent motif throughout his oeuvre on multiple levels moving between the literal and the figural. He dedicates several sections of his *The Principle of Hope* (*Das Prinzip Hoffnung*, written between 1938 and 1947), for instance, to geographical utopias, and a whole subcategory of his literary essays is similarly dedicated to what he calls "geographica" (Bloch 1986).

The very substance of his most widely cited work on "nonsynchronicity" in *Heritage of Our Times* (*Erbschaft dieser Zeit*, 1935) elaborates a dissonance between time and space in the German countryside where (at the advent of Nazism) there existed a different affective response to politics than in the city for the reason that there existed, in his words, a different "now" (Bloch 1991). Bloch is careful to keep the terms in balanced tension to avoid playing the role of the cosmopolitan who smothers the provinces with indulgent "understanding". If "most backwaters are so spiteful today, dead and conventional like an unhappy marriage", the metropolis has no right to pretend that it occupies the status of lordship: "Life in the big city foams more, swindles all the better in return" (Bloch 1991:23, 24). The book offers one of the first and most distinctive philosophical anthropologies of peasant life, a prelude in many respects to John Berger's peasant trilogy of novels set in southern France, *Into their Labours* (1979, 1987, 1990).

At issue, then, in this striking return to the image of the country and the city is how social metaphor elaborates a materialism in a sense quite separate from, and earlier than, later theories of "discourse"; that, indeed, one dimension of Marx's original argument described the ideological complex surrounding the urban and the rural as themselves bearers of economic value quite apart from a locale's production or consumption, or the class relations predominating there. The material outcomes of scales and configurations of spatial meaning contained in the concepts "city" and "country" were explored in cultural Marxism to a degree that has gone largely unrecognized, and distinct from the textuality of postwar culturalist theory. Whatever their differences, each figure in the constellation above had come to grasp the economic function of a particular subjectivity in which "city" and "country" (often trading valences, slipping from positive to negative, and then back again) were functioning as a justification for specific kinds of planning and organization. Above

all, the domestic familiarity in the metropolitan centers with such internalized concepts from popular culture and literature as the *hickish* and the *urbane*, the yahoo and the cosmopolitan, were superimposed upon the colonial system as a cultural legitimation of empire. The periphery had found its "image-function".

The thinkers I am exploring here all in their own way demonstrate the persistence of an intellectual migration to the spatial and geographical imperative of Marx's city/country pairing. And all of them develop their ideas from this original Marxian source with the sense that Marx began what he did not finish, prompting their own innovations on a lead they took (like Neil in *Uneven Development*) to be "classical". Neil's contribution, to put this another way, was shaped by an old left cultural theory that he deemed more enabling than the "cultural turn" of his own surroundings. It is, though, in the name of the directions he did *not* follow that more must be written. For his focus in *Uneven Development* is on accumulation, on nature as a means of production, the geographical patterns of fixed capital investment, the imperative of capitalist disequlibrium, and so on, whereas the more generalist method that tends to operate within this constellation moves between ideas and things with an habitual taste for contradiction. "Is the commitment to a spatialized politics [he is alluding to Jameson] really only metaphoric, then?", he asks. "And if this is possible for an explicitly political thinker such as Jameson, how much greater might the dangers be that with *literary and cultural discourses arguably coming to lead in its reassertion* ... space will be reduced to metaphor, its materiality still unrealized" (Smith 1984:168, emphasis added). My interest is not to allay this fear—at the time of writing it was well-taken—but to treat the suppleness with which cultural Marxism had much earlier superseded it.

Beyond the inherent interest of the analyses themselves, the faithful elaboration by cultural Marxism of an original (if inchoate) insight by Marx about the centrality of the country/city nexus to political economy, cultural theory, and history has enormous ramifications for any theory of the class character of "difference" generally. At least as important, it vividly displays not a blind fealty to textual dogmas but a creative reapplication of what in Marx was merely a suggestion—little more than an aside. Above all, the importance of turning to this neglected focus on the motor force of tension between country and city is that it repudiates a number of common misunderstandings. What it demonstrates, I would like to argue, is the deeply structural and intimate relationship of Marxism to anticolonial thought, its sensitivities to the blind spots of Eurocentric prejudices, its caution over cosmopolitan ease that never stops announcing the backwardness of rural backwaters: its emphasis on the contributions of the "country" (with all its metaphoric resonances) to the city in every sense.

In perhaps the most obvious instance of the clarity and force of this tradition, Raymond Williams's (1973) classic study, *The Country and the City*, can be seen as a systematic unfolding of a Marxian hint, as though a mansion had been built on the foundation of a frame of dusty bricks. His work proliferates, spiraling outwards, spun out at a level of complexity, and delivered in a relaxed and knowing comprehensiveness, over the wide ambit of associations, imageries, feelings, attitudes and cultural tics, until one comes to see the unresolved and

constantly morphing conflict between country and city as the primary contradiction of all social life. That this tension is never arrested—that, in fact, it continually undergoes reversal and recalibration in his hands—is among its most crucial features. In Williams (1973:279), the anticolonial dimensions of the contrast are explicit:

> Thus a model of city and country, in economic and political relationships, has gone beyond the boundaries of the nation-state, and is seen but also challenged as a model of the world ... Much of the real history of city and country, within England itself, is from an early date a history of the extension of a dominant model of capitalist development to include other regions of the world. And this was not, as it is now sometimes seen, a case of "development" here, "failure to develop" elsewhere. What was happening in the "city", the "metropolitan" economy, determined and was determined by what was made to happen in the "country" ... Thus one of the last models of "city and country" is the system we now know as imperialism.

Already in *The Long Revolution* (in 1961, well before the postcolonial turn), Williams had explicitly attacked the arrogance of the empire, relating it not simply to occupation, war and the stealing of resources, but (as he puts in *The Country and the City*) "the English imagination" and the "larger context within which every idea and every image was consciously and unconsciously affected" (Williams 1973:281). The revelatory aspect of this kind of point is telling since so many (Paul Gilory, Gauri Viswanathan, and others) go to great lengths to deny it, explaining away these initiatives in pursuit of the necessary fiction that Marxism suffers from amnesia or disregard when confronted by the specific indignities of the colonial encounter.[2] Edward Said (1978), who borrowed greatly from Williams (especially from *The Country and the City*) when writing *Orientalism*, nevertheless succumbed to these pressures apparently when remarking in *Culture and Imperialism* that for Williams "the imperial experience is quite irrelevant, a theoretical oversight that is the norm in Western cultural and scientific disciplines except in occasional studies of the history of anthropology" (Said 1993:47). He goes so far as to claim that "much of Western Marxism, in its aesthetic and cultural departments, is similarly blinded to the matter of imperialism" (1993:336)—a position he espouses while quoting extensively from Frantz Fanon, Amilcar Cabral, Basil Davidson, C.L.R. James, Thomas Hodgkin and V. G. Kiernan; that is, with one or two exceptions, from Western Marxists! In short, since this view is so inexplicably authoritative, it is still necessary to expose the lengths to which it is challenged by the evidence of a neglected record.

In Bloch and Gramsci, as in Georg Lukács and Bertolt Brecht and the others with which I opened this essay, we find, in fact, a surprising degree of attention to colonial issues—for example, to the atrocities committed in the colonies themselves, but also to the fantasies embedded in the colonial imagery of popular film, fiction, and political discourse. All of them, to a degree, theorize colonialism (and its later, more financialized variant, imperialism) not merely as a set of economic practices but as a governing structure of mind. This by itself is significantly denied or misunderstood in these writers' conventional reception. If it is countered by some contemporary critics that even if interwar Marxism was aware of race as an

element in colonialism, their thinking fell short of seeing race as a theoretically constitutive moment, this overlooks not only the work of C.L.R. James, very famously, but of Nancy Cunard, Ho Chi Minh, and many others, white and non-white, in the ambit of the interwar internationals; or, it expresses a political disenchantment with a form of anti-racism that refuses to accord race a primary ontological status, which is, then, a political or philosophical disagreement rather than the exposure of a now agreed-upon absence. At any rate, the most fertile directions they provide for our study—and it is the principal reason to revisit them—lie elsewhere. It is in the body of original theorizing they created where one finds a repertoire of critical styles and methods for understanding the cultural dissonances of colonialism and its untranslatability, and that are developed by them specifically with that end in mind, leaving the imprint of that sensibility on the face and form of their creations.

These can be found, for example, (1) in their elaborate and sustained geopolitical imagination, their extensive insights into the symbolic investments of landscape, the uses of rural imagery, and above all in the central paradigm of the country/city conflict which recurs throughout their work, and which significantly expands on this central organizing motif of Marx's scattered but substantial writings on the colonies. It can be found as well (2) in a particular take on temporality that avoids the unforgiving stand-off in postcolonial criticism between the primitive and the modern—or better, the apprehension that those from the periphery feel about their own contribution to the modern, and their recoil before the tyranny of an exclusively European sense of the modern. Instead, they turn the discussion of temporality towards a different problem: negating what exists and (in equally good Hegelian fashion) portraying the future as already present, only unrealized. And (3) it can be found also in their intellectual generalism, or what today is known as interdisciplinarity, which is an intellectual mode of work that Marxism first made respectable as a demotic exercise and as a philosophically sound *general* practice as distinct from the polymathic genius of figures that preceded the nineteenth century—such as Leibniz, Isaac Newton, J-J Rousseau, Goethe, or Galileo—whose foundation was aristocratic, or based on patronage; or on the equally ponderous author of German and Italian *Kulturkritik*. In a general sense, this is what is meant by the term "philology" in this context, and is in fact the way the term was used by Gramsci, Walter Benjamin, Lukács, Erich Auerbach and others. For only in this liberation from segmented, specialized thinking, by way of a thinking outside official disciplinary sanction, that the connections required to assess Eurocentrism are humanistically possible.

Iconoclasm expressed itself in a formal repertoire of methods that, if not directly related to colonial issues, made possible insights when turned to the crucial dimension of capitalist everyday life. This could be found (4) in a particular tension each devises between *Denkbilder* (discrete thought-images) and system, a dedication to experimental, even idiosyncratic thinking expressed essayistically or as a series of notes, jottings, or plans for future work, but whose goal is cumulative and systemic, and whose tensions are embodied in the era's defining Marxist form—montage—which was soon to be taken up, and reduced, by the corporate art world until it could pass itself off as the signal achievement of the early twentieth

century avant-gardes; (5) it could be found, in a related way, in a strong emphasis on art—and even the tendency to find in art the symbolic aspiration of a different world and the register of social conflict, and yet an emphasis that did not partake of, and is in fact the antidote to, *aesthetic culture* in the sense that Lukács (1995) so eloquently denounced it; and (6) it could be found in a sustained, often mocking or satirical critique of post-Husserlian phenomenology, and the blistering rebuke to existentialism that sought from the 1920s onward to mimic Marxism in various ways, or to contain or appropriate the forces it had unleashed. And it is this last story, told in part by Theodor W. Adorno (1994), Pierre Bourdieu (1991) and others, that continues to mark the parameters of the current theoretical scene of the humanities, where all of its conflicts and deflections are played out.

But many critics have looked past, mitigating or explaining away, the inaugural creation by Marxist theorists of a displacement of European imperial attitudes and actions. Trotsky's stirring observations on uneven and combined development seem at first to do little more than expand a passing set of comments in *The German Ideology*, which contains the entire theory *in nuce*.[3] It is one of Neil's contributions in *Uneven Development* to stress the degree to which Lenin had done the same (1984:95–96, 157–158). According to Marx, the most advanced "forms of intercourse" (that is, economic organization and technological innovation) are tried out and perfected in those places where they find the least resistance, and do so "before this form of intercourse has been able to establish itself in the old countries". Marx goes on to observe that:

> [t]his is the case with all colonies, insofar as they are not mere military or trading stations. Carthage, the Greek colonies, and Iceland in the 11th and 12th centuries, provide examples of this. A similar relationship issues from conquest, when a form of intercourse which has evolved on another soil is brought over complete to the conquered country: whereas in its home it was still encumbered with interests and relationships left over from earlier periods, here it can and must be established completely and without hindrance, if only to assure the conquerors' lasting power (England and Naples after the Norman conquest, when they received the most perfect form of feudal organization) (Marx and Engels 1998:92).

Not only is the linkage between domestic development and colonialism brought to the fore, but there is already the implication that the colonial territory has certain advantages over the conquering society—that in spite of themselves, the victorious colonizers cannot undo their own internal domestic structures to accommodate the latest variants of technique and productive relations. They instead experiment with them abroad, incorrectly believing they will always own the foreign territories as extensions of home. The future dominance of the currently "peripheral" territory is all but assured.

Crucially, however, Trotsky does not dwell on Marx—certainly not on these passages which were only translated and made available to the public (in any language) at roughly the same time as he himself was writing. Rather he attributes his insights to the investigations of the great eighteenth century philologist, Giambattista Vico—a precursor that Marx himself cites in another context—who, Trotsky argues, had anticipated these findings. It is hardly surprising, then, given

this literary parentage, that the theory of *permanent revolution* (by all accounts a political strategy in Trotsky's hands) shares the same sensibility, and draws the same conclusions, as those aesthetic apologias of later writers from the global South, most famously those of the Brazilian critic, Roberto Schwarz. For Trotsky's way of describing uneven and combined development clearly stipulates, among other things, what Schwarz in slightly different phrasing emphasizes as well: that the "unique combinations" of past and present, technical and traditional, gives to each national culture a perspective that is strictly speaking irreducible and uncopyable, so that particular leaps of intelligence or innovations in taste are available to certain supposed outliers in world culture—ones that are simply beyond the comprehension or abilities of those in the privileged metropolis.[4]

Experiments with devising property forms inimical to capitalism, or innovating with communal structures of self-government will languish if they do not spread internationally to be taken up by others in their own way. The theory of uneven and combined development had at its center a motivating premise: one direct consequence of the unique combination of colonized political and social formations with their feeble bureaucracies, unstable hegemonies, and a recently capitalized, technologically cutting-edge industrialization was its ability to transform itself, outcompeting its more established rivals. From this perspective, success lay with the periphery not the center, and the future relied on those regions whose modernity was paradoxical, progressing only by way of skepticism towards inherited models.

By these means, the image of country and city—as country girding up city, as city giving life and meaning to country, as country against city, and city slandering country—came to inform large areas of cultural Marxism. It was not a matter of the principals having read Marx's prescient leads alone; even when the *Grundrisse* and *The German Ideology* became generally available after the 1930s, the relationship was not a textual one. Instead interwar intellectuals rediscovered Marx's points in the immediate practical dilemmas faced by the Soviet state that, out of need and conviction, officially reviled capital's violent global acculturation and appropriation. Land reform, the nationalities question, electrification, literacy, all existed as brute materialities, true, but not only in that form. They existed also as tropes of a new and transformational sensibility—a partially realized anticolonial culture that was beginning to spread globally in the wake of the revolution. Tropes of dark interiors, far horizons, uncharted territories, dense thickets, and country paths populate the writing of the period in the form of conscious allusions and unconscious traces of colonial confrontation and violent reorganization of landed property, especially abroad.

The city/country pairing had also mythological resonances not lost on this collection of writers (one thinks of the imagined conversation among *Kolkhoz* workers at the opening of Brecht's *The Caucasian Chalk Circle*, which is in every way epic—an originary myth of peasant wisdom). Just as there is a vital conflict of outlook between the account of Genesis with its embrace of the "nomad" over the settled farmer in the Cain and Abel story, on the one hand, and the Vichian focus on the heroism of the founding of cities, so too does this role get replayed repeatedly in the traditions of Marxism that Vico (by way of Hegel and Marx) inspired. They are found in the developed/undeveloped, proletarian/peasantry, first-world/third-

world pairings that manage to evade, as Williams was so careful to do later, a simplistic preference for the good or bad city or country as such. "City" for Vico was used synonymously with the "world of nations" (*gentes*), "world of men", "civil world", etc. These were synonyms, so that Vico (1976:xxii–xxiv), for instance, could speak of "this great city of the human race" as a riposte to, or alternate version of, Augustine's City of God. It was a civic and political term, not merely the mark of a supercilious urbanity. And it must be pointed out again that within Marxism we find a wild oscillation of attributed value to the paired concepts: idiocy of rural life vs Maoist encirclement; Mayakovsky's ode to Brooklyn Bridge vs Amadeo Bordiga's (1953) excoriation of the city as "urban beehive" where men and women live like sardines not in homes but "dwelling units" where "each cubic decimeter is formulated to serve as furniture, utensil and, finally, space for the use of the inhabitants, who must be careful not to exceed the action plan".

A Non-Discursive, Materialist Image

When Marx declares in *The German Ideology* that the division of labor "only becomes truly such from the moment when a division of material and mental labor appears", he is elaborating on a distinction found in passages immediately before where he discusses the rupture that capitalism creates between city and country (Marx and Engels 1998:50). His focus is on how the illusions of the intellectual caste are precisely bound with the problem of *center and periphery*, cosmopolitan intellectual and peasant, and other polarities reproduced in the division of centralized powers and their satellites. Marx suggests that naturalizing the hierarchy of town over country gives way to a social structure of distancing that encourages the idealism of pure intellectual categories, and so forms an impediment to imagining alternatives in production and in the political organization of society. Indeed, the *city* had come to be seen by many as simply one and the same with capitalism: centralization, great concentrations of wealth, individual alienation in the midst of crowds, extreme education mixed with extreme ideological control. The extent to which the discourse was dominant is evident from Williams's (1973:292) wry comment that he was willing

> to see the city as capitalism, as so many now do, if I can say also that this mode of production began, specifically, in the English rural economy, and produced, there, many of the characteristic effects—increases of production, physical reordering of a totally available world, displacement of customary settlements, a human remnant and force which became a proletariat—which have since been seen, in many extending forms, in cities and colonies and in an international system as a whole.

It is not only the surprising reversal that leaps out—Williams, a literary scholar, emphasizing economic structures whereas Marx, an economist, emphasizing ideas and thoughts—but the recognition in both of the impossibility of containing the city/country dynamic within a national scale; that it creates a relationship replicated in the "international system as a whole".

The city/country polarity itself, if not this particular spin on it, was a fairly standard one. Marx does not inaugurate it. As he acquired greater knowledge of

political economy in the years between writing *The German Ideology* and *Capital*, there is no doubt he would have come across the topic in Book III, chapters 3 and 4 of Adam Smith's (1999) *The Wealth of Nations*—"Of the Rise and Progress of Cities and Towns, After the Fall of the Roman Empire" and "How the Commerce of the Towns Contributed to the Improvement of the Country". He would also have been familiar with Chapter IX of James Steuart's (1998) *Inquiry into the Principles of Political Economy*, where Steuart discusses the "natural distribution of inhabitants into the two capital classes of which we have been treating", and argues that employment is determined by virtue of one's "place of residence"—that is, the space-bound nature of the division of labor. But it is only in the traditions launched by Marx that the division is presented as both the universal contradiction of capitalism and its key vulnerability. What had been in earlier political economy a glorification of the city as blind development became in Marxism a sober reckoning with intellectual arrogance, the reproduction of unequal exchange relations, and, eventually, ecological devastation. The brag of capital becomes its critique, with an uneasy shifting of positive to negative valences between the two real and metaphorical poles of city and country (and Williams's famous study is unsurpassed in articulating the full range of forms that such welcoming and revulsion took). In Marxism at any rate (as in its direct predecessors such as Vico) the country/city encounter expose a perfidious colonialist logic.

In the Introduction to the *Grundrisse*, Marx pushes the inquiry inherited from Smith and Steuart in this new direction by turning the focus back on the home territories, demonstrating the damage done by colonial relations to the domestic economy. In those notes, he is frequently preoccupied with town and country seen as the interrelation of domestic and foreign policy. He seeks to establish the validity of seeing the original conflict between local agriculture and industry at home in world historical and colonial terms (Marx 1973:100). In pursuing this idea, he notes that although there are "general, abstract determinants which obtain in more or less all forms of society", that if one focuses on the "categories which make up the inner structure of bourgeois society"—that is "capital, wage labour, landed property"—one must analyse "their interrelation". It is in that context that he speaks of "town and country", which leads to an examination, in turn, of "the three great social classes", and eventually "the colonies, emigration, the international relation of production, international division of labour ... the world market and crises" (Marx 1973:108). It is not a matter of mere extrapolation to observe that the relation of town and country is for Marx the playing-out in microcosm of the relation of dominant industrial powers to agricultural ones. His comparison is explicit, and carried out significantly at the level of "categories" and "inner structures" whose interconnections are figurative as well as actual (Marx 1973:886–887).

Much of the concluding section is dedicated to the disputes between the American economist Henry Charles Carey and the French economist Frédéric Bastiat over whether or not "as the commanding power of the world market, England distorts the harmony of economic relations in all the countries of the world". In adjudicating between the two thinkers, whose nationalities for Marx bear directly on the character of their arguments, "the harmony of economic relations rests ... on the harmonious cooperation of town and countryside, industry and agriculture".

This, Marx observed, is what bothers Carey since England, by destroying competition domestically, has set out to destroy it "throughout the world market, and is thus the destructive element of the general harmony". Marx is keen to say that Carey's notion of "harmony" suffers from an inconsistency. The "concentration of capital, division of labour, wage labour, etc." which he associates with "harmony" is violent, exploitative, and uprooting. Carey manages to recognize this destructive character only when it affects the domestic interests of his native country—that is, when these principles are applied "in their world market form" in which the United States has to contend with "English domination on the world market" (Marx 1973:886). It is a remarkable moment where the runaway enthusiasm for the market within the United States by economists like Carey is tempered by the country's residual colonial dependence.

Those who wrote in Marx's wake found novel ways to feel themselves back to the centrality of this dichotomy, firmly aware of its economic implications but keen also to apply a generalism of method to a more circumstanced set of lived relationships. Among the most potent in this regard was Ernst Bloch. I have already pointed out that his highly innovative study of the rise of Nazism in Germany (*Heritage of Our Times*) was—unlike so many retrospective acts of punditry—published fresh after the Nazi's accession to power as the events were still unfolding. It was, moreover, entirely framed by the conflict and mutual cultural incomprehension of country and city. In his three-volume masterpiece, *The Principle of Hope*, written largely in exile in the United States just before and after World War II, he pursues in one section the concept from a more complicated angle, disentangling the complex imaginative repertoire embedded in the contrast. As an anatomy (in the older, generic sense) of utopia, the book turns in those passages dedicated to geography to what might be called the philosophy of space: the desires, motives, manias, and prejudices latent in the social uses of the measurement of land. Among the most contradictory of these manias, he observes (in a style of theory that has been copied frequently since) is that of travel:

> Travel time is filled in a way in which usually only space is filled, and space becomes the medium of change which usually only time is. So a reversal of the usual orders of perception arises, *filled* time arises in space which appears *mobile, changed*. The old adventure stories completely unrolled space in this way, disturbed its mythic rigidity; every journey still lives, itself *mutatis mutandis*, from the paradox of this changing dream (Bloch 1986:371).

The new plasticity of space, mimicking the ripples of time, is made possible by the relative ease of movement, the arbitrariness and frequency of travel made available in a culture where one traverses great distances for pleasure or adventure alone. Bloch here re-deploys the argument of Hegel's *Phenomenology* (in the early section on "sense certainty") in which the solidity of the "here and now" is destabilized in a brilliant description by Hegel (1977:59–60) of the relativity of any *here* or *now* from the vantage point of an observer passing through space. However, in Bloch, unlike Hegel, there is a proleptic critique of a cosmopolitan mobility that makes space itself evanescent, an emporium of exchangeable experiences. Bloch is one of the first to locate the colonialist underbelly of such practices. Writing before 1959, he manages to observe with startling clarity what so many in the 1980s eventually found their way to, without citing him—the colonial adjunct found in the industries of tourism:

tourism acquired, by making sea-voyages, washing against the Near East or at least distributing the images "On a flight across the world" at home, increasing propagandistic significance for the home-based wishes for world markets, wishes for world power. For the imperialist age promoted and surrounded the travel agencies continuously; at the same time, however, it most definitely deformed the foreign world. The latter was at best pushed back into areas off the beaten capitalist track, but mainly it became an immobile foreign article, until it became a different, colonial one; —everything declines, with the exception of the West, from this standpoint (Bloch 1986:376).

The depths to which Bloch penetrates this apparently benign, but for that reason more dangerous, sensibility is not only polemical or merely mocking; it is epistemological. In an incisive later passage, he dwells on the difference between "inventing" (all of his examples are famous inventions from outside Europe: "glass, porcelain, gunpower") and "discovering" which European ideologues have sought to confuse with inventing, to make the likes of Columbus a giver rather than what he was, a taker. His litany of examples, apart from their erudition, consistently decenter the West, speaking of the Syrian origins of the Hercules legend, the early voyages (525 BCE) of the "Carthaginian Hanno", the riches of Senegal and Guinea, and the Phoenician domination of trade in early antiquity. All those considered in later decades to have exposed the invention of the East and the South by way of European "discourse" stand in Bloch's shadow, however much they might relegate him to the necessary fiction of a Marxism believed to be always already Eurocentric.

The Geographical Image in Action

Let me explore one last example of the way that the city/country motif enlivened the thinking of cultural Marxism by turning to the one figure in this constellation most invested in a literary understanding of social metaphor in historical materialism. Gramsci's Italy was central in developing the motif given the way it combined ancient imperial Roman and then Catholic universality during Europe's formative years, acting also as one of the chief conduits (along with Andalucia) of Byzantine and Arab/Islamic culture. It was central also because of its peripheral status as a belated nation—a peripheral status that made it central, paradoxically, for the key theoretical issues that preoccupied Gramsci, which had chiefly to do with those colonial and semi-colonial concerns found under the rubric of the "country and the city". The politics of communism, moreover—no less than fascism, although in a completely inverted way—depended on the structure of national consciousness and its political fruits, the nation-state.

It is possible to open an anthology of Gramsci's (1995:201) prison writings at random and come upon numerous passages like the following:

[Francesco] Tommasini [says] that world politics was under European leadership from the Battle of Marathon (490 BC) right up to the World War. (Until a short time ago, however, the "world" did not exist and neither did world politics; moreover, Chinese and Indian civilizations have also counted for something).

Gramsci's frame of reference throughout the *Notebooks* is colored by the colonial encounter and by imperial history, not only because of his biographical sympathies

(being from Sardinia in the Italian South) but for the simple reason that the riddle of revolution on European soil depended on understanding this relationship. To draw on, learn from, and organize with forces from outside Europe alone made revolution viable. This is a rather simple illustration of how our distance from Gramsci's contexts obscures his meanings, or why his direct address of imperial ideology is so frequently missed: "Nowadays, one talks of the West as one used to talk of 'Christianity' some centuries back" (1992:181).

If his treatment of actual third-world locales, uprisings, or military engagements is haphazard, there are several places in his writing where the colonial question received a more dogged theoretical treatment: first, in his analysis of the "city–countryside relationship" during the *Risorgimento* (echoed interestingly in his brief comments on "super-city" [*stracittà*] and "super-country" [*strapaese*] where he ridicules fascist critiques of soul-less cosmopolitanism along with their paeans to rural virtue and creative spunk as against urban technocratic banality; and it is echoed as well in his observations on the "historical role of cities"); and, second, in his deeply significant—and still insufficiently explored—comments on "diasporic intellectuals", which can be found in his sustained early *Notebooks* entry on "intellectuals" per se (his attempt to counter the argument about intellectuals in Henri de Man's *Psychology of Socialism* [1928]), and also in the essay "Certain Aspects of the Southern Question", which is usually not appreciated for what it actually is: a translation of the Italian North/South intellectual division of labor into an implicitly center/periphery one.[5]

When Gramsci speaks of "byzantinism" his complaint is similar to that of Marx's jabs at "critical criticism" in *The German Ideology*. He returns to the problem of the division of labor, in other words, by speaking of the pretensions of the literati, and the overdeveloped erudition of academic intellectuals or aristocratic authors of antinomian manifestoes (like Filipo Tomaso Marinetti) who equate stylistic complexity with sophistication. This avant-garde posing is diagnosed in the *Notebooks* in many places, but most relevantly in the showdown between "supercity" and "supercountry" in the fascist literary journal *La Fiera Letteraria* (which Gramsci [1992:193] sarcastically alludes to at one point as a "sack of potatoes"). Like many of the intellectuals of the interwar era, Gramsci's approach was philological in the sense identified above.

At work here, from his point of view, was the semantic crisscrossing of political tendencies that either glorified or vilified the city and the country with exaggerated metaphorical associations. The "metropolitan" or "cosmopolitan" element was typically configured as representing at once the colonizer and the sophisticated refinements, the discriminating intellectual attractions, typically associated with urban life while the "country" typically evoked images of a resolute, wronged, and mobilized peasantry in the deserving regions of a world dominated by European armies and European prejudices. The crisscrossing occurs in that the countryside —say in domestic European or US terms—also represents the yahoo factor, drunk on religion and individualism, viciously bigoted, and blindly dedicated to anti-intellectualism.

Gramsci's analysis of the country and the city is at once cultural and politically programmatic—which is to say, a problem identified by the leader of a political

organization about how to formulate a policy that will speak to the desired constituency. Under this rubric, Gramsci wonders how a national policy, predicated on a single state that governs a national territory, can be achieved in such a way that the interests of cities and rural regions are simultaneously met. He therefore is considering a united front prior to state power, and a coherent policy of inclusion once state power had been achieved. In this latter sense, the urban/rural distinction could be applied also *among* national formations in appraising the global relationship of forces among advanced capitalist states in Europe, on the one hand; and, the developing, colonized, largely agrarian countries, on the other.

Residual forms of economic and social development tended to accumulate in the countryside: more antiquarian forms of religious belief, suspicion of the technologies of cultural mobility, an official relationship of paternalism between the powerful and the powerless, and so on. The cities, because of their arrangement of proximate space, the ease of mass communications, the impossibility of individuals or families not to integrate with larger groups, and so on, tended to represent a modernity perceived as standing for an ethic built on the "new", the experimental, the hybrid, and the volatiley forward-looking. Almost all of Gramsci's cultural writing—on national-popular fiction, *Brescianismo*, irony vs satire, the evolving vulgate vs Italian cosmopolitan intellectuals, "southernism"—is an attempt to negotiate these rigidified poles of cultural association, which from a political perspective had positive and negative qualities to each, not unlike the poles evoked in contemporary globalization theory by the space/place distinction.

Gramsci challenged the clerical encrustations and provincial celebrations of backwardness in the South, declining to participate in the rhetoric of subaltern virtue that was more characteristic of Italian fascism than communism in his day. Gramsci, for example, calls "absolute idiocies" Giovanni Papini's claim that "the city does not create, but consumes" along with his lament that it is to the city that "the freshest minds from the provinces and the ideas of great solitary men flock" (1992:180). On the contrary, his position in "The Historical Role of the Cities" was that "the proletarian dictatorship will save the cities from ruin" preventing "those miraculous engines of life and civil progress which are the cities of today from being destroyed piecemeal by the landholders and usurers of the countryside who, in their uncouth way, hate and despise modern industrial civilization" (Gramsci 1994:136). His critique of "southernism", in fact, had to do with its complicity in artificially preserving as a virtue the purity of the peasant subaltern: "Italy's particular characteristic is a special '*rural bourgeoisie*', a legacy of parasitism bequeathed to modern times by the disintegration as a class of the Communal bourgeoisie" (Gramsci 1971:131).

Gramsci writes these lines in an era of populist fear-mongering over the "death of the white races" propounded in best-selling books by Maurice Muret and Oswald Spengler in response to the colonial fallout following World War I. And this too is the era when Heideggerian philosophy summoned the image of the European peasant as the model of holy, worldly, thought untainted by the effete intellectualism of technocratic capitalism. Gramsci then—with crucial contemporary resonances—proves to be a harsh critic of the imperial cosmopolitan mentality of European "natural" dominance expressed as beneficence while fiercely opposing the right-wing assault on cosmopolitan sympathies taken to be a form of offensive

intellectualist urbanism. Hence, as Gramsci interprets Italian history, it was Piedmont that was decisive, not Lombardy, because although the latter was rich and daring the former was more "disciplined" and "unified in a State". It was Turin that was Piedmont's "nerve-center" and this is what allowed it to be the "crucible of the Italian capitalist revolution" (a role he would love to see it play for the proletarian revolution as well, and for the same reasons). Milan, by contrast (he interestingly argues) is the seat of finance, not industry, which means that "there the proletariat will have to fight its most difficult battles" (1994:137–139). Why? Because finance has no home, no locale, and cannot be fought in a direct way except through the myriad objects of its investment.

Although no geopolitical correspondence necessarily locates his traditional/organic intellectual distinction in a neat pairing with the urban/rural intellectual distinction, it would be accurate to say that for Gramsci the "traditional" intellectual is derived from the "southern" or (agrarian/rural) social structure. This is why Gramsci makes the point in "Certain Aspects of the Southern Question" that there are really two layers of "southernism": the functionaries and the likes of Benedetto Croce and Giustino Fortunato. That part of the entry on "intellectuals" (the famous one in English that yields the traditional/organic distinction) is most interesting in this respect towards the end, in passages that are rarely considered:

> In the more recent historical period we find the opposite phenomenon. An *élite* consisting of some of the most active, energetic, enterprising and disciplined members of the society emigrates abroad and assimilates the culture and historical experiences of the most advanced countries of the West, without however losing the most essential characteristics of its own nationality, that is to say without breaking its sentimental and historical links with its own people (Gramsci 1971:19–20).

This remarkable early prediction of the cultural centrality of what we today call the "diasporic intellectual" captures well the situation in a country like the United States with its enormous influx of immigrants, its centrality as a result of its imperial status, and its infamous anti-intellectualism. It was this diagnostic overlap with our own situation, the palpable feel for the fraudulence of cosmopolitan rhetoric when uttered from the imperial center, and the no-nonsense scholarly seriousness of a writer capable of unpretentious, popular writing that drives home to us his proleptic familiarity with current realities.

I have been addressing a process by which isolated passages in unpublished works by Marx, like shards of pottery found at an archaeological site, are unearthed later to enjoy a productive career of interpretation and decipherment. They identify early, even in cases where the passages themselves remain unread or unknown, the sensibilities of a tradition that took the apparently fixed materialities of real estate (the immobile property of country and city) and found in them an expanding metaphor of capitalist social relations. This is a legacy that Neil himself joins in his first book. The image of the country and the city acquired its material force precisely in the will of actors who, being human, could be appealed to politically on the grounds of their inherited mythical and associative structures of meaning. It took cultural Marxism's humanist generalism to articulate so well this general problem,

I am arguing, deepening the discourses that now prevail in some wings of the social sciences. Other tendencies—including those hostile to Marxism—are still living off the former's leads.

Endnotes

[1] The Lower East Side of New York, as a case study for his reflections on gentrification, consumer sovereignty, and yuppiedom are explored in detail in Smith (1996).

[2] Viswanathan's (1995) essay "Raymond Williams and British colonialism" is an extreme example of what I am calling the defense of a necessary fiction. She reads Williams's unambiguous diagnosis of the British imperial imagination from 1973 (long before postcolonial studies)—replete with his comparison of colonial labor to slavery and impoverishment, his ridiculing of the imperial discourse of "betterment", and so on—only to claim that his are secretly the views of a British nationalist whose treatment of imperialism is parochial: "My view is that Williams's 'silence' about imperialism is less a theoretical oversight or blindness than an internal restraint that has complex methodological and historical origins" (1995:191). For Gilroy's (1991) equally contorted arguments, see *There Ain't No Black in the Union Jack*.

[3] The theory of uneven and combined development is found in inchoate form in Trotsky's *Results and Prospects* (1906), more clearly in *The Permanent Revolution* (1931) and in *The Third International After Lenin* (1928), but most eloquently in *History of the Russian Revolution* (1932) (see Marxists Internet Archive 2014).

[4] These ideas have recently been developed at length by the Warwick Research Collective in *Combined and Uneven Development: Towards a New Theory of World-Literature* (2015). For Schwarz's argument, see *Misplaced Ideas: Essays on Brazilian Culture* (1992).

[5] For the "country and city" motif, see for example Gramsci (1971:90–102, 287–289; 1994:136–140); for the diasporic intellectuals motif, see Gramsci (1971:18–23; 1994:327–337).

References

Adorno T W (1994[1966]) *Negative Dialectics* (trans E B Ashton). New York: Continuum

Berger J (1979) *Pig Earth*. London: Writers and Readers Publishing Cooperative

Berger J (1987) *Once in Europa*. New York: Vintage

Berger J (1990) *Lilac and Flag*. New York: Vintage

Bloch E (1986[1959]) *The Principle of Hope* (trans N Plaice, S Plaice and P Knight). Oxford: Blackwell

Bloch E (1998) Wasteland and Small Town. In *Literary Essays* (trans A Joron) (p 357) Stanford: Stanford University Press

Bloch E (1991[1935]) *Heritage of Our Times* (trans N Plaice and S Plaice). Stanford: Stanford University Press

Bordiga A (1953) *Espace contre ciment* [*Space against Cement*]. http://www.sinistra.net/lib/upt/prcomi/ropi/ropiqtabif.html (last accessed 20 November 2014)

Bourdieu P (1991[1988]) *The Political Ontology of Martin Heidegger* (trans P Collier). Stanford: Stanford University Press

De Man H (1928[1926]) *Psychology of Socialism* (trans E Paul and C Paul). London: Allen and Unwin

Fanon F (1967[1952]) *Black Skin, White Masks* (trans C L Markmann). New York: Grove

Gilroy P (1991) *There Ain't No Black in the Union Jack*. Chicago: University of Chicago Press

Gramsci A (1971) *Selections from the Prison Notebooks* (trans G Nowell Smith and Q Hoare). London: Lawrence and Wishart

Gramsci A (1992) *Prison Notebooks, Volume One* (trans J A Buttigieg). New York: Columbia University Press

Gramsci A (1994) *Pre-Prison Writings* (trans V Cox). Cambridge: Cambridge University Press

Gramsci A (1995) *Further Selections from the Prison Notebooks* (trans D Boothman). London: Lawrence and Wishart

Hegel G W F (1977[1807]) *Phenomenology of Spirit* (trans A V Miller). Oxford: Oxford University Press

Lefebvre H (1991[1974]) *The Production of Space* (trans D Nicholson-Smith). Oxford: Blackwell

Lukács G (1995) Aesthetic culture. In A Kadarkay (ed) *The Lukács Reader* (pp 146–159) Oxford: Blackwell

Marx K (1973[1858]) *Grundrisse* (trans M Nicolaus). London: Penguin

Marx K and Engels F (1998 [1846]) *The German Ideology* In R C Tucker (ed). New York: Prometheus

Marxists Internet Archive (2014) The Collected Writings of Leon Trotsky. http://www.marxists.org/archive/trotsky/works/index.htm#a1901 (last accessed 20 November 2014)

Said E W (1978) *Orientalism*. London: Routledge and Kegan Paul

Said E W (1993) *Culture and Imperialism*. New York: Vintage

Schwarz R (1992) *Misplaced Ideas: Essays on Brazilian Culture*. New York: Verso

Smith A (1999[1776]) *The Wealth of Nations*. London: Penguin

Smith N (1984) *Uneven Development: Nature, Capital, and the Production of Space*. Oxford: Blackwell

Smith N (1996) *The New Urban Frontier: Gentrification and the Revanchist City*. New York: Routledge

Steuart J (1998[1767]) *An Inquiry into the Principles of Political Economy*. London: Pickering and Chatto

Vico G (1976[1744]) *The New Science of Giambattista Vico* (trans T G Bergin and M H Fisch). Ithaca: Cornell University Press

Viswanathan G (1995) Raymond Williams and British colonialism. In C Prendergast (ed) *Cultural Material: On Raymond Williams* (pp 188–210). Minneapolis: University of Minnesota Press

Warwick Research Collective (2014) *Uneven and Combined Development: Towards a New Theory of World Literature*. Liverpool: Liverpool University Press

Williams R (1961) *The Long Revolution*. London: Chatto and Windus

Williams R (1973) *The Country and the City*. Oxford: Oxford University Press

Unfree Radicals:
Geoscientists, the Anthropocene,
and Left Politics

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Abstract: Neil Smith's writings about capitalism and what we call "nature" were insightful and influential. This paper asks what Smith would make of the "radical turn" today occurring in the world of international geoscience. If we "think with" Smith, how should we view Naomi Klein's recent statement that geoscientists can act as fifth columnists calling the capitalist way of life into question? In the first half of the essay I address these questions. I summarise and apply the insights of Smith's writings to recent developments in international geoscience. Smith wrote about science in most of his published statements about capitalist ecology and I show that he would ultimately have regarded Klein as hopeful, even naïve. I then go on, in the second half of the essay, to "think against" Smith. I suggest his views on science bespeak a wider, unhelpful separation between Left scholarship in the social sciences and humanities and the STEM subjects (science, technology, engineering, and medicine). Recalling earlier attempts to radicalise science politically, and highlighting the radical potentials of geoscience today, I make the case for forms of interdisciplinarity that might render geoscience more political. Though this case opens space for perspectives beyond the Marxism Smith did so much to develop, he would—I hope—see it as a legitimate part of the Left's long war against capitalism's rule over society and environment.

Keywords: Neil Robert Smith, capitalism, science, nature, the Anthropocene, interdisciplinarity

Introduction

According to leading geoscientists, humanity is entering a new geological epoch of its own making. We are profoundly altering not just parts of the Earth but all of it. What should we make of this claim that the Holocene will soon be over? In her new book *This Changes Everything* Naomi Klein (2014) points to its proto-revolutionary character. She highlights numerous climate experts who acknowledge the momentous socio-economic implications of their scientific evidence and predictions. Ever the Marxist, towards the end of his life Neil Smith felt compelled to consider whether revolution is on the horizon. "We have, almost all of us", he opined in these pages, "lost the political imagination of a different future" (2009:52). His essay "The revolutionary imperative" went on to lament the broad Left's organisational incapacity and imaginative inability to reckon with the post-capitalist openings capitalism periodically creates. If Neil Smith were alive today, would he share Klein's conviction that international geoscience might not only inspire, but actually be part of, a root-and-branch assault on the capitalist way of life? Would he applaud her pragmatic belief that geoscientists might act as fifth columnists?

Or would he, instead, consider her naïve at best and counter-revolutionary at worst?

   With these questions in mind, in this essay I want to explore the relationships between two things. One is the radical claims issuing from international networks of geoscientists about anthropogenic environmental change.[1] The second is a style of critical analysis issuing from the academic Left, both Marxist and non-Marxist. My core concern is whether, and in what ways, geoscience can both invigorate and be energised by a renascent anti-capitalist movement. As Klein notes, the scientists who study global environmental change (GEC) enjoy two privileges few on the contemporary Left can claim to. First, they speak—through their instruments, measurements, data, and concepts—for the Earth as a (complex) biophysical whole. They thereby make claims *about* the world that stand to become claims *upon* all those inhabiting that world. This sort of epistemic universalism is rare in any walk of life, cross-cutting as it does worldly differences of society and situation. It comes with obligations and risks. Second, they speak with an authority that is recognised by reformers and revolutionaries alike, whatever their particular political persuasion. Though geoscience has suffered repeated attacks by climate change sceptics, its perceived integrity remains high among those with more than passing scientific literacy. Like other areas of contemporary science it therefore commands attention in ways few other present-day institutions do.

   As we will discover, its leading practitioners are calling for a new *modus operandi* in response to the evident failure of political-economic elites to close the yawning "sustainability gap". In itself, this does not make them radicals in the sense Klein intends it. But it does, I will argue, hold real potential in this regard. To realise this potential I believe the academic Left needs to do a much better job of building bridges between what Jerome Kagan (2009), adapting C.P. Snow (1959), calls "the three cultures" of academic life. As part of this, it will be timely to rethink the relationships between "critical" thinking in the social sciences and humanities, and the practices and claims of biophysical science. A certain "interdisciplinarity" is called for, though not the sort usually touted by research funding bodies or in mainstream policy circles.

   Neil Smith, I believe, would endorse these arguments ... but only up to a point. In what follows I "think with" and "think against" him in equal measure. Never afraid of an argument, he would surely approve of my willingness to take issue with his ideas—even if he might disagree with my reasoning and conclusions were he still with us. On the one hand, I take inspiration from Smith's many writings about what we by convention call "nature", in which he made numerous references to science. As well as influencing me heavily over the years, these writings continue to shape the thinking of many on the academic Left in the wider social sciences and humanities.[2] They counsel us to look for the ways science is harnessed by capitalism to both engender and cope with socio-ecological change—even when it is ultimately irreducible to the profit motive. On the other hand, I believe Smith too readily cleaves science (except the Marxist version)[3] from his sense of what constitutes progressive politics. He would therefore, in my view, have us look (too) sceptically at Klein's claim that geoscience is taking a radical turn that should be of interest to all erstwhile revolutionaries.

This is unfortunate, yet hardly unique. Among Leftists in human geography and beyond, science (including geoscience) is these days often seen in two opposed ways. Either it is subsumed to the imperatives of capital accumulation, or else is a merely accidental ally of critics of capitalism. What is usually not considered is that science might be deliberately conducted in the service of something more just, egalitarian, and imaginative than the rapacious capitalist world whose perpetuation it is so deeply implicated in. As a result the Left stands aloof from contemporary science, variously critical or grateful but rarely involved.[4] It thereby fails to realise its own capacities to help make science something other than it currently is. This distance exists in microcosm in Smith's home discipline of Geography, notwithstanding the "environmental turn" undergone by its human "half" this last 25 years. Indeed, for all this writing about nature (and about science, as part of this), Smith showed little direct interest in the kind of physical geography whose analysis, at the global scale, now inspires epochal claims that we are entering the Anthropocene. This essay, I hope, will give us pause for thought about what follows if we too presume to speak about natural science without seeking to engage (at least some of) its practitioners.

Geoscientists as Spokespeople for an Unstable Earth
Global Environmental Change: Evidence and Concepts

The detection of anthropogenic climate change (ACC) is perhaps the most important contribution geoscience has ever made to human understanding.[5] As the recent report of Working Group 1 of the Intergovernmental Panel on Climate Change (2013) makes clear, the human "signal" is now unmistakeable. Looking ahead, the continued failure of the world's largest economies to reduce greenhouse gas emissions is utterly reckless. The key question many are posing—analysts, activists, concerned citizens and others—is how a future 4°C rise in average atmospheric temperature (or more) can be avoided. This question is hardly new, but is now taken more seriously than before across the ideological spectrum as the "organised denial" that precipitated the "Climate-" and "Glacier-gate" affairs of 2009–2010 slowly weakens.

If ACC is an all too familiar subject of the age, more recently geoscience has given us some other things to fret about. Though first proposed back in 2000 by atmospheric chemist Paul Crutzen and freshwater biologist Eugene Stoermer, only in the last five years has the idea of "the Anthropocene" began to circulate outside the world of international geoscience. It describes a new geological epoch that will run its course for centuries and millennia. Uniquely, this era—unlike all those past—has been triggered (unintentionally) by human actions. We are the first living species said to act as a "planetary force", remaking the Earth's surface at all points of the compass. This goes well beyond ACC. It suggests nothing less than the fusion of collective human agency with aspects of "nature" long thought well beyond human influence (such as ocean currents). Though geoscientists—like most scientists—are taught to keep "value judgements" out of their research, Crutzen and his various coauthors make a strong "is–ought" link. Their refrain, in a string of publications, has been the urgent need for "global stewardship" (see Steffen et al. 2007, 2011).

These claims intersect with those made about so-called "planetary boundaries" since 2009. According to Johan Rockström and an international group of geoscientists (including, once more, Paul Crutzen and leading climate scientist James Hansen), there are nine biophysical domains that together have offered humanity a "safe operating space" during the Holocene epoch (Rockström et al. 2009; Steffen et al. 2015). Transgressing the limits of any of these domains—for example, the levels of ocean acidity—could, it is argued, set-off irreversible, cascading changes across the others. This brings to mind the concepts of "tipping points" and "thresholds". While scarcely novel, both have been frequently used in association with the planetary boundaries idea and the notion of ACC.[6] They denote geologically rapid, qualitative, one-directional shifts in major Earth sub-systems. Though sometimes phrased in "rational" scientific language—such as terrestrial biologist Anthony Barnosky and colleagues' major *Nature* paper on a "state shift" in the Earth's biosphere (Barnosky et al. 2012)—some geoscientists are using "hotter" terminology too. Notable here is the idea of the "sixth mass extinction" cited more and more in studies of species loss and biodiversity decline (see, for instance, Dirzo et al. 2014). Where previous mass extinctions were due to natural internal and external forcings, the present one is almost wholly anthropogenic.

In sum, in recent years numerous geoscientists across the disciplines have used their institutional authority to sound the environmental alarm louder than at any time since the early 1970s—the period when the likes of Barry Commoner and Paul Ehrlich became notable (and, in different ways, controversial) spokespeople for an "Earth in crisis".[7] It is precisely this willingness to speak out from respected universities within the heartlands of political economic power—places like the US and the European Union—that leads a Leftist like Klein to applaud their (apparent) radicalism.

A New Modus Operandi for "Global Change Science"

Added to the longstanding idea of ACC, the recent emphasis on the Anthropocene, planetary boundaries, tipping points, and thresholds are all notable developments in the world of international geoscience. But it is important to understand that geoscientists are not only making large claims about the Earth. They are simultaneously reflecting critically on their own professional practices. Read the journals (*Nature, Science, Ambio, BioScience* and others) or attend the major conferences and it is clear that there's a real appetite for change. This has three aspects, all born out of a frequently voiced frustration that societal decision-makers are not acting strongly or quickly enough to arrest GEC.

First, some leading geoscientists argue that the (alarming) evidence about the scale, scope, and magnitude of present and future environmental change needs to be better communicated to non-academics. On the one hand, some suggest that geoscientists have pulled their punches, cowed by politicians and business interests who want to believe that environmental change is a manageable "problem". Climate science is the model example, with Kevin Anderson and Alice Bows arguing strongly that researchers have a responsibility to communicate their insights "clearly, honestly, and without fear" (Anderson and Bows 2012:640). On the other hand, inspired by such injunctions, other geoscientists are purposely trying to

engage directly with decision-makers while thinking hard about how the scientific messages are framed. A case in point is the recent *Scientific Consensus on Maintaining Humanity's Life Support Systems in the 21st Century* authored by Berkeley's Anthony Barnosky and 15 other colleagues (Barnosky et al. 2014). Released in May 2013, it was targeted at policy makers—with former California Governor Jerry Brown a willing intermediary to get the consensus statement taken seriously elsewhere.

Second, many geoscientists now realise that, while further basic research into Earth surface dynamics is vital, it is also insufficient. They argue that it is time that disciplines on the "other" side of campus be centrally involved. As Walter Reid and colleagues put in the pages of *Science*, environmental "[r]esearch dominated by the natural sciences must transition towards research involving the full range of [social] sciences and humanities" (Reid et al. 2010:917). This represents a high-level acknowledgement that what are too bloodlessly called the "human dimensions" of GEC are now as important as the biophysical dimensions. After all, if people are in various ways altering the boundary conditions of their own existence it is essential to change their institutions, relations, values, and practices. Such change includes, but goes beyond, the decision-makers whose evident unwillingness to act makes a mockery of even the tamest definitions of "sustainable development". As Heide Hackmann et al. put it in a recent *Nature Climate Change* article, "people and societies are no longer viewed [by geoscientists] as external to ... the Earth system but as an integral and differentiated part of it—creating the problems and holding the key to their solution" (Hackmann et al. 2014:645). Since one of the problems is many people's ignorance of geoscience, social scientists who research how people process information are seen as allies in achieving a new social literacy about GEC (Rapley and De Meyer 2014).

Third, and finally, many respected geoscientists are calling not only for more interdisciplinary inquiry across the "nature–society" divide, but for "actionable knowledge" as its outcome. For instance, Ruth DeFries and co-authors recently enjoined global change scientists to explore "planetary opportunities" with decision-makers, influential organisations, and communities. They propose "proactively focussing on solutions that are tractable and specific to particular circumstances" such that a new, more applied global change science can enter into a "new social contract" with the world's nations (DeFries et al. 2012:604). Similar arguments are made by Margaret Palmer (2012), head of the National Socio-Environmental Synthesis Center in the US.

Taken together, these three developments tell us two important things about contemporary geoscience. First, unlike the era of Commoner and Ehrlich, the scientific concern being expressed about humanity's impact on Earth is collective and widespread. It goes beyond a few prominent individuals like Jim Hansen or the Nobel Prize winner Crutzen. Second, this collective concern is deliberately being directed towards decision-makers and publics who do not necessarily share it in a bid to make them take real notice. More broadly, the recent evidence and concepts broadcast by geoscience are so profound in their implications that they have amplified existing root-and-branch critiques of the present socio-economic order. Think not only of Klein's new book, but also recent titles by Australian philosopher Clive Hamilton (2010) and American environmentalist Bill McKibben (2010).

   Against this background, geoscientists and other researchers seeking to address the challenge of GEC are now repurposing and reformatting their inquiries. Most of the existing transnational GEC research programmes—like the International Geosphere-Biosphere Program—are ending after 25–30 years of existence.[8] "Future Earth" (http://www.futureearth.org/) is the new global institutional vehicle for geoscientists and others to have their claims about the planet heard and acted on (see Gaffney 2014). One of its three organising themes for research and engagement is "Transformations Towards Sustainability". While not exactly the language of revolution Naomi Klein claims to hear in parts of geoscience, it is nonetheless a sign of a more-than-nominal commitment to a change-agenda for society and environment.

Neil Smith on Nature and Physical Science

What would Neil Smith make of these recent developments in international geoscience? Would he share Klein's conviction that many of today's geoscientists are, willingly or not, proto-revolutionaries calling into question the fundamentals of our socio-economic order? In his absence, what resources are offered by his influential writings about capitalism and nature to help us construct answers to these questions?

   These writings began in the late 1970s and ended not long before his life was cut tragically short. When re-reading them in preparation of this essay I was struck by their consistency. As with his doctoral adviser and life-long friend David Harvey, Smith's most formative thinking occurred during his initial encounter with Marxism. Thereafter he both replayed and finessed key ideas without ever abandoning them. For all the differences in style between his first and last writings (spanning 30 years), there is an essential unity between the early *Antipode* paper on nature (with Phil O'Keefe 1980) and his afterword to the third edition of *Uneven Development* (2008) where he discusses GEC and its management at some length. Since Smith's ideas about nature have been summarised and evaluated at length elsewhere by myself (eg Castree 2015) and others (eg Ekers and Loftus 2013), I will deliberately cut to the chase. It seems to me that he made five essential claims, originating in his earliest publications. These animated his final writings on "nature", where he began to talk about GEC more than he had previously.[9] Understanding all this allows us to produce a plausible Smithian interpretation of the geoscientific developments recounted in the previous section of this essay. That interpretation will be presented towards the end of this section. But first those five key claims.

Nature, Science, and Ideology

First, Smith argued that in Western capitalist societies what we call "nature" is routinely understood to be separate from "society". They are, he argued, conventionally regarded as ontologically discrete domains that, while they necessarily interact, have distinct properties and affordances. This nature–society dualism, as he saw it, takes two contradictory forms. Nature is seen either as "external" to society (as in the idea of "the natural environment") or as a "universal" (in insofar as humans are evolutionary products and biological entities). The common factor, Smith

argued, is the belief that nature has "essential" characteristics that are irreducible to any social shaping, be it deliberate or accidental.

Second, while capitalists did not invent the nature–society dualism, Smith maintained that it has long been (and remains) functional for the mode of production whose dynamics govern their activities. In Chapter 1 of *Uneven Development* he talked about "the ideology of nature". Ideology is, of course, a core and complex concept in the rich history of Marxist scholarship and socialist politics. Smith said surprisingly little about it in *Uneven Development* or elsewhere. However, it is clear that for him it referred to ideas that enjoyed widespread currency and which fostered a *misrecognition* of people's conditions of existence. By achieving the status of "common sense", Smith argued that the nature–culture dualism blinded people to the social relationships structuring their collective engagements with their own "nature" and the non-human world alike. In the case of capitalism, these are contradictory relationships based on social inequality, manufactured scarcity, exorbitant demands on "natural resources", and endless waste. At worst, the ideology of nature is counter-revolutionary, as David Harvey (1974) famously argued in a seminal critique of neo-Malthusian "limits to growth" talk in the early 1970s.

Third, Smith wrote on several occasions that the institutions of modern science (and technology) are instrumental in perpetuating the ideology of nature and thus the survival of capitalism. This has two aspects. First, by positing "nature" as a domain to be variously studied, altered, or conserved, science has solidified the idea of its ontological separateness from society. Second, Smith also noted how science and technology are directly harnessed by business to make new goods and services as part of capitalism's imperative to "accumulate for accumulation's sake". As he and O'Keefe noted back in 1980, science is a commodity used to make other commodities (Smith and O'Keefe 1980:35).

Fourth, in order to oppose science, the ideology of nature, and the perpetuation of capitalism, Smith argued that we need to embrace alternative ideas and act together on their far-reaching implications. Among these ideas was the "production of nature" concept, one of his most celebrated intellectual innovations. Presented most fully in Chapter 2 of *Uneven Development* (Smith 1984) he returned to it time-and-again in subsequent years (see Smith 1996, 1998, 2007a). At base, it is the idea that what we call "nature" is *internal* to capitalism, not a wholly separate domain that serves as resource, waste sink, or—in the case of our own bodies— the corporeal "base" of our economy, society, and culture. As he noted back in 1984, in a much quoted passage, this idea is "jarring" because "it defies the conventional, sacrosanct separation of society and nature, and it does so with abandon and without shame" (Smith 1984:7).

Fifth, while the concept of "production" suggests a certain Promethean tendency in Smith's thinking, his point was not that capitalists—or, in future, socialists—can or should treat nature as a *tabula rasa*. Nor was his intention to deny the "reality" of the biophysical world that, in his view, capitalism brought into contradictory relations with modern societies. As he made clear in Chapter 2 of *Uneven Development* (1984:79–81) and in other writings, what we call nature is real enough. "If we now live in the midst of 'social nature'," he wrote in 2007, "none of this in any way denies the power or existence of 'natural' processes" (Smith 2007a:12). His key point

was that the nature we see, use, and (de)value is thoroughly *mediated* by the whole apparatus of capitalist production, science, and technology. There is thus—contra the ideology of nature—no "outside" from which to view the "inherent qualities" or, as environmentalists would have it, the intrinsic beauty, value, or rights of the natural world. He thus enjoined us to fully acknowledge the physical distinctiveness and efficacy of "nature", while also recognising that it never enables or constrains our lives *sui generis*.

Environmental Science and Anthropogenic Environmental Change

With these five claims in mind we are close to being able to "think with" Neil Smith about geoscience's radical potentials. I say close because we need also to note arguments contained in his final two commentaries on nature, those appearing in The Socialist Register (2007a) and the third edition of *Uneven Development* (2008). Both pieces sought to link Smith's earlier ideas to the changing particularities of the historical-geographic conjuncture. They commented on the immediate context out of which recent changes in geoscience have emerged, and are thus especially relevant to our concerns here.

In "Nature as an accumulation strategy" Smith trained a critical eye on capitalists' concerted new attempts to internalise the so-called "externalities" of making, moving, selling, and disposing of commodities. He rightly saw this process not so much as a "greening" of capitalism as a new frontier for its *expansion*. Noting the new financial markets in everything from carbon emissions to weather futures to wetland credits, he argued that "these commodities are simultaneously excavated (in exchange value terms) from pre-existing socio-natural relations and as part of their production they are reinserted ... in socialized nature—the more 'natural' the better" (Smith 2007a:2). The production of nature is thus expanded both "vertically" and "horizontally". Yet, Smith argued, the ideology of nature deceives us that this is precisely *not* what is happening. Here he reprised his earlier arguments about natural science:

> Nature is [still] broadly conceived as a repository of biological, chemical, physical and other processes that are outside the realm of human causation ... and the repository too of identifiable objects—subatomic and molecular, specific organisms and species ... and so forth. Modern science serves up such objects conceptually as discrete targets of instrumental social labour and simultaneously ratifies this purview of an external ... natural world (Smith 2007a:7).

As an example, Smith cited Morgan Robertson's (2000, 2004) studies of how wetland science was adjusting its categories and accounting measures to make them compatible with the commercial demands of trading wetland credits across space and through time. Scientists' "lack of reflexivity", he concluded, "has not only facilitated a massive industrial transformation of nature but also fostered a broad-based social blindness about the destructive results of this process" (Smith 2007a:9). Wittingly or not, those sciences now involved in harnessing (eg plant biotechnology) or protecting (eg restoration ecology) non-human nature are thus part of the problem not the solution.

In his 2008 "Afterword", composed just after "Nature as an accumulation strategy" appeared in print, Smith rehearsed these same arguments. But he also added

another memorable concept to our analytical lexicon, that of "nature washing". As he vividly expressed it:

> ... this is the process by which social transformations of nature are well enough acknowledged [by elites], but in which that socially changed nature becomes the new super-determinant of our social fate ... The dichotomy of nature and society is maintained rather than weakened: "nature washing" accumulates a mountain of social effects into the causal dustbin of nature (Smith 2008:245).

Again, Smith was clear that contemporary science is enrolled in all this, helping to oil the new wheels of "eco-capitalism". Here he was particularly critical of the way talk about the "global environmental crisis" is being used to limit rather than open-up the politics of societal change. A perceived crisis, he argued, can pressure people to reach for ready-to-hand "solutions" that comport with the present order of things—such as recycling household waste or offsetting plane journeys. Far from challenging "neoliberal environmentalism", he argued that the environmental sciences (and the wider ecological movement) have been co-opted by it. To the extent that they reify "nature" and talk of things like "mass extinction", the sciences of environment are today a depoliticising force (an argument Erik Swyngedouw, eg 2010, has made powerfully in recent years). Accordingly, in his essay on revolution—mentioned in my introduction—Smith (2009) makes no mention of science as a possible vector of progressive change.

Smith on Klein and International Geoscience: An Imagined Critique

If my interpretation of Neil Smith on capitalism, nature, and science is correct, then it is not at all hard to guess how he might have reacted to Klein's recent gloss on developments in geoscience. He would probably have acknowledged the radicalism of their evidence and their informed predictions. He might also have admired the courage of individuals like James Hansen and Kevin Anderson in leading by example, thereby helping to galvanise their (initially) more circumspect scientific peers. Finally, I am confident he would have recognised the sincerity of current attempts to alter geoscience in the three ways identified earlier.

However, Klein's hope that geoscientists can act as fifth columnists would surely, for Smith, be a case of misplaced optimism. If we consider geoscientists' current determination to communicate their messages better, to collaborate with non-scientists, and to produce "actionable" knowledge, Smith's writings arguably steer us towards the following interpretations. First, the messages—while alarming—serve to hypostatise "natural" phenomena and limit the analytical "frame" so that the complex, unstable unity of our capitalist condition is concealed. Current discussions about using "high leverage" geotechnologies like stratospheric aerosol injection are symptomatic if this, bracketing as they do a new political economy as the best solution to climate warming. Second, the aspirations to interdisciplinarity only favour collaborations between geoscientists and other scholars who share the "scientific" norms of objectivity and rationality (eg most environmental economists). Finally, "actionable knowledge" really means knowledge and associated practical

measures that focus only on means, not values or goals. Geoscientists thus side-bar questions of social power, social disagreement, and social conflict to focus only on what is considered "achievable" in light of perceived opportunities and constraints in society. Above all they ignore science's direct implication in sustaining the current unjust and ecologically mindless political economy.

In light of this, would Smith consider Klein's judgement not only hopeful but positively misguided? As it turns out, I suspect not. More than once he lamented the complete lack (as he saw it) of an effective Left in all walks of contemporary life—academic, political, the third sector, and so on (Smith 2005, 2007b, 2008). Given this gloomy (or, perhaps, coldly realistic) assessment, I like to think he would have been thankful for any developments that might better allow radical sections of the Left to keep the fires of opposition burning.

Critique, Affirmation, History, and Politics: The Academic Left and Geoscience

Having used Neil Smith's ideas to contrive an interpretation of the apparent radicalism abroad in international geoscience, I want now to "think against" him. There's something at once inspiring and comforting about Smith's unwavering critique of ideology and reformism and his belief that, as he once memorably put it, "revolution is a future fact" (2007b:193). It guards against "cynical reason", that is, "the conviction that fundamental change, however desirable, will not be forthcoming" (Rethmann 2013:230). Even so, it comes close to a style of Left analysis whose ills anthropologist James Ferguson once diagnosed in the pages of *Antipode*. To quote him at length:

> [O]ver the last couple of decades, what we call "the Left" has come to be organized, in large part, around a project of resisting and refusing harmful new developments in the world. This ... has left us with a politics largely defined by negation and disdain ... But what if politics is really not about expressing indignation or denouncing the powerful? What if it is, instead, about getting what you want? ... This is a quite different question (and a far more difficult question) than: what are we against?
>
> [T]here's much to be said [here] for focusing ... on mundane, real-world [developments] ... even if doing so inevitably puts us on the compromised and reformist terrain of the possible, rather than the seductive high ground of revolutionary ideals and utopian desires (Ferguson 2009:166–167, 181).

In the present context, and following Ferguson, I want to ask: can the academic Left—that is, people like me and readers of *Antipode*—work with geoscientists towards progressive ends "on the compromised and reformist terrain of the possible"? If posing this question appears to put me firmly in Naomi Klein's camp, then appearances deceive. Klein is, I think, right to look beyond (ie not exclusively at) the anti-capitalist movement as a locus of opposition. She's also right to refrain from the view (still common on the Left) that even the best intentioned scientists are wolves in sheep's clothing. However, her upbeat reading of geoscience's "new radicals" actually has something in common with Neil Smith's understanding of science more generally.

That something is *distance*. Just as Smith looked at science from the outside, as a critic, Klein looks at it from the outside as a writer-activist searching for allies in the

critique of contemporary capitalism. As we will now see, this distance is typical of the latest reactions to geoscience among a broad spectrum of academic Leftists. It thus instantiates in academic inquiry the nature–society dualism Smith was (and others today still rightly are) at pains to challenge. As I will explain, this is problematic: what's needed is active *engagement* across disciplinary lines so that geoscience can be thoroughly "socialised" in both an analytical and political sense. It might then become *substantively* radical not just *formally* so by bracketing key "human dimensions".

A New Earth in the Making: Reactions to Geoscience on the Academic Left

Since around 2009, the two new epochal concepts emanating from international geoscience—the Anthropocene and planetary boundaries—have inspired a steady and growing stream of reactions among Leftists ranged across the social sciences and humanities. I cannot itemise them all here. I simply mention an illustrative set of studies in order to comment on wider patterns of thinking.

On the one hand, many have been inspired to "think big" about the huge implications of taking seriously geoscientists' plenary claims about Earth surface change. These big thoughts are, in the main, radical both analytically and normatively when compared with what passes for mainstream thinking in the world at large. For instance, here is literary critic and philosopher Tim Morton writing in the *Oxford Literary Review*:

> What is happening to reality in the Anthropocene is that it is becoming more vivid and unreal. Without a world, without Nature, non-humans crowd into human space, leering like faces in a James Ensor painting or the faces of Butoh dancers ... Without presence, habitual, ontically given coordinates of meaningfulness dissolve (Morton 2012:236).

Cultural critic Paul Alberts (2011) is similarly moved by the Anthropocene concept. He suggests that it reconfigures the idea of human responsibility such that it means being more deeply "responsive" rather than, as we normally conceive it, "taking responsibility". Within Geography, if one looks at recent writings by Nigel Clark (2011) or Kathryn Yusoff (2013), or the forum on the Anthropocene published in *Progress in Human Geography* (Johnson et al. 2014) one also sees there a similar enthusiasm for breaking new analytical and normative ground.

On the other hand, this enthusiasm is not shared by all on the academic Left. For instance, Andreas Malm and Alf Hornborg note of the idea of the Holocene's eclipse that "regrettably, many a social scientist and humanist has swallowed it lock, stock, and barrel, oblivious to its anti-social tendencies, attracted by the idea of the Anthropos as centre or master of the universe (be it productive or destructive)" (Malm and Hornborg 2014:63). Though they acknowledge the unprecedented magnitude of Earth surface change, Malm and Hornborg point to a potential warping of the analytical imagination by geoscience. Coming at the issues from a similarly critical but more deep green perspective, STS scholar Eileen Crist regards geoscience's "Anthropocene narrative" (as she calls it) as perilously reformist, instantiating a "human supremacy complex" (Crist 2013:133) it is ostensibly calling into question. For her, we should "blockade the word Anthropocene" (2013:141)

because it squeezes out other conceptions of Earth that better acknowledge the devastation being wrought upon it.

These reactions to geoscience's epochal claims mirror the Klein–Smith contrast I have drawn so far. Yet, despite their differences, they separate Leftists in the social sciences and humanities from the geoscientists they are either inspired by or critical of. This is doubly ironic. On the one hand, the critics agree that geoscience ultimately risks distorting rather than illuminating, societal understandings of Earth present and future. Yet the criticisms are not accompanied by positive ideas about reforming geoscience in ways more radical than those geoscientists are themselves now advocating for. On the other hand, those inspired by geoscience's large claims suggest that the nature–society dualism no longer holds at the planetary scale. This means that the division of intellectual labour between geoscientists, social scientists, and humanists can no longer remain intact either. Yet, these arguments are not being directly communicated to geoscientists, at least if the favoured publication outlets of the likes of Morton or Alberts are anything to go by. As a result, geoscience's emergent new *modus operandi* (recounted earlier) is not being informed by either the criticisms or positive theses of academic Leftists.

Of course, one might argue that there has not yet been time or opportunity for geoscientists to really hear what "people like us" have to say about their research. However, I suspect there is something else going on. What are called STEM subjects (science, technology, engineering, and medicine) have been phenomenally successful means of discovery and invention. They form a heavily resourced, complex, and esoteric world that the vast majority of social scientists and humanists are simply not equipped to understand properly. The very existence of STS as a field arguably evidences this: it now takes a cadre of specially trained, full-time analysts to get to grips with "science in action".

Beyond this, I suspect that Leftists outside the STEM subjects have, in recent years, allowed the commercialisation of many areas of science to colour their view of science *tout court*. Private enterprise has heavily conditioned basic research and subsequent inventions in areas ranging from pharmaceuticals to metallurgy to computation to plant science. While this has always been the case, there has undoubtedly been a concerted attempt since the mid-1980s to harness science as a means to make money (Mirowski 2011). Yet it is important to remember that "public science" is not dead, and that geoscience possesses "logics" that are not (yet) subsumed to the dictates of capital accumulation. This is clearly something Klein recognises, even if Neil Smith—in his final writings—could not see much beyond those dictates. The question then becomes: can geoscience, or at least some sections of it, have its public functions more deeply radicalised?

Left to its own devices, geoscience will almost inevitably move in lock-step with tame reform efforts by well-meaning or cynical governments. Strong reform is preferable, never mind more profound interventions. The empirical (or formal) radicalism of current geoscience could, I believe, be turned to more richly radical ends. But first Leftists in universities need to believe that they can help effect this turn.

Learning From the Past

This might seem ludicrously hopeful, especially to geographers. Over the years we have done a pretty lousy job at articulating physical and human geography so that they are both meaningfully altered by the encounter. As I noted earlier, for all his talk about the "unity" of socio-nature, Smith said precious little of substance about physical geography.[10] Nor, more generally, did he consider how critical scholars in the social sciences and humanities might make common cause with practitioners in the STEM world. His 1998 essay "Nature at the millennium" offers a clue as to why. In it he reflected on the "science wars" of the mid-1990s that pitted STEM experts against scholars like Andrew Ross who were (and remain) interested in the wider societal effects of scientific discourse and technology. Understandably, given the intensity of the conflagration, Smith could see no space for a *rapprochement*. This gave the lie to his otherwise intriguing closing observation that "we will have to find a way of playing with science and with political economy and ... living to tell [the tale]" (1998:283).

Yet such "play" may not be out of the question. Two previous periods in modern history show us why. Though hard to believe it could happen these days, the 1930s witnessed leading voices in the scientific community—notably in the UK—take a sharp leftward turn. The decade was, of course, unusually febrile in a political economic sense. It saw younger and established scientists like J.D. Bernal, Lancelot Hogben, Hyman Levy, Joseph Needham, J.B.S. Haldane and P.M.S. Blackett (a future Nobel Laureate) gravitate towards Marxism. These scientist-activists inserted their profession directly into wider movements to supersede, or at least substantially reform, capitalism. This much was explicit in Bernal's (1939) much discussed *The Social Function of Science*. They formed what Gary Werskey (1978) later called a "visible college" that for 20 years tried to connect science to "progressive" politics as it was then defined.

In the late 1960s there was a second attempt to reconfigure modern science in more progressive ways, this time centred on the US as well as the UK. As part of the "events" of 1968, there were protests against the way scaled-up science had been central to America's post-war "military–industrial complex". The Union of Concerned Scientists (UCS) sprang into life after a rally at MIT in 1969, so too the more left-leaning Science for the People. Reacting to state-led uses of science, the British Society for Social Responsibility in Science (BSSRS) was founded the same year, with Steven and Hilary Rose among its membership. Its magazine was entitled *Science for People*. Both the UCS and BSSRS were less overtly political than the 1930s project to radicalise science, and this led to the Roses (among others) escaping the BSSRS's embrace. But radical science agitation operated in other arenas in Britain—for example, with the efforts of American émigré Robert Young and others in founding the *Radical Science Journal* (RSJ) in the UK (now *Science as Culture*, published by Routledge). Young helped to pioneer an explicitly Marxist analysis of science as a modern enterprise and a normative account of how it might be decoupled from capitalism (Young 1977). There were coincident attempts in RSJ to interpret science in feminist and anti-racist ways. Meanwhile, *Science for People* attracted the likes of Anne Fausto-Sterling, Richard Levins and Richard Lewontin.[11]

In the detail 2015 is nothing like 1968 or the 1930s, though as profoundly tumultuous in its way. And even if it was similar, one might say that history only offers the Left lessons in failure. For instance, the fact that mainstream STS carries forward virtually none of the radical science arguments or ethos that were alive in the field's early years tell us much.[12] More locally, the fact that most physical geography has barely been affected by the longstanding debates about the social role or potential of science also tells us a great deal.[13] Yet, in the world of geoscience at least, there is today a genuine opportunity to do what the likes of Bernal and the Roses sought to do in their time. The difference, now, is that the absence of a strong Left outside the university world places a premium on the Left within academia to make its voice heard on the other side of campus. We academics may all now work in a "sausage factory" (Smith 2000), but there is nonetheless capacity to make a difference. Criticising or praising geoscience from a distance may be necessary, but it is surely no longer sufficient.

This last claim chimes with recent efforts to rethink the role of social scientists and humanists in relation to the sciences at large. For instance, writing in *Critical Inquiry* Bruno Latour asks if it's "really possible to transform the critical urge" so as to "*add* reality to matters of fact and not *subtract* reality?" (2004:232). Latour is here challenging critics of modern science to go beyond debunking in order to actively contribute something to a new constitution for organised inquiry. To adapt Albert Hirschmann's (1970) well-known typology of responses to matters of shared concern, Latour is urging "voice" rather than "exit" while avoiding compliance ("loyalty"). If Leftists inspired by geoscience risk too much loyalty and if its critics risk exit ("geoscience is too compromised to bother engaging with positively"), is there a way of "adding to" geoscience through a set of closer encounters?

Towards a More Radical Geoscience

Playing on the title of Naomi Klein's new book, we might say that geoscience's radical implications, alarmingly, "change virtually *nothing*". Why have decision-makers and the societies they govern been able to ignore these implications for so many years? How is it possible for two countries deeply implicated in runaway environmental change—namely Australia and Canada—to now be following the sorry example of the United States and kicking GEC into the long grass as a public and policy issue? The reasons are many and varied. But part of the explanation rests with the nature–society, fact–value, is–ought dualisms that continue to structure peoples' perceptions of science and the self-understanding of most of its practitioners. If we can think past these dualisms (something Neil Smith did, in his distinctively Marxist way), we can begin to imagine geoscience as key to a more radical critique of our current social order.

Dualisms Real and Duplicitous

Consider how business-funded climate change sceptics for years pursued their political arguments by stealth, using the rhetoric of "sound science" to persuade many decision-makers and citizens that ACC is not yet a proven "fact". Consider too how many geoscientists believe that the way to address societal ignorance is through better communication of the evidence. The assumption is that more forthright and savvy messaging will torpedo facts and predictions into the worlds of

politics and beliefs so that people will simply *have to act*. However, this is as naïve as the tactics of climate change sceptics are cynical. Among other things, it pretends that geoscience is value-free, a mouthpiece for an otherwise mute (fast disappearing) nature. Not only does this invite critics to dwell never-endingly on the epistemological uncertainties written into the analysis of complex biophysical systems. It also decontextualizes science as if its moorings in state, commerce, and society are somehow contingent and anterior.

This is dishonest, and perpetuates the unhelpful myth that nature's "truths" come to society from the outside via science. As numerous critical STS scholars have shown, biophysical science always already contains contestable value judgements about what in the world is worth knowing about (and how).[14] These judgements, once committed to, entrain resources and close off other potential lines of inquiry. In turn, science's representations and inventions are political even before entering the realms of policy making, commerce, or the public domain. For instance, as Brian Wynne (2014:62) notes, biotechnologists who frame GMOs in terms of "risk" to human health and terrestrial ecology are attempting "hermeneutic imperialism". By this he means the high public authority of science is used to foreclose on what GMOs might mean outside science. Such foreclosure was graphically evident in a recent apologia for science by leading French biologist Marcel Kuntz (2012) in the prestigious journal *EMBO Reports*. At one point, he implies that opponents of GMOs are "irrational" and declares them "anti-science" because they ignore the evidence. So it is that he conflates a legitimate defence of science's methods with an implausible defence of its right to thereby author meanings in the wider society.

In this light, the limitations of some geoscientists' recent calls-to-arms are plain enough to see. They simply reinscribe existing dualisms in the guise of arguing for a new dispensation for geoscience such that it can better serve society in the face of momentous GEC. For instance, some geoscientists' calls for interdisciplinary inquiry with social scientists presumes "society" to be a domain every bit as amenable to objective inquiry as ocean currents or forest regeneration. The idea seems to be that once people's habits, preferences, beliefs, and resources are properly accounted for empirically, geoscientists will better know how to deliver "actionable" evidence and feasible technical interventions. This is well evidenced in a recent *Nature* article, where Paul Palmer and Matthew Smith (2014:366) propose to "collect behavioural statistics on a grand scale" so as to represent humans *within* (ie as a component of) future Earth system models. This will, they argue, allow politicians and planners to better track the success/failure of various adaptation measures to ACC.

The arguments of Palmer and Smith bespeak a worldview in need of challenge and reformation. They extend ontological assumptions about "the natural" and apply them to "the social". In employing the metaphor of "system" they frame the resulting knowledge for managerial use towards ends such as economic efficiency and social stability. They thereby instantiate certain beliefs and leave little or no space for key aspects of the social to be explicitly addressed—things such as power, value conflicts, emotion and affect, aspirations for new ways of living, and so on. These are taken, implicitly, to be *outside* geoscience (and thus someone else's

business). These things are, of course, precisely what preoccupy Leftists (and others) interested in environmental issues across the full spectrum of social sciences and humanities (especially once one looks beyond business studies, economics, and political science). As Sheila Jasanoff (2012) has persuasively argued, science and any prevailing social order are "co-produced". This being so, what sort of social orders might eventuate if a new sort of geoscience gained some traction?

Alternatives

It seems to me that the Left of environmental social science and the environmental humanities possess a repertoire of extraordinary insights and arguments that stand to change the way many geoscientists might think about their claims and aims. The practical question is: how might that repertoire be broadcast to geoscientists, especially when many have a stunted sense of what non-positivist non-scientists do? The intellectual question is: what sort of "interdisciplinary" inquiry might follow and what ends would it aim to serve?

In a practical sense, many and varied efforts would be required to help geoscientists better approach what Hackmann et al. (2014:653) call "the social heart of global environmental change". These would have to range from the mundane (eg new joint seminar series) to the grand (eg lobbying the heads of the major geoscientific societies worldwide). They would span local, on-campus actions to global, off-campus interventions (such as expanding the United Nations' and World Bank's senses of what "environmental expertise" looks like). It would be pointless to speculate on whether such efforts will be forthcoming next year or in ten. All one can say is that such efforts would be extremely timely, given (1) the appetite for change evident in the top levels of international geoscience and (2) the current unwillingness of political economic elites to seriously entertain the idea of a "green new deal", never mind anything more far-reaching.

In an intellectual sense, it is essential that conventional—that is to say dominant—understandings of interdisciplinary investigation be challenged. Metaphorically, such understandings see the world as a gigantic jigsaw. Disciplines are seen as focusing on separate pieces such that combining their expertise will paint a more complete, accurate picture of the real. "The presumption", writes Jasanoff (2012:16), is "that there are stable, self-contained [analytical] ... packages that can be moved without difficulty across branches of scholarship". Consequently, it is not enough for geoscientists to be persuaded that we can no longer:

> keep perceiving problems that are caused by humans, that inflict harm on humans (and the life support systems on which they depend), and that can only be [addressed] ... by humans in terms of their biophysical nature, as a matter of molecules, shifts in atmospheric dynamics or ecosystems interactions ... (Jasanoff 2012:65).

What is also needed is a new hegemony of currently subordinate conceptions of research between the disciplines, and especially across the "three cultures" divide separating natural science, social science, and the humanities. In the present case, such conceptions can take geoscientists away from an ontological holism and monism that imagines "one world" waiting to be revealed through suitably wide-angle analytical lenses (see Sarewitz 2010).

Once we examine the "social heart" of GEC carefully it becomes clear that there is not one world but many actual and possible ones. "The Anthropocene" is not a universal condition for the human actors involved, and nor are things like "planetary boundaries" and "biophysical thresholds" registered the same the world over. We live in a world of worlds defined by pervasive political economic structures, varied cultural conventions, plural histories, myriad inequalities, and diverse biophysical life conditions. Relatedly, the futures that people aspire to vary greatly, especially when they are offered the chance to think well beyond the given and the known. Only certain of these futures can come into existence, locally and globally, given suitable commitment, resources, and struggle. What is important is that they first have a chance to be considered by those for whom they are novel or even unsettling.

In this light, we begin to see that the particular phenomena, "problems", and "solutions" different geoscientists address should and could emerge relative to different social framings of our present and future world. This relativity is currently implicit, as Jasanoff, Wynne and others have shown. It needs now to be made explicit. The sort of evidence geoscientists assemble, the predictions they make, and the "actionable ideas" they now want to generate cannot emerge through value-free observations of a socially changed nature or an environmentally impacted society. Instead, they must make overt reference to varied worldviews, ideologies, faiths, and political programs that currently enjoy unequal visibility in any society, and on the world stage.[15] Only in those contexts can geoscience's contribution to avoiding a planetary "crisis" make social sense. Geoscience can thereby play a central role in "opening up", rather than "closing down", substantive discussions about feasible and desirable socio-environmental futures (Stirling 2008). But it would be a geoscience proceeding in lock-step with diverse voices from social science and the humanities, themselves articulating arguments and ideals variously subordinate or more dominant in society at large. This will involve a "deep and plural interdisciplinarity" wherein science's predominantly cognitive concerns (evidence, reason, truth, practical efficacy) are married in varied ways to the political, moral, affective, and aesthetic concerns of "non-scientific" disciplines.[16] Overly tidy, and misleading, distinctions between facts and values or realities and aspirations are relinquished.[17] Immersion in what Marx famously called the "struggles and wishes of the age" would be a key part of the academic agenda.

Objections

These proposals are, of course, likely to be seen as either too radical or too tame by some. In the first case, I suspect most geoscientists would worry about the apparent relativism/anti-realism being advocated here. One can almost hear Marcel Kuntz (2012) complaining over my shoulder that yet another one of "those" academics is trying to make "his" and colleagues' science a play-thing of people's values, beliefs, and "biases". But this is, of course, a misconceived response. What has made science in all its forms so effective in modern life is that its insights and applications *work*. Yet they do not simply work "in themselves" but only when the social contexts into which they are inserted are hospitable ones (ethically, institutionally,

economically, etc). Given the profound questions GEC raises about people's rights, ir/responsibilities, duties, and so on, the virtues of science need to be retained but operationalised in (or towards) varied actual and possible forms of human life. This will, of course, make geoscience more expressly political and normative than heretofore. However, recognising that it has *already* become politicised—especially climate change research—it is not just the likes of Kevin Anderson who acknowledge the folly of trying to deny geoscience's immersion in the social. As long as a decade ago, a respected commentator on environmental science not known for being outspoken (Tim O'Riordan) identified the need for "interlocking scientific analysis to political and social contexts so that a more politicized science emerges. The notion of 'politicization' should be regarded as positive, not frightening or threatening" (O'Riordan 2004:239). Sadly, the brilliant efforts of the likes of Donna Haraway and Evelyn Fox Keller offer a sobering lesson here. Their illumination of how gender relations structure biological science have, it seems, done little to alter the working practices of biologists.

In the second case, radical social scientists (like Neil Smith) and far-Left humanists might detect a none-too-radical pluralism in my arguments for a new kind of geoscience.[18] Why not, say, a Marxist geoscience or a geoscience respectfully hooked into indigenous peoples' life-ways after centuries of murderous engagement with oppressive settlers? Why settle for anything less unlikely and yet necessary? Here it is important to respect the differences between our own time and the two periods when radical science movements sprung forth (ultimately to little effect). My own reading of the words of today's leading geoscientists—in places like *Nature, Science, PNAS* and elsewhere—suggests that the "politicisation" of their work will only occur if it is initially cautious and catholic. It could only happen in the names of "democracy" and "the public interest"; anything more partisan and narrow would surely see them retreat behind the shield of value-free science that remains such a barrier to progressive change.

Beyond this, decision-makers and societies will find it extremely difficult to embrace the idea of geoscience (or any science) as an explicit mechanism of politics, government, and change. They would certainly recoil at the idea that it be harnessed largely to "extreme" agendas. However, in many countries there is, at least, an awareness that science at large needs to serve its host societies in distinctly new and better ways (European Science Foundation 2013; Owen et al. 2012). In this context, it seems to me that environmental analysts on the Left of a field like human geography can work towards changing the intellectual climate by supporting a broad-based project to politicise geoscience in a reasoned and passionate way. In our own discipline, it would involve rethinking the underlying assumptions governing previous attempts to stage "conversations across the divide" between human and physical geography. Some recent manifestos for a "critical physical geography" usefully point us in this direction (eg Tadaki et al. 2014).

Conclusions

Neil Smith, appalled throughout his life at the misery and destruction wrought by the prevailing political economy, wrote in his final years about what seemed (still

seems) a most unlikely event: the revolution against capital. Smith was arguably a true realist rather than a utopian. As Terry Eagleton once memorably noted, "it is the hard-nosed pragmatists who behave as though the World Bank and caffe latte will be with us for the next two millennia who are the real dreamers..." (Eagleton 2005:np). Revolution is both the belief in something better and the application of the emergency brake. It may turn out be a very long revolution, even if momentous biophysical events create social turbulence sooner rather than later. In the meantime, it is well worth heeding the advice of Rebecca Solnit. In *Hope in the Dark*, she wrote that "It's always too soon to go home. And it's always too soon to calculate effect" (Solnit 2004:3). We might hope that a concerted attempt to infuse geoscience's formal radicalism with something more substantive can, in time, challenge a capitalist system it will otherwise leave intact. Neil Smith might have regarded that as naively hopeful, even foolhardy, were he here. However, as with his organisational efforts to make critical geography international, maybe—just maybe—he'd have fancied the challenge, rolled-up his sleeves, and got stuck in. If so, others would surely have followed. In his absence let's get stuck in anyway.

Acknowledgements

Endnotes

[1] In this essay I use the term "geoscience" to describe a large and wide field of research and teaching that covers a number of disciplines and which encompasses the study of Earth surface phenomena (eg rivers, ecosystems) and, to a lesser extent, sub-surface phenomena (the focus of geology).

[2] Indeed, one of my first publications focused on Smith's writings as a means of exploring how both "nature" and the claims of science might be simultaneously rethought from a Marxist perspective (Castree 1995). In the subsequent years many younger researchers in human geography and cognate fields were, like me, drawn to Smith's arguments about "capitalist nature". A prime example is Alex Loftus, whose book *Everyday Environmentalism* (2012) takes considerable inspiration from Smith's writings. The substance of these writings remained very consistent over the years in my view, though was rearticulated in light of the changing political economy—evident, for example, in Smith's contribution to *The Socialist Register* (2007a) and his afterword to the third edition of *Uneven Development* (2008).

[3] Smith (1979) declared Marxism's universal pretensions in an early essay critical of positivism, humanism, and a nascent "radical geography". However, that essay did not really address how practising scientists who study such things as rivers or rocks would have their practice altered by the Marxist theory he advocated. His essay was addressed more to human geographers than their physical counterparts.

[4] Even Science and Technology Studies (STS), the main area of contemporary scholarship where social scientists and humanists directly touch physical science, is guilty of this charge. As Steve Fuller has pointed out on many occasions (eg Fuller 2007), it is studiously non-normative in the main, preferring to *report* on "science in action" than *engage* with scientists in creative and political ways. Though STS does have some normative leanings—expressed clearly in criticisms some practitioners have made of initiatives in "public understanding" of and "public engagement" with science—most STS scholars steer clear of "dirty hands" interactions with the scientific world. This was not always so. Early on, some contributors like Steven and Hilary Rose were outspoken critics of the way modern science was made to serve the "military–industrial complex". Later, criticism in STS took a

more "academic" form and was largely contained in monographs and peer review papers like this one.

5   With the exception of early geologists' discovery that the Earth was not made by a deity and is more than a few thousand years old.

6   This is evident, for instance, in the writings of Earth system scientist Timothy Lenton, who has used both ideas to talk about both subjects. See Lenton (2013), among other publications.

7   This is the proper context in which to understand the real significance of attempts by geologists to ascertain if "the Anthropocene" meets the exacting criteria normally used to define a geological epoch. The Anthropocene is an invention of environmental scientists, especially those involved at the inception of the International Geosphere-Biosphere Program. Yet because of its epochal meaning, geologists have found themselves obliged to consider it seriously—with Leicester University's Jan Zalasiewicz an enthusiastic bridging character between geology and environmental science. The International Commission on Stratigraphy (ICS)—which is ultimately responsible for identifying geological epochs—has established an Anthropocene Working Group and made Zalasiewicz its chairman. The Commission will report in 2016, if not sooner. If (it seems most unlikely) it recommends adopting the Anthropocene as a formal definition of our epoch, this will be felt most in the wider geosciences rather than geology. After all, it is the "concerned synthesists" like Crutzen and Rockström who will be able to use the imprimatur of the ICS to bolster their arguments for "planetary stewardship".

8   The IGBP was launched in 1987. It followed the World Climate Research Program, created in 1980. It was followed by the International Human Dimensions Program (1990) and Diversitas (launched in 1991, and focusing on global biodiversity and biogeography).

9   Though Neil published a reflection on *Uneven Development* in 2011, he barely discussed the question of nature in it (see Smith 2011), so one needs to look at rather earlier publications for insight.

10   And nor, despite it being written in the late 1970s, did his Marxist critique of positivism (Smith 1979) make any real mention of the two "radical science movement moments" I will be summarising in this subsection of the paper.

11   All went on to have stellar academic careers without losing their commitment to radicalising science. For an absorbing, albeit rather personal, history of the two "radical science movement moments", see Werskey (2007).

12   In this sense, the careers of Donna Haraway, Richard Levins, Steven and Hilary Rose, and Richard Lewontin have been relative exceptions. It is also telling that all but Haraway are often not thought to be part of the STS story, even though much of their work shares the central preoccupations of STS practitioners.

13   Recently, this has been subject to challenge. See Tadaki et al. (2014).

14   For a recent example see Uhrqvist and Oels (2014) on Earth system research.

15   As Roger Pielke (2007) rightly argued, only in what he called "tornado politics" situations where social actors agree on the "problem" they face and the necessity of a common response can science trump differences of norms, values, goals, etc in a society.

16   There are hints of this in some parts of the recent *World Social Science Report 2013: Changing Global Environments* (International Social Science Council and UNESCO 2013). Though hardly a radical document in one respect, in places it does challenge the geoscience community to deepen and broaden its conceptions of how its work might address "human dimensions".

17   In making these arguments about "alternative interdisciplinarity", I am inspired by the arguments of Des Fitzgerald and Felicity Callard (2015) about neuroscience and Bron Szerszynski and Maialen Galarraga (2013) about geoengineering. Andrew Barry and Georgina Born's (2013) edited book *Interdisciplinarity* offers rich food for thought about thinking beyond the "additive" conception of the "inter" commonly believed to define interdisciplinarity as such.

18   Here I can come clean and declare that I find Steve Fuller's (2000) republican conception of science in democracy persuasive, though acknowledge that in practice its commitment to plurality and agonism will always be enormously stymied by prevailing social

inequalities of class, gender, and so on. Even so, it is hugely preferable to a liberal conception which pretends those inequalities are mere accidents or inevitable results of individuals "finding their level".

References

Alberts P (2011) Responsibility towards life in the early Anthropocene. *Angelaki* 16(4):5–17
Anderson K and Bows A (2012) A new paradigm for climate change. *Nature Climate Change* 2:639–640
Barnosky, Brown J H, Daily G C, Dirzo R, Ehrlich A H, Ehrlich P R, Eronen J T, Fortelius M, Hadly E A, Leopold E B, Mooney H A, Peterson Myers J, Naylor R L, Palumbi S, Chr Stenseth N and Wake M H (2014) Introducing the *Scientific Consensus on Maintaining Humanity's Life Support Systems in the 21ˢᵗ Century: Information for Policy Makers. Anthropocene Review* 1(1):78–109
Barnosky A D, Hadly E A, Bascompte J, Berlow E L, Brown J H, Fortelius M, Getz W M, Harte J, Hastings A, Marquet P A, Martinez N D, Mooers A, Roopnarine P, Vermeij G, Williams J W, Gillespie R, Kitzes J, Marshall C, Matzke N, Mindell D P, Revilla E and Smith A B (2012) Approaching a state shift in Earth's biosphere. *Nature* 486:52–58
Barry A and Born G (eds) (2013) *Interdisciplinarity*. London: Routledge
Bernal J D (1939) *The Social Function of Science*. London: Routledge & Kegan Paul
Castree N (1995) The nature of produced nature. *Antipode* 27(1):13–48
Castree N (2015) Capitalism and the Marxist critique of political ecology. In T Perreault, G Bridge and J McCarthy (eds) *Handbook of Political Ecology* (pp 279–292). London: Routledge
Clark N (2011) *Inhuman Nature*. London: Sage
Crist E (2013) The poverty of our nomenclature. *Environmental Humanities* 3:129–147
DeFries R S, Ellis E C, Chapin F S, Matson P A, Turner B L, Agrawal A, Crutzen P J, Field C, Gleick P, Kareiva P M, Lambin E, Liverman D, Ostrom E, Sanchez P A and Syvitski J (2012) Planetary opportunities: A social contract for global change science to contribute to a sustainable future. *BioScience* 62(6):603–606
Dirzo R, Young H S, Galetti M, Ceballos G, Isaac N J B and Collen B (2014) Defaunation in the Anthropocene. *Science* 25 July:401–406
Eagleton T (2005) Just my imagination. *The Nation* 13 June. http://www.thenation.com/article/just-my-imagination (last accessed 11 December 2014)
Ekers M and Loftus A (2013) Revitalization of the production of nature thesis: A Gramscian turn? *Progress in Human Geography* 37(2):234–252
European Science Foundation (2013) *Science in Society: Caring For Our Futures in Turbulent Times*. Strasbourg: European Science Foundation
Ferguson J (2009) The uses of neoliberalism. *Antipode* 41(S1):166–184
Fitzgerald D and Callard F (2015) Social science and neuroscience beyond interdisciplinarity: Experimental entanglements. *Theory, Culture, and Society* 32(1):3–32
Fuller S (2000) *The Governance of Science*. Buckingham: Open University Press
Fuller S (2007) *The Knowledge Book*. London: Acumen
Gaffney O (2014) Sustainable development goals. *Global Change* 82:20–23
Hackmann H, Moser S C and St Clair A L (2014) The social heart of global environmental change. *Nature Climate Change* 4:653–655
Hamilton C (2010) *Requiem for a Species*. London: Earthscan
Harvey D (1974) Population, resources, and the ideology of science. *Economic Geography* 50:256–277
Hirschmann A (1970) *Exit, Voice, and Loyalty*. Cambridge: Harvard University Press
International Social Science Council and UNESCO (2013) *World Social Science Report 2013: Changing Global Environments*. Paris: OECD and UNESCO Publishing
Jasanoff S (2012) *Science and Public Reason*. London: Earthscan
Johnson E, Morehouse H, Dalby S, Lehman J, Nelson S, Rowan R, Wakefield S and Yusoff K (2014) After the Anthropocene. *Progress in Human Geography* 38(3):439–456
Kagan J (2009) *The Three Cultures: Natural Sciences, Social Sciences, and the Humanities in the 21ˢᵗ Century*. Cambridge: Cambridge University Press
Klein N (2014) *This Changes Everything*. New York: Simon and Schuster

Kuntz M (2012) The postmodern assault on science. *EMBO Reports* 13(10):885–889

Latour B (2004) Has critique run out of steam? *Critical Inquiry* 30(2):225–248

Lenton T (2013) Tipping elements from a global perspective. In T O'Riordan and T Lenton (eds) *Addressing Tipping Points for a Precarious Future* (pp 23–46). Oxford: Clarendon

Loftus A (2012) *Everyday Environmentalism*. Minneapolis: University of Minnesota Press

Malm A and Hornborg A (2014) The geology of mankind? *Anthropocene Review* 1:62–69

McKibben B (2010) *Eaarth*. New York: Henry Holt

Mirowski P (2011) *ScienceMart*. Cambridge: Harvard University Press

Morton T (2012) Ecology without the present. *Oxford Literary Review* 34(2):229–238

O'Riordan T (2004) Environmental science, sustainability, and politics. *Transactions of the Institute of British Geographers* 29(2):234–247

Owen R, Macnaghten P and Stilgoe J (2012) Responsible research and innovation. *Science and Public Policy* 39(5):751–760

Palmer M (2012) Socio-environmental sustainability and actionable science. *BioScience* 62(1):5–6

Palmer P I and Smith M J (2014) Model human adaptation to climate change. *Nature* 512:365–366

Pielke R (2007) *The Honest Broker*. Cambridge: Cambridge University Press

Rapley C and De Meyer K (2014) Climate science reconsidered. *Nature Climate Change* 4:745–756

Reid W V, Chen D, Goldfarb L, Hackmann H, Lee Y T, Mokhele K, Ostrom E, Raivio K, Rockström J, Schellnhuber H J and Whyte A (2010) Earth system science for global sustainability: Grand challenges. *Science* 12 November:916–917

Rethmann P (2013) Imagining political possibility in an age of late liberalism and cynical reason. *Reviews in Anthropology* 42(4):227–242

Robertson M (2000) No net loss: Wetland restoration and the incomplete capitalization of nature. *Antipode* 32(4):463–493

Robertson M (2004) The neoliberalization of ecosystem services. *Geoforum* 35(3):361–373

Rockström J, Steffen W, Noone K, Persson A, Chapin F S, Lambin E F, Lenton T M, Scheffer M, Folke C, Schellnhuber H S, Nykvist B, de Wit C A, Hughes T, van der Leeuw S, Rodhe H, Sörlin S, Snyder P K, Costanza R, Svedin U, Falkenmark M, Karlberg L, Corell R W, Fabry V J, Hansen J, Walker B, Liverman D, Richardson K, Crutzen P and Foley J A (2009) A safe operating space for humanity. *Nature* 461:472–475

Sarewitz D (2010) Against holism. In R Frodeman, J Thompson Klein and C Mitcham (eds) *The Oxford Handbook of Interdisciplinarity* (pp 65–75). Oxford: Oxford University Press

Smith N (1979) Geography, science, and post-positivist modes of explanation. *Progress in Human Geography* 3:356–383

Smith N (1984) *Uneven Development*. Oxford: Basil Blackwell

Smith N (1996) The production of nature. In J Bird, B Curtis, M Mash, T Putnam, G Robertson and L Tickner (eds) *FutureNatural* (pp 35–54). London: Routledge

Smith N (1998) Nature at the millennium: Production and re-enchantment. In B Braun and N Castree (eds) *Remaking Reality* (pp 269–285). London: Routledge

Smith N (2000) Who rules this sausage factory? *Antipode* 32(3):330–339

Smith N (2005) Neo-critical geography, or, The flat pluralist world of business class. *Antipode* 37(5):887–899

Smith N (2007a) Nature as an accumulation strategy. In C Leys and L Panitch (eds) *The Socialist Register 2007: Coming to Terms with Nature* (pp 1–21). London: Merlin

Smith N (2007b) Another revolution is possible. *Environment and Planning D: Society and Space* 25(2):191–193

Smith N (2008) *Uneven Development* (3rd edn). Athens: University of Georgia Press

Smith N (2009) The revolutionary imperative. *Antipode* 41(S1):50–65

Smith N (2011) Uneven development redux. *New Political Economy* 16(2):261–265

Smith N and O'Keefe P (1980) Geography, Marx, and the concept of nature. *Antipode* 12(2):30–39

Snow C P (1959) *The Two Cultures*. Cambridge: Cambridge University Press

Solnit R (2004) *Hope in the Dark*. New York: Nation Books

Steffen W, Crutzen P and McNeill J (2007) The Anthropocene: Are humans now overwhelming the great forces of nature? *Ambio* 36(8):614–621

Steffen W, Persson Å, Deutsch L, Zalasiewicz J, Williams M, Richardson K, Crumley C, Crutzen P, Folke C, Gordon L, Molina M, Ramanathan V, Rockström J, Scheffer M, Schellnhuber H J and Svedin U (2011) The Anthropocene: From global change to planetary stewardship. *Ambio* 40(7):739–761

Steffen W, Richardson K, Rockström J, Cornell1 S E, Fetzer I, Bennett E M, Biggs R, Carpenter S R, de Vries W, de Wit C A, Folke C, Gerten D, Heinke J, Mace G M, Persson L M, Ramanathan V, Reyers B and Sörlin S (2015) Planetary boundaries: Guiding human development on a changing planet. *Science* 13 February:736–746

Stirling A (2008) "Opening-up" and "closing down": Power, participation, and pluralism in the social appraisal of technology. *Science, Technology, and Human Values* 33(2):262–294

Swyngedouw E (2010) The trouble with nature: Ecology as the new opium for the people. In J Hillier and P Healey (eds) *Conceptual Challenges for Planning Theory* (pp 299–320). Farnham: Ashgate

Szerszynski B and Galarraga M (2013) Geoengineering knowledge. *Environment and Planning A* 45(11):2817–2824

Tadaki M, Brierley G, Dickson M, Le Heron R and Salmond J (2014) Cultivating critical practices in physical geography. *The Geographical Journal* . DOI:10.1111/geoj.12082

Uhrqvist O and Oels A (2014) Rendering global change problematic. *Environmental Politics* 23(2):339–356

Werskey G (1978) *The Visible College*. London: Allen Lane

Werskey G (2007) The Marxist critique of capitalist science: A history in three movements? *Science as Culture* 16(4):397–461

Working Group 1 of the Intergovernmental Panel on Climate Change (2013) *Climate Change 2013: The Physical Science Basis*. Bern: IPCC

Wynne B (2014) Further disorientation in the hall of mirrors. *Public Understanding of Science* 23(1):60–70

Young R (1977) Science is social relations. *Radical Science Journal* 5:65–129

Yusoff K (2013) Geologic life. *Environment and Planning D: Society and Space* 31(5):779–795

The Tight Dialectic: The Anthropocene and the Capitalist Production of Nature

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Abstract: In this essay we examine the case of Kivalina, Alaska, twice threatened with destruction, in order to understand the importance of the specifically geological concept of the Anthropocene. We argue that the Anthropocene is best understood as part of what Neil Smith called a "tight dialectic" between the history of geography (the production of environmental knowledge) and historical geography (the production of nature and space) as this dialectic is played out within capitalist modes of production. We focus on the relationship between contemporary geo-engineering and both intentional and unintentional geographical engineering, to make the basic argument that humans have no choice but to produce nature—to engineer environments. The only question is *how* we shall do so.

Keywords: the Anthropocene, environmental knowledge, the production of nature, geo-engineering

Kivalina, Alaska is threatened with annihilation for a second time. Reasonable predictions suggest that this small Inupiat village perched on a barrier island south of Point Hope in the Chukchi Sea will be destroyed by rising seas and increased exposure to storm surges before 2050—a victim of amplified Arctic warming (see Figure 1). To forestall this perhaps inevitable fate, the US Army Corps of Engineers has proposed building a big sea wall. The ultimate solution, however, will be one granted to a near neighbor of Kivalina—Newtok, suffering a similar death by drowning—but more typically reserved for small island atolls, low-lying Indian Ocean nation-archipelagos, and towns or regions faced with massive environmental calamity (like Chernobyl or Fukushima): relocation. Within a short decade or two, the people of Kivalina will be forced off their land, their ways of life permanently disrupted. The people of Kivalina have accepted their fate, but so far their move has been stalled by a dispute with the same Corps of Engineers over the best place to relocate and the basic question of who will pay.

The Corps seawall plan (which all admit is a temporary solution) is, of course, the kind of engineering solution to "natural" threats practiced all over the world to preserve and protect human populations. It is a kind of engineering, or to use a current term, geoengineering, that, except when it fails (as in New Orleans during Hurricane Katrina) we tend to take for granted.[1] Yet, the threat of storm erosion at Kivalina—like the devastation of New Orleans—can hardly be considered "natural" in this context (cf Smith 2006). Environmental processes that are habitually approached with geoengineering solutions (of greater or lesser size, scope, and

Figure 1: Kivalina, Alaska. A sea wall constructed by the North West Arctic Borough in 2006 is visible in the photograph (source: USACE 2007: Figure 4; photo by Jim Kulas, NANA Corp, 2006)

complexity) include coastal inundation, intensified drought, longer-lasting and deadly heatwaves, and crop losses due to invasive species and pests. Walls are built, canals are dug, soils are amended, plants are genetically modified, clouds are seeded, giant piles of snow are stored over the summer months, rivers are dredged (or not), oceans are "fertilized", power plants are built to supply electricity to ever-greater numbers of air conditioning units, coal is dug, shale is fracked, and oil wells are sunk into deeper and deeper seas. Geoengineering makes the earth habitable for humans (and always has): geoengineering simultaneously amplifies the threat from "nature" (and always has). The question is not whether we produce nature, but how, under what conditions, and to what, decidedly uneven effects (Smith 1990). Kivalina's immanent destruction from melting permafrost and increased (and "out of season") storm surges is a result of the human production of nature, especially in its capitalist and industrial form. Its erasure is an unintended consequence of the "Great Acceleration"[2] of the capitalist mode of production. This acceleration of human impacts is at the heart of what geologists want to dub The Anthropocene: an epoch defined by a human production of nature which has created deep and lasting environmental shocks and transformations now evident in the geologic record. As Neil Smith (1990) stressed, the production of nature in no way necessarily implies its control (cf Preston 2014).

The first time Kivalina faced its annihilation was in 1958 when Dr Edward Teller and various associates from the Atomic Energy Commission and its Livermore Laboratory came to Alaska to announce plans to produce a new nature on a grand and impressive scale. Modern science had in its pocket, Teller claimed, a new tool that would allow geoengineering as it had never been done before: instantly and

massively. To show what he meant, he and his fellow atomic scientists, whom the writer Dan O'Neill (1994) later dubbed the "Firecracker Boys", proposed to blast an instant harbor in the tundra at Cape Thompson not far from Kivalina (see Figure 1). Designated "Project Chariot", itself part of the much larger Project Plowshare, a wide-ranging scheme for the "peaceful uses of nuclear bombs", the Firecracker Boys said the blasts at Cape Thompson would create a fully navigable harbor in just a second or two, opening up all manner of economic opportunities in this heretofore rather isolated part of the globe. Reflecting on the grandiosity of their visions, the Livermore scientists saw Project Chariot as the beginning of an era of what they called "geographical engineering": not just engineering on the scale of sea walls built with dynamite and bulldozers, but engineering on a geographical scale—the instant rearrangement of whole landscapes through the controlled splitting of atoms. In the process, as it quickly became clear to villagers in Kivalina and nearby Point Hope, both villages would be destroyed, not directly by the blasts but through the irradiation of the landscape and thus the destruction of the ecosystem upon which their livelihoods depended.[3]

By examining the similarities of fate for Kivalina today as it is threatened by the sea, and 50 years ago when it was threatened by the Firecracker Boys, it becomes obvious that geographical engineering, conducted at a variety of scales, is both premeditated (as with building sea walls and blasting harbors) and not (as with the carbon-burning-induced warming that leads to the need for sea walls), but that both are now intimately linked to a particularly *capitalist* production of nature. If, as many argue, we truly live in a new geological era called the Anthropocene, the true meaning and importance of that designation, much less the creation of an Anthropocene worth living in, will elude us, with catastrophic effect for humanity unless we face up to the fact that it is the *mode* of production that matters. Until we confront capitalism (as a specific but not inevitable mode of production) as internal to the production of nature—rather than conceive the problem as an externally acting force called "human activity"—there will be little chance of producing nature we can live in, literally.[4]

Kivalina and the Engineering of Geography

An isolated strip of land extending into the Chukchi Sea, Kivalina is perched on an 8-mile barrier island underlain by permafrost. Until recently, it was swaddled in a sea-ice blanket, a natural protection from wild Arctic storms and tempestuous seas. The ice is melting—rapidly. The Chukchi Sea has lost 26% of its ice per decade between 1979 and 2006.[5] Landfast ice, the storm buffer, attached to the shore as opposed to free-moving, has decreased by almost 20% since 1976.[6] The fury of intense Arctic depressions now pummels the permafrost, melting the substrate and gouging sediments from the barrier. Several times over the last decade residents have been forced to evacuate to higher ground as severe storms approached. Winter storms in 2004 and 2005, eroded 70–80 ft of the seafront, and threatened the village school (USACE 2006). In September 2012, the new school year was delayed by two weeks as a result of storm damage. Arctic sea ice loss is only one of many manifestations of anthropogenic global warming. The Intergovernmental

Panel on Climate Change (Hartmann et al. 2013) states that more than half of the observed 0.6°C increase in global temperatures since 1950 is attributable to anthropogenic emissions of greenhouse gases. This seemingly inconsequential global average disguises the polar amplification of warming in high latitudes, regions that have experienced as much as 2.5°C of warming over the last century (Hartmann et al. 2013).[7] For Kivalina residents, a second, but related, insult is the enhanced storminess of the Chukchi Sea and Arctic basin.[8] Meanwhile, their homeland slumps along with the melting permafrost.

These threats have long been recognized by the people of Kivalina. As early as 1992 they voted to relocate the village in the face of rapid coastal erosion, and the consequent disappearance of living space. The federal government authorized a GAO report and an Army Corps of Engineers analysis to examine potential relocation scenarios. In the meantime, the Corps has invested in shoreline protection, reconstructing 3100 ft of revetments, providing emergency sandbagging, and designing the proposed 900 ft seawall. By Corps estimates, these structures will extend the life of the island another 15 years; without them the island will be uninhabitable as early as 2025 (USACE 2006). Section 117 of the Corps' Expedited Erosion Control Project (PL108-447) makes clear the danger: "If expedited action is not taken to control erosion of the beaches at Kivalina, the school, teachers housing, tank farm, and other vital infrastructure could be lost to the Chukchi Sea during future storm events" (USACE 2007:2). If the mounting increase of anthropogenic global temperatures has been gradual (until recently, perhaps), there will likely be nothing gradual about the destruction of Kivalina. As the Corps rather starkly explain: "The relocation effort is now critical to the survival of the community" (USACE 2006).

However, Kivalina residents have objected to the Corps' proposed sites for relocation. Because of that, and a lack of the needed $154.9 million to move to the islanders' preferred inland site of Tatchim Isua, matters are at an impasse. Villagers are increasingly viewing themselves as victims of climate change and think that the federal government should pay (*Los Angeles Times* 2007). But they are not relying on it to do so. Instead, angered by the glacial pace of action related to relocation, villagers launched a lawsuit against energy companies arguing that global warming, and thus the impending destruction of their village, is a result of their activities. Twenty-four energy companies were named in the 2008 suit and its appeal to the Ninth Circuit Court in 2009. Those companies included oil giants such as ExxonMobil, BP, Chevron, and Royal Dutch Shell, as well as utility and energy companies such as American Electric Power Company, Inc, and Duke Energy Corporation. Although the suit did not itemize specific monetary compensation, it did stipulate that the estimated costs for relocating Kivalina ranged between $95 and $400 million. The villagers' case rested on the claim that the oil companies created a public nuisance: the emission of greenhouse gases amounted to a "substantial and unreasonable interference with public rights ..." (US Court of Appeals, 9th Circuit, 90–17490). Kivalina contended that the emitted greenhouse gases crossed state boundaries. Their claim, they argued, was thus indistinguishable from any number of environmental contamination suits filed under federal law and widely applied in transboundary pollution cases.[9] The Appeals court disagreed and

dismissed the villagers' suit. The justices contended that the plaintiffs in the contamination cases had been able to show a clear and direct infringement of federal regulations under the Clean Water or Clean Air Acts. In Kivalina v ExxonMobil, by contrast, the plaintiffs were unable to show any direct culpability on the part of the energy companies for the cause of warming in general, nor any specific violation of federal regulations in particular.[10] Further arguments by the Court included: Kivalina was not within geographic proximity of the defendants' alleged production of greenhouse gases; the defendants were only a few of countless emitters of greenhouse gases, thus their contribution was inestimable; and global warming is a controversial issue that stands outside the jurisdiction of the judiciary. In other words, Kivalina's real opponent is climate change, a thing apart from humanity,[11] and an entity with no legal status. Since only as little as 3% of climate change can be attributed to the specific energy companies named in Kivalina's suit, that victims of that 3% are located in geographically disparate and varied locales, not just in Kivalina, and that climate change is non-linear with no specific cause and effect to guide a non-expert court, the problem detailed in the suit was deemed by the Court to be "… a systemic phenomenon that is intractable to anything but a systemic political solution …" (Tribe et al. 2010). Whether a political solution will emerge in time to prevent Kivalina from being washed off the map by climate change seems doubtful.

Project Chariot and Geographical Engineering

Fifty years earlier, however, "political solutions" did save Kivalina when it was threatened the first time by an experiment in geographical engineering. Teller was full of bluster when he came to Alaska in 1958 to sell the state on Project Chariot, suggesting that such were his lab's powers that if Alaskans wanted a harbor blasted in the shape of a polar bear, they would be happy to oblige.[12] If an instant harbor at Cape Thompson seemed unlikely, Teller had an answer: a northern harbor would allow fuller exploitation of coal in the Brooks Range to the east. Linked by a new rail line, the new harbor would provide America with access to massive reserves of mineral wealth to fire its fossil fuel-based economy. In-house studies, however, showed this plan was not economically feasible and the AEC quickly declared that Project Chariot was to be an experiment, proving the worth of the technology. In fact, as Scott Kirsch (2005:47–48) has shown, Cape Thompson had been selected in the first place because Livermore scientists considered it to be sufficiently remote; they knew that there was going to be no way to contain the fallout from the four 20 kt and one 220 kt bombs[13] they planned to detonate in a "row charge."[14]

Nonetheless, Teller's plans generated a great deal of excitement, with newspapers editorializing in favor of the blasts and lauding Alaska's frontier position not only on the edge of the American empire as it became the country's 49th state in 1959, but also on the edge of modern science's impressive ability to shape nature in the interests of "Man", a sensibility Teller was only too happy to capitalize on (Kirsch and Mitchell 1998). If, at the end of the 1950s, some scholars were beginning to wonder about the cumulative effects of humans' drive to transform the face

of the earth (eg Thomas 1956; Verdansky 2007), the Livermore scientists exhibited few such qualms. For them, there was a direct "correlation between excavation and the development of civilizations": the ability to move earth efficiently—to engineer geography—was "the measure of man" (Sanders 1962:23, quoted in Kirsch and Mitchell 1998:104).

As the rationale for the Cape Thompson harbor shifted (from economically viable coal-port to an experiment to prove the feasibility of geographical engineering) so too did the politics of knowledge surrounding the project. Point Hope and Kivalina residents, together with a handful of University of Alaska biologists, zoologists, anthropologists, and a disillusioned geography PhD dropout from McGill University named Don Foote, figured out that Project Chariot would destroy the region, irradiating food sources and making a vast area—central to Inupiat hunting patterns—a no-go zone. This was hard-won knowledge.[15] Despite its designation as "an experiment", the scientists noted that no "pre-detonation" studies were planned; indeed, much of the needed scientific understanding of the region was not part of the "experiment". Without baseline studies upon which the effects of the blasts could be measured, how could this be an "experiment"? The scientists fought hard to develop and get support for a wide-ranging suite of bioenvironmental investigations ranging from geological surveys to human ecological studies. The AEC finally relented under pressure, and formed The Project Chariot Environmental Studies Committee under the auspices of the Atomic Energy Commission. Evidently ambivalent over the value of the bioenvironmental research, the Committee seemed determined to produce its own geographic knowledge, and certainly to dismiss the scientists whose fieldwork they sponsored. Within a year, and before even the first round of preliminary studies had been completed, the head of the Committee announced that studies had "produced no evidence that the detonation would damage Eskimos' relationship to their environment and livelihood" (Davies 1960). The scientists' efforts were consistently undermined by the AEC through termination of contracts, removal of funds, axing of specific (and important) studies, and ultimately the firing and blackballing of dissident scientists. In response, the scientists, Foote, and the affected Inupiat communities worked to publicize what they were coming to understand as the very real dangers of Project Chariot (and Project Plowshare more generally) to the environment and peoples of the Cape Thompson region.

Organizing against the Project and fighting internally to assure their scientific work was properly conducted consumed Foote and the Alaska scientists, but in the end they managed two major achievements. First, despite all the difficulties, they conducted a large number of ground-breaking studies of the Arctic, eventually published as the mammoth tome, *The Environment of the Cape Thompson Region* (Wilimovsky and Wolfe 1966), which was both a model for soon-to-be-mandated federal Environmental Impact Statements, and a model of thorough, deep, original bioenvironmental research that still serves as a baseline for cold regions research.[16] Second, and of course far more important, they helped scuttle Project Chariot.[17] Other than releasing some radioactive "tracer" elements into the Cape Thompson soils (which persist to this day) and tearing up the tundra with all-terrain vehicles, the AEC failed in its plans to radically engineer Alaska's geography. All it eventually

managed, instead, was to retreat to the confines of the Nevada Test Site and blast a big crater there in its only true test of Plowshare engineering principles (Kirsch 2005).

Politics intervened: the growing alarm over unfettered proliferation of nuclear weapons led to the Partial Test Ban Treaty of 1963. From this point on, only underground testing was permitted, and so Project Sedan, Plowshare's one above-ground blast, conducted at the Test Site on 6 July 1962, is recorded in the uppermost film of a worldwide geologic marker. The Sedan blast ejected 10 million tons of earth and created a crater 1200 ft wide and 320 ft deep. Its dust cloud forced the evacuation of nearby ranches and required that Ely, Nevada, 200 miles away, turn its streetlights on in the mid-afternoon (Kirsch and Mitchell 1998:128). Though the cloud, which was 50% larger than the Test site scientists had predicted, "lost its identity" "somewhere over Utah" (US AEC 1962, quoted in Kirsch 2005:126), radioactive tracers circled the globe, where they joined a growing deposit of humanly produced radioactive elements.

The Anthropocene and the Capitalist Production of Nature

Despite not leaving the geographic imprint initially intended, the politics surrounding Project Chariot did leave a permanent geologic record. Caesium 137 (Cs-137), a byproduct of above ground and near-surface nuclear explosions, is a stratigraphic marker par excellence, a singular spike in the sedimentary column, marking the pulse of nuclear madness that lasted from 1945 to 1963.[18] If the new geological age we live in is the Anthropocene (Crutzen and Stoermer 2000)—the age of humans—then what better way than to delineate that point in geologic time than with the Cs-137 "Golden Spike" to which Sedan contributed a top-most layer: incontrovertible evidence of humanity's taste for geoengineering nature, a predilection so omnipresent as to be recorded in the geologic record?[19] In fact, statigraphically, the Cs-137 line in ice and sediment cores looks a lot like the layer of iridium that separates the Cretaceous from the Tertiary, the fallout from the massive meteor collision considered responsible for the dinosaurs' demise. But if the iridium layer provides evidence of a cataclysmic event emanating from precincts external to the earth system, the Cs-137 spike is evidence of an internally produced (near) cataclysm. The Cs-137 spike is a direct consequence of the politics of the nuclear age (just as the erasure of Kivalina from the geological record, will be an indirect but undeniable consequence of the politics of climate change). No matter how humanity seeks to ensure its survival through geoengineering then, the byproducts are manifest and disturbing.

The scientific community, typically reticent behind its ideological veneer of objectivity (see Robbins and Moore 2012 for a diagnosis), has become more political in the last decades, a ground-swell perhaps heralded by James Hansen's 1988 climate change testimony to the US Energy Commission: "The greenhouse effect has been detected, and it is changing our climate now". This awareness is driving the effort to introduce the Anthropocene as a new geologic epoch that establishes without doubt that "human activities have become so pervasive and profound that they

rival the great forces of Nature ..." (Steffen et al. 2011:614). But renaming an entire geologic epoch, in our own image no less, is in itself a representation of the dialectic between humans and nature, and what's more, it's a political statement. Advocates of this eponymous epoch are driven by the need to do something to slow down the "Great Acceleration" (Steffen et al. 2007) of humanity's pillage of natural resources to fuel our economy. As dawning awareness of the geographic and temporal scales of these terrestrial transformations imbues us with a degree of fear, or perhaps even notions of a "cosmic destruction of the Earth itself" (Davis 2011), proposals to reassert humans as "Stewards of the Earth System" abound (eg Steffen et al. 2011).

But what does this mean? How do we manage the Earth unless we are separate from it? As the Cs-137 geologic marker and the disappearance of Kivalina illustrate, decisions made, politics played, science conducted, and laws debated, are evidence that the best laid geographic engineering plans have multiple, diverse and unintended consequences that mobilize political action and reaction. Engineering is about control—the control of nature. But these two assaults on Kivalina and Point Hope show that as much as we engineer geography we cannot really be geographical engineers. Nor, for the same reason, can we in any simple sense be environmental stewards. We are internal to nature, but through geographical engineering, and through environmental stewardship, we see ourselves as outside nature. In this view (which many of the arguments about the Anthropocene unwittingly reproduce), nature is not something produced, but instead something acted on.[20]

Long ago, Neil Smith (2008; Smith and O'Keefe 1980) showed that the ideological duality of nature—that it is both external to and incorporates humanity—was fateful, fateful because it had no way to admit that nature was produced and therefore had no way to critically examine the relations of production that undergirded the processes of production. The notion of the Golden Spike can seem to suggest some cataclysmic moment—exploding meteors or bombs—radically remaking nature, the map, the world. Had Project Chariot gone forward, the effects would have been cataclysmic for Point Hope and Kivalina. But the current threat to Kivalina is something else, something slower, vaster, and more insidious: humanity's internal production of nature, its slow, steady, if decidedly uneven, total reorientation of the world's ecosystems.[21] To wit: some scientists have pushed back the starting point of the Anthropocene to the earliest instance of humanity's production of nature (the domestication of crops and land clearing that noticeably altered earth's biogeochemical cycles and atmospheric composition) more than 10,000 years ago (Montgomery 2007; Ruddiman 2003).[22] In this view humans might be part of nature, but over time instead of existing within nature, changing modes of production and changing relations with nature have rendered humanity a destructive force on a par with a meteor collision. Has humanity through its geoengineering created as its end, the end of nature—despoiling the stone book of nature, smudging some pages of the geologic record with the soot of our fires, ripping though others with our earthmovers, dynamite, and massive drill-bits, erasing our own history in an attempt to eviscerate all of "value" from the planet?[23]

Yet this metaphor does not quite work either. All species—from protozoa to beavers to conifers—produce ecosystems that allow them to survive. Humanity is

unexceptional in this respect. What sets humanity apart is that its *modes of production* of its ecosystems—its modes of production of nature—are *historical*; humans are, however incompletely, *conscious* of the production of nature and through this consciousness can seek to direct that production. But it is more than just consciousness; it is historical practice itself. In capitalism the driving practice is the conversion of use-value into exchange-value in order to realize Value. As Smith and O'Keefe (1980:35) noted, Isaiah Bowman made it clear early in the twentieth century that this practice was no more than commonsense: "... this exchange-value relation with nature was intuitively recognized and unwittingly encapsulated by that great imperial geographer, Isaiah Bowman who declared that human beings 'cannot move mountains'—not, that is, without first 'floating a bond issue'." Turning such commonsense into a focus for analysis, as well as to make a bid to overcome the universal-external dualism, David Harvey (2014) has suggested that capitalism, and indeed any mode of production, should be understood *as* ecosystem, not something acting on ecosystems. Flows of matter and energy continually rework landscapes. Humans participate in a conscious manner to rework those flows via the manipulation of the flows of capital: the Livermore scientists complained of the limitations imposed on their project by budgetary constraints; and Kivalina's fate is held in the balance through lack of funding. Capital does not work externally on ecosystems but is centrally internal to them. Money is an ineluctable constituent of ecosystem dynamics.[24]

This is not how earth system scientists typically understand things. Consider a widely used NASA diagram that models the "Physical Climate System" (see Figure 2), published the same year that James Hansen testified before Congress that global warming was real and it was attributable to human activity. The diagram is a simplified set of complex and dynamic flows of energy and matter through the
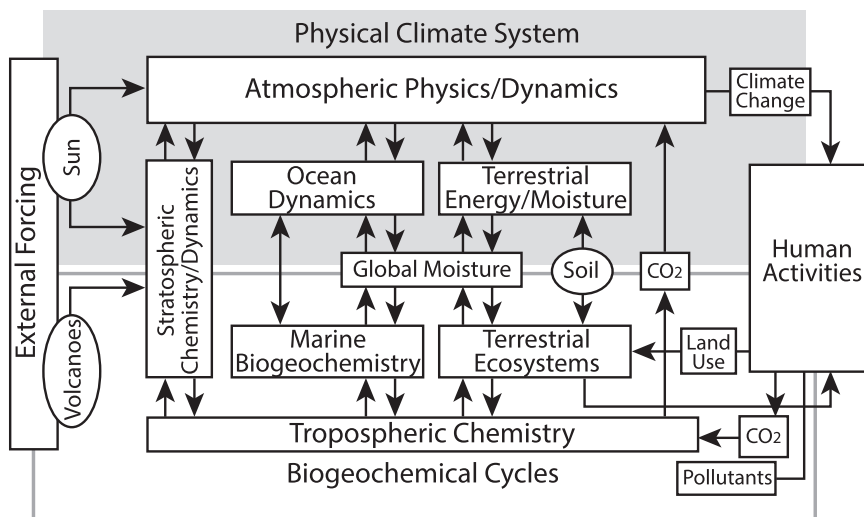
Figure 2: Example of the diagram proposed by the Bretherton Committee in 1988, and adopted by NASA, to illustrate the Earth System (redrawn here by Joe Stoll, Department of Geography, Syracuse University)

atmosphere and biosphere, and their embedded flows and cycles of water and nutrients. Chemical transformations, energy, and more, are all accounted for. But humanity is one box on one side of the diagram, labelled "human activity". Although this is connected to earth systems via outputs of CO_2 and pollutants and impacts on land use, symbolically it has a position no more (or no less) than the box labelled "external forcing", save for the one arrow entering "human activity"—that of climate change. In other words human activity is seen as an object, an entity, a thing with no conscious, political motive; human activity is *merely* another set of linkages to nature, unthinking, random in the way that the sun will shine, or a meteor might fall. That arrow flowing into the box of human activity implies that humans may respond to climate change through adaptation, relocation, or geographical engineering, but this is once again seen as no more than nature determining the fate of humanity (cf Smith 2008).

But this diagram would not exist without politics: it is a political statement. It represents the outcome of NASA, James Hansen, and Washington's struggle to determine exactly what science is "allowed" to say. Hansen has battled for several decades for the right of scientists to be heard. He has been consistently muzzled when attempting to communicate the scientific knowledge on climate change to the public. Not only did a Bush administration political appointee doctor NASA reports in ways that "reduced, marginalized, or mischaracterized climate change science made available to the general public", but Hansen has claimed that his work has been censored, and that even he himself has allegedly been threatened with "dire consequences" if he continued to publicize the fact that each year's global annual average temperature was consistently breaking all prior records (NASA 2008). Here science is political in a narrow sense: it is partisan and aimed towards legitimating particular (in this case, corporate) interests. Yet, the state machinery operates in ways to create, legitimate, fight, or reproduce other, no less political modes of knowing. In response to the political attacks on NASA's Hansen, Sherwood Boehlert, the Chairman of the House of Representative's Science Committee at the time pointed out that: "Political figures ought to be reviewing their public statements to make sure they are consistent with the best of science. Scientists should not be reviewing their statements to make sure they are consistent with current political orthodoxy" (quoted in Gumbel 2006).[25] But the sort of "political solution" hinted at for Kivalina by the Ninth Circuit Court of Appeals is much broader than the kind of politics we've just been discussing: the Court seems to be saying that politics—that the workings of the state and therefore also of the political economy—have to be reimagined and remade, that to "save" Kivalina there must be a massive reorientation in how we produce nature. In such a task, NASA's politically compromised diagram of the earth system, with "human activity" boxed off and marginalized, understood as something affected by climate change (not vice versa), must be redrawn.

A better model would need to show how capital accumulation is itself a positive feedback loop within the earth-system. In the same way that we observe polar amplification due to enhanced sea ice melt creating more warming, and therefore more sea ice melt, so too, as Marx and all bourgeois economists will readily admit, capitalism must grow. Systemically, it requires the steady accumulation not of

capital but of *more* capital, accomplished through more production, and more use of energy and of matter. The gold standard, as Harvey (2010:27) notes, is that a "healthy capitalist economy, in which most capitalists make a reasonable profit, expands at 3 per cent per annum". Like the fluctuating, staggered increase in Arctic temperatures, the growth of capitalism is not a smooth curve; it is beset by crises, negative feedbacks that momentarily stop or reverse its long-term inexorable trend. The real, historical rate of growth has thus instead been closer to 2.2%. Even at that lower rate, the size of the capitalist economy doubles about every 30 years: something like twice as much stuff has to be produced, twice as much consumed, and twice as much surplus reabsorbed into the system. This is a fundamentally geographical—world changing—dynamic. Increasingly vaster areas of the earth's surface must be remade "in capital's image", more of its substrata mined and put to use, and more of its oceans and atmosphere become repositories of the byproducts of production and consumption. "[T]here is nothing unnatural about species, including ours, modifying their environment in ways that are conducive to their own reproduction", as Harvey (2010:85) reiterates. But there is nothing necessarily "natural" about a mode of production that demands constant growth and "reproduction on an expanded scale" (Marx 1987). In this sense, to label modes of production and their associated ways of life as "human activity", placing them on one side of the diagram is simply inadequate.[26] It suggests a mode of knowledge unsuitable to the task of understanding the ways in which the era we live in *is* the Anthropocene.

Of course, not all modes of production are driven by exchange value and therefore financial capital; and not all modes of knowing are so abstracted from the worlds that give rise to them. Don Foote's studies of the human ecology of Point Hope showed how Inupiat villagers produced the nature that sustained them. Perhaps a better term might be "co-produced" nature: Inupiat lifeways and relations with the ecosystem had coevolved over thousands of years, even as they were in flux. The introduction of gasoline motors for their boats and skimobiles as partial replacement of dogsleds, for example, reworked nature and the villagers' life, creating new stresses in some areas and alleviating others. But the irradiation of the landscape was going to radically transform the flows that defined the Cape Thompson ecology: canned food would have to replace hunted or fished food in what was a heavily meat-based diet (Foote 1966). Inupiat villagers in Kivalina and Point Hope would be brought more tightly within the grip of commodity production, dependent upon wage labor and thus tied to the capitalist mode of production.

In the end, flows of capital were diverted away from grand plans to reshape the geographical landscape with nuclear bombs. Project Plowshare's eventual death came through de-funding (Kirsch 2005); bond issues were not directed towards "moving mountains" or blasting harbors. They have not, however, been similarly diverted from digging the coal, fracking the gas, or drilling the oil that is going to sink Kivalina and perhaps, globally, spell not the beginning of the Anthropocene, but its end, as humans destroy the very biophysical conditions of possibility for their own lives as a result of capitalism's positive feedback effect.[27] The slow and incremental engineering of the earth's ecosystem has not always required the floating of bonds, just the directing of the circuits of capital, and through that, the building

of a whole civilization, a now wholly capitalist civilization, on the back of carbon. In deep time, the geological evidence of the Anthropocene—even if pushed back to the very advent of *homo sapiens*—might be as thin as the Cs-137 "spike" is in historic time. The ecosystem that is global capitalism will be even thinner: "Earth moving is the measure of man", Plowshare proponents like to declare; this measure might be very small indeed.

Facing such an Armageddon, geographical engineering is, perhaps ironically, experiencing something of a renaissance. Some argue that the technical knowledge exists to engineer not just landscapes, but whole climates though solar radiation management, ocean fertilization, and afforestation to name but a few geoengineering techniques now being touted. None other than Edward Teller was a major proponent before his death in 2003. To address imminent global warming, he and Livermore colleagues thought it might be a good idea to eject great clouds of aluminum particles into the stratosphere. Others have advocated injecting sulphate aerosols into the atmosphere to mimic the cooling effect of a hundred Krakatoas.[28] Quite reasonably, skeptics suggest such efforts are doomed to have "minor potential", but "major ... side-effects" (Helmholz Center for Ocean Research Kiel [GEOMAR] 2014). No doubt such efforts should be opposed on these grounds. But so too they should be opposed because they willfully ignore the cause of rapid global warming. It is not simply that too much CO_2 and other greenhouse gases are being released into the atmosphere; it is the capitalist *mode* of production. Global warming is internal to capitalist production, not external to it, and so the task is not to engineer the effects of production, but to totally remake the mode itself. Without that, the dualism of external and universal nature, central to how capitalism operates as a mode of production, is set to play out with perhaps devastating consequences, and not only for Kivalina.

The Tight Dialectic

But Kivalina's fate *is* important. The Court's response to the lawsuit names precisely the problem before us. The Court's finding that there is no direct culprit responsible for Kivalina's impending destruction suggests that it operates under, or at least is bound by, the same form of environmental knowledge that is reproduced in the NASA diagram box of "human activity"—apart from nature. The cases it dismissed as precedent—cases that it said did not apply to Kivalina—were cases where corporations or other culpable and nameable entities produced "pollutants" that had a direct and measureable effect on particular affected individuals (or the classes they represented). Humans acted on the system, messed it up, and caused clear harm. At work here is a very particular, and common, kind of environmental knowledge. Such a form of knowledge, itself derived from a long history of both science and social life, is central in the shaping of "human activity". Neil Smith (2011) called this history—the production of knowledge about nature, the environment, space, the spatialized political economy, and geopolitics—the "history of geography". The history of geography, he argued, had to be understood as internal to—tightly, dialectically bound up with—what he called "historical geography", or the making of the worlds in which we live.

Both the history of geography and historical geography are therefore innately political. It took a political movement to create the impressive bioenvironmental knowledge that came out of Project Chariot; it took a political movement to keep Project Chariot out of the bioenvironment. When the Ninth Circuit Court declared that the solution to Kivalina's predicament had to be political, it was absolutely right. Immediate politics are necessary: struggles to retain Kivalina villagers and other Inupiats' right to self-determination, livelihood, and a place to live; or struggles against the inexorable expansion of carbon-based capitalism. But there is a longer-term and every bit as vital politics: the struggle to make an Anthropocene worth living in. The Anthropocene *is* "historical geography", and we need to find new ways to produce that history. So too, as the Ninth Court decision makes clear, do we need new ways of knowing that historical geography, a new "history of geography", a new environmental knowledge that understands not just that people are internal to the production of nature, but more essentially, that it is the mode and the relations of production that matter the most.

Geoengineering—as an intervention not just into biophysical systems or the solar radiation balance, but rather an intervention from within and meant to preserve a specifically capitalist mode of production—is not the political answer we need; therefore it is also not the technical answer we need. It does little to alter the direction of "historical geography"—how means and relations of production create ever changing presents—and might do much to reinforce it, at least in the short term. By engineering geography, geoengineering imagines itself working in the manner of "human activity" as depicted in the NASA model, as something external to and acting on an internally related, but non-human system that can be controlled. Instead it works more in the manner of Edward Teller and the Firecracker Boys: grasp the reins of any technology at its disposal in the delusional hope of mastering nature. Contemporary geoengineering plans may not seem quite as reckless as the plans of the Firecracker Boys with their willingness to blast big holes in the tundra, but that is simply a matter of historical context, and our accumulated knowledge—the bond between historical geography and the history of geography.

Neil Smith's production of nature thesis is so revolutionary precisely because it refocuses attention on the modes and relations of production. It reframes the tight dialectic and lays out with startling clarity just what is at stake. We have no choice but to produce nature, and in so doing, produce our own knowledge of nature. The question becomes: to what end and to whose benefit? This is a fully social question, not an individual or idealist one. Activists in Kivalina and against Project Chariot have always understood this.

As debate over both the production of nature thesis and over the capitalist production of nature evolved, Smith sought to make his argument sharper and more forceful. In the afterword of the third edition of *Uneven Development*, he pointed to what he saw as a rising tide of "nature-washing" as a response to acknowledgement of humanly induced climate change:

> Much as corporate "greenwashing" of the 1990s absorbed green politics, recoding environmentalism to the purpose of capitalist profit, the specter of global warming and of climate change is today deployed on behalf of a certain "*nature-washing*". This

may seem paradoxical. Nature-washing is the process by which social transformations of nature are well enough acknowledged, but in which that socially changed nature becomes a new determinant of our social fate. It might well be society's fault for changing nature, but it is the consequent power of that nature that brings the apocalypse. The causal power of nature is not compromised but would seem to be augmented by social injections into that nature. The dichotomy of nature and society is maintained rather than weakened: "nature-washing" accumulates a mountain of social effects into the dustbin of nature (Smith 2008:235).

Causality is in this way *displaced* from the mode of production to that which is produced in the form of a changed nature. Social and scientific attention, and their role in the production of knowledge, is refocused on the effects of nature on "human activity". Geoengineering finds its rationale.

Nature-washing is an ideological move. It does not adequately or accurately describe what is at stake in the Anthropocene, or a world in which humans are a dominant geological force. Instead, it is a bid to turn the "history of geography" on its head, or rather to restore its old head of environmental determinism. And just as with the old determinism, it is a "legitimation theory" (Peet 1985), not now legitimating the colonial conquest of other peoples and territory, but rather legitimating a denial of culpability. The increasing CO_2 levels poised to doom Kivalina, just *are*—as the Ninth Circuit seems to imply—and thus neither Kivalina nor the Court can do a thing about them. Perhaps the best solution is, indeed, a seawall, which might hold back the water until those giant sunshades can be launched into orbit, or enough carbon can be traded to ratchet back down the parts per million. The market as metonym, removes all culpability, but it will save us. That such markets will likely not reduce carbon outputs "should not really surprise us" (Smith 2008:248), for that is not really the point. Rather:

> [c]apitalists and their agents engage in the production of ... nature, the active production of its geography, the same way as they produce everything else: a speculative venture, more often with the connivance and complicity, if not active collaboration, of the state apparatus (Harvey 2010:187).

This then suggests that a different move is needed. As Christian Parenti (2013, 2015) forcefully argued in his *Antipode* lecture, the state has to become the target of our environmental politics. It was the target of those opposed to Project Chariot, an opposition that not only quashed harebrained schemes to engineer geography, but also helped launch the whole environmental movement. That movement is not yet complete. "What if we see space" (that is the "active production of geography" or more simply "historical geography"), Smith (2008:250) asks:

> as the product of nature, a nature itself more and more intensely produced, still very much alive, nature as a continuum of human and non-human events and processes? Although it was not quite expressed in such a way, this was the impetus behind the "production of nature" thesis.

A good answer to his question would require giving up on green-washing and geoengineering, though perhaps not all engineering since engineering is itself a necessary human activity that defines humans' interrelations with nature. It would require, in other words, that we become conscious of how we engineer geography,

and to what end. It would require that we remake the state, and discipline capital. It would require that we understand our total culpability in, and become more deliberately conscious of, the historical production of nature. It would require reworking and reclaiming the tight dialectic between historical geography and the history of geography. It would require taking control, not of nature, but of our role in producing a new epoch that *is* the Anthropocene. It would require, a new, non-capitalist production of nature.

Endnotes

[1] There is now a growing critical literature on "geoengineering", though it tends, largely, to focus specifically on climate modification, the rather promiscuous addition of "geo" before every available word notwithstanding (eg the special issue of *Environment and Planning A*; cf Yusoff 2013) or on questions of ethics (eg recent special sections of *Environment, Policy, and Ethics*; cf Morrow 2014). As will become clear in the following, a focus on ethics, while perhaps necessary, is not close to politically sufficient. Better is a focus on what Yusoff (2013:2799) calls the "'geoengine' that underpins concepts of planetary modification", though, as the following analysis will make plain, it is not *concepts* that are at stake, rather, it is the very nature of the "geoengine" itself.

[2] The Great Acceleration is stage 2 of the Anthropocene according to Steffen et al. (2007). It represents the post-war (c. 1945) to the present, a period that has experienced population doubling, exponential increases in petroleum consumption, foreign direct investment and real GDP.

[3] The historical geography of Project Chariot (and Project Plowshare more generally) can be found in Kirsch (2005); Kirsch and Mitchell (1998); Millar and Mitchell (1998); and O'Neill (1994).

[4] That the capitalist mode of production (and the social formations that surround it) is the core problem, may seem obvious, but this does not relieve us from close analysis, nor from confronting either the specific nature of this problem or its myriad effects. In much the same sense that capitalism lives only by exploitation, so does racism thrive even after we have named its structural forms—but does knowing that absolve us from continuing to study them?

[5] See Douglas (2010) and Meier et al. (2007) for detailed accounting of Arctic sea ice changes.

[6] Yu et al. (2014) calculate a loss of landfast ice in the Chukchi Sea of 18.83% per decade; and a reduction in the landfast ice season by 13.4% per decade.

[7] The disappearance of sea ice is itself an accelerator of warming due to its impact on the radiation balance, allowing for the absorption of more solar energy, increasing both air and sea temperatures.

[8] See Vavrus (2013); an expected and observed fingerprint of polar amplification is a notable drop in sea-level pressure, consistent with more intense and greater Arctic penetration of deep cyclones.

[9] See for example Missouri v Illinois, 200 U.S.496, 521, 26 S.Ct. 268, 50 L.Ed. 572 (1906); and Connecticut v Am. Elec. Power Co., Inc., 582 F.3d. 309, 357 (2d Cir.2009), rev'd—U.S.—,131 S.Ct. 2527, 180 L.Ed.2d 435 (2011).

[10] It is worth noting that at the time of decision, although carbon dioxide had been granted status as a pollutant under the Clean Air Act, no emission standards had yet been set. This did not matter, according to the court decision, but rather having it "regulated" simply meant that this jurisdiction by a federal authority displaced the option of using federal common law to appeal the case.

[11] To wit (and as we argue more fully at the end of the essay): "Nature-washing in the process by which social transformations of nature are well enough acknowledged, but in which that socially changed nature becomes a new super determinant of our social fate. It may well be society's fault for changing nature, but it is the consequent power of that nature that brings on the apocalypse" (Smith 2008:245).

[12] Over the course of Project Plowshare's life a large number of massive, impressive geographical engineering projects were mooted or announced, often with the same level of bluster as that which surrounded Project Chariot: a new sea-level canal to replace or compete with the Panama Canal (Frankel 1998); the rearrangement of continental-scale drainage systems to irrigate deserts and end world hunger, and Chariot-like harbors on every continent except Europe (cf Johnson and Brown 1958; Kirsch and Mitchell 1998:102; Sanders 1962; Stanford 1958; Teller 1960, 1964; Teller and Brown 1959), to say nothing of various "gas-excitation" projects—in essence atomic fracking (Krygier 1998). In the end, all the Project Plowshare managed to produce was a single crater in the Nevada Test Site and a couple of underground experiments there and in Colorado (Kirsch 2005).

[13] The combined energy of the five bombs is approximately 1.25 petajoules. This represents about one billionth of the net energy that accumulated in the climate system between 1850 and 2010. Huber and Knutti (2011) have estimated a net forcing energy of 140×10^{22} J with a 5–95% uncertainty.

[14] The original plan called for the detonation of bombs as large as 460 kt.

[15] This story is detailed in Millar and Mitchell (1998:289–297).

[16] Hailed by reviewers as an exceptionally important study and "a model for coordinated investigations of the environment in other areas" (Reed 1966:372), the AEC Director of Project Plowshare seemed a little disappointed in his Foreword to the volume since the studies gathered therein were "naturally lacking any postdetonation studies" (Kelly 1966:iv).

[17] Innumerable Native Alaskan activists, Alaskan environmentalists, and Lower Forty-Eight "ecologists"—ranging from the pioneering Eskimo reporter Howard Rock to St Louis doctor and eventual radical presidential candidate Barry Commoner to "Granny D", who walked across the US to drum up opposition to the War against Iraq in 2003—trace their political awakening, in good part, to the struggle against Chariot. See O'Neill (1994).

[18] Like the Americans, the Soviets of course had a large above-ground nuclear testing program before the Partial Test Ban Treaty went into effect. It also had its own Plowshare-like program and though marginally more successful than the US in creating giant craters and irradiating landscapes, produced no useful engineering structures.

[19] In stratigraphy, the Golden Spike refers to the Global Boundary Stratotype Section and Point (GSSP). A GSSP is an internationally recognized point in a stratigraphic section that represents the lower-most point of that layer. Several attributes are required, most notably is that it must have regional to global distribution (Remane et al. 1996).

[20] At the extreme environmental stewardship encompasses attempts to recreate a Pleistocene fauna, a project taken to radical dimensions in the Oostevaardersplassen in the Netherlands (cf Lorimer and Driessen 2014); and perhaps the more mundane recreation of recently extinct species through "de-extinction" (Seddon et al. 2014). Not only are these attempts to manipulate nature on a grand scale achievable only by dint of human's technological prowess, but they also naively perpetuate the notion of nature as entirely separate from humanity. Clark's (2013:2831) recent call for social scientists to develop deeper, "active, hands-on intervention[s] in valued physical systems" is, perhaps unwittingly, a recapitulation of the stewardship thesis, and endorsement of the exchange-value theory at the heart of the capitalist mode of production.

[21] Although uneven, Marris (2011:2) notes that "no pristine wilderness" currently exists on the earth.

[22] Others go even further, pushing back to the dawn of humanity and the domestication of fire, but the records of such change in the global geological record are scant (Crutzen and Steffen 2003).

[23] The metaphor of the Stone Book of Nature is discussed in reference to the Anthropocene in Szerszynski (2012). The fact that humans are internal to and dominant within nature, and thus if our extirpation were ever to come it would have extraordinary effects on the rest of the biota, has given rise to a rich seam of literature ranging from Stewart's (1949) classic *Earth Abides* to Weissman's (2007) *The World Without Us.*

[24] Robertson (2012) has called on political ecologists to refocus their attention on the production of Value—not just exchange value—as central to how and why ecosystems are understood and shaped as they are within capitalism.

[25] The echoes of political interference in the science produced as part of Project Chariot can easily be heard here.

[26] It is also inadequate to trace much that is catastrophic in our relationship within nature to "market failure" as do Oreskes and Conway (2014) in their otherwise vital and accessible warning shot; Klein's (2014) insistence that ecological catastrophe is internal to capitalism—aimed directly at a popular audience—is closer to the mark.

[27] Oreskes and Conway (2014) chillingly (!) imagine just what this scenario might look like from a vantage point 300 years hence.

[28] Many geoengineering methods, usually in the form of carbon sequestration or solar radiation, management are being tested through General Circulation Model experiments (eg Lenton and Vaughan 2009; Vaughan and Lenton 2011). Edward Teller and his Livermore associates have run experiments to test the effectiveness of various forms of manufactured aluminum particles for reducing incoming solar radiation (Teller et al. 1997, 2002). Morrow (2014) and others in a recent special section of *Environment, Policy, and Ethics* pick apart a number of ethical considerations related to solar radiation management, but never really get down to questions of what forces are impelling the consideration of such interventions. A more sophisticated treatment of the ethical quandaries geoengineering presents can be found in Preston (2014).

References

Clark N (2013) Geoengineering and geologic politics. *Environment and Planning A* 45:2825–2832

Crutzen P J and Steffen W (2003) How long have we been in the Anthropocene era? *Climatic Change* 61:251–257

Crutzen P J and Stoermer E F (2000) The "Anthropocene". *Global Change newsletter* 41:17–18

Davies L (1960) Proposed atomic blast in Arctic is called safe. *The New York Times* 17 August

Davis R V (2011) Inventing the present: Historical roots of the Anthropocene. *Earth Sciences History* 30:63–84

Douglas D C (2010) "Arctic Sea Ice Decline: Projected Changes in Timing and Extent of Sea Ice in the Bering and Chukchi Seas." Open-File Report 2010–1176, US Geological Survey

Foote D (1966) A human geographical study. In N Wilimovsky and J Wolfe (eds) *Environment of the Cape Thompson Region, Alaska* (pp 1041–1107). Washington DC: United States Atomic Energy Commission

Frankel S (1998) A hot idea? Planning a nuclear canal in Panama. *Ecumene* 5:303–309

Gumbel A (2006) Bush appointee at NASA resigns over censorship. *The Independent* 9 February

Hartmann D L, Klein Tank A M G, Rusticucci M, Alexander L V, Brönnimann S, Charabi Y A-B, Dentener F J, Dlugokencky E J, Easterling D R, Kaplan A, Soden B J, Thorne P W, Wild M and Zhai P M (2013) Observations: Atmosphere and surface. In T F Stocker, D Qin, G-K Plattner, M M B Tignor, S K Allen, J Boschung, A Nauels, Y Xia, V Bex and P M Midgley (eds) *Climate Change 2013: The Physical Science Basis (Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change)* (pp 159–254). Cambridge: Cambridge University Press

Harvey D (2010) *The Enigma of Capital and the Crises of Capitalism.* Oxford: Oxford University Press

Harvey D (2014) "Presentation to a Center for Place, Culture and Politics seminar" Graduate Center, City University of New York, 5 February

Helmholz Center for Ocean Research Kiel (GEOMAR) (2014) Climate engineering: Minor potential, major risk of side-effects? *Science Daily* 25 February. http://www.sciencedaily.com/releases/2014/02/140225122519.htm (last accessed 13 October 2014)

Huber M and Knutti R (2011) Anthropogenic and natural warming inferred from changes in Earth's energy balance. *Nature Geoscience* 5:31–36

Johnson G and Brown H (1958) Non-military uses of nuclear explosives. *Scientific American* 199:29–35

Kelly J (1966) Foreword. In N Wilimovsky and J Wolfe (eds) *Environment of the Cape Thompson Region, Alaska* (p iv). Washington, DC: United States Atomic Energy Commission

Kirsch S (2005) *Proving Grounds: Project Plowshare and the Unrealized Dream of Nuclear Earth-moving*. New Brunswick: Rutgers University Press

Kirsch S and Mitchell D (1998) Earth moving as the "measure of man": Edward Teller, geographical engineering, and the matter of progress. *Social Text* 54:100–134

Klein N (2014) *This Changes Everything: Capitalism vs. the Climate*. New York: Simon and Schuster

Krygier J (1998) Project Ketch: Project Plowshare in Pennsylvania. *Ecumene* 5:311–322

Lenton T M and Vaughan N E (2009) The radiative forcing potential of different climate geoengineering options. *Atmospheric Chemistry and Physics* 9:5539–5561

Lorimer J and Driessen C (2014) Wild experiments at the Oostvaardersplassen: Rethinking environmentalism in the Anthropocene. *Transactions of the Institute of British Geographers* 39(2):169–181

Los Angeles Times (2007) An Alaskan island finds itself losing ground. 25 November. http://articles.latimes.com/2007/nov/25/science/sci-kivalina25 (last accessed 13 October 2014)

Marris E (2011) *Rambunctious Garden: Saving Nature in a Post-Wild World*. New York: Bloomsbury

Marx K (1987 [1867]) *Capital, Vol. I.* New York: International

Meier W, Stroeve J and Fetterer K (2007) Whither Arctic sea ice? A clear signal of decline regionally, seasonally, and extending beyond the satellite record. *Annals of Glaciology* 46:428–434

Millar S and Mitchell D (1998) Spectacular failure, contested success: Project Chariot's bioenvironmental program. *Ecumene* 5:288–303

Montgomery D (2007) *Dirt: The Erosion of Civilizations*. Berkeley: University of California Press

Morrow D (2014) Starting a flood to stop a fire? Some moral constraints on solar radiation management. *Ethics, Policy and Environment* 17(2):123–138

NASA (2008) "Investigative Summary Regarding Allegations that NASA Suppressed Climate Change Science and Denied Media Access to Dr. James E. Hansen, a NASA Scientist." Office of Inspector General, National Aeronautics and Space Administration

O'Neill D (1994) *The Firecracker Boys*. New York: St Martin's Press

Oreskes N and Conway E (2014) *The Collapse of Western Civilization: A View from the Future*. New York: Columbia University Press

Parenti C (2013) "The Environmental State: Territoriality, Violence, and Value." The 2013 *Antipode* Association of American Geographers Lecture. http://antipodefoundation.org/lecture-series/ (last accessed 13 October 2014)

Parenti C (2015) The environment making state: Territory, nature, and value. *Antipode* 47(4):829–848

Peet R (1985) The social origins of environmental determinism. *Annals of the Association of American Geographers* 75:309–333

Preston C (2014) Framing an ethics of climate management for the Anthropocene. *Climate Change*. DOI:10.1007/s10584-014-1182-4

Reed J C (1966) Ecological investigation in the Arctic. *Science* 21 October

Remane J, Bassett M G, Cowie J W, Gohrgandt K H, Lane H R, Michelsen O and Naiwen W (1996) Revised guidelines for the establishment of global chronostratigraphic standards by the International Commission on Stratigraphy (ICS). *Episodes* 19(3):77–81

Robbins P and Moore S (2012) Ecological anxiety disorder: Diagnosing the politics of the Anthropocene. *Cultural Geographies* 20:3–19

Robertson M (2012) Measurement and alienation: Making a world of ecosystem services. *Transactions of the Institute of British Geographers* 37(3):386–401

Ruddiman W F (2003) The anthropogenic greenhouse era began thousands of years ago. *Climatic Change* 61:261–293

Sanders R (1962) *Project Plowshare: The Development of the Peaceful Uses of Nuclear Explosives*. Washington, DC: Public Affairs

Seddon P J, Griffiths C J, Soorae P S and Armstrong D P (2014) Reversing defaunation: Restoring species in a changing world. *Science* 25 July

Smith N (1990) *Uneven Development: Nature, Capital, and the Production of Space* (2nd edn). Oxford: Blackwell

Smith N (2006) There's no such thing as a natural disaster. *Understanding Katrina: Perspectives from the Social Sciences* 11 June. http://understandingkatrina.ssrc.org/Smith/ (last accessed 13 October 2014)

Smith N (2008) *Uneven Development: Nature, Capital, and the Production of Space* (3rd edn). Athens: University of Georgia Press

Smith N (2011) Uneven development redux. *New Political Economy* 16:261–265

Smith N and O'Keefe P (1980) Geography, Marx, and the concept of nature. *Antipode* 12(2):30–39

Stanford N (1958) Dr. Libby's earth-shaking story. *Foreign Policy Bulletin* 15(April):115

Steffen W, Crutzen P J and McNeill J R (2007) The Anthropocene: Are humans now overwhelming the great forces of nature? *Ambio* 36(8):614–621

Steffen W, Grinevald J, Crutzen P J and McNeill J R (2011) The Anthropocene: Conceptual and historical perspectives. *Philosophical Transactions of the Royal Society A* 369(1938):842–867

Stewart G (1949) *Earth Abides*. New York: Random House

Szerszynski B (2012) The end of the end of nature: The Anthropocene and the fate of the human. *Oxford Literary Review* 34(2):165–184

Teller E (1960) We're going to work miracles. *Popular Mechanics* March

Teller E (1964) *The Reluctant Revolutionary*. Columbia: University of Missouri Press

Teller E and Brown A (1959) Nuclear miracles will make us rich. *This Week Magazine, San Francisco Chronicle* 1 February

Teller E, Hyde R and Wood L (2002) "Active Climate Stabilization: Practical Physics-Based Approaches to Prevention of Climate Change." Lawrence Livermore National Laboratory/US Department of Energy

Teller E, Wood L and Hyde R (1997) "Global Warming and Ice Ages: I. Prospects for Physics-Based Modulation of Global Change." Lawrence Livermore National Laboratory/US Department of Energy

Thomas W (ed) (1956) *Man's Role in Changing the Face of the Earth*. Chicago: University of Chicago Press

Tribe L H, Branson J D and Duncan T (2010) "Too Hot for Courts to Handle: Fuel Temperatures, Global Warming, and the Political Question Doctrine." Critical Legal Issues Working Paper 169, Washington Legal Foundation

USACE (2006) *Alaska Baseline Erosion Assessment: AVETA Report Summary—Kivalina, Alaska*. Anchorage: US Army Corps of Engineers, Alaska District

USACE (2007) *Environmental Assessment and Finding of No Significant Impact: Section 117 Expedited Erosion Control Project—Kivalina, Alaska*. Anchorage: US Army Corps of Engineers, Alaska District

Vaughan N E and Lenton T M (2011) A review of climate geoengineering proposals. *Climatic Change* 109:745–790

Vavrus S J (2013) Extreme Arctic cyclones in CMIP5 historical simulations. *Geophysical Research Letters* 40:6208–6212

Verdansky V (2007) *Geochemistry and the Biosphere* (ed F Salisbury). Santa Fe: Synergetic Press

Weissman A (2007) *The World Without Us*. New York: Thomas Dunne Books

Wilimovsky N J and Wolfe J N (1966) *Environment of the Cape Thompson Region, Alaska*. Washington, DC: United States Atomic Energy Commission

Yu Y, Stern H, Fowler C, Fetterer F and Maslanik J (2014) Interannual variability of Arctic landfast ice between 1976 and 2007. *Journal of Climate* 27:227–243

Yusoff K (2013) The geoengine: Geoengineering and the geopolitics of planetary modification. *Environment and Planning A* 45(12):2799–2808

Geoeconomics in the Long War

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Abstract: In Neil Smith's *American Empire* (2003, University of California Press), he makes the case that the current moment of US global ambition is characterized by a network of imperial power that is "exercised in the first place through the world market and only secondarily, when and if necessary, in geopolitical terms". For Smith, it was crucial that in the din of US geopolitics in the post-9/11 period we did not lose sight of "the deeper geo-economic aspiration for global control", in a "war on terror" that is really a war to "fill in the interstices of globalization" (p xiv). In *American Empire*, Smith identified three moments of US global ambition over the last century. In this paper, I extend back the starting point for Smith's third moment to a period in the 1990s when United States Central Command (CENTCOM) became fully operational in the military-economic securitization of the most pivotal region on earth, what it terms the "Central Region". By drawing on the concept of "geoeconomics", which Smith increasingly used in his later writing, I show how CENTCOM's mission from the outset can be most aptly described as one of "geoeconomic deterrence". I highlight in particular how enabling commercial markets has been a key element of grand strategy in what CENTCOM calls its "long war" in the Middle East and Central Asia. In addition, I outline recent calls for the US military to become further and more broadly involved in what some commentators have called "messy capitalism". I ask the question what kind of capitalism and in whose interests, before concluding by reflecting upon Neil Smith's assessment of the fated contradictions of contemporary US imperial ambition.

Keywords: American empire, geoeconomics, deterrence, grand strategy, national security

Introduction

> With our military units tracing their roots to pre-Revolutionary times, you might say that we are America's oldest company. And if you look at us in business terms, many would say we are not only America's largest company, but its busiest and most successful (US Department of Defense 2015).

So begins the introductory overview of the US Department of Defense (DoD) on its official website. Such a succinct envisioning neatly signals the long-established economic concerns of the US military. Both within and beyond the United States, economic and military logics have, of course, been deeply intertwined for centuries—and not just in the waging of war, but in the support, maintenance and doctrinal teaching of a wide range of military capacities. As early as 1906, Halford Mackinder was lecturing British Army officers at the London School of Economics on such topics as "the influence of geographical conditions on commercial development and trade routes", and the "effect of issuing paper money in a country occupied by an advancing army" (cited in Kearns 2009:48). Mackinder's imperial ambition and ideas for a productive coalition of geography and empire were matched by

his contemporary on the other side of the Atlantic, fellow geographer Isaiah Bowman. Bowman, the chief protagonist in Neil Smith's *American Empire*, became a prominent figure in the US State Department through the course of the early twentieth century, acting as territorial advisor to Woodrow Wilson at the Paris Peace Conference in 1919, becoming the inaugural director of the Council of Foreign Relations in 1921, and serving as territorial advisor at the State Department during World War II (Smith 2003a). As Smith has illuminated so well, Bowman's influential geographical envisioning of American *Lebensraum* mirrored two key moments of US global ambition in the twentieth century, comprising both military and economic aspirations in the aftermath of both world wars (see also Smith 2003b). For Smith, a third moment of US ambition, again comprising military and economic designs for global hegemony, came with the launch of the global war on terror in 2001. The military execution of that war fell to United States Central Command (CENTCOM), and the story of its initiation and ongoing military and geoeconomic mission forms much of the backdrop to this paper.

   In 1983, CENTCOM was tasked with the securitization of what it terms the "Central Region", a vast geographical region stretching from the Horn of Africa across the Arabian Peninsula to Central Asia. Its mission from the outset has been focused on two conflated elements of contemporary US foreign policy: "military" and "economic" security interests. CENTCOM's strategy papers, operational statements and annual reports to Congress have perennially scripted necessary military interventionism in the name of securing the global economy. From the first deployment of CENTCOM forces in 1987, in showing what President Ronald Reagan called a commitment to "the free flow of oil through the Strait of Hormuz", to the Gulf War, Iraq War and ongoing War on Terror, the most important command of the US military has perennially likened itself as the "Guardians of the Gulf", tasked with safeguarding the free market global economy (Palmer 1992:122). Below, I trace the idea of the necessary military regulation of the global economy at the heart of CENTCOM's securitization discourse. I outline, in particular, how enabling markets and commercial openings were central to CENTCOM's grand strategy from the beginning. I wish to divulge too, however, the rhetorical and nebulous nature of CENTCOM's declared mission of global economic safeguarding. The accrued benefits to the global economy are impossible to chart, and hence CENTCOM's reliance on vaguer, yet promissory logics about "keeping the global economy open". My aim is to trouble this neat discursive touchstone, to demonstrate its abstracted formulation over the course of 30 years, and to ask questions of simplified envisionings of military–industrial relations in a period marked by globalization and new forms of capitalist accumulation.

Geoeconomic Critique

What precisely does it mean to speak about geoeconomics? While a visiting fellow at CUNY Graduate Center in 2007 and 2008, I had a number of wide-ranging conversations around the term with Neil Smith. I recall much of those conversations now with both fondness and a deep sense of loss. There is much that Neil had

planned to work on in his later years, and certainly one key project he recognized was rejuvenating a critical Marxist perspective on contemporary forms of imperialism and geopolitics. Neil had long argued for a more sustained engagement with the political economy of imperialism in the evolving canon of "critical geopolitics" that emerged in the 1990s (see, for example, Smith 2000). He pointed to the earlier economic foci of Marxist critiques that were largely ignored. There is, of course, a rich heritage of Marxist analyses of imperialism and global capitalism, which in the US was spearheaded by leading figures including Paul Baran, Harry Magdoff and Paul Sweezy (Baran 1957; Baran and Sweezy 1966; Magdoff 1969; Sweezy 1972). With the establishment of Monthly Review Press, all three were instrumental in the emergence of a radical tradition of leftist academic writing from the early 1950s, a period dominated by the conservative political and intellectual climate of McCarthyism.[1] The current editor of the press, John Bellamy Foster, continues to oversee a strong tradition of Marxist scholarship, while his own work prominently draws upon Marx's historically conditioned analysis in interrogating the dynamism of contemporary forms of capitalism.[2]

At the core of the Marxist critique of imperialism is what Lenin called "the fundamental economic question". Writing in Petrograd in 1917, Lenin wrote that without grasping the "economic essence of imperialism" it is "impossible to understand and appraise modern war and modern politics" (Lenin 1999:26). Certainly, the economic endgame of late modern imperialism has been critically considered by political geography, with many important contributions emphasizing the economic dimensions of global geopolitics (Flint and Taylor 2011; Harvey 2003; Smith 2008; Sparke 2013).[3] Variously drawing on the work of Immanuel Wallerstein on world-systems theory, Andre Gunder Frank on dependency theory, and Antonio Gramsci on hegemony, political geographers have, in particular, critiqued US hegemony in the contemporary global economy (Agnew and Corbridge 1995; Taylor 1996; cf. Arrighi 2010). And although not always acknowledged, the collective work above is an important forebear to recent work on "geoeconomics" and its concerns for teasing out the patterns of capitalist accumulation defining our contemporary moment.

In considering the extant literature, there is a particular overlap of work on geoeconomics to world-systems theory or world-systems analysis (WSA). WSA has been challenged in various capacities, but geographers have shown how the insistence on contextualized geographies in world-systems theory has been useful in articulating a spatial mode of analysis of the world economy (Flint and Shelley 1996; cf. Wallerstein 1979). Its definition of "core" and "periphery" has often problematically veered into the realm of overly abstracted metanarrative (inevitable perhaps in articulating a grand theory), but its insistence upon the global economy's unequal asymmetries, maintained and extended by exploitative flows between core and periphery is perhaps WSA's most salient contribution to critically reading political economy (Flint 2010). WSA conceives a spatiality of imperialism comprising inequalities between core and periphery in the world economy, and certainly there is an imperial dimension to what I present in this paper as CENTCOM's project of geoeconomic deterrence. However, notions of "core" and "periphery" do not fully capture the nebulous and messy endgame of CENTCOM's security

mission in a world increasingly marked by globalization, corporate capitalism and transnational capitalist accumulation.

Departing from WSA's concerns with core and periphery, my use in this paper of the concept of "geoeconomics" is to argue for the need to tease out the geographical specificities of commercial opportunities and enterprise enabled by the practices of military interventionism typifying late modern capitalism. My usage of the concept is ultimately twofold. I am interested in the first instance in geoeconomics as a "strategic discourse". Mona Domosh (2013:962) has documented what she terms a "geoeconomic imagination" at the heart of liberal thinking on "America's benevolent role" in global affairs. As she makes clear, geoeconomic imaginings have long coexisted with geopolitical formulations in US national security discourse, and in this paper I show how CENTCOM's contemporary mission is predicated by a geoeconomic imagination replete with universalist claims about guarding the free-market global economy. Secondly, I outline how CENTCOM's security mission seeks to facilitate geoeconomics in practice on the ground in the form of commercial markets (cf. Essex 2013; Palmer 1992). I am interested especially in its territorial tactics of military-economic securitization, and their attendant legal armatures, which enable the key operational strategy of "deterrence", which I explore in some detail.

Neil Smith's particular preference for the term "geoeconomic" in his later academic career came in part, I think, from a sense of frustration with poststructuralist approaches to geopolitics that tended to elide concerns of political economy. Some of this sentiment was expressed in his 2009 *Antipode* piece with Deb Cowen, in which they put forward "geoeconomic spatiality" as a key concept in critically considering contemporary political geography (Cowen and Smith 2009:25). Drawing upon Cowen's work on border security, they use the term to emphasize how contemporary configurations of "space, power and security" in the global economic system are being "recalibrated by market logics" (2009:24–25). They begin by outlining how their employment of the term "geoeconomic" departs from Edward Luttwak's usage in his oft-cited 1990 article in *The National Interest*. In optimistically predicting an end to "military methods" of statecraft, Luttwak reasoned that "economic regulation" had become a more important "tool of statecraft" than "military defenses", and declared "geo-economics" as superseding the "strategic priorities and strategic modalities" of the Cold War era (1990:17–19). Luttwak's argument had a number of fatal flaws, of course, which Cowen and Smith make clear. Their most important rejoinder is perhaps their insistence on "the geographical unevenness and radical incompleteness" of the globalized geoeconomic world envisioned by Luttwak (Cowen and Smith 2009:38).

It is the negation of the enduring import of geography and borders that is arguably most spurious in Luttwak's envisioning of his neoliberal geoeconomic world. And although Cowen and Smith do a wonderful job of laying bare the abstracted essentialism of Luttwak's argument and insisting upon the dialectics and contradictions wrought by contemporary forms of capitalism, my sense is that they did not sufficiently depart from one specific aspect of Luttwak's thesis, and that relates to the question of territory and territorial access. Here is a key distinction they draw respecting "geopolitics and territory" versus "geoeconomics and territory":

> Where geopolitics can be understood as a means of acquiring territory towards a goal of accumulating wealth, geoeconomics reverses the procedure, aiming directly at the accumulation of wealth through market control. The acquisition or control of territory is not at all irrelevant but is a tactical option rather than a strategic necessity (Cowen and Smith 2009:42).

Cowen and Smith are instructive in seeing "territorial borders" as historically representing "a solution to security projects", whereas today posing "a key problem" (2009:30). But I wonder whether territorial access is just a "tactical option", rather than a "strategic necessity" for contemporary forms of imperialism? As I will argue later, CENTCOM's mission in the Middle East and Central Asia has increasingly relied upon what the US military call "forward presence" to secure vital "land nodes" and "choke points", which facilitate practices of deterrence and securitization. Cowen and Smith's paper is important in capturing the contradictions posed by the mechanisms of security defining our contemporary moment. They are especially compelling in showing how "market power and prerogative" have increasingly directed new forms of imperialism overseas (2009:30). But I hope that addressing the question of territorial access will aid in further documenting the specific modalities of imperial interventionism we are witnessing in late modern capitalism. In highlighting CENTCOM's territorial, naval and aerial tactics of "geoeconomic deterrence", my aim is to attend to the binding of military and economic security concerns and practices of securitization that require and involve specific forms of territorial access and governing legal armatures (for a fuller discussion on the latter, see Morrissey 2011c).

A Short Historical Geography of US Intervention in the Gulf

Stretching back to the early nineteenth century, the United States has projected a range of commercial, military and geopolitical interests in the Middle East. Initially, the Middle East offered what Michael Palmer (1992:1) calls "an open field for American capital and industry", which was gradually built up despite British colonial dominion across the region. As Palmer has shown, by the 1920s and 1930s, "American corporations fueled the region's development" (1992:19). To secure this commercial activity and growing economic interests in the region, the US increasingly assumed Western geopolitical and military leadership with the decline of Britain as a colonial power—particularly so after World War II, and with acute urgency in the later 1970s in the aftermath of a range of regional political and economic crises (Morrissey 2011b). President Jimmy Carter's State of the Union Address in January 1980 declared that "any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and such an assault will be repelled by any means necessary, including military force" (Carter 1980). Two months later, the establishment of the Rapid Deployment Joint Task Force signaled the first formal commitment of US military force to the Persian Gulf region. With CENTCOM's succession in 1983 as a full regional command, the US government had fully committed to the Carter Doctrine and the securitization of the Persian Gulf. CENTCOM quickly assumed the role of

"Guardian of the Gulf" (Palmer 1992), but it is important to remember that this did not come about in the absence of support from European and other industrial powers such as Japan. There were consistent calls for greater US military leadership in the Middle East from the major industrial powers from the 1970s: a broad neoliberal concern established the Trilateral Commission in 1973 to foster closer economic cooperation between the US, Europe and Japan; British and French war ships were rushed to the Indian Ocean in the late 1970s in support of potential US naval intervention in the Persian Gulf; and the US strategy of reflagging Kuwaiti oil tankers with American ensigns was fully supported politically at the G7 Summit in Venice in 1987 at the height of the so-called Tanker War (Gamlen 1993; Gold 1988).

The US naval presence in the Persian Gulf remained through the later 1980s and its ground presence was to intensify in the aftermath of the Gulf War. Six months prior to Iraq's invasion of Kuwait in 1990, CENTCOM Commander-in-Chief General Norman Schwarzkopf issued his posture statement to the Senate Armed Services Committee. It is highly revealing:

> the greatest threat to US interests in the area is the spillover of regional conflict which could endanger American lives, threaten US interests in the area or interrupt the flow of oil, thereby requiring the commitment of US combat forces (US Central Command 1990).

In essence, Schwarzkopf had pre-scripted the imminent Gulf War for the US Congress and American people. His command's geoeconomic mission to protect vital US interests in the Gulf "required" intervention. CENTCOM's subsequent success in its execution of the war confirmed it in its role as "Guardian of the Gulf", and in the war's aftermath a number of CENTCOM-commissioned studies promoted a focused mission for the command thereafter, largely defined around two concepts: "critical economic interests" and "forward deterrence of regional rivals" (Lesser 1991; Pelletiere and Johnson II 1992).

The aftermath of the Gulf War saw the beginnings of a new period in US global ambition, which certainly intensified post 9/11, as Neil Smith has argued, but the seeds were planted through the course of the 1990s. A permanent ground presence of CENTCOM forces started to take shape across the Arabian Gulf, bilateral treaties confirming access sites, logistics sites, free-trade agreements and arms sales were signed with various Gulf Cooperation Council (GCC) countries, and a comprehensive weapons pre-positioning program mirrored an active deterrence policy of military policing in the region (Morrissey 2009, 2011c). Through the course of the 1990s, the command's "mission and vision" were "clear" according to the then Commander-in-Chief General James Peay: "US CENTCOM supports US and free-world interests" (Binford Peay III 1995a:8, 10). To this end, the command's "theater strategy" was equally clear: "maintaining the free flow of oil at stable and reasonable prices" and "ensuring freedom of navigation and access to commercial markets" (Binford Peay III 1995a:2).

Geoeconomic Deterrence

David Harvey argues in *The New Imperialism* that contemporary US imperialism "arises out of a dialectical relation between territorial and capitalistic logics of

power" and can be understood most clearly with the realization that the "endless accumulation of capital" produces "crises within the territorial logic because of the need to create a parallel accumulation of political/military power" (2003:183). The US military overseas has played an important role in opening up access to commercial markets for some time, as evidenced above for CENTCOM. I do not wish to frame, however, any neat relationship between the US military, on the one hand, and the economic actors its activities serve, on the other. Certainly, there appears no straightforward "national" correlation of military–industrial relations, which existed to some degree during the Cold War but increasingly less so in the globalized world of multinational corporations and dynamic transnational capital today.

CENTCOM's emergence in the globalized context of late modern capitalism meant that its operational strategy came to be defined by a deterrence policy underpinned by a dialectic of coercion and consent (Harvey 2003; cf. Harcourt 2012). In 1997, General James Peay explained the command's deterrence policy thus to the House Appropriations Committee Subcommittee on National Security:

> we know from experience that [Middle Eastern] leaders are intimidated by military strength [and] consequently we deter these individuals by continuing to organize, equip, and exercise premier joint and combined forces; [and] positioning a credible mix of those forces forward in the region (US Central Command 1997c).

So what does deterrence look like in practice? Here is General Peay elaborating on CENTCOM's day-to-day theater strategy:

> Every day, sailors and marines ... show the flag daily conducting frequent naval exercises to demonstrate American naval prowess to friend and foe, enforcing freedom of navigation in narrow channels and vital choke points, and rappeling in the middle of the night onto rolling decks of merchant ships to enforce U.N. economic sanctions against Iraq. Over 12,000 such hoardings have been carried out since August 1990. The sailors and marines are joined by airmen secur[ing] the skies over southern Iraq ... More than 48,000 sorties have flown over southern Iraq since August 1992 (Binford Peay III 1995a:6).

Between the end of the Gulf War and beginning of the Iraq War, CENTCOM was effectively on a permanent war footing, a point rarely acknowledged. Its overseeing of the Joint Task Force Southwest Asia's implementation of Operation Southern Watch ensured the Iraqi no-fly zone that regulated airspace south of the 32nd Parallel (extended further north, just south of Baghdad, to the 33rd Parallel in 1996). In addition to aerial deterrence, naval deterrence in the Persian Gulf and regional ground deterrence have also been core elements of the command's operations since the early 1990s. For the latter, manoeuvres such as Operation Vigilant Warrior, Operation Desert Spring, and wargame exercise Internal Look, involved frequent mobilizations of ground troops and military equipment, resulting in a "near continuous presence" surrounding the Iraqi border to "deter conflict, promote stability, and facilitate a seamless transition to war, if required" (US Central Command 1997b:5).

Deterrence relies on territorial access, and in the case of CENTCOM it has long been, to reverse Cowen and Smith's broader assertion, "a strategic necessity" rather than a "tactical option" (2009:42). Deterrence was central to CENTCOM's

theater strategy in the later 1990s, and its universalist legitimacy was repeatedly affirmed by CENTCOM Commanders-in-Chief in their annual reports to Congress. In 1999, for instance, CENTCOM Commander-in-Chief General Anthony Zinni asserted that the "ability to project overwhelming and decisive military power is key to CENTCOM's theater strategy" (US Central Command 1999a; cf. Ullman et al. 1996). Its chief strategy document from 1999 further underlined deterrence as the central means of carrying out its security mission, involving a range of core elements, from air, ground and naval maneuvers, joint military exercises and war gaming, to the initiation of prepositional programs, infrastructure improvements and access and logistic sites development (US Central Command 1999b:9–13).

Daily deterrence activities across CENTCOM's regional "Area of Responsibility" (AOR) include: "monitoring and analyzing significant military, political and economic events"; "planning and conducting unit and combined (foreign) military exercises and operations"; and "refining deployment and contingency plans for the region" (US Central Command 2007). The latter concern, refining deployment and contingency plans, is wholly dependent on CENTCOM's basing strategy, which includes "Forward Operating Sites", "Cooperative Security Locations", and the "contingency use of ports and airfields throughout its AOR"; all of which are systematically developed "to assure US access" and legally enabled by the ongoing negotiation of "status of forces agreements" with host countries (Global Security 2015; cf. Morrissey 2011c). Arguably, CENTCOM's most important concern is "rapid deployability", a concept prominently proclaimed more broadly by the DoD with the publication of the *Global Defense Posture Review* in 2004. Within the review, "bilateral and multilateral legal arrangements" sanctioning and facilitating territorial access and freedom of movement are underscored as critical for the "necessary flexibility and freedom of action to meet 21st century security challenges" (US Department of Defense 2004:8). The rapid deployment concept has earlier origins than its official policy codification in 2004, of course. From the early 1980s, it was regularly touted in Strategic Studies circles as crucial in the reorganization of the US military to orientate optimum interventionary power, and particularly so in the Middle East. In the geopolitically precarious yet geoeconomically pivotal space of the "Central Region", the argument has long been made for the rapid military regulation of access to resources and free markets (Epstein 1981; Record 1981; Waltz 1981).

Sketching its deterrence mission via a distinctly geoeconomic imagination, a further CENTCOM strategy document in 1997 began with the following assertion: "[t]he unrestricted flow of petroleum resources from friendly Gulf states to refineries and processing facilities around the world drives the global economic engine" (US Central Command 1997a:1). In the same year, CENTCOM Commander-in-Chief General James Peay declared to the House Appropriations Committee Subcommittee on National Security that his command's mission was critical to a successfully functioning global economy, as any disruption to the flow of oil from the Persian Gulf would "precipitate economic calamity for developed and developing nations alike" (US Central Command 1997c). His successor, General Anthony Zinni, was equally clear in underlining the Central Region's pivotal geoeconomic importance:

> America's interests in [the Central Region] reflect our beliefs in access to free markets ... The vast quantities of oil, gas, and other resources present in the gulf region, which includes 69 percent of the world's known oil reserves plus significant natural gas fields, are essential to today's global economies (US Central Command 1998).

In a subsequent interview to *Joint Force Quarterly*, Zinni pointed out the "obvious" consideration underpinning CENTCOM theater strategy:

> Our theater strategy is built [on] four elements. The first is obvious—providing access to the energy resources of the region, which is a vital national interest. The second element is something often overlooked—the growing commercial significance of the area. The pattern of global trade is shifting from east to west. Investments are flowing into the region because of its geostrategic position. The third is the number of maritime choke points in the region, such as the Suez Canal and Strait of Hormuz. We must ensure these passages remain open to communication and trade. Fourth, there are issues of stability— the Middle East peace process, extremism, and other concerns (Joint Force Quarterly Forum 2000:26).

General Zinni underlines above the dual logics of military and economic security at the heart of CENTCOM's mission. In essence, it is a mission of "geoeconomic deterrence". His successors at Central Command have continued to champion deterrence thus. General John Abizaid outlined to Congress in 2006, for instance, that his command's AOR "incorporates a nexus of vital transportation and trade routes", "encompasses the world's most energy-rich region" and that his forces were postured to "ensure the flow of global resources and deter hostile powers throughout the region" (US Central Command 2006). It is this effective binary of perpetual geopolitical volatility and necessary geoeconomic deterrence that has been at the heart of CENTCOM's securitization discourse for over three decades. Successive commanders have repeatedly affirmed the command's vital function of policing "stability and security" in a region scripted unrelentingly as "integral to the political and economic wellbeing of the international community" (Binford Peay III 1995b:32). And they have shown a firm awareness too of the pivotal role CENTCOM plays in enabling commercial markets, despite never detailing the far from straightforward relationship between militarization and markets, a point I return to later.

Expeditionary Economics and Enabling "Messy" Capitalism

In 1995, CENTCOM Commander-in-Chief General James Peay delivered the keynote address at the Fourth Annual US Mideast Policymakers Conference. His paper, "Five pillars of peace: A blueprint for achieving peace and stability in the Central Region", was subsequently published by the US-GCC Corporate Cooperation Committee. This committee had been committed to developing private-sector economics in the Persian Gulf since 1986, with a goal to "promote US-GCC trade, investment, and commercial partnerships, and to raise American awareness of the innumerable benefits to the United States from increased relations with the GCC" (US-GCC Corporate Cooperation Committee 1994). Key companies making up the committee from the beginning included some of the biggest corporations

globally, such as AT&T, Exxon, Ford, General Dynamics, Lockheed, Mobil, Oracle, Parsons Corporation, Philip Morris, and Raytheon. In the foreword to "Five pillars of peace", the secretary of the US-GCC Corporate Cooperation Committee, John Duke Anthony (himself an influential commentator since the 1970s on US commercial opportunities in the Gulf), enthusiastically heralded the success of CENTCOM's mission through the 1990s in the securitization of the Persian Gulf:

> Countless millions witnessed how CENTCOM was front and center in the internationally concerted action to end the threats that these conflicts posed to regional and global well-being (Binford Peay III 1995a:iv).

Here is CENTCOM Commander-in-Chief Peay subsequently elaborating on both the "geopolitical dynamics and threats" and "array of commercial activities" in the region:

> Maintaining security and stability in the Gulf region is integral to the economic well-being and political stability of the entire world. 65% of the world's proven oil reserves are located in the region, from which the US imports 22% of its energy resources, Western Europe imports 43%, and Japan imports 68% ... This oil trade produces a vibrant economic relationship between the US and Middle Eastern states that includes an array of commercial activities, ranging from military hardware to construction, health services, and consumer goods (Binford Peay III 1995a:2).

The scripting of geoeconomic opportunities and their necessary military securitization has consistently underpinned CENTCOM's grand strategy, and the command continues to annually document to Congress its geoeconomic deterrence role in what it has been calling since the mid-2000s its "long war" in the Middle East and Central Asia. A recent posture statement to Congress underlines yet again what will "keep US attention anchored in this region": "oil and energy resources that fuel the global economy" (US Central Command 2013). Some have argued that the US military's broader geoeconomic role needs to be extended even further. In May 2010, a notable *Foreign Affairs* article was published by US economist Carl Schramm entitled "Expeditionary economics: Spurring growth after conflicts and disasters". In it, Schramm makes a series of impassioned pleas for the US to take seriously the import of post-conflict economic reconstruction and to task the military with what he sees as a global economic responsibility:

> It is imperative that the US military develop its competence in economics. It must establish a new field of inquiry that treats economic reconstruction as part of any successful three-legged strategy of invasion, stabilization or pacification, and economic reconstruction. Call this "expeditionary economics" (Schramm 2010:90).

For Schramm, although the US record of "expeditionary economics" in Afghanistan and Iraq is poor, its military is nonetheless "well placed to play a leading role in bringing economic growth to devastated countries" because, despite having "little resident economic expertise", it has "both an active presence and an active interest in places where economic growth is sorely needed" (2010:91). Schramm sees capitalism as necessarily "messy", and appears oblivious to, or uninterested in, its human geographical effects: "a successful entrepreneurial system requires a willingness to accept

messy capitalism even when it appears chaotic, trusting that the process will eventually bring sustained growth" (2010:98). He is a leading champion of entrepreneurship (he is the former President and CEO of the Kauffman Foundation, the world's largest foundation dedicated to entrepreneurship), and although he acknowledges that entrepreneurial capitalism is disordered and unstable he ultimately argues that a broader econocentric approach to US military interventionism would be the "most potent way of projecting soft power" in its long war of neoliberal securitization (2010:99). He is not alone, of course, in his envisaging of an expanded role of military-economic securitization for the US armed forces overseas, nor is his argument particularly new. From Jeffrey Record's treatises on expeditionary "rapid deployment" in the 1980s through to the current abstracted visions of Robert Kaplan, one can trace a now familiar arc of aggressive US geopolitical and geoeconomic discourse, which has been hegemonically advanced by a plethora of strategic studies institutes in and around Washington, DC (Kaplan 2012; Record 1981; cf. Fernández 2011; Morrissey 2011a).

Soon after the publication of Schramm's piece in *Foreign Affairs*, the Kauffman Foundation published an inaugural research series paper "Building expeditionary economics: Understanding the field and setting forth an agenda" (Patterson and Stangler 2010). The authors begin by asking what they see as a vital question: what to do with the interventionary capacity of the contemporary US military. Citing primarily "the Marshall Plan in Europe" and the "postwar rebuilding of Japan", they argue for an expansion of "stability operations" and urge that this must take place in conjunction with private sector development that will coalesce to yield a fruitful "military-private sector partnership" (Patterson and Stangler 2010:15–16). Their conclusion implicitly signals the enduring dialectic of crisis and opportunity at the heart of capitalism:

> Expeditionary Economics must be a key component of our national strategy to turn conflict or disaster abroad into an opportunity for sustained economic growth. That the success of past military engagements was often only a qualified one is due largely to the missing component of economic recovery (2010:17).

Not everyone agrees with the US military being tasked with "economic" stability operations, or trust to their competencies to this end. Responding to Schramm's (2010) article, the then Chair of the House Committee on Foreign Affairs, Congressman Howard Berman, argued that it is "civilian, not military, forces" that "should lead in this regard":

> "What is needed, instead of a military doctrine of 'expeditionary economics' is a civilian-led peacebuilding corps that can operate in conflict zones and help local communities lay the foundations for robust economic growth" (Kaufman and Berman 2010:175–176).

Yet liberal notions of spurring economic growth and enabling economic opportunity still implicitly foregrounds such pleas for civilian-led developmental interventionism. And as Mark Duffield has shown so well, the development–security nexus of our contemporary moment is far from bereft of capitalist intervention in the seemingly permanent insecurity of unending war (Duffield 2001, 2007; cf. Klein 2007).

Alexander Benard, Managing Director of Gryphon Partners, an advisory and investment firm focused on the Middle East and Central Asia, recently called for the US to embrace "commercial diplomacy" as a key element of foreign policy:

For too long now, Washington has almost entirely neglected commercial diplomacy, ceding too many economic battles to China. The United States needs to find a happy medium in which business promotion again becomes a strong pillar of its foreign policy (Benard 2012).

Others go even further. Jason Thomas, Director of Majorca Partners, a human terrain specialist company, calls for "a strategic partnership between multi-national corporations and the US military" in future interventions, citing specifically the "extractive industries" sector as the ideal partners as they have "the financial capacity, long project time frames and deep footprints in a foreign country's local and national political landscape required" (Thomas 2012). Thomas goes on to offer a tendentious postscript on any legal and political checks on the US military's "entrepreneurial mindset":

if we can hold back the legal and political affairs departments, who are an anathema to disruptive thinking, then we may enable the US military to recalibrate their own efforts and resources across a wider AO [Area of Operation]. Given the US military is one of the most adaptable in the world, with an entrepreneurial mindset there may be merit in factoring this new partnership into current or future stability operations (Thomas 2012).

The US Military and Commercial Opportunity in the Long War

The US military's "entrepreneurial mindset" has long been encouraged and supported by a broad architecture of expertise in strategic planning and operational infrastructure with close links to industries that have a vested interest in US interventions overseas. Defense Acquisition University, for instance, was established in 1992 at Fort Belvoir, Virginia, in close proximity to the Pentagon, with a mission to educate professionals in support of the US armed services. It now houses an Acquisition Community Connection Practice Center where "the defense acquisition workforce meets to share knowledge" and access portals to a wide range of expertise on, for instance, "contingency contracting", "joint rapid acquisition", "overseas contingency operations", and "risk management" (Defense Acquisition University 2015a). The "joint rapid acquisition" site, for example, is dedicated to "the assessment, validation, sourcing, resourcing, and fielding of operationally driven urgent, execution-year combatant commander needs" (Defense Acquisition University 2015b). All of this forms part of a broader knowledge assemblage emphasizing innovation, flexibility and rapidity, and involving the quickening of capitalist accumulation for a wide range of attendant military industries.

Other important military–industrial links include those facilitated by the US Office of the Assistant Secretary of Defense (Logistics and Materiel Readiness), which hosts, for example, an annual "Materiel Readiness Product Support Manager Conference"—a three-day conference that engages with "government officials, industry executives, and academia on integrating government and industry for improved product support processes and procedures" (US Office of the Assistant Secretary of Defense 2013). In 2012, the keynote speakers were Lou Kratz, Vice-President at Lockheed Martin, and Sue Dryden, Deputy Assistant Secretary of

Defense. Another key paper in 2012 was presented by Jim Farmer from the Logistics and Materiel Readiness Office on "rapid acquisition", which he had earlier likened to the "'Wild Wild West' of acquisition" in a "reactive world" in which "the logistician must never waiver from his proactive stance" (Farmer 2012:46). And there are a wide range of reports on the success of rapid acquisition for efficient and accelerated security operations (cf. Romero 2012; Vinch 2012; Weigelt 2009).

The kinds of validations above of accelerated US interventionary power are part of a broader discourse that binds rapid acquisitioning with flexible force deployment for enhanced military and economic security. There is a wide array of defense companies and strategic studies experts promising this endgame. Retired US Army Colonel Douglas Macgregor, for example (who centrally advised CENTCOM Commander-in-Chief General Tommy Franks for the offensive strike on Iraq in 2003), urges "American political and military leaders" to finally break with "the industrial age paradigm of warfare" by building a "21st century scalable 'Lego-like' force design", which would not only facilitate a "more efficient and integrative [use of] manpower and resources", as Macgregor appeals (2011:22), but would also, of course, open up new opportunities for defense companies like Burke-Macgregor Group where Macgregor is now Executive Vice-President. Burke-Macgregor Group support "national security and economic prosperity objectives" by partnering with "federal and state governments to identify innovative co-evolution of concepts and technologies" and working with "select domestic and international commercial partners to capture the resulting evolving market opportunities" (Burke-Macgregor Group 2015a). In seeking to lead that market, they anticipate "future conflicts" to revolve "around the competition for energy, water, food, mineral resources and the wealth they create", and advocate that in "this volatile setting, the alternative to direct American military intervention must include the use of commercial partnerships to resolve conflicts and disputes through economic development" (Burke-Macgregor Group 2015b).

The broad link between the US military and powerful defense contractors has long been known. What has been less clear is the extent of overlap of influential former high-ranking military officers such as Macgregor above. Citizens for Responsibility and Ethics in Washington (CREW) recently published a detailed examination of this so-called "revolving door" phenomenon. In an extensive report, they interrogated the top 100 federal defense contractors in the US, and revealed that "70 percent (or 76 of the 108) of three- and four-star generals and admirals who retired between 2009 and 2011 took jobs with defense contractors or consultants" (CREW 2012:1). They also found that in 2011 alone the DoD spent over $100 billion on contracts with the five largest defense contractors: Boeing, General Dynamics, Lockheed Martin, Northrop Grumman, and Raytheon. Between 2009 and 2011, many of the top-level retiring generals and admirals took positions with these five companies and some "continue to advise the Pentagon" (CREW 2012:2). Tellingly too, 68% of lobbyists for the top five contractors had previously worked for a federal agency or Congress (and many had worked for the pivotally important House or Senate Appropriations Committees) (CREW 2012:5).

CREW's research reveals the extent of the Pentagon's revolving door, in which retired officers and former federal government employees capitalize on their years of service by taking leading and lucrative positions in the defense industry. The

aforementioned former Commanders-in-Chief of CENTCOM, John Abizaid, James Peay and Anthony Zinni are all cases in point: Abizaid is on the board of directors at Defense Venture Group, a portfolio company of J.F. Lehman & Company, a leading private equity investment firm in the defense, aerospace and maritime industries; while Peay and Zinni are directors at BAE Systems Inc., the US component of one of largest defense contractors in the world. The posture statements of Abizaid, Peay and Zinni for CENTCOM over the last 20 years, variously cited through the course of this paper, reveal how they have been especially conscious of the dual military-economic remit of their security mission. Who better then to advise the defense industry on the military infrastructural delivery of commercial opportunities in the ongoing wars of late modern capitalism?

Conclusion

> The whole language of a war on terrorism is a pernicious cloak, deploying all the liberal tropes of a beneficent global universalism to hide the narrow self-interest of a transnational ruling class which has its command center in the United States ... the point about this war is that it continues more than it breaks from the ambitions of US globalism. It is above all a geo-economic not a geopolitical war (Smith 2003b:251, 265).

In this paper, I have sought to show how the military enabling of geoeconomic opportunities has been a key element of US foreign policy over the last 30 years. Critically considering how US global ambition centrally involves a geoeconomic interventionary imagination prompts us to see how corporations and the military coalesce in the strategic and technological enactment of military–economic securitization. The quickening of commercial opportunities is being repeatedly promised in a long, seemingly unending war of securitization (Duffield 2007; Morrissey 2011b). This "long war" requires "21st century scalable 'Lego-like' force design", "rapid acquisition", "rapid deployment", and "a willingness to accept messy capitalism" to "capture the evolving market opportunities" (Burke-Macgregor Group 2015a; Macgregor 2011; Schramm 2010; US Department of Defense 2004; Vinch 2012). How much of this is actually new is debatable, of course. Through the paper, I have highlighted how such calls merely mirror a long-established CENTCOM grand strategy of military–economic securitization, orientated for the geoeconomic shaping of the most energy-rich region on earth. But the question remains what is the geoeconomic endgame? What kind of capitalism, in essence, is CENTCOM supporting through its forward presence and deterrence practices? And in whose interests is deterrence enacted at such an enormous annual human and financial cost? This cost is one that we sometimes forget is being paid for maintaining a standing overseas military force vaster than any nation in the era of high colonialism.

In seeking to answer the questions above, Neil Smith's work and spirit has long inspired many. His unrelenting and incisive critique of US imperialism has been one of his most vital intellectual and political contributions. His insistence on revealing the historical political economy of empire at the heart of contemporary US

interventionism has been particularly important, an argument he brilliantly theo-rized in *American Empire* (Smith 2003a). In that book, Neil charted three moments of US global ambition over the last century, and in this paper I have extended back the starting point for the third moment to a period in the 1990s when CENTCOM became fully operational in the military–economic securitization of the most pivotal region in the global economy. For Smith, the "endgame of globalization" and the high point of this third moment came with the launch of the global war on terror and the Iraq War (Smith 2005). These wars confirmed for Smith that although geopolitical calculation and geopolitical discourse still count it would be a mistake to convert US imperial ambition today into "the old language of resource-driven geopolitics" because this would serve to "blind us to the deeper geo-economic aspiration for global control" (Smith 2003a:xiv).

Neil Smith's conceiving of geoeconomics departs in important ways from both earlier Marxist and WSA critiques of the political economy of imperialism and sim-plified Luttwakian conceptions of flat-earth globalization. For Smith, contemporary US imperialism is signified best through the concept for arguably two key reasons: first, because of the dynamic modalities of late modern transnational capitalism; and, second, because the concept captures the ambition of imperial control of the global economy rather than simply resources and territory within. There are certainly historical antecedents to this imperial "geoeconomic imagination" in US foreign policy (Domosh 2013; Sparke 2013), but Smith's insistence on the term has a particular relevancy today in charting the kind of imperialism occurring in a globalized world in which capital is less bounded and fixed. In this paper, I have in part sought to show how CENTCOM's military-economic security mission over the last 30 years illuminates much of Smith's thesis: its interventions from the outset mirrored a commitment to neoliberal capitalism on a global stage that combined the inherent contradictions of "narrow national self-interest" with universalist values of "global good" (Smith 2003a:xii). Accordingly, its core operations have involved fashioning itself in a neoliberal "world policeman" role in a period of dynamic global-ization, and to that end it has employed a deterrence strategy that is explicitly about "safeguarding the global economy". The endgame of CENTCOM's mission is "geo-economic deterrence", and through this concept I have sought to conceptualize US imperialism today as marked by a grand strategy of shaping "geographical pivots", controlling "choke points" and enabling "commercial opportunities" in a global eco-nomic network. Extending Smith's argument further, I have sought to underline too the enduring import of military, territorial access as a tactical and strategic necessity for US global ambition. "Territory" for CENTCOM is not important in the sense of older imperial requirements of territorial control. Rather, its primary mission of deterrence is dependent upon a necessary level of territorial access that is sanctioned and enabled via specific legal constellations confirming access rights, operational limits and rules of engagement (Morrissey 2011c).[4]

For the past 30 years, a period marked by dynamic globalization, CENTCOM's grand strategy has consistently held fast to a commitment to neoliberal capitalism and an ostensibly free-market global economy. Loïc Wacquant (2009) makes the point that neoliberalism today typically manifests itself in a centaur-like form, com-prising a liberal head and authoritarian body. He has in mind the confines of the

state here, and draws extensively on the example of the US. However, his analogy seems equally as useful in considering the extension of US state power in efforts to fashion and secure neoliberalism on a global scale; involving appeals to neoliberal open markets and the common good on the one hand, but involving, on the other, the same devastating use of imperial violence familiar to any reader of colonial history. There are multiple contradictions in the neoliberal interventionist project, of course, which Neil Smith has long insisted upon: national interventions on a global stage, in the name of national vital interests and global common good, yet ultimately for the securitization of transnational capital. CENTCOM appears to intrinsically trust to the notion of so-called free markets, and it seems oblivious to the contradictions and failures of its self-declared mission to secure them—in part perhaps because such failures necessitate new cycles of military interventionism and economic correction in a seemingly never-ending Western imperial moment. Mary Kaldor and Joseph Stiglitz argue that there is "no longer confidence in the ability of free and unfettered markets to assure economic security", and moreover that there is "no longer confidence in the ability of the United States to assure the world of its military security, let alone the rest of the world's security" (Kaldor and Stiglitz 2013:5). I doubt CENTCOM military strategists see it this way. They would no doubt point to military deterrence continuing to provide a vital security blanket in enabling markets in the Middle East and Central Asia. They would perhaps point too to other levels of interventionary power that are important in the relationship between militarization and market provision, and certainly the signing of free trade agreements, status of forces agreements (often comprising arms sales) and other bilateral agreements are key modalities of geoeconomic interventionism that legally frame market relations (Morrissey 2011b).

Ultimately, it is impossible for CENTCOM to disaggregate any national or global economic benefit from its project of geoeconomic deterrence and securitization. Instead, it employs grand narrative to signal a broad and rather vague geoeconomic raison d'être: the guardianship of the global economy and free markets. And although this is unambiguously and repeatedly scripted in its annual posture statements to Congress, what is less clear is how well its "geoeconomic imagination" matches with evidence of geoeconomics on the ground. In military planning parlance, CENTCOM evidently does "tactical" and "operational" well; its "strategic" level of interventionism, incorporating broader geoeconomic designs, however, is perhaps at best aspirational. Hence, there is a danger of abstracting too much from its grand imperial projections—an old postcolonial question, of course. We may take some solace then from Neil Smith's definitive assessment of US imperialism today, that it mirrors more than ever the "contradictions inherent" within and that it is "destined to failure" (Smith 2005:182). As Smith frequently defiantly observed, however, we should never fail to see the full picture of that failure: its brutal human consequences and ongoing dialectical repetitions.

Acknowledgements

Endnotes

1 Sweezy's landmark victory for academic freedom at the US Supreme Court did not happen until 1957.
2 Bellamy Foster's recent new edition of *The Theory of Monopoly Capitalism* (2014) extends Baran and Sweezy's (1966) thesis on "monopoly" capitalist accumulation on a global scale, while his co-writing with Robert McChesney has brought important critiques to bear upon the economics of contemporary US imperialism (see, for example, Bellamy Foster and McChesney 2004).
3 Although not the focus here, a rich tradition of historical and cultural geography has also addressed the complex and overlapping political, economic and cultural dimensions of imperialism (cf. Blunt and McEwan 2002; Clayton 2004; Lester 2000; Morrissey et al. 2014).
4 As Stuart Elden notes, "territory" as a concept is perhaps best understood as a mode of "spatial organization" that is "dependent on a number of techniques and on the law", which are "historically and geographically specific" (2013:10). In the case of CENTCOM, its broader military presence in the Middle East and Central Asia is dependent upon an amalgam of specific bilateral legal agreements with nation-states across its AOR, as I have detailed elsewhere (Morrissey 2011c). Despite the perception, furthermore, that borders are less important in our contemporary globalised world, Mary Atkinson (2014) observes the recent phenomenon in the region to secure "porous borders", pointing to a number of Middle Eastern states who are "increasingly turning to construction companies to secure their boundaries".

References

Agnew J and Corbridge S (1995) *Mastering Space: Hegemony, Territory and International Political Economy.* New York: Routledge
Arrighi G (2010) *The Long Twentieth Century: Money, Power and the Origins of Our Times* (new edn). London: Verso
Atkinson M (2014) Barbed-wire borders in the Middle East. *Middle East Eye* 17 May. http://www.middleeasteye.net/culture/barbed-wire-borders-middle-east (last accessed 5 September 2014)
Baran P A (1957) *The Political Economy of Growth.* New York: Monthly Review Press
Baran P A and Sweezy P M (1966) *Monopoly Capital: An Essay on the American Economic and Social Order.* New York: Monthly Review Press
Bellamy Foster J (2014) *The Theory of Monopoly Capitalism: An Elaboration of Marxian Political Economy* (new edn). New York: Monthly Review Press
Bellamy Foster J and McChesney R W (eds) (2004) *Pox Americana: Exposing the American empire.* New York: Monthly Review Press
Benard A (2012) How to succeed in business—and why Washington should really try. *Foreign Affairs* July/August. http://www.foreignaffairs.com/articles/137684/alexander-benard/how-to-succeed-in-business (last accessed 5 September 2014)
Binford Peay J H III (1995a) *Five Pillars of Peace: A Blueprint for Achieving Peace and Stability in the Central Region.* Washington, DC: US-GCC Corporate Cooperation Committee
Binford Peay J H III (1995b) The five pillars of peace in the Central Region. *Joint Force Quarterly* 9:32–39
Blunt A and McEwan C (eds) (2002) *Postcolonial Geographies.* London: Continuum
Burke-Macgregor Group (2015a) "About us." http://www.burke-macgregor.com/aboutus.html (last accessed 5 February 2015)
Burke-Macgregor Group (2015b) "Home." http://www.burke-macgregor.com/home.html (last accessed 5 February 2015)
Carter J (1980) *State of the Union Address.* Atlanta: Jimmy Carter Library and Museum. http://www.jimmycarterlibrary.gov/documents/speeches/su80jec.phtml (last accessed 5 September 2014)
Clayton D (2004) Imperial geographies. In J S Duncan, N C Johnson and R H Schein (eds) *A Companion to Cultural Geography* (pp 449–468). Oxford: Blackwell

Cowen D and Smith N (2009) After geopolitics? From the geopolitical social to geoeconomics. *Antipode* 41(1):22–48

CREW (2012) *Strategic Maneuvers: The Revolving Door from the Pentagon to the Private Sector.* Washington, DC: Citizens for Responsibility and Ethics in Washington

Defense Acquisition University (2015a) "Acquisition Community Connection Practice Center." https://acc.dau.mil/CommunityBrowser.aspx (last accessed 5 February 2015)

Defense Acquisition University (2015b) "Acquisition Community Connection, Joint Rapid Acquisition." https://acc.dau.mil/jra (last accessed 5 February 2015)

Domosh M (2013) Geoeconomic imaginations and economic geography in the early twentieth century. *Annals of the Association of American Geographers* 103(4):944–966

Duffield M (2001) *Global Governance and the New Wars: The Merger of Development and Security.* London: Zed

Duffield M (2007) *Development, Security, and Unending War: Governing the World of Peoples.* Cambridge: Polity

Elden S (2013) *The Birth of Territory.* Chicago: Chicago University Press

Epstein J M (1981) Soviet vulnerabilities in Iran and the RDF deterrent. *International Security* 6 (2):126–158

Essex J (2013) *Development, Security, and Aid: Geopolitics and Geoeconomics at the US Agency for International Development.* Athens: University of Georgia Press

Farmer J (2012) Hidden value: The under-appreciated role of product support in rapid acquisition. *Defense Acquisition, Technology, and Logistics (AT&L)* March–April:45–48

Fernández B (2011) *The Imperial Messenger: Thomas Friedman at Work.* London: Verso

Flint C (2010) Geographic perspectives on world-systems theory. In R Denemark (ed) *The International Studies Encyclopedia*, Vol. V (pp 2828–2845). Oxford: Blackwell

Flint C and Shelley F (1996) Structure, agency, and context: The contributions of geography to world-systems analysis. *Sociological Inquiry* 66(4):496–508

Flint C and Taylor P (2011) *Political Geography: World-Economy, Nation-State, and Locality* (6th edn). Harlow: Pearson

Gamlen E J (1993) United States strategic policy toward the Middle East: Central Command and the reflagging of Kuwait's tankers. In H Amirahmadi (ed) *The United States and the Middle East: A Search for New Perspectives* (pp 213–249). Albany: State University of New York Press

Global Security (2015) US Central Command facilities. Global Security. http://www.globalsecurity.org/military/facility/centcom.htm (last accessed 5 February 2015)

Gold D (1988) *America, the Gulf, and Israel: CENTCOM (Central Command) and Emerging US Regional Security Policies in the Middle East.* Jerusalem: The Jerusalem Post

Harcourt B E (2012) *The Illusion of Free Markets: Punishment and the Myth of Natural Order.* Cambridge: Harvard University Press

Harvey D (2003) *The New Imperialism.* Oxford: Oxford University Press

Joint Force Quarterly Forum (2000) An interview with Anthony C. Zinni: Challenges in the Central Region. *Joint Force Quarterly* 24:26–31

Kaldor M and Stiglitz J E (2013) Introduction. In J E Stiglitz and M Kaldor (eds) *The Quest for Security: Protection Without Protectionism and the Challenge of Global Governance* (pp 1–16). New York: Columbia University Press

Kaplan R (2012) *The Revenge of Geography: What the Map Tells Us About Coming Conflicts and the Battle Against Fate.* New York: Random House

Kaufman E E and Berman H (2010) Send in the civilians. *Foreign Affairs* 89(5):175–176

Kearns G (2009) *Geopolitics and Empire: The Legacy of Halford Mackinder.* Oxford: Oxford University Press

Klein N (2007) *The Shock Doctrine: The Rise of Disaster Capitalism.* New York: Metropolitan

Lenin V I (1999 [1917]) *Imperialism: The Highest Stage of Capitalism.* Sydney: Resistance

Lesser I O (1991) *Oil, the Persian Gulf, and Grand Strategy: Contemporary Issues in Historical Perspective.* Santa Monica: RAND

Lester A (2000) Historical geographies of imperialism. In B Graham and C Nash (eds) *Modern Historical Geographies* (pp 100–120). Harlow: Prentice Hall

Luttwak E N (1990) From geopolitics to geo-economics: Logic of conflict, grammar of commerce. *The National Interest* 20:17–23

Macgregor D (2011) Thoughts on force design in an era of shrinking defense budgets. *Joint Force Quarterly* 63(4):21–29

Magdoff H (1969) *The Age of Imperialism: The Economics of US Foreign Policy*. New York: Monthly Review Press

Morrissey J (2009) The geoeconomic pivot of the global war on terror: US Central Command and the war in Iraq. In D Ryan and P Kiely (eds) *America and Iraq: Policy-Making, Intervention, and Regional Politics* (pp 103–122). New York: Routledge

Morrissey J (2011a) Architects of empire: The military-strategic studies complex and the scripting of US national security. *Antipode* 43(2):435–470

Morrissey J (2011b) Closing the neoliberal gap: Risk and regulation in the long war of securitization. *Antipode* 43(3):874–900

Morrissey J (2011c) Liberal lawfare and biopolitics: US juridical warfare in the war on terror. *Geopolitics* 16(2):280–305

Morrissey J, Nally D, Strohmayer U and Whelan Y (2014) *Key Concepts in Historical Geography*. London: Sage

Palmer M A (1992) *Guardians of the Gulf: A History of America's Expanding Role in the Persian Gulf, 1833–1992*. New York: Free Press

Patterson R and Stangler D (2010) Building expeditionary economics: Understanding the field and setting forth an agenda. *Kauffman Foundation Research Series.* http://www.kauffman.org/uploadedfiles/ee_report_1.pdf (last accessed 5 September 2014)

Pelletiere S C and Johnson D V II (1992) *Oil and the New World System: CENTCOM Rethinks Its Mission*. Carlisle: Strategic Studies Institute, US Army War College

Record J (1981) *The Rapid Deployment Force and US Military Intervention in the Persian Gulf*. Washington, DC: Institute for Foreign Policy Analysis

Romero P (2012) Quick wins show the benefits of DoD's rapid acquisition program. *Federal News Radio* 10 June. http://www.federalnewsradio.com/394/2897741/Quick-wins-show-the-benefits-of-DoDs-Rapid-Acquisition-Program (last accessed 5 September 2014)

Schramm C J (2010) Expeditionary economics: Spurring growth after conflicts and disasters. *Foreign Affairs* 89(3):89–99

Smith N (2000) Is a critical geopolitics possible? Foucault, class, and the vision thing. *Political Geography* 19(3):365–371

Smith N (2003a) *American Empire: Roosevelt's Geographer and the Prelude to Globalization*. Berkeley: University of California Press

Smith N (2003b) After the American *Lebensraum*: "Empire", empire, and globalization. *Interventions: International Journal of Postcolonial Studies* 5(2):249–270

Smith N (2005) *The Endgame of Globalization*. New York: Routledge

Smith N (2008) *Uneven Development: Nature, Capital, and the Production of Space* (third edn). Athens: University of Georgia Press

Sparke M (2013) *Introducing Globalization: Ties, Tensions, and Uneven Integration*. Oxford: Wiley-Blackwell

Sweezy P M (1972) *Modern Capitalism and Other Essays*. New York: Monthly Review Press

Taylor P (1996) *The Way the Modern World Works: From World Hegemony to World Impasse*. Chichester: Wiley

Thomas J (2012) Multi-national corporations and stability operations: A new role? *Small Wars Journal* 1 October. http://smallwarsjournal.com/jrnl/art/multi-national-corporations-and-stability-operations-a-new-role (last accessed 5 September 2014)

Ullman H K, Wade J P, Edney L A, Franks F M, Horner C A, Howe J T and Brendley K (1996) *Shock and Awe: Achieving Rapid Dominance*. Washington, DC: Institute for National Strategic Studies, National Defense University

US Central Command (1990) "Statement before the Senate Armed Services Committee on the Posture of United States Central Command by CENTCOM Commander-in-Chief General H Norman Schwarzkopf." 8 February

US Central Command (1997a) *Posture Statement*. MacDill Air Force Base, FL: Office of the Commander-in-Chief

US Central Command (1997b) *Strategic Plan II, 1997–1999: Shaping US Central Command for the 21st Century*. MacDill Air Force Base, FL: Office of the Commander-in-Chief

US Central Command (1997c) "Report to the House Appropriations Committee Subcommittee on National Security by CENTCOM Commander-in-Chief General James H Binford Peay III." 17 March

US Central Command (1998) "Statement before the Senate Armed Services Committee on the Posture of United States Central Command by CENTCOM Commander-in-Chief General Anthony C Zinni." 3 March

US Central Command (1999a) "Statement before the Senate Armed Services Committee on the Posture of United States Central Command by CENTCOM Commander-in-Chief General Anthony C Zinni." 13 April

US Central Command (1999b) *Shaping the Central Region for the 21st Century*. MacDill Air Force Base, FL: Office of the Commander-in-Chief

US Central Command (2006) "Statement before the Senate Armed Services Committee on the Posture of United States Central Command by CENTCOM Commander General John P Abizaid." 16 March

US Central Command (2007) "FAQ." http://www.centcom.mil/sites/uscentcom2/FAQ/CENTCOM%20FAQ.htm (last accessed 30 October 2007)

US Central Command (2013) "Statement before the Senate Armed Services Committee on the Posture of United States Central Command by CENTCOM Commander General James N Mattis." 5 March

US Department of Defense (2004) *Strengthening US Global Defense Posture*. Washington, DC: Department of Defense

US Department of Defense (2015) *DoD 101: An Introductory Overview of the Department of Defense*. http://www.dod.gov/pubs/dod101 (last accessed 5 February 2015)

US-GCC Corporate Cooperation Committee (1994) *Building Bridges: Business to Business and People to People*. Washington, DC: US-GCC Corporate Cooperation Committee. http://ncusar.org/publications/Publications/1994-01-15-Building-Bridges.pdf (last accessed 5 September 2014)

US Office of the Assistant Secretary of Defense (Logistics and Materiel Readiness) (2013) "Materiel Readiness—Product Support Manager's Workshop." http://www.acq.osd.mil/log/mr/PSM_conference.html (last accessed 5 September 2014)

Vinch P M (2012) *A New Paradigm for Defense Rapid Acquisition*. Carlisle: US Army War College

Wacquant L (2009) *Punishing the Poor: The Neoliberal Government of Social Insecurity*. Durham: Duke University Press

Wallerstein I (1979) *The Capitalist World-Economy*. Cambridge: Cambridge University Press

Waltz K N (1981) A strategy for the Rapid Deployment Force. *International Security* 5(4):49–73

Weigelt M (2009) Four lessons in rapid acquisition learned from DOD's new ATVs. *FCW: The Business of Federal Technology* 15 October. http://fcw.com/articles/2009/10/19/acq-rapid-acquisition.aspx (last accessed 5 September 2014)

Planetary Rent Gaps

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Abstract: In this paper I recapitulate the origins, structure, and purpose of Neil Smith's rent gap theory, and assess the frequently discussed but rarely *dissected* empirical studies of rent gaps, in order to trace the key analytical and political shifts Smith effected (from consumer preference to mortgage capital circulation, from "natural areas" to state structures, from house prices to capital depreciation, and from middle class demand to class struggle), as well as posit some possible extensions of the theory vis à vis territorial stigmatisation and displacement. This tracing and extending in place, I then consider the rent gap in the context of the emerging body of work on planetary urbanisation, and argue that the theory helps to expose and confront new geographies of structural violence—planetary rent gaps—where the constitutive power of speculative landed developer interests in processes of capitalist urbanisation can be analysed and challenged. If, as David Harvey has recently argued, rent "has to be brought forward into the forefront of analysis ... [to] bring together an understanding of the ongoing production of space and geography and the circulation and accumulation of capital" (2010:183, *The Enigma of Capital and the Crises of Capitalism*, Profile), then it is important to consider what we can learn from the rent gap today, rather than relegate it, as so many seem to do, to something that has already been debated or exhausted in the large literature on gentrification.

Keywords: rent gap, gentrification, Neil Smith, capital circulation, planetary urbanisation

Turning and turning in the widening gyre
The falcon cannot hear the falconer;
Things fall apart; the centre cannot hold;
Mere anarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The ceremony of innocence is drowned;
The best lack all conviction, while the worst
Are full of passionate intensity.[1]

W.B. Yeats, "The Second Coming" (1919)

Salad in a Scottish Pub

A small information board on Rose Street, Edinburgh (midway between Frederick Street and Castle Street), recently installed by Edinburgh City Council, unwittingly offers clues as to why this is an important site in the study of gentrification. Entitled "From low to high fashion", it mentions how a street once renowned as a "seedy backwater, not a place for the respectable to be seen after dark" started to change in the 1960s as "tenement flats gave way to antique shops and boutiques". Two

photographs of suddenly fashionable Rose Street, and a telling 1966 quote from *The Edinburgh Tatler* (an equally telling publication), complete the representation (see Figure 1).

Fascinatingly, the information board is located almost directly opposite 119 Rose Street, where in 1972 a young man from Dalkeith (a small working class town south-east of Edinburgh) took a summer job in an insurance office:

> In retrospect I suppose I first saw gentrification in 1972 while working for the summer in an insurance office in Rose Street in Edinburgh. Every morning I took the 79 bus in from Dalkeith and walked half the length of Rose Street to the office. Rose Street is a back street off majestic Princes Street and long had a reputation as nightspot with some long-established traditional pubs and a lot of more dingy howffs—watering holes—and even a couple of brothels, although these were rumoured to have decamped to Danube Street by the early 1970s. It was *the* place in Edinburgh for a pub crawl. My office was above a new bar called *The Galloping Major* which had none of the cheesy décor or sawdust on the floor of the old-time bars. This one was new. It served quite appetising lunches adorned with salad, still a novelty in most Scottish pubs at the time. And I began to notice after a few days that a number of other bars had been "modernized"; there were a couple of new restaurants, too expensive for me—not that I went to restaurants much in any case. And narrow Rose Street was always clogged with construction traffic as some of the upper floors were renovated. I didn't think much of this at the time, and only several years later in Philadelphia, by which time I had picked up a little urban theory as a geography undergraduate, did I begin to recognise what I was seeing as not only a pattern but a dramatic one. All the urban theory I knew—which wasn't much, to be sure—told me that this "gentrification" wasn't supposed to be happening. Yet here it was—in Philadelphia *and* Edinburgh. What was going on? (Smith 1996a:xviii).

The Galloping Major is long gone, but I have taken countless undergraduates to 119 Rose Street, which I see as the birthplace of critical gentrification inquiry, and read them sections of *The New Urban Frontier* (see Figure 2: *The Galloping Major* was in the spot now occupied by *Murdo Macleans*, a hair salon).

The "little bit of urban theory" Neil Smith picked up as an undergraduate was dominated by the legacy of the social and spatial theories of the Chicago School

Figure 1: Information board on Rose Street, Edinburgh (source: photo by author)

Figure 2: Rose Street pedagogy, February 2013 (source: photo by Svenja Timmins; reproduced here with permission)

of sociology, infused with the methods and assumptions of neoclassical economics. This body of work was inter alia an attempt to account for why certain population categories lived in certain districts of the city, and it laid the foundation for ideas of spatial equilibrium and economic competition that were used to develop neoclassical models of urban land use in the late 1950s and early 1960s. When on a year's exchange program in Philadelphia, and conducting fieldwork for his undergraduate dissertation on the neighbourhood of Society Hill (Smith 1977), Smith became very sceptical of these massively influential models, not just because they showed "half of the ideal city ... submerged under Lake Michigan" (Smith 1992:110), but because they were linked to a portrayal of the suburbanisation of middle-class and wealthy households as the driving force of urban growth and overall metropolitan housing market dynamics.

The *consumer sovereignty* paradigm undergirding those models was that the "rational choices" of individual consumers of land and housing dictated the morphology of cities. Middle class consumer demand for space apparently "explained" suburbanisation, and this was seen by many scholars to be the future of all urban places. But the empirical reality of Society Hill—gentrification, a process that had also been observed in a few other large Western cities (including London, where the term was coined in 1964)—seemed to call this paradigm into question. Smith could not accept that consumers were suddenly demanding en masse the opposite to what had been predicted, and "choosing" to gentrify central city areas instead.[2] Crucially, in Society Hill he unearthed data showing that many middle class people in Philadelphia had *never left for the suburbs because space was being produced for them*, via state-sponsored private sector development. This created handsome profits for developers and agents of capital, at the expense of working class people who were displaced from central city space. His remarkable undergraduate

dissertation was refined and distilled into a punchy paper published in *Antipode* in 1979. In it, Smith argued that the latter day followers of the Chicago School created an "empiricist and ecological quagmire in which substantive theory nearly drowned" (1979a:24). In the next sentence, he went on to note that "[w]ith the help of breathing equipment from various Marxist sources, resuscitation is well under way". The "breathing equipment" resulted in what is surely the most important essay on gentrification ever written (Smith 1979b), where the pivotal theory of the *rent gap* was first articulated.

In this essay I recapitulate the origins, structure, and purpose of the rent gap theory, and assess the frequently discussed but rarely *dissected* empirical studies of the rent gap, in order to trace the key analytical and political shifts Smith effected, as well as posit some possible extensions of the theory vis à vis territorial stigmatisation and displacement. This tracing and extending in place, I then consider the rent gap in the context of the emerging body of work on planetary urbanisation, and argue that the theory helps to expose new geographies of structural violence—planetary rent gaps—where the constitutive power of speculative landed developer interests in processes of capitalist urbanisation can be analysed and challenged. If, as David Harvey (2010:183) has recently argued, rent "has to be brought forward into the forefront of analysis ... [to] bring together an understanding of the ongoing production of space and geography and the circulation and accumulation of capital", then it is important to consider what we can learn from the rent gap today, rather than relegate it, as so many seem to do, to something that has already been debated or exhausted in the large literature on gentrification.

"Much too simple and definitely obvious": The Anatomy of a Theory

> If the rent gap theory works at all, it works because of its simplicity and its limited claims. It should certainly be subjected to theoretical criticism, but I do think that this will be useful only if the theoretical premises are taken seriously from the start (Smith 1996b:1202).

It is well known, and widely documented, that David Harvey (Neil Smith's PhD advisor) did not like the rent gap paper when he first read it, and hardly warmed to it later. Smith recalled as follows:

> I thought I was doing the usual journeyman graduate student work of taking on my betters. I was confirmed in this judgement when my advisor let the paper languish for months and months on his desk, water leaking on it from the unfixed ceiling, and especially when he finally delivered the assessment that no-one would ever publish it because my efforts at theory were much too simple and definitely obvious. I had already corrected the journal's proofs (quoted in Lees et al. 2010:97).

As the paper became increasingly influential, Smith took great joy in teasing his former advisor about his early disapproval. But it is instructive to reflect on

precisely *why* Harvey disapproved (which many might find surprising given that, together, Harvey and Smith shaped the present day landscape of human geography and urban studies in such a fundamental way). When he first read it, Harvey was deeply engaged in research for a pivotal chapter of *Limits to Capital* entitled "A Theory of Rent",[3] an elaborate dissection of an issue that "troubled Marx deeply", and Harvey had spent years joining "those few hardy souls who have tried to pick their way through the minefield of his [Marx's] writings on the subject" (1982:330). The chapter Harvey produced for his magnum opus provides a panoramic overview of rent, painstakingly charting a path through issues such as the use value of land, landed property, the various forms of rent under capitalism that Marx identified (and their contradictory roles), class struggle between landlord and capitalist, and land titles as "fictitious capital". It is an exhaustive treatment and a very exhausting read, and given the intellectual labour involved, it is understandable why Harvey let a paper written by one of his postgraduates languish for months and months on his desk. When he did get round to reading it, and found a paper that did not even cite Marx, nor engage specifically with most of the aforementioned issues or any of the Marxian debates on rent, he was unimpressed. This was the basis for the "much too simple" part of his verdict. The "definitely obvious" part refers to the fact that the rent gap was, in Harvey's estimation, little more than a restatement (with different terminology and politics) of what he felt we already knew via the classic Chicago School models of city morphology, specifically the work of Homer Hoyt (1933) on residential "filtering".[4] Harvey's criticisms, at first glance, have some merit. But considered in depth, they miss the point of the rent gap, which, for important analytical and especially political reasons, was *intentionally designed to be both simple and obvious*. Conceptual simplicity is very different from simplistic conceptual thought, and Hoyt's models required a high-dosage injection of radical politics to make the class struggles and injustices behind them transparent. Some elaboration is necessary via further detail on the rent gap and what it teaches students of urbanisation.

In "Toward a Theory of Gentrification", Smith explained that in capitalist property markets, the decisive "consumer preference" (with characteristic mischief he adopted the neoclassical language) is "the preference for profit, or, more accurately, a sound financial investment" (1979b:540). As disinvestment in a particular district intensifies, as had happened in Society Hill, it creates lucrative profit opportunities for developers, investors, homebuyers and local government. If we wanted to understand the much-lauded American "urban renaissance" of the 1970s, the argument and title of the essay went, it was much more important to track the movement of capital rather than the movement of people (the latter movement was the exclusive focus of the "back to the city" rhetoric of the time, and the scholarship on it). Crucial to Smith's argument was the ever-fluctuating phenomenon of *ground rent*: simply the charge that landlords are able to demand (via private property rights) for the right to use land and its appurtenances (the buildings placed on it and the resources embedded within it), usually received as a stream of payments from tenants but also via any asset appreciation captured at resale. Landlords in poorer central city

neighbourhoods are often holding investments in buildings that represented what economists and urban planners love to call the "highest and best use" over a century ago; spending money to maintain these assets as low-cost rental units becomes ever more difficult to justify with each passing year, since the investments will be difficult to recover from low-income tenants. It becomes rational and logical for landlords to "milk" the property, extracting rent from the tenants yet spending the absolute minimum to maintain the structure. With the passage of time, the deferred maintenance becomes apparent: people with the money to do so will leave a neighbourhood, and financial institutions "redline" the neighbourhood as too risky to make loans. Physical decline accelerates, and moderate-income residents and businesses moving away are replaced by successively poorer tenants who move in—they simply cannot access housing anywhere else. The lack of maintenance expenditure leads to tough housing conditions for those poorer tenants, amidst myriad other consequences of localised and systematic disinvestment, such as high unemployment, poor schools, inadequate retail services, dismal health outcomes, and so on.

In late 1920s Chicago, Hoyt had identified a "valley in the land-value curve between the Loop and outer residential areas ... [which] indicates the location of these sections where the buildings are mostly 40 years old and where the residents rank lowest in rent-paying ability" (1933:356, 358). For Smith, this "capital depreciation in the inner city" (1979b:543) meant that there is likely to be an increasing divergence between capitalized ground rent (the actual quantity of ground rent that is appropriated by the landowner, given the present land use) and potential ground rent (the maximum that could be appropriated under the land's "highest and best use"). So, Hoyt's land value valley, *radically analysed and reconceptualised*, "can now be understood in large part as the rent gap" (see Figure 3):

> Gentrification occurs when the gap is wide enough that developers can purchase shells cheaply, can pay the builders' costs and profit for rehabilitation, can pay interest on mortgage and construction loans, and can then sell the end product for a sale price that leaves a satisfactory return to the developer. The entire ground rent, or a large portion of it, is now capitalized: the neighbourhood has been "recycled" and begins a new cycle of use (Smith 1979b:545).

The elegance of the rent gap theory lies not just in what David Ley, one of Smith's more astute interlocutors, has referred to as its "ingenious simplicity" (1996:42), but in its critical edge, its normative thrust. The flight of capital away from certain areas of the city—depreciation and disinvestment—has devastating implications for people living at the bottom of the urban class structure. The "shells" referred to above do not simply "appear" as part of some naturally occurring neighbourhood obsolescence and "decay"—they are *actively produced* by clearing out existing residents via all manner of tactics and legal instruments, such as landlord harassment, massive rent increases, redlining, arson, the withdrawal of public services, and eminent domain (or "compulsory purchase orders" in the UK). Closing the rent gap requires, crucially, separating people
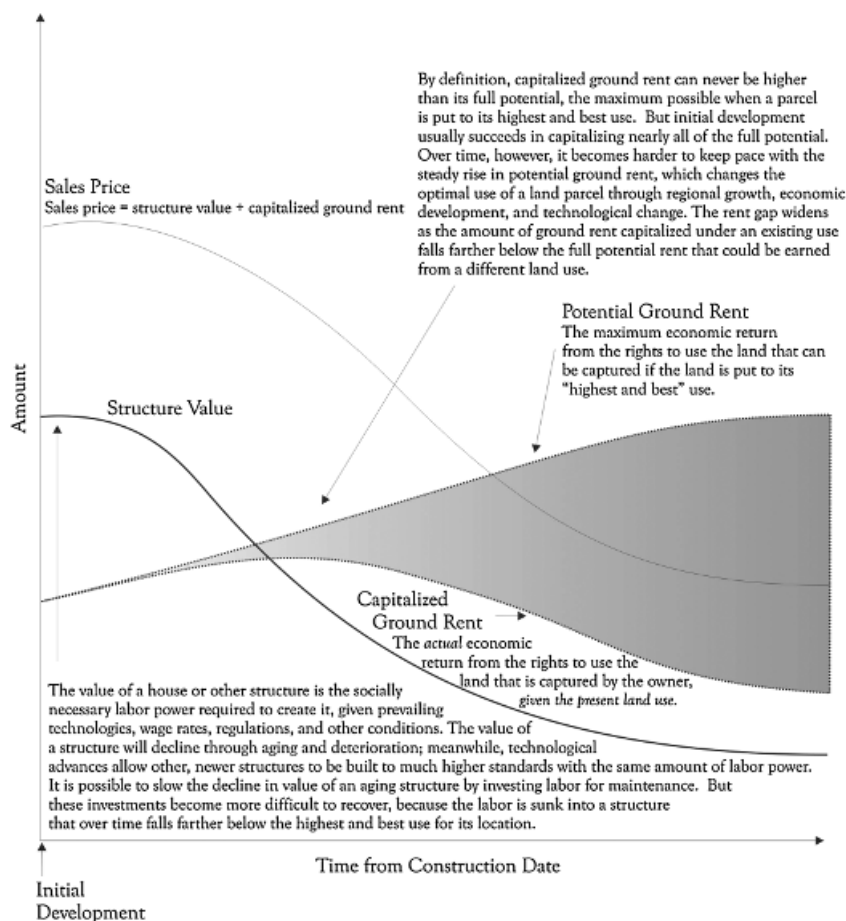
Figure 3: The Rent Gap, redrawn by Elvin Wyly (source: Lees et al. 2008:52; reproduced here with permission)

currently obtaining use values from the present land use providing those use values—in order to capitalise the land to the perceived "highest and best" use.[5] The rent gap thus highlights specific social (class) interests, where the quest for profit takes precedence over the quest for shelter.

It is fascinating to note the delightful rascality in where the rent gap paper appeared —the very mainstream *Journal of the American Planning Association*, in a special issue on neighbourhood "revitalization",[6] a term that made Smith wince: "it is often also true that very vital working class communities are culturally *de*vitalized through gentrification as the new middle class scorns the streets in favour of the dining room and bedroom" (1996a:32–33). In an excellent discussion of the rent gap in the book *Gentrification*, Elvin Wyly noted the etymology of the word "gap"—from the Old Norse for "chasm", denoting a breach in a wall or fence, a breach in de-fences, a break in continuity, or a wide difference in ideas or views. He continued:

> The rent gap is part of an assault to breach the defensive wall of mainstream urban stud-
> ies, by challenging the assumption that urban landscapes can be explained in large part
> as the result of consumer preferences, and the notion that neighbourhood change can

be understood in terms of who moves in and who moves out. Scholars, therefore, take its implications very seriously (Lees et al. 2008:55).

It is hardly surprising that the rent gap thesis has been the subject of intense debate for well over 30 years. But those debates, often shot through with intractable ideological confrontations and petty bickering, became rather frustrating for many, leading to many errors of interpretation and cursory, dismissive summaries. However, pinpointing the important scholarship that validates, documents, extends geographically, challenges and complicates the rent gap can aid the overall task of revealing its analytical and political relevance today.

Tests, Refinements, and Possible Extensions

> The light work sheds is a beautiful light, which, however, only shines with real beauty if it is illuminated by yet another light (Wittgenstein 1984:26).

It would be tedious to recite and summarise in any great detail the rent gap debates, and this task has been undertaken elsewhere (Lees et al. 2008:39–86). These debates must not, of course, be considered in isolation from the gentrification debates more broadly, mindful of the booby trap of the stalemate between "production" versus "consumption" explanations, on which I have advanced several observations and critiques (Slater 2006, 2009, 2011). I believe that it is now categorically unhelpful to advance the complaint that the rent gap cannot tell us anything about middle class gentrifiers, when it was never designed to do so. Take this critique by Tim Butler:

> [L]ocal cultures clearly have a continued agency in shaping the gentrification process to an extent far greater than is recognised by those who paint a picture of gentrification as broadly and blandly a process of global urban neocolonialism performed by upper professional groups ... By denying agency to the actors involved, "supply siders" in the gentrification debate (Smith 1979a, 1979b) have long laid themselves open to charges of overdetermination (Hamnett 1991) and continue so to do (Butler 2007:178).

In point of fact, it is actually those denying power to developers, bankers, and state officials[7] who are "denying agency", for the rent gap points to:

> the various agents involved in supplying "capacities" at given locations, e.g. financiers, developers, property owners ... active in the process insofar as they are the most influential agents in development and redevelopment activities, but also insofar as they actively contribute during the interim to rent gap expansion and the depreciation of building capital (Clark 1988:246).

Unfortunately, tired critiques refuse to die, for a recent textbook purporting to be a "critical introduction" to urban theory asserts that Smith "later weakened his position" by "acknowledging that gentrification may be explained not only by the actions of advanced capitalists" (Harding and Blokland 2014:148). Yet this

was always acknowledged by Smith, as far back as his undergraduate dissertation: "precisely in cases such as Society Hill where housing was appropriated by middle and upper class buyers—the group with the widest choice in the housing market—demand becomes important" (Smith 1977:10). A signal contribution of the rent gap was to show that, first, the individual, personal, rational preferences in the housing market much beloved by neoclassical economists, and second, the "new middle class" dispositions towards a vibrant central city (and associated rejections of bland, patriarchal suburbia) that intrigued liberal-humanist and feminist geographers, are all tightly bound up with larger, collective social relations and investments (core to the rent gap concept is that ground rent is *a product of the labour power invested in land*, and that preferences are not "exogenous" to the structures of land, property, credit and housing). So, highly influential charges of economic "determinism" (Hamnett 1991) seem to be diversions in an epoch of unrelenting capitalist urbanisation, vicious accumulation strategies, and the ever-sophisticated mutation of neoliberalism (Brenner et al. 2010; Harvey 2010)—an economic context that is deeply deterministic. Far more helpful at this juncture is to consider what can be learned from those studies that have grasped the importance of the political thrust of the rent gap from the outset, and understood its theoretical premises in order to conduct detailed empirical studies. Given the intense empirical grafting involved—there are no readily available variables to measure capitalised and potential ground rent, so scholars have to dig into planning archives and land records going back several decades in order to construct their own proxy indicators—few empirical studies exist.

Where Harvey was disappointed by his student's failure to situate the rent gap specifically within the various traditions of urban land rent theory, Eric Clark (1987, 1988, 1994) more than made up for such an omission. Clark's study of 125 years of urban land rent fluctuations in Malmö, Sweden is the definitive work on the history and empirical expression of rent gaps, the creation and closure of which was identified (via combining numerous archival data sources) in several sample blocks in the centre of that city, and then considered in light of the divergent traditions of interpreting land rent between neoclassical economics and Marxist political economy, with the conclusion that "in their empirical form at the level of appearance, the results may be interpreted from either perspective" (1988:86). Clark works firmly in the latter tradition, and his writings on the rent gap are particularly important in terms of how his theoretically informed empirical tests led to some shrewd observations of the gentrification debates, including this powerful reaction to one of the main criticisms of rent gap theory: "The fact that rent gap theory cannot fulfil the dubious wish for a catch-all explanation of various forms of urban redevelopment can, however, hardly be held against it" (1988:81).

Other well known empirical tests were carried out by Ley (1986), who produced a fascinating gentrification index for 22 urban regions in Canada from a multivariate analysis including ratios of inner-city to metropolitan-wide house values and rental costs, but found no evidence for the rent gap thesis (a highly questionable conclusion, given that the ratios did not tell us about potential or capitalised ground rent); by Kary (1988), who mapped a land value valley in

Toronto in the 1960s and 1970s, with a striking depth in the Don Vale district that partly explained the class transformation of "Cabbagetown" (one of the earliest neighbourhoods of that city to gentrify); by Badcock (1989) and Engels (1994) in Adelaide and Sydney respectively, who both found evidence of rent gaps whilst pointing to a range of different context-dependent strategies for revaluing a devalorised urban landscape; by Sykora in Prague at the dawn of post-socialist market transition, who charted an emerging land price gradient showing not rent gaps but "functional gaps", "caused by the underutilisation of available land and buildings relative to their current physical quality … [and] closed in a very short time without making huge investments" (Sykora 1993:288); by Hammel (1999) in Minneapolis, who combined data from deeds of sale and tax assessments on nine groups of land parcels that were assembled and redeveloped for middle class and luxury apartments in the 1960s, and found substantial rent gaps for most of those parcels, mediated by some fascinating local and extralocal scale effects such as neighbourhood reputation (to be discussed later); by Yung and King (1998:540), who drew on several of the studies above to test the rent gap thesis in eight local government areas in Melbourne, and found rent gaps emerging not from the suburbanisation of capital but "the sudden opening of new submarkets for vacant land" in response to a capital-switching crisis that had created new investment opportunities; and by O'Sullivan (2002), who undertook a spatial modelling exercise vis à vis the long-term evolution of the rental and ownership markets in Hoxton, inner-east London, and tentatively identified some links between extremely local events in these markets and broader cycles of disinvestment and reinvestment.

Recent studies proving just as instructive have been undertaken by Darling (2005) in her study of "wilderness gentrification" in New York State's Adirondack Park, where the material production of recreational nature (rather than residential space) by the state management of the local landscape created the conditions within which investment and disinvestment in the rural built environment occurred (the rent gap had a different geographical expression and was closed via New York City-based developers capturing the "bargain-basement property prices" typically found across the Adirondack Park that "made the entire place seem disinvested" [2005:1028]); by Diappi and Bolchi (2008), who deployed agent-based modelling in Milan (specifically, a multi-agent model embedded in a cellular automata framework) and found clear evidence of "the cyclical dynamics of the market induced by investors and developers awaiting better capital returns when the rent gap widens"; and by Porter (2012) in New York City, who deployed a hedonic pricing model based on public use microdata and uncovered two land value valleys between 1990 and 2006 that go some way towards explaining the intensity of gentrification in that city during that time period.

Even though we can only ever obtain proxy data for potential and capitalised ground rent, these empirical studies are all valuable as part of a wider scholarly effort to understand the class transformation of space, wherever and under whatever conditions that transformation might be happening. But reflecting on these studies and on the wider debates about the rent gap, it seems pertinent to highlight something critically important about the theory that is often missed

or sidelined. Reflecting on the rent gap paper in 2010, Smith said that the main challenge "was integrating a sense of historical spatiality into an already existing body of theory which, itself, seemed space-blind" (quoted in Lees et al. 2010:97). In this respect it becomes essential to consider that paper in tandem with, and never in isolation from, a later paper that situated the rent gap within a broader articulation of uneven development at the urban scale, entitled "Gentrification and Uneven Development" (Smith 1982). There, three aspects of uneven development were articulated, and gentrification was located within each aspect:

1. *tendencies toward equalisation and differentiation*: capital drives to overcome all spatial barriers to expansion (equalisation), yet a series of differentiating tendencies (divisions of labour, wage rates, class differences, etc.) operate in opposition to that equalisation. At the urban scale, the contradiction between equalisation and differentiation is manifest in the phenomenon of ground rent, which translates into a geographical differentiation (eg in US cities, central city versus suburbs, with higher ground rent in the latter);

2. *valorisation and devalorisation of built environment capital*: the valorisation of capital in cities (its investment in search of surplus value or profit) is necessarily matched by its devalorisation (as the investor receives returns on the investment only by piecemeal when capital is "fixed" in the landscape). However, new development must proceed if accumulation is to occur—so the steady devalorisation of capital creates longer-term possibilities for a new phase of valorisation. The devalorisation of capital invested in the central city leads to a situation where the ground rent capitalised under current land uses is substantially lower than the ground rent that could potentially be capitalized if the land uses were to change. When redevelopment and rehabilitation become profitable prospects, capital begins to flow back into the central city—and then substantial fortunes can be made;

3. *reinvestment and the rhythm of unevenness*: under capitalism there is a strong tendency for societies to undergo periodic but relatively rapid and systematic shifts in the location and quantity of capital invested in cities. These geographical and/or locational "switches" are closely correlated with the timing of crises in the broader economy (ie when the "growth" much beloved of mainstream economists and politicians does not occur). Crises occur when the capitalist necessity to accumulate leads to a falling rate of profit and an overproduction of commodities (in recent years, these commodities are the various financial products that have emerged vis à vis the buying and selling of debt). The logic of uneven development is that the development of one area creates barriers to further development, thus leading to underdevelopment, and that the underdevelopment of that area creates opportunities for a new phase of development (in spatial terms, Smith called this the "locational seesaw" of capital flows).

An understanding of how neighbourhoods change therefore "requires recognition of the powerful incentives and constraints embedded in the circulation of capital in housing and land markets" (Smith et al. 2001:524). As we have seen,

rent gaps are actively produced (especially under current conditions of crisis that have set capitalised ground rent on a downward spiral) through the actions of specific social actors ranging from landlords to bankers to urban property speculators, and the role of the state in regards to these actors is far from laissez-faire but rather one of *active facilitator*, as Smith had found in Society Hill: "The state had both a *political* role in realizing Society Hill, and an *economic* role in helping to produce this new urban space" (1979a:28). In this respect, Ley's statement that the rent gap "overlooks regulatory contexts which may well discipline capital's freedom of expression" (1996:42) becomes very puzzling indeed (Smith's undergraduate dissertation even carried the subtitle, "State Involvement in Society Hill, Philadelphia").

But the rent gap theory is not watertight or without its limitations—no theory is—and therefore can be developed conceptually along multiple fronts. Two immediately stand out. First, the question of *displacement* from space was always implicit in the theory but not explored specifically in Smith's initial formulation and subsequent refinements. To be sure, the very impetus for the production of the theory was the injustice of people losing their homes, and thus Smith provided accompanying nods to Marx's (1990:812) observation that improvements of towns "drive away the poor into even worse and more crowded hiding places", and to Engels' (1872:74) famous passage in *The Housing Question* about poverty being "merely shifted elsewhere" by the bourgeoisie. But Smith's "schematic attempt to explain the historical decline of inner-city neighbourhoods" (1979b:543) via the rent gap invites a closer consideration of "what happens when forces outside the household make living there impossible, hazardous, or unaffordable" (Hartman et al. 1982:3). In addition to his extremely helpful conceptualisation of displacement (identifying four different forms) (Marcuse 1985; see also Slater 2009), Peter Marcuse (2010:187) recently argued that:

> If the pain of displacement is not a central component of what we are dealing with in studying gentrification—indeed, is not what brings us to the subject in the first place—we are not just missing one factor in a multi-factorial equation; we are missing the central point that needs to be addressed.

A challenge for students of rent gap theory is to develop and extend it to explain displacement in any or all of the forms identified by Marcuse, to illustrate *specifically* how the opening and closing of rent gaps leads to the agony of people losing their homes (for one such attempt in Seoul, see Shin 2009). How, if at all, might those forms of displacement be incorporated into the simple diagram of the rent gap Smith originally presented in 1979?

A second area where the rent gap theory might be extended is the question of the impact of *territorial stigmatisation*. A tiresome charge against the rent gap theory is that it fails to predict which neighbourhoods will gentrify and which will not (missing completely the fact that it was never designed as a predictive model). But there is an unresolved analytic puzzle requiring attention: why does it appear to be the case that gentrification rarely seems to occur first in the most severely disinvested

and parts of a city or a region—where the potential for substantial profit is at its greatest—but proceeds instead in devalorised, working class tracts that are disinvested but by no means the poorest or offering the maximum profit to developers? Hammel (1999:1290) helpfully offered a clue:

> Inner city areas have many sites with a potential for development that could return high levels of rent. That development never occurs, however, because the perception of an impoverished neighbourhood prevents large amounts of capital being applied to the land.

Smith was alert to those (frequently racialised) perceptions[8] and explored them thoroughly in a landmark paper on the gentrification of Harlem (Schaffer and Smith 1986). But the challenge remains enticing and urgent—to consider the disparity between potential and capitalised ground rent in the context of how urban dwellers at the bottom of the class structure are discredited and devalued *because of the places with which they are associated*. The negative manner in which certain parts of cities are portrayed (by journalists, politicians and think tanks especially) has become critically important to debates about their future. A mushrooming body of work points to a direct relationship between the defamation of place and the process of gentrification (August 2014; Gray and Mooney 2011; Kallin and Slater 2014; Slater and Anderson 2012; Thörn and Holgersson 2014; Wacquant 2007), where neighbourhood "taint" becomes a target and rationale for "fixing" an area via its reincorporation into the real estate circuit of the city—yet sometimes the "perception" Hammel outlines is so negative and entrenched that it acts as a symbolic barrier or diversion to the circulation of capital. In sum, as territorial stigmatisation intensifies, there are major implications for rent gap theory, but further investigations are needed to understand how the theory might be recalibrated to account for the pressing issue of the symbolic defamation of space. Such defamation serves economic ends, but also vice versa: examples abound under authoritarian urban regimes whereby the economics of inter-urban competition—with gentrification strategies at the core—are serving the brutal and punitive policies directed at working class minorities, and particularly at the places where they live (Ahmed and Sudermann 2012; Kuymulu 2013; Sakizlioglu 2014).

But there is one overarching issue that cannot be ignored when considering the rent gap today. It was formulated in the late 1970s, and we are dealing today with a radically changed context in which cities "now find themselves competing economically with each other across national borders in a way that would have been inconceivable in the 1970s" (Smith 2010:19). These words come from one of the last things Smith wrote about gentrification, an astute essay that reflected upon a "new interscalarity" emerging where cities have "quite different global powers, and a greater global presence", within which gentrification "is now generalised, increasingly planned, somewhat democratised, and of a totally recalibrated scale" (2010:19). The challenge for scholarship and for political action is to think about how, and in what ways, the rent gap thesis might be helpful in an era of planetary urbanisation.

Speculative Planet

> We came with visions, but not with sight. We did not see or understand where we were or what was there, but destroyed what was there for the sake of what we desired … And this habit of assigning a higher value to what might be than to what is has stayed with us, so that we have continued to sacrifice the health of our land and of our communities to the abstract values of money and industrialism (Wendell Berry, quoted in Clark 2005:256).

To capture the mutation of gentrification into a "global urban strategy" (Smith 2002), and to provide an illustration of the role of truly global financial systems and the deregulation of the entire global financial apparatus, Smith would often (in person rather than in print) give the example of the 1995 construction of a luxury apartment building in the Lower East Side of New York City which involved an Israeli developer, investment capital from a European-American import bank, a Bangladeshi landlord, and a Long Island architect (and built using non-union labour, which was a first in New York City at the time). But, guided by Lefebvre's dialectical imagination in *La Révolution Urbaine* (particularly the intriguing statement that urbanisation had superseded industrialisation as the major vehicle for capital accumulation [see Lefebvre 2003]), Smith was also acutely aware that global financial transactions were producing extraordinary transformations of, and struggles in, cities such as Shanghai, Mumbai and Mexico City—and on a scale that dwarfed anything ever seen in the theoretical heartlands of gentrification such as New York and London. This immediately raises the theoretical and empirical question of the production of these new urban geographies, and scholarship on this has recently arrived at the *problematique* of "planetary urbanisation" (Brenner 2014a, 2014b; Merrifield 2013). Since the remit of this new body of work is "to replace city- and settlement-centric, population-based models of urbanisation with an exploration of the dynamics of implosion-explosion under capitalism" (Brenner 2014a, 2014b:21), and since evictions, enclosures and dispossessions—what Merrifield (2014) calls "neo-Haussmannisation"—now occur "on the scale of the entire planet" (Brenner 2014a, 2014b:27), it seems prudent to consider rent gaps, and the "rent question" in general (Haila 2015), in this theoretical context and under these social conditions. The realities of neo-Haussmannisation render highly questionable the influential pleas to "unlearn" theories that emerged from global cities in the so-called "Global North". In fact, the postcolonial "new comparative urbanism" has yet to yield any major insights into the global move from use value (somewhere to build and live) to exchange value (something to sell at a profit after the price has risen or something that represents stored capital), and has yet to cast any light upon where surplus value (ie the extraction of social production) gets extracted. This is unfortunate, given pressing and widespread realities of land grabbing and forced eviction. In one of his "dangerous contradictions" of capital, Harvey (2014) addresses the problem of continuous compound growth under long cycles of accumulation. To address this problem, capital has to devalue land to reinvent investment opportunity. The violence and human consequences of these cycles of building and destroying, of creating and tearing apart, surely demand that we jettison sub-disciplinary turf wars over how various parts of the world should be

studied and theorised and consider instead the purchase and relevance of theories that have proven more than adequate (analytically and politically) in grasping the function of rent: to underpin investment and reinvestment opportunity, which in turn underpin uneven development under capitalism.

So far there are three *specific* deployments of rent gap theory in parts of the world that have, for too long, been off the radar in gentrification research (see Lees et al. [2015] for a fascinating corrective). Whitehead and More (2007) examined the massive changes visited upon the central mills districts of Mumbai in the context of the 1980s informalisation and decentralisation (to the suburbs) of the textile industry in that city. Aided by an NGO organisation actively supporting the "relocation" of slum dwellers from those districts to the outskirts of Mumbai, mill owners and multinational developers seeking opportunities for commercial real estate realised that the (actively disinvested) land upon which the mills once worked was not at its "highest and best use", and to gain maximum profit from the land they pushed successfully for changes to development regulations (which had stipulated that only one-third of the mill lands could be used for real estate development).[9] The result was an exclusive apartment and shopping mall development in a city where over 70% of residents officially live in "slum" conditions. True to the original formulation of the rent gap thesis, the role of the state was far from *laissez-faire*:

> The state government has changed to become an organisation attracting off-shore and domestic investment to the island city, while service provision becomes secondary. It has been reshaped to enable, facilitate and promote international flows of financial, real estate and productive capital, and the logic of its policies can be read off almost directly through calculations of rent gaps emerging at various spots in the city (Whitehead and More 2007:2434).

The propitious role of the state in creating the disparity between capitalised and potential ground rent has also been illustrated by López-Morales (2010, 2011), in two striking papers on "gentrification by ground rent dispossession" in Santiago, Chile. After the 1990 return to democracy in Chile (following 17 years of military dictatorship), various state policies were designed with a view to attracting professional middle classes into deeply disinvested parts of central Santiago, with varying degrees of success. From the 2000s onwards, however, a second phase of much larger scale state-sponsored entrepreneurial redevelopment has been taking place on formerly industrial sites, and on small owner-occupied plots in traditionally working class peri-central areas known locally as *poblaciones*, all of which exhibit wide rent gaps in the context of a city that has positioned itself as one of the economic powerhouses of Latin America. Drawing upon several years of field and archival research, López-Morales traced and mapped the policy-driven production and accumulation of potential ground rent in Santiago alongside the land devaluation produced by strict national building codes and the under-implementation of previous state upgrading programs. The author identified two forms of capitalised ground rent, the first being what owner-occupiers receive for their plots in a sale under current regulatory

conditions, and the second what developers are able to extract from land if they are able to brush aside those conditions (and the upheavals created by that second form led López-Morales to equate it with Harvey's concept of *class monopoly rent*).[10] Just as in the Mumbai case above, the state was critically important in the opening and closing of rent gaps, and also in creating the conditions for national and foreign speculation in urban land markets, for:

> the way developers can acquire and accumulate large portions of inhabited land is by buying, at relatively low prices, from inner city owner-occupiers, and they often hold it vacant while passively waiting (or actively lobbying) to get building regulations loosened (López-Morales 2010:147).

A third recent deployment of the rent gap thesis has been in a remarkable analysis by Wright (2014) of the gentrification of the *centro historico* of Ciudad Juárez on the Mexico–USA border in the wake of the carnage and devastation caused there by a transcontinental drugs war (2006–2012) instigated by both countries' governments. Wright found rent gap theory to be highly applicable to account for a situation whereby:

> in order to rescue the *centro* and augment its economic value, the city first needed to be economically and socially destroyed. The formerly vibrant downtown, in short, needed to be killed before it could be rescued (Wright 2014:2).

Particularly striking about this study is the way in which Wright weds feminist and Marxist approaches to accumulation by dispossession to explain a class struggle between, on the one hand, ruling elites intent on a strategy of denigrating the lives and spaces of working class women and their children living in the *centro* in order to expand the rent gap and ultimately "clean up" the area and "re-establish" it as a place for upstanding families (see also Mountz and Curran 2009), and on the other, activists drawing public attention to the exploitation (in *maquiladora* factories and in sex work) of working poor women and especially to *feminicidio* (the killing of women with impunity):

> activists used the language of *feminicidio* to launch a counter-offensive against the political and business elites who minimized the violence by declaring that the victims were not worth remembering. In so doing, they challenged the story that equated women's disappearance from public space, either through their deaths or through municipal social cleansing projects, with value. And, as such, they disabled a key technology for widening the rent gap between the places known for poor women and the places known for their disappearance (Wright 2014:9).

While gentrification plans were disrupted by activists for some time, this did not last, for those same policy and business elites then targeted young men caught up in the violence of the drugs war:

> Rather than refer to the male youth population that dominates the body count as the resident population of the city's poor working-class families, the mayor referred to them as "venomous vermin" who had descended upon the city ... Such depictions ... sought

to whitewash the public memory of these young people who were being gunned down on the very streets that had raised them (Wright 2014:11).

This official "politics of forgetting" is now working to close the rent gap and extract profits from massively devalorized spaces: "the business leaders who are gobbling up the shuttered businesses and overseeing the massive physical reconstruction of the city that has its streets and buildings in rubble declare that everything is officially better as long as we forget about the past" (Wright 2014:12). Powerful legal instruments procured by the state were deeply implicated in this disturbing picture, for "the mayor, and then the state governor, declared in that year that any business that did not sell as part of the development plan would be targeted for eminent domain" (Wright 2014:11).

Reflecting on these three studies in the context of theoretical developments vis à vis planetary urbanisation, and considering the massive dislocation caused by the real estate and construction industry bonanza (buttressed by state power) commonly known as "mega-events" (Porter 2009; Shin and Li 2013), it becomes clear why Neil Smith wrote an essay in 2009 entitled "Revanchist planet":

> [T]he crisis of the state, to which revanchism is in part a response, is integral to a contemporary rescaling of the geography of capital accumulation. The reconnection of the global and the urban, through the tendrils of the state as much as through the dictates of the market, is central to this process. Revanchism is a global reality today in a way it was not ten years ago, and any focus on revanchist urbanism must be squeezed through a recognition of this truth ... It is vital in this context that our perspective keeps pace with this globalisation of revanchism. The convergence between the revanchist city and a revanchist globalism is still largely unexplored but now represents an urgent political and analytical challenge (Smith 2009:16–17).

Just as the political challenge becomes clearer via close scrutiny of the sheer variety of remarkable struggles and movements that have erupted across the revanchist planet, the analytical challenge is increasingly transparent: the rent gap, and the structural violence and dispossession visited upon working class people, needs to be considered vis à vis the *speculative landed developer interests* that Harvey has since identified as: "a singular principle power that has yet to be accorded its proper place in our understanding of not only the historical geography of capitalism but also the general evolution of capitalist class power" (2010:180).

Landowners have everything to gain from the global circulation of interest-bearing capital in urban land markets, and from the municipal absorption of surplus capital via all kinds of debt-financed urbanisation projects. Since 2008 it has become clear that vast sums of money in financial services are not made from big bets but from the *circulation* of capital (eg in the immediate aftermath of Ireland's financial collapse, capital markets lent money to the UK government to lend to the Irish government, which then give it back to the capital markets through interest payments and debt retirement—and just "keeping it moving" allows a tiny and disgraced financial elite to get even richer). In his assessment of the "geography of it all", Harvey continues:

Investments in rents on land, property, mines and raw materials thereby becomes an attractive proposition for all capitalists. Speculation in these values becomes rife. The production of capitalism's geography is propelled onwards by the need to realise speculative gains on these assets (2010:181).

Whilst the wealth that has arisen out of speculative gains from massive urban development projects is greeted by business leaders, politicians and the media with predictable fanfare and ludicrous promises of "trickle-down", little is heard about those who have been forced to leave to make way for such projects. An illustration of the problem was provided recently in a powerful short film on forced evictions entitled *People Before Profit*,[11] produced by human rights organisation WITNESS, where an activist remarks:

> You have South Korean companies investing in India. You have Indian companies investing in South Africa. If the nature of that transaction and finance and the people causing these evictions are international in nature, then the campaigns ought to be international in nature ... We have no choice.

Under these conditions, distinctions between the "Global South" and the "Global North"—and squabbles in journals about *who* should say *what* about *where*—appear completely redundant, "requiring an upgrade and a rethink" (Merrifield 2014:x). The "South" is in the "North", and vice versa, but the circulation of capital within secondary circuits of accumulation is everywhere and does not recognise or validate such distinctions. The relevance of the rent gap theory to campaigns and struggles against speculative landed developer interests is that it helps, as Smith (1979a:24) intended, to "redirect our theoretical focus toward the sphere of circulation ... [where] we can trace the power of finance capital over the urbanisation process, and the patterning of urban space according to patterns of profitable investment". Two illustrations: first, Wright concludes her study of Ciudad Juárez by observing that, in 2012, the Washington DC based Inter-American Development Bank promised a $50 million loan to the city in order to capture profits from a place deliberately scrubbed clean of its working class history; second, in a study of gentrification in Ras Beirut, Lebanon, Ross and Jamil (2011:23) document the currents and contradictions of speculative foreign investment in urban land:

> To the same extent that real estate capital depended upon the deflated prices that urban, national, and regional instability generated, it also needed political stability to protect that which had already been invested. For poorer Beirutis, particularly those who rent, this contradiction meant that the availability of relatively affordable housing depended, in part, on unnerving political tensions and the threat of violence, while the onset of peace and stability brought about much higher housing costs.

The title of Ross and Jamil's essay is as revealing as it is disturbing: "Waiting for war (and other strategies to stop gentrification)".

In sum, as scholarship moves "towards a study of planetary urbanisation", it seems difficult to ignore the emergence of planetary rent gaps in a collective intellectual project that "may prove useful to ongoing struggles—*against* neo-Haussmanisation, planetary enclosure, market fundamentalism, and global ecological plunder"

(Brenner 2014a, 2014b:28). The creation of fictitious capital through financial instruments designed to broaden the markets of who can bid and by how much—financialisation—means that expectations of what can be extracted from legally enforced rights to land have drastically increased. Hoyt, Alonso, and von Thunen have been globalised, so have the biases in their theories, and, as a consequence, rent gaps have become *much* wider, woven into causal linkages with processes at much wider spatial scales (Vradis 2013). The scientific challenge is to study planetary rent gaps in relation to how global financiers, developers, states, and local populations work together to produce the conditions for accumulation in a very uneven manner.

Dismantling the Needs of Capital

> If a mark of a good theory is that it compels us to ask illuminating questions of reality, then the rent-gap theory is "a good theory" (Yung and King 1998:540).

Smith never wanted the rent gap theory to be about abstract lines and curves on a graph, or reduced to squabbles in journals with neoclassical economists or liberal geographers. The rent gap is fundamentally about class struggle, about the structural violence visited upon so many working class people in contexts these days that are usually described as "regenerating" or "revitalizing". Contrary to contemporary journalistic portraits of latte-drinking white "hipsters" versus working class people of colour, the class struggle in gentrification is between those at risk of displacement and the agents of capital (the financiers, the real estate brokers, policy elites, developers) who produce and exploit rent gaps. Housing is class struggle over the rights to social reproduction—the right to make a life. This is a class struggle playing out within the realm of *circulation* largely between, on the one hand, those living in housing precarity, and on the other, finance capital and all its many tentacles.[12] Without the rent gap, we would not understand this class struggle like we do, nor have such a clear set of critical analytic optics through which to interpret and challenge cycles of investment and disinvestment in cities. Smith would be the first to encourage serious critical engagement with his theory, and would welcome and learn from critiques that understood from the outset the roots of the rent gap in Marxist urban theory, whilst offering biting and witty rebuttals to those who did not grasp those roots (eg Smith 1996b to Bourassa 1993). In this essay I have identified some openings, extensions, and political possibilities of the rent gap that are invariably missed in urban studies textbook summaries of the theory, and hopefully this acts as something of a backlash against those participating in the ongoing saga of gentrification debates who are quick to trivialise or abandon the theory, rather than clarify it and consider its relevance today, and those who argue we should "unlearn" certain urban theories simply because of where they were formulated.

The final task is to recognise the importance of the rent gap theory to urban social movements. Take Back the Land is one such movement in the USA, a national network of organisations dedicated to elevating housing to the level of a human right and securing community control over land. Max Rameau (2012:951), one of the movement's leaders, recounts as follows:

In pursuit of a unified theory of gentrification, among a list of other suggestions, I casually recommended we take a gander at this "rent gap theory". To say it was one of the better readings would woefully understate its importance. Neil Smith's rent gap theory was dazzling. It was academic and complex, while simultaneously refreshingly simple and stripped down to the bare essentials of economic motivations and transactions ... The rent gap theory served as the core document informing our understanding of gentrification. In addition to helping us understand what gentrification is and why it occurs, the rent gap theory enabled us, through a process of reverse engineering, to divine theories on how to stop gentrification, even if we lacked the power to implement those theories. To this day, Take Back the Land campaigns are substantially designed based on the implications of the rent gap theory.

Identifying rent gaps, and identifying those institutions creating them with a view to capturing profits from them, is clearly vital to the formulation of strategies of resistance and revolt. Therefore it is a critically important challenge for scholars and activists, together, to identify precisely where developers, owners and agents of capital and policy elites are stalking potential ground rent; to expose the ways in which profitable returns are justified among those actors and to the wider public; to raise legitimate and serious concerns about the fate of those not seen to be putting urban land to its "highest and best use"; to point to the darkly troubling downsides of reinvestment in the name of "economic growth" and "job creation"; to examine the possibilities for concerted resistance; and to reinstate the use values (actual or potential) of the land, streets, buildings, homes, parks and centres that constitute an urban community. These concerns were always at the core of Smith's inseparably intellectual and political project. In closing the original rent gap paper, he was prescient when he remarked that gentrification "could be the leading edge ... of a larger restructuring of urban space", and he identified two opposing scenarios, over which a struggle was to be fought:

According to one scenario this restructuring would be accomplished according to the needs of capital ... According to a second scenario, the needs of capital would be systematically dismantled, to be displaced by the social, economic and cultural needs of people as the principle according to which the restructuring of space occurs (1979b:547).

That second scenario is what the rent gap theory leads us towards, and it is a powerful intellectual legacy to be sustained if "we wish the von Thunen theory of the urban land market to become *not* true" (Harvey 1973:137).

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Endnotes

[1] This poem appears at the start of Neil Smith's (1977) undergraduate dissertation, the piece of empirical research that provided the foundation for his rent gap theory. He did not comment on the poem, but it is reasonable to assume that "the worst are full of passionate intensity" captures perfectly the agents of capital, stalking potential ground rent, who are intent on gentrifying a neighbourhood without due regard for those currently living there.

[2] He once captured the absurdity of this view for me in person when he joked: "Can I please have the phone number of the middle class household that ordered the London Docklands? I want their power!"

[3] David Harvey, personal communication, Athens, Greece, 9 May 2014.

[4] Hoyt (1933) contended that new houses and new neighbourhoods were almost always built for higher-income households as their previous homes had become "obsolete". He argued that once those previous homes were vacated, they "filtered down" and became more affordable for progressively poorer groups as part of a "vacancy chain". The mainstream urban studies assumption is that, ceteris paribus, this process continues until the last vacancy is an abandoned place that nobody wants. Empirical evidence for this assumption, however, is entirely lacking.

[5] The entire concept of "highest and best use" is always unexamined in neoclassical theory, as argued by Blomley (2004) in a very powerful critique.

[6] A few years later Smith came up with a shrewd take on exactly what is being "revitalized": "[I]t was suggested that revitalisation was rarely an appropriate term for gentrification, but we can see now that in one sense it is appropriate. Gentrification is part of a larger redevelopment process dedicated to the revitalisation of the profit rate" (Smith 1982:151–152).

[7] Throughout his career, Smith remained inspired by the attack on "fat cat sociology" by Martin Nicolaus, particularly this passage: "What if that machinery were reversed? What if the habits, problems, actions and decisions of the wealthy and powerful were daily scrutinized by a thousand systematic researchers, were hourly pried into, analyzed, and cross referenced, tabulated and published in a hundred inexpensive mass-circulation journals and written so that even the 15-year-old high school drop-outs could understand it and predict the actions of their parents' landlord, manipulate and control *him*?" (1969:155).

[8] A short blog piece by Smith in 2008 contains many insights along these lines. See: http://www.enoughroomforspace.org/project_pages/view/198

[9] See Date (2006) for some reflections on Smith's visit to Mumbai that year, where he was shown the struggles taking place over the redevelopment of the mills districts.

[10] An excellent, provocative overview of (and call for conceptual advances in) class monopoly rent in urban geography can be found in Anderson (2014).

[11] See: http://globalurbanist.com/2012/10/02/what-forced-evictions-look-like

[12] I am very grateful to Bob Ross and Phil O'Keefe for their helpful reminders and clarifications here.

References

Ahmed B and Sudermann Y (2012) *Syria's Contrasting Neighbourhoods: Gentrification and Informal Settlements Juxtaposed.* Boulder: Lynne Rienner Publishers

Anderson M (2014) Class monopoly rent and the contemporary neoliberal city. *Geography Compass* 8(1):13–24

August M (2014) Challenging the rhetoric of stigmatisation: The benefits of concentrated poverty in Toronto's Regent Park. *Environment and Planning A* 46(6):1317–1333

Badcock B (1989) An Australian view of the rent gap hypothesis. *Annals of the Association of American Geographers* 79(1):125–145

Blomley N (2004) *Unsettling the City: Urban Land the Politics of Property*. New York: Routledge

Bourassa S (1993) The rent gap debunked. *Urban Studies* 30(10):1731–1744

Brenner N, Peck J and Theodore N (2010) Variegated neoliberalisation: Geographies, modalities, pathways. *Global Networks* 10(2):1–41

Brenner N (ed) (2014a) *Implosions/Explosions: Towards a Study of Planetary Urbanisation*. Berlin: Jovis

Brenner N (2014b) Urban theory without an outside. In N Brenner (ed) *Implosions/Explosions: Towards a Study of Planetary Urbanisation* (pp 14–30). Berlin: Jovis

Butler T (2007) For gentrification? *Environment and Planning A* 39(1):162–181

Clark E (1987) *The Rent Gap and Urban Change: Case Studies in Malmö, 1860–1985*. Lund: Lund University Press

Clark E (1988) The rent gap and the transformation of the built environment: Case studies in Malmö, 1860–1985. *Geografiska Annaler B* 70:241–254

Clark E (1994) Toward a Copenhagen interpretation of gentrification. *Urban Studies* 31(7):1033–1042

Clark E (2005) The order and simplicity of gentrification: A political challenge. In R Atkinson and G Bridge (eds) *Gentrification in a Global Context* (pp 256–264). New York: Routledge

Darling E (2005) The city in the country: Wilderness gentrification and the rent-gap. *Environment and Planning A* 37(6):1015–1032

Date V (2006) Capital invading spaces of the poor. *CounterCurrents.org* 18 October. http://www.countercurrents.org/eco-reddy181006.htm (last accessed 18 November 2014)

Diappi L and Bolchi P (2008) Smith's rent gap theory and local real estate dynamics: A multi-agent model. *Computers, Environment and Urban Systems* 32:6–18

Engels B (1994) Capital flows, redlining, and gentrification: The pattern of mortgage lending and social change in Glebe, Sydney, 1960–1984. *International Journal of Urban and Regional Research* 18(4):628–657

Engels F (1872) *The Housing Question*. http://www.marxists.org/archive/marx/works/1872/housing-question/ (last accessed 18 November 2014)

Gray N and Mooney G (2011) Glasgow's new urban frontier: "Civilising" the population of "Glasgow East". *City* 15:1–24

Haila A (2015) *Urban Land Rent: Singapore as a Property State*. Oxford: Wiley-Blackwell

Hammel D (1999) Re-establishing the rent gap: An alternative view of capitalised land rent. *Urban Studies* 36:1283–1293

Hamnett C (1991) The blind men and the elephant: The explanation of gentrification. *Transactions of the Institute of British Geographers* 17:173–189

Harding A and Blokland T (2014) *Urban Theory: A Critical Introduction to Power, Cities, and Urbanism in the 21st Century*. London: Sage

Hartman C, Keating D and LeGates R with Turner S (1982) *Displacement: How to Fight It*. Berkeley: National Housing Law Project

Harvey D (1973) *Social Justice and the City*. London: Edward Arnold

Harvey D (1982) *Limits to Capital*. Oxford: Blackwell

Harvey D (2010) *The Enigma of Capital and the Crises of Capitalism*. London: Profile

Harvey D (2014) *Seventeen Contradictions and the End of Capitalism*. New York: Verso

Hoyt H (1933) *One Hundred Years of Land Values in Chicago*. Chicago: University of Chicago Press

Kallin H and Slater T (2014) Activating territorial stigma: Gentrifying marginality on Edinburgh's periphery. *Environment and Planning A* 46(6):1351–1368

Kary K (1988) The gentrification of Toronto and the rent gap theory. In T Bunting and P Filion (eds) *The Changing Canadian Inner City* (pp 53–72). Waterloo: Department of Geography, University of Waterloo

Kuymulu M B (2013) Reclaiming the right to the city: Reflections on the urban uprisings in Turkey. *City* 17(3):274–278

Lees L, Shin H B and López-Morales E (eds) (2015) *Global Gentrification: Uneven Development and Displacement*. Bristol: Policy Press

Lees L, Slater T and Wyly E (2008) *Gentrification*. New York: Routledge

Lees L, Slater T and Wyly E (eds) (2010) *The Gentrification Reader*. New York: Routledge

Lefebvre H (2003) [1970] *The Urban Revolution*. Minneapolis: University of Minnesota Press

Ley D (1986) Alternative explanations for inner-city gentrification: A Canadian assessment. *Annals of the Association of American Geographers* 76(4):521–535

Ley D (1996) *The New Middle Class and the Remaking of the Central City*. Oxford: Oxford University Press

López-Morales E (2010) Real estate market, state entrepreneurialism, and urban policy in the gentrification by ground rent dispossession of Santiago de Chile. *Journal of Latin American Geography* 9(1):145–173

López-Morales E (2011) Gentrification by ground rent dispossession: The shadows cast by large scale urban renewal in Santiago de Chile. *International Journal of Urban and Regional Research* 35(2):330–357

Marcuse P (1985) Gentrification, abandonment, and displacement: Connections, causes, and policy responses in New York City. *Journal of Urban and Contemporary Law* 28:195–240

Marcuse P (2010) A note from Peter Marcuse. *City* 14(1):187–188

Marx K (1990) [1867] *Capital, Vol. I*. London: Penguin

Merrifield A (2013) *The Politics of the Encounter*. Athens: University of Georgia Press

Merrifield A (2014) *The New Urban Question*. London: Pluto

Mountz A and Curran W (2009) Policing in drag: Giuliani goes global with the illusion of control. *Geoforum* 40:1033–1040

Nicolaus M (1969) Remarks at ASA Convention. *American Sociologist* 4(2):154–156

O'Sullivan D (2002) Toward micro-scale spatial modelling of gentrification. *Journal of Geographical Systems* 4(3):251–274

Porter L (2009) Planning displacement: The real legacy of major sporting events. *Planning Theory and Practice* 10(3):395–418

Porter M (2012) The rent gap at the metropolitan scale: New York City's land value valleys, 1990–2006. *Urban Geography* 31(3):385–405

Rameau M (2012) Neil Smith: A critical geographer. *Environment and Planning D: Society and Space* 30:951–952

Ross R and Jamil L (2011) Waiting for war (and other strategies to stop gentrification): The case of Ras Beirut. *Human Geography* 4(3):14–32

Sakizlioglu B (2014) Inserting temporality into the analysis of displacement: Living under the threat of displacement. *Tijdschrift voor Economische en Sociale Geografie* 105(2):206–220

Schaffer R and Smith N (1986) The gentrification of Harlem? *Annals of the Association of American Geographers* 76(3):347–365

Shin H B (2009) Property-based redevelopment and gentrification: The case of Seoul, South Korea. *Geoforum* 40(5):906–917

Shin H B and Li B (2013) Whose games? The costs of being "Olympic citizens" in Beijing. *Environment and Urbanization* 25(2):549–566

Slater T (2006) The eviction of critical perspectives from gentrification research. *International Journal of Urban and Regional Research* 30(4):737–757

Slater T (2009) Missing Marcuse: On gentrification and displacement. *City* 13(2):292–312

Slater T (2011) Gentrification of the city. In G Bridge and S Watson (eds) *The New Companion to the City* (pp 571–585). Oxford: Blackwell

Slater T and Anderson N (2012) The reputational ghetto: Territorial stigmatisation in St. Paul's, Bristol. *Transactions of the Institute of British Geographers* 37:530–546

Smith N (1977) "The Return From the Suburbs and the Structuring of Urban Space: State Involvement in Society Hill, Philadelphia." Unpublished BSc thesis, University of St Andrews. http://www.geos.ed.ac.uk/homes/tslater/NeilSmithugraddiss.pdf (last accessed 18 November 2014)

Smith N (1979a) Gentrification and capital: Practice and ideology in Society Hill. *Antipode* 11(3):24–35

Smith N (1979b) Toward a theory of gentrification: A back to the city movement by capital, not people. *Journal of the American Planning Association* 45(4):538–548

Smith N (1982) Gentrification and uneven development. *Economic Geography* 58(2):139–155

Smith N (1992) Blind man's bluff, or, Hamnett's philosophical individualism in search of gentrification? *Transactions of the Institute of British Geographers* 17:110–115

Smith N (1996a) *The New Urban Frontier: Gentrification and the Revanchist City*. New York: Routledge

Smith N (1996b) Of rent gaps and radical idealism: A reply to Steven Bourassa. *Urban Studies* 33(7):1199–2103

Smith N (2002) New globalism, new urbanism: Gentrification as global urban strategy. *Antipode* 34(3):427–450

Smith N (2009) Revanchist planet. *Urban Reinventors* 3. http://www.urbanreinventors.net/3/smith1/smith1-urbanreinventors.pdf (last accessed 18 November 2014)

Smith N (2010) The evolution of gentrification. In J Berg, T Kaminer, M Schoonderbeek and J Zonneveld (eds) *Houses in Transformation: Interventions in European Gentrification* (pp 15–26). Rotterdam: NAi Publishers

Smith N, Caris P and Wyly E (2001) The "Camden Syndrome" and the menace of suburban decline: Residential disinvestment and its discontents in Camden County, New Jersey. *Urban Affairs Review* 36(4):497–531

Sykora L (1993) City in transition: The role of the rent gap in Prague's revitalisation. *Tijdschrift voor Economisce en Sociale Geografie* 84(4):281–293

Thörn C and Holgersson H (2014) "The Urban Frontier Revisited." Unpublished manuscript, University of Gothenburg

Vradis A (2013) From crisis to gentri-nation. *Political Geography* 40:A1–A2

Wacquant L (2007) Territorial stigmatisation in the age of advanced marginality. *Thesis Eleven* 91(1):66–77

Whitehead J and More N (2007) Revanchism in Mumbai? Political economy of rent gaps and urban restructuring in a global city. *Economic and Political Weekly* 23 June

Wittgenstein L (1984) *Culture and Value* (trans P Winch). Chicago: University of Chicago Press

Wright M W (2014) Gentrification, assassination, and forgetting in Mexico: A feminist Marxist tale. *Gender, Place, and Culture* 21(1):1–16

Yung C-F and King R (1998) Some tests for the rent gap theory. *Environment and Planning A* 30(3):523–542

Neil Smith's Scale

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Abstract: In this essay, part of a special issue acknowledging the scholarship of Neil Smith, we trace his contributions to conceptualizing scale. From his important foundational text, *Uneven Development*, to his later works that fashioned a more malleable, constructivist, and socio-cultural approach, Neil Smith made lifelong contributions to our understanding of the processes of scale production—contributions that have forever altered how we understand the relationships among space, capitalism, and politics.

Keywords: Neil Smith, scale, social theory

Introduction

Neil Smith possessed a brilliant analytic mind along with a commitment to theory, writing, and teaching in support of social transformation. Part academic activist, he was known for the encouragement and support he provided to the critical scholars and activists he encountered on his travels. Neil—as we will refer to him here in recognition of his refusal of hierarchical nominations—loved Geography and deeply believed that space was central to revolution. His personality was large: to be with him was to experience the pull of his social gravity. Invariably he was at the center of the conversation, and yet his intellectual generosity prohibited all but perhaps a few the sin of envy. Yes, he transgressed and frustrated, and possessed contradictions and weaknesses, but through his unique combination of intellect, creativity, and enthusiasm, a generation of geographers knew no equal.

   These talents—partly given, and partly shaped through life experience, the talents of his mentors, and his hard labor—enabled him to make major contributions to the discipline. He will have lasting influence over studies of uneven development, gentrification, the production of nature, the history of geographic thought, war and empire, and globalization. He also has profoundly revolutionized and shaped scholarly

understandings of space through his conceptualization of scale, a theoretical and political project that spanned two decades and that in no small way led to Geography's popularity among theorists throughout the critical social sciences and humanities.

We also have engaged with scale theory, albeit in ways that variously align and deviate from his—and one another's—writings. For each of us, however, Neil's own path through scale, itself a history of the concept's evolution in Geography, has been foundational. That history can be briefly summarized. Like several other concepts of space, scale was long entangled in Euclidean geographies. It assumed a natural character through its utility as a conventional cartographic metric. But in the late 1970s, space, place, and, shortly thereafter, scale, became caught up in the force fields of relationality, dialectics, and constructivism. Geography has not been the same since.

Scale as Uneven Development

Neil substantively engaged with the question of geographical scale in his 1983 doctoral dissertation at Johns Hopkins University, supervised by David Harvey and subsequently published as *Uneven Development: Nature, Capital, and the Production of Space* (Smith 2008).[1] Yet his first published discussion of scale can be found in his 1982 paper on gentrification and uneven development (Smith 1982), presumably written alongside his dissertation.[2] There he introduces three scales at which uneven geographical development can be observed: the urban, the regional, and the national.[3] At each scale, he argues, specifically capitalist relations connect developed and underdeveloped areas via the spatial movements of capital. These movements have different velocities and concentrations as capital responds to and produces its contradictory landscape of equalization and differentiation (1982:142). Scalar production is one outcome of these processes. Neil takes scales to be largely self-evident in this early piece, although there is a hint, in his discussion of the urban scale (his primary focus therein being gentrification), that scales are produced rather than given: "The urban scale as a distinct spatial scale is defined in practice in terms of the reproduction of labor power and the journey to work" (1982:146).

Uneven Development takes these arguments several steps further, presenting the production of scale as Neil's distinctive contribution to theorizing uneven geographical development. The leitmotif of the book, of course, is how both space and nature are produced rather than given—produced distinctively in capitalism by comparison to other social formations. His discussion of "the production of space" draws on Lefebvre, whose book of that title had yet to be translated into English. The production of nature he sees as an extension to which "Lefebvre may well not have objected" (2008:250).

The culminating chapter of *Uneven Development* is devoted to scale and its production, understanding the origins of which, Neil argues, is necessary to understand the uneven development of capitalism. He chides his mentor for having neglected scale in *Limits to Capital* (Harvey 1982), "resulting in the misleading impression that while a systematic if inherently contradictory logic guides the capitalist production of space, the product does not reflect the organization of the process" (2008:180). Harvey's oversight, Neil argues, results in a treatment of

space as a mosaic of exchange spaces; under capitalism, however, those spaces are organized by processes of abstraction and the development of a world market into a multi-scalar system: "We tend to take for granted the division of the world into some combination of urban, regional, national and international scales, but rarely if ever explain how they came about" (2008:180). Neil's explanation directly links the production of scale to the unevenness of capitalist development:

> I think it is possible to use the dialectic of differentiation and equalization to derive the actual spatial scales produced by capital, and to show that the result of uneven development is simultaneously more complex and [simpler] than a mosaic. There is little doubt about the impossibility of a spatial fix for the internal contradictions of capital, but in the doomed attempt to realize this spatial fix, capital achieves a degree of spatial fixity organized into identifiably separate scales of social activity (2008:180).

Neil places three of these scales at the center of his analysis of capitalist uneven development. The urban scale is one of spatial differentiation, between spaces of production and of reproduction, a conceptualization that he uses to critique Castells (1977) for his neglect of cities as spaces of production. The urban scale is thus simultaneously a labor market and a commuting shed; it is "the daily geographical sphere of abstract labor" (a somewhat contradictory formulation), whose size is an emergent feature of the trade-off between a labor force that is "comparatively limited" (2008:183) and an overextended labor market threatening "fragmentation and disequilibrium in the universalization of abstract labor" (2008:183).

By contrast, the global scale, which is produced through capitalism's permanent search for new markets but constrained by the "geographical limits of global space" (2008:185), is "purely the product of the tendency toward equalization ... universalizing the law of value" (2008:186). Neil argues that capital, faced with contradictory needs to limit wages and promote consumption:

> appears to have emphasized the possibilities for accumulation rather than consumption ... As a result, the geographical differentiation of the globe according to the value of labor power ... is replicated ... in a pronounced international division of labor and systematic differentiation between ... developed and underdeveloped areas (2008:188).

The third scale, the nation-state, is political rather than economic—produced less through capitalism than through its already-existing national political organization and international competition "between different capitals on the world market ... This [competition] leads to a hierarchy of nationally based laws of value more or less integrated within a larger international law of value" (2008:189). At the same time, Neil argues that capitalism has the capacity to produce nation-states where they do not yet exist: "With the increased scale of the productive forces and the internationalization of capital, the capitalist state generally combines a number of these smaller states into a nation-state" (2008:190). The limits to this scale are not set by differentiation and equalization, but "by a series of historical deals, compromises, and wars" (2008:190). Clearly, Neil is struggling here to absorb inter-national territorial politics into a narrative of globalizing capital (Marxist theories of the state at this point still being plagued by the national territorial trap; cf. Agnew and Corbridge 1995).

Two further scales enter the stage toward the end of that last chapter, with bit parts. The sub-national regional scale, an emergent territorial division of labor, "has the same function as the global division between the developed and underdeveloped worlds ... geographically fixed (relatively) sources of wage labor ... under the more direct control of the national capital" (2008:193).[4] Thus far, scales are strictly spatially nested, one within the other. Yet, with an eye on the emergence of a putative European Union, Neil's final scale jumps these tracks by way of supranational regions:

> Given the expansion in the scale of the productive forces, the continued internationalization of capital, and the fossilization of nation-state boundaries as a means of political control, the development of supranational regions may be an economic necessity among all but the largest nation states (2008:195).

The production of scales shaping the spatiality of globalizing capital—in the form of territorial economies persistently differentiated at each scale along lines of production/consumption, prosperity/stagnation or development/underdevelopment —lays the groundwork for what Neil dubbed the seesaw theory of uneven geographical development. He writes: "[W]e can think of the world as a 'profit surface' produced by capital itself, at three separate scales" (2008:197). At each scale, processes of development in privileged territories have a tendency to create barriers for accumulation in peripheral spaces: "lower unemployment, an increase in the wage rate, the development of unions, and so forth" occur in some areas, while others simultaneously experience underdevelopment, with "high unemployment rates, low wages, and reduced levels of workers' organization" (2008:198). At a certain point, capital switches from the former spaces to the latter, where profits will ultimately be higher. Yet the result is never convergence to spatial equilibrium: peripheries become cores and cores peripheries, and the see-saw process repeats itself.[5] Channeling Harvey (1982), Neil is at pains to point out that such spatial fixes are only ever temporary, unable to overcome the defining contradictions of a capitalist mode of production as described by Marx. Thus:

> ... however fixed these scales are made, they are subject to change, and it is through the continual determination and internal differentiation of spatial scale that the uneven development of capitalism is organized. The vital point here is not simply to take these spatial scales as given, no matter how self-evident they appear, but to understand the origins, determination and inner coherence and differentiation of each scale as already contained within the structure of capital (2008:181).

In our view, Neil was absolutely correct in his argument that Harvey's spatial focus on *places* of production is too limiting, as it does not sufficiently emphasize the broader interconnecting spatialities of scale (we would also add connectivities/mobilities). Neil's first extensive formulation of what has come to be known as scale theory is economistic in focus—a theory of uneven geographical development driven by capitalist dynamics in the spirit of Marx. As for Harvey, Neil's grounding in classical value theory, and his assertion that produced spatialities (spatial fixes for Harvey, scale for Neil) cannot ultimately resolve capitalism's deepest contradictions, has been critiqued from within geographical political economy

(Sheppard 2004; Soja 1980). In these initial forays, there is a rigidity and function-alism to Neil's theorization of scale. He describes economic processes through which territories are produced at each scale, whereby the co-production of the urban and global scales is a necessity for globalizing capitalism (with cities as the nodes of commodity production in an increasingly globally interconnected system). The nation-state scale does not fit neatly into this framework, because he has difficulty recognizing political processes that exceed capitalism, yet its role in shaping globalizing capitalism is clear. At the same time, however, there is a fixed menu of scales, largely nested, within which processes operate in parallel—a less-than-dialectical categorization. Constrained by the nested geographies of census data, his one empirical demonstration of scale and uneven geographical develop-ment reproduces this nesting without critical reflection (Smith and Dennis 1987). While recognizing supranational regions, Neil does not pursue the disruptive impli-cations of these for the nesting and parallelism characterizing his preceding analy-sis. He also presents the production of scale as the prime produced spatiality—a forgivable move, perhaps, for a young scholar seeking to articulate his originality as a thinker, and one that subsequent scale theorists tended to reinforce, at least un-til recently (Jessop et al. 2008; Leitner et al. 2008).

The Political Construction of Scale

If Neil's initial scholarship on scale emphasized questions of accumulation, issues of politics are inescapable within the political economy tradition. Building on the theoretical insights of Neil's scholarship, a new trajectory of scale research emerged around questions of how the construction of scale also is attempted or accom-plished by a diverse set of actors engaged in political transformations—the practice of a politics of scale. Such practices draw attention to the uneven relationships between space and power, but also to conceptions and ideologies that situated social actors bring to their efforts to change the world and, of course, to resist un-desirable change (Delaney and Leitner 1997). Some of this had to do with classical questions of political economy anticipated by Neil: the state and class politics, for example (Smith 1992a, 2008). For Neil and co-author Ward Dennis, for example, the so-called Sunbelt-Snowbelt regional economic transformations of the 1980s might be better understood as a scalar transformation of *regionalization* based on the uneven powers of capital and labor:

> ... in short, there is a political struggle over the uneven attribution of the costs of crisis, and one dimension of this unevenness is geographical. In particular, there is a strong effort on the part of employers to discipline the working class, both politically and economically, through layoffs, wage takebacks, runaway shops, plant closures, detri-mental safety conditions and work rules, and union busting. If this political attack can be concentrated regionally, thus freeing up other regions for much needed expansion, so much the better (Smith and Dennis 1987:187).

Rather than taking regions at face value, it "may not be too much of an exaggera-tion to claim that the question of scale comprises the ground on which a new re-gional geography will either flourish or fail" (1987:167).

Others extended the space/power framework to non-state, non-capital actors, including non-class based social movements and contentious politics, mobilized around questions of culture, identity and environment. Social movements may deploy scalar strategies to make their voices heard and to expand and secure their political and geographical power. For example, in order to overcome the limitations of their localness, social movements may engage in what Neil termed "scale jumping": turning local into regional, national and global movements, escaping the traps of localism, parochialism, and particularism through an expansion of geographic and political reach (Smith 1992a). Movements ranging from the Zapatistas, to labor unions, indigenous peoples, feminists, environmental activists and others have successfully used scalar strategies to advance their cause (cf. Fröehling 1999; Herod 1997; Miller 2000). Yet scaling up should be complemented by down-scaling (Leitner et al. 2007), a strategy that Neil had too little time for given his critiques of localism (Smith 1987). Such localization strategies often rely on attachments to place and culture, seeking to reaffirm the importance of local particularity as necessary to successful broader-scale strategies. For example, Escobar (2001) suggests that place-based cultural, ecological, and economic practices are important sources of inspiration for alternative imaginaries of, and practices for, reconstructing local and regional worlds, no matter how produced by "the global" they might also already be. Multi-scalar strategies also frequently are employed, simultaneously broadening the scale of action while drawing strength from reinforcing the local scale.

Scale also matters in terms of representation: scale frames are deployed by different actors as discursive practices to locate problems, causes and solutions at particular scales and to legitimize the exclusion of certain actors and ideas from debates (Kurtz 2003; Martin and Miller 2003). For example, opposition to the concentration of power over immigration policy at the supra-national scale of the European Union has come from nationalist right-wing political parties presenting themselves as the guardians of national identity and interest under threat of being obliterated by the European Union (Leitner 1997)—with reinforced emphasis and resonance since the 2015 refugee crisis.

Scales of Difference

By the mid-1990s, Neil had begun to appreciate that social difference, both as a conceptual lever and a set of embodied and micro-spatialized social markers, needed to be incorporated into his thinking about scale. This led him to arguments about an alternative politics of scale, wherein he interpreted some activities of social movements as scalar productions specifically designed to confront fixities put in place by capital and the state. Never one to see scalar categories as given, this focus on social difference co-evolved with Neil's more expansive view of the spatial differentiations possible in the production of scale. He wrote a series of publications reflecting these parallel concerns during and after the 1990s. These demonstrate how his thinking about spatial difference might resonate with, while move beyond, the capitalist forces of differentiation that drove his early work on regional political-economic theory. These efforts engaged with the body, the home and the street,

including how social reproduction, culture, and social differences of, for example, gender and race, play into and are shaped by the wider processes of scalar production (Smith 1992b, 1996). At every step in these analyses, scalar production becomes more, rather than less, central to the project of comprehending complex spatial differentiation.

In "Contours of a Spatialized Politics", published in *Social Text* in 1992, Neil reaches beyond the geography of uneven development to the uneven realm of art (Smith 1992b). Writing for a broad audience of social and cultural theorists, the paper begins with a sympathetic critique of an ironic construction—a mobile and secure enclosure for limited but functional mobility for homeless people—by New York artist Krzysztof Wodiczko. Neil reads Wodiczko's "Homeless Vehicle" and "Poliscar" as "an impertinent invention that empowers the evicted to erase their own erasure" (1992b:58). Little more than enclosed shopping carts, and appearing well before the Geography's object turn, these materialist contraptions are his "vehicles" for both downsizing scalar analysis and for demonstrating that scalar politics can be both dominant and oppositional. As he renders it, the vehicles:

> ... appropriate and express the political ambition of these struggles [over encampment and eviction] from the perspective of many homeless people, and they express the central realization that political liberation requires spatial access. They provide oppositional means for reinscribing and reorganizing the urban geography of the city, but they do so in a very specific way. They ... stretch the urban space of productive and reproductive activity, fracture previous boundaries of daily intercourse, and establish new ones. They convert spaces of exclusion into the known, the made, the constructed. In short, they redefine the scale of everyday life for homeless people (1992b:60).

Neil goes on to argue that the political empowerment facilitated by the shock of the vehicles lies precisely in their "contradiction between absurdity and functionality" and, finally, on the "reinscription of geographical scale" they promise as they "expand the scale of self-centered control and at the same time contract the scale of official control" (1992b:60). In this mobile metal work of art, Neil espies the production and reproduction of geographical scale as a political strategy, one that enables the evicted to "jump scales", that is, "to organize the production and reproduction of daily life and to resist oppression and exploitation at a higher scale—over a wider geographical field" (1992b:60).

Towards the second half of the paper, we see how the cultural critique has moved Neil—or perhaps it is the other way around—to widen both the range of scales under analysis in Geography and to rethink the politics inscribed. In separate subsections Neil addresses the social, cultural, economic and political processes at every level of scale: the body, home, community, urban space, region, nation and global boundaries. If there was ever a valid argument that specific processes have their attendant scalar levels, Neil dismissed that here. *Social Text* is of course an ideal venue for excursions into areas where space and scale meet cultural theory, anti-racist theory, feminist theory, and art, and Neil makes the most of it, all the while holding firm on his belief that, when it comes to space, materiality trumps metaphor (cf. Smith and Katz 1993).

This last point is echoed in a later work, in *Critique of Anthropology* (Smith 1996). This piece also uses Wodiczko's Poliscar as a jumping off point, but instead is directed toward the increasing tendency to speak (following Castells and others) of a "space of flows". The flow analogy—with its simultaneous appropriation and unpacking of globalization's information networks and mobile forms of production and consumption—would seem to contrast with the staid "space of places" that characterizes less fluid forms of capitalist development and spatial politics. While Neil certainly works the fluidity/fixity opposition in this paper, "[i]t is not so much that place is deracinated in the space of flows than that the relationship between the fluidity and the fixity of space is itself restructured–often in surprising ways, and certainly not in a unidirectional manner" (1996:71). In contrast to flow-thinking's "spatial maze of cities, regions, and nations submerged in" and "deposited out of" a "spatial swirl of capital and information" (1996:71–72), Neil asks: "What if ... the scale of the city, the scale of the region, and the scale of the nation are themselves so restructured that it makes little sense to cling uncritically to these concepts of geographical scale?". The result, in other words, is not the "fantasy of spacelessness" nor the "extinction of place"—concepts hard to admit for anyone who spent time discussing Geography with Neil—"but *the reinvention of place at a different scale*" (1996:72). He captures this spatial transformation by elaborating on the concept of scale jumping, a process not unimaginable within the context of *Uneven Development* some dozen years earlier, but now more explicitly aligned to the shifting contours of spatial restructuring under "so-called globalization" (1996:68). As he puts it: "A stronger recognition of the power of the production of scale should significantly mitigate any vision of a space of flows" (1996:72).

Another of Neil's contributions to scale's endless malleability is captured in the concept of scale bending, which he uses to capture geopolitical power shifts (cf. Brenner 2005), all the while maintaining an eye on the political potentials of social movements that re-work scale:

> Cities and states are not supposed to have their own foreign policy, presumably the prerogative of national states. Private individuals are not supposed to dwarf nation-states in bankrolling other national and transnational state institutions. In the home of the free, "domestic" activists are not supposed to jump scale and appeal to international authority for the resolution of local complaints. And since when did global corporations displace nation-states as the proper purveyors of diplomatic emissaries? Taken together, these events suggest intense "scale bending" in the contemporary political and social economy. Entrenched assumptions about what kinds of social activities fit properly at which scales are being systematically challenged and upset (Smith 2004:193).

If fixity/fluidity was the most important successor to *Uneven Development*'s driving opposition of differentiation/equalization, it was the production/reproduction dialectic that took Neil into his collaboration with Sallie Marston in the early 2000s. Marston (2000) built on Smith's emerging interest in scale and social difference as it exists in the micro-spaces of the home.[6] Expanding upon socialist feminists' theories of social reproduction, she argued that most scale theory in the discipline through the 1990s had been: "largely unresponsive to questions of difference in human agents and how power relations outside the relations of capital and labor

might also influence scale-making" (Marston 2000:238). Using the historical case of the expanding consciousness and political roles of US women involved in the Progressive Movement in the 19th and early 20th centuries, she shows how the home is a significant scale at which the everyday relations of patriarchy, racism, and citizenship connect to wider scales of capitalist production and consumption. Her contention was that:

> A discourse about women as "female citizens" operated among and between scales from the household out to the globe and provided these subjects with a consciousness that enabled a particular negotiation of patriarchal subordination and began a gender transformation of the public sphere through a reconstitution of the private sphere of the home. In short, the home was utilized as a scale of social and political identity formation that eventually enabled American middle-class urban women to extend their influence beyond the home to other scales of social life (2000:235).

Neil Brenner (2001) reacted with concern to Marston's expansive theorization, worrying that scale would become another chaotic concept in the discipline, as any spatial phenomenon might come to be identified as a scale. His aim in launching a critique was to:

> contribute to the development of an approach to sociospatial theory in which the specifically scalar dimensions of social spatiality—in contradistinction to its many other dimensions, such as localization, place-making, territorialization, spatial distanciation, the formation of spatial networks, the production of environment/nature and so forth —may be adequately recognized and theorized (Brenner 2001:593).

In arguing for "a more precise and hence analytically narrower conception of geographical scale" (2001:593), Brenner's reply, though strategically directed at Marston, was meant to rein in the widening circle of interventions that were then expanding both the theoretical framing and empirical utility of scale (e.g. Howitt 1998; Jonas 1994; Swyngedouw 2000). Through these and other extensions, the concept of scale was becoming more processually inclusive (e.g. through a focus on the politics of scale and the inclusion of social reproduction and environmental processes in scale theory), as well as, relatedly, more spatially complex (e.g. by including horizontal networks and households). For Brenner, the key to understanding what scale is and how it operates was through "relations of hierarchization and rehierarchization among vertically differentiated spatial units", such that they can be distinguished "from other forms of sociospatial structuration" (2001:603). Thus, in order to appreciate how scale might be tied to "an explicit causal argument linking the substantive social content of the spatial unit in question to its *embeddedness* or *positionality* within a broader scalar hierarchy" (2001:600), it was necessary to limit scalar processes to already established and well recognized spatial units such as those specified by the likes of Peter Taylor (1982) and the early Smith (2008), and, it might be argued, to the more conventional levels acknowledged by planners, development experts, and states.

Marston co-authored her reply to Brenner with Neil (Marston and Smith 2001). They concede the point that Geography needs analytic precision around scale,

but they conclude that Brenner will not find the tools for that by maintaining boundaries between scalar production and the wider social production of space (à la Lefebvre). They wrote:

> [S]cale is a produced societal metric that differentiates space; it is not space *per se*. Yet "geographical scale" is not simply a "hierarchically ordered system" placed over pre-existing space, however much that hierarchical ordering may itself be fluid. Rather the production of scale is integral to the production of space, all the way down. Scaled social processes pupate specific productions of space while the production of space generates distinct structures of geographical scale. The process is highly fluid and dynamic, its social authorship broad-based, and the scale of the household (or the home) is integral to this process. So too, we contend, is the scale of the body (Marston and Smith 2001:615–616).

In addition to their theoretical response—which is centrally directed to the question (also posed by Delaney and Leitner 1997) of what kind of space scale *is*—Marston and Smith criticize Brenner for an "inability to see the theoretical relevance of the social reproduction argument" (2001:617). Noting that it is "arbitrary that the home is relegated to a 'place' or 'arena', while the state gets to be a multifaceted 'scale'" (2001:618), they argue that while "[f]uture historical research may yet reveal the household to be a 'stable background structure' in all of this ... the smart money will be wagered elsewhere" (2001:618).

The Scale Debates

For Marston, adopting a post-structuralist feminist response with Neil to Brenner's structural Marxist arguments presaged her later move toward a non-scalar ontology. Indeed, this move was already signaled *in* the 2000 paper, which openly entertained the "the rejection of scale as an ontologically given category" (Marston 2000:220). Marston subsequently wrote, with Jones and Keith Woodward, a paper that attempted to dismantle scale theory under the provocative title of "Human geography without scale" (Marston et al. 2005). Without rehearsing the complexities of the analysis therein, the fundamental argument advanced is that scale is not an ontological category of space but a spatial imaginary, an analytic for making sense of the world. In contrast to a scalar epistemology, they draw on Deleuze and others in articulating a non-scalar, "flat" ontology consisting of:

> analytics of composition and decomposition that resist the increasingly popular practice of representing the world as strictly a jumble of unfettered flows; attention to differential relations that constitute the driving forces of material composition and that problematize axiomatic tendencies to stratify and classify geographic objects; and a focus on localized and non-localized emergent events of differential relations actualized as temporary—often mobile—"sites" in which the social unfolds (2005:422–423).

This view comes with its own spatial politics, one centered not at legal, juridical, or organizational structures "at some level once removed, 'up there' in a vertical imaginary, but on the ground, in practice, the result of marking territories horizontally through boundaries and enclosures, documents and rules, enforcing agents

and their authoritative resources" (2005:420).[7] This argument was premised on the move, prompted by Marston and Smith's paper, away from a productivist orienta-tion (*Uneven Development* being the apogee) and toward a more social reproductivist/feminist position that focuses attention on embodied practice, inti-macy, and intelligibility.

"Human geography without scale" sparked intense debate in the mid-2000s, particularly in the pages of *Transactions of the Institute of British Geographers*. A 2005 AAG panel was convened in Denver to discuss the Marston, Jones and Wood-ward paper, which included, alongside the authors, Neil, Helga, and philosopher John Protevi. At the session, Neil refused to accept the epistemic argument made in the paper. He declared, somewhat contradictorily but perhaps understandably so in light of all the friendships shared: "Look, I agree with you, but you still have to understand that scale exists!". Beyond that session there were few other public discussions about this intellectual disagreement, but there were many debates in private where Neil continued to disagree with the ontological reorientation argued for in the paper and subsequent articles. It is not surprising, therefore, that in a posthumous 2015 publication by Neil titled "The future is radically open", edited by Don Mitchell, he reasserts the salience of scale. He writes: "The post-structural critique seems to abolish any concept of scale in favour of what the critics want to call a horizontal space, abolishing any social and political difference, creating, effectively, a flat earth. Power differences are abolished in an act of wishful thinking" (Smith 2015:964). In the midst of the debates, Leitner and Miller (2007:121) made a very similar point, expressing concern that the flat ontology argument entails "an impoverished understanding not only of the power relations that inhere in scale, but of the power relations that inhere in the intersections of diverse spatialities with scale".[8]

The last 10 years have seen two further shifts with respect to scale theory. First, reflecting persistent disjunctures between political economic and poststructural accounts, one finds attempts to rethink scale that follow two strands of thought. From the perspective of political economy, MacKinnon (2010) exemplifies efforts to examine scale as a boundary object enabling engaged pluralism with poststructuralism. For example, in reflecting on Moore's (2008) intervention, MacKinnon seeks to disavow attempts to brand political economic approaches as reifying scale (a trap that Neil was not the only one to avoid). He seeks common ground with poststructuralism around how scales are an emergent effect of "mate-rial production and capitalist restructuring on the one hand, and social practice and discourse, on the other" (MacKinnon 2010:28). The alternative, avowedly poststructural, strand of thought stresses immanent ontological and political ac-counts (Ansell 2009; Escobar 2007; Hiller 2008; Isin 2007; McFarlane 2009; Shaw 2010; Woodward et al. 2010, 2012). Second, there are those seeking to decenter scale as the overarching spatiality—in this sense, writing back against Neil. Some ar-gue, in different ways, that scale is just one spatiality among many that need to be placed in conversation with one another (Jessop et al. 2008; Leitner et al. 2008). Others point to alternative spatialities, with assemblage, mobility, phase space, to-pology, grey and partitioned space receiving particular attention (Anderson et al. 2012; Cresswell and Merriman 2011; Jones 2009; Merriman et al. 2012; Roy

2011; Yiftachel 2009). Having access to Neil's views on these unfolding debates and alternative spatialities would be instructive. What we can assume is that he would prioritize scale as part of a broader argument that spatialities are material, and matter.

Conclusion

The entire discipline of Geography owes a tremendous intellectual debt to Neil Smith, as do spatial thinkers throughout the social sciences and humanities. His focus on scale transformed socio-spatial theory. While he did not neglect such related spatialities as place, region, city, nation-state and the rest, for him scale was always integral to understanding the production of space. This is itself a novel contribution. Neither Lefebvre, nor Harvey, nor any other spatial theorist who had sought to elaborate the production of space would so forcefully make scale both the driving dynamic and outcome. Neil's conceptualization of scale was determinately Marxist in origin, and consistent with this was his lifelong adherence to dialectical thinking. Throughout his evolving theorization of scale, one can witness a long list of dialectics at work, including: differentiation/equalization; accumulation/consumption; production/reproduction; process/outcome; abstract/concrete; materiality/metaphor; expansion/contraction; and mobility/constraint. Other, more meta-level and specifically spatial outcomes, such as developed/underdeveloped, core/periphery, and global/local, follow in the wake of these interconnected processes—it was never one nor the other, but always both/and. With this powerful conceptual apparatus, it is little wonder that the traditional nesting of scales fell to the wayside early on his thinking. While his thinking was clear, precise, and analytic, for Neil nothing was ever "given" or "fixed", whether in space or in politics.

For us, his influence is ineradicable even as we came to see our thinking as moving beyond Neil's writing on scale—toward a flat ontology for Sallie and JP, toward scale's intersections with other, also non-territorial, spatialities for Helga and Eric. We are, if you will, post-Smithian, sharing his broader critical sensibility about what is wrong with today's world. This enables us to engage in productive exchange, notwithstanding the occasional spirited intellectual disagreement.

Endnotes

[1] Quoted material is from the widely accessible 2008 third edition published by the University of Georgia Press. The first edition was published by Basil Blackwell in 1984; the second in 1990.

[2] This theme would reappear in Neil's later works, such as his 2002 paper linking globalization to a rescaled "new urbanism" focused in Africa, Asia and Latin America: "'The urban' is being redefined just as dramatically as the global; the old conceptual containers—our old 1970s assumptions about what 'the urban' is or was—no longer hold water. The new concatenation of urban functions and activities vis-à-vis the national and the global changes not only the make-up of the city but the very definition of what constitutes—literally—the urban scale" (2002:431).

[3] Contrast these levels to those proposed by Peter Taylor (1982:24) in the same year: "the scale of reality (global), the scale of ideology (state) and the scale of experience (urban)". In *Uneven Development*, Smith would propose the same levels (see below) but criticize Taylor for his reliance upon Wallerstein's exchange-based world-systems theory (2008:289). Unlike

Taylor, Smith would not argue that the global level is the primary determinant, nor did he assign a specific and allied social process to different scales (e.g. ideology to the nation state, experience to the urban). Rather, capitalism *produces* scales at all levels as part-and-parcel of its endless shifting between equilibrium and disequilibrium.

[4] In *Spatial Divisions of Labor* (Massey 1984), published almost simultaneously with *Uneven Development*, Doreen Massey differentiates sub-national regions in the same way. Eschewing scale, however, her explanation stresses geological metaphors of territorial layering.

[5] For Neil, gentrification offers a paradigmatic example of such see-sawing: the suburbanization of production and the middle classes/whites in the US is part and parcel of an underdevelopment of central cities, creating a rent gap that eventually attracts capital and middle classes back to the central city, displacing its poorer, non-white residents (Slater 2015).

[6] Marston's paper was titled "The social construction of scale". Tellingly, Neil had suggested that she substitute "production" for "construction" in the title, but she declined. Along the same lines, Delaney and Leitner (1997:93) had previously advocated for the term "constructionist", titling their intervention "The political construction of scale", so as to emphasize the connections between power, practice and scale also among a wider universe of actors and sites.

[7] Interestingly, Neil made a similar argument when critiquing Castells' and others' concepts of "spaces of flows" (Smith 1996).

[8] Jones et al. (2007) offer a reply to Leitner and Miller (2007) as well as to the other critics and sympathizers in *Transactions*' "scale debates".

References

Agnew J and Corbridge S (1995) *Mastering Space: Hegemony, Territory, and International Political Economy.* London: Routledge

Anderson B, Kearnes M, McFarlane C and Swanton D (2012) On assemblages and geography. *Dialogues in Human Geography* 2:171–189

Ansell N (2009) Childhood and the politics of scale: Descaling children's geographies? *Progress in Human Geography* 33:190–209

Brenner N (2001) The limits to scale? Methodological reflections on scalar structuration. *Progress in Human Geography* 25:591–614

Brenner N (2005) *New State Spaces: Urban Governance and the Rescaling of Statehood.* Oxford: Oxford University Press

Castells M (1977) *The Urban Question.* London: Edward Arnold

Cresswell T and Merriman P (2011) *Geographies of Mobilities: Practices, Spaces, Subjects.* Burlington: Ashgate

Delaney D and Leitner H (1997) The political construction of scale. *Political Geography* 16:93–97

Escobar A (2001) Culture sits in places: Reflections on globalism and subaltern strategies of localization. *Political Geography* 20:139–174

Escobar A (2007) The ontological turn in social theory: Commentary on "Human Geography Without Scale" by Sallie Marston, John Paul Jones III, and Keith Woodward. *Transactions of the Institute of British Geographers* 32:106–111

Fröehling O (1999) Internauts and guerrilleros: The Zapatista rebellion in Chiapas, Mexico and its extension into cyberspace. In M Crang, P Crang and J May (eds) *Virtual Geographies: Bodies, Space, and Relations* (pp 178–201). London: Routledge

Herod A (1997) Labor's spatial praxis and the geography of contract bargaining in the US east coast longshore industry, 1953–89. *Political Geography* 16:145–169

Harvey D (1982) *The Limits to Capital.* Oxford: Basil Blackwell

Howitt R (1998) Scale as relation: Musical metaphors of geographical scale. *Area* 30:49–58

Hiller J (2008) Plan(e) speaking: A multiplanar theory of spatial planning. *Planning Theory* 7:25–50

Isin E F (2007) City.state: Critique of scalar thought. *Citizenship Studies* 11:211–228

Jessop R, Brenner N and Jones M (2008) Theorizing sociospatial relations. *Environment and Planning D: Society and Space* 26:389–401

Jonas A (1994) The scale politics of spatiality. *Environment and Planning D: Society and Space* 12:257–264

Jones M (2009) Phase space: Geography, relational thinking, and beyond. *Progress in Human Geography* 33:487–506

Jones III J P, Woodward K and Marston S A (2007) Situating flatness. *Transactions of the Institute of British Geographers* 32:264–276

Kurtz H (2003) Scale frames and counter-scale frames: Constructing the problem of environmental justice. *Political Geography* 22:887–916

Leitner H (1997) Reconfiguring the spatiality of power: The construction of a supranational migration framework for the European Union. *Political Geography* 15:123–143

Leitner H and Miller B (2007) Scale and the limitations of ontological debate: A commentary on Marston, Jones and Woodward. *Transactions of the Institute of British Geographers* 32:116–125

Leitner H, Sheppard E and Sziarto K M (2008) The spatialities of contentious politics. *Transactions of the Institute of British Geographers* 33:157–172

Leitner H, Sziarto K M, Sheppard E and Maringanti A (2007) Contesting urban futures: Decentering neoliberalism. In H Leitner, J Peck and E Sheppard (eds) *Contesting Neoliberalism: Urban Frontiers* (pp 1–25). New York: Guilford Press

MacKinnon D (2010) Reconstructing scale: Towards a new scalar politics. *Progress in Human Geography* 35:21–36

Marston S A (2000) The social construction of scale. *Progress in Human Geography* 24:219–242

Marston S A, Jones III J P and Woodward K (2005) Human geography without scale. *Transactions of the Institute of British Geographers* 30:416–432

Marston S A and Smith N (2001) States, scales, and households: Limits to scale thinking? A response to Brenner. *Progress in Human Geography* 25:615–619

Martin D G and Miller B (2003) Space and contentious politics. *Mobilization* 8:143–156

Massey D (1984) *Spatial Divisions of Labour: Social Structure and the Geography of Production*. London: Methuen

McFarlane C (2009) Translocal assemblages: Space, power, and social movements. *Geoforum* 40:561–567

Merriman P, Jones M, Olsson G, Sheppard E, Thrift N and Tuan Y-F (2012) Forum: Space and spatiality in theory. *Dialogues in Human Geography* 2:3–22

Miller B (2000) *Geography and Social Movements*. Minneapolis: University of Minnesota Press

Moore A (2008) Rethinking scale as a geographical category: From analysis to practice. *Progress in Human Geography* 32:203–225

Roy A (2011) Slumdog cities: Subaltern urbanism and itineraries of recognition. *International Journal of Urban and Regional Research* 35:223–238

Shaw I G R (2010) Sites, truths, and the logics of worlds: Alain Badiou and human geography. *Transactions of the Institute of British Geographers* 35:431–442

Sheppard E (2004) The spatiality of *The Limits to Capital*. *Antipode* 36(3):470–479

Slater T (2015) Planetary rent gaps. *Antipode* DOI: 10.1111/anti.12185

Smith N (1982) Gentrification and uneven development. *Economic Geography* 58:39–155

Smith N (1987) Dangers of the empirical turn: Some comments on the CURS initiative. *Antipode* 19(1):59–68

Smith N (1992a) Geography, difference, and the politics of scale. In J Doherty, E Graham and M Malek (eds) *Postmodernism and the Social Sciences* (pp 57–79). London: Macmillan

Smith N (1992b) Contours of a spatialized politics: Homeless vehicles and the production of geographical scale. *Social Text* 33:55–81

Smith N (1996) Spaces of vulnerability: The space of flows and the politics of scale. *Critique of Anthropology* 16:63–77

Smith N (2002) New globalism, new urbanism: Gentrification as global urban strategy. *Antipode* 34(3):427–450

Smith N (2004) Scale bending and the fate of the national. In E Sheppard and R B McMaster (eds) *Scale and Geographic Inquiry: Nature, Society, and Method* (pp 192–212). Oxford: Blackwell

Smith N (2008) *Uneven Development: Nature, Capital, and the Production of Space* (3rd edn). Athens: University of Georgia Press

Smith N (2015) The future is radically open. *ACME* 14:954–964

Smith N and Dennis W (1987) The restructuring of geographical scale: Coalescence and fragmentation of the northern core region. *Economic Geography* 63:160–182

Smith N and Katz C (1993) Grounding metaphor: Towards a spatialized politics. In M Keith and S Pile (eds) *Place and the Politics of Identity* (pp 67–83). London: Routledge

Soja E (1980) The socio-spatial dialectic. *Annals of the Association of American Geographers* 70:207–225

Swyngedouw E (2000) Authoritarian governance, power, and the politics of rescaling. *Environment and Planning D: Society and Space* 18:63–76

Taylor P J (1982) A materialist framework for political geography. *Transactions of the Institute of British Geographers* 7:15–34

Woodward K, Jones III J P and Marston S A (2010) Of eagles and flies: Orientations toward the site. *Area* 42:271–280

Woodward K, Jones III J P and Marston S A (2012) The politics of autonomous space. *Progress in Human Geography* 36:204–224

Yiftachel O (2009) Critical theory and gray space: Mobilization of the colonized. *City* 13:246–263

Public Space and the Public Sphere: The Legacy of Neil Smith

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Abstract: This article attempts to untangle two threads of the intellectual and political legacy of Neil Smith. The first concerns the work that Neil and I did together on the *The Politics of Public Space* (Low and Smith 2006, Routledge) on public space and the public sphere and then explains how our paths diverged. I elaborate some of the ways that the public space and public sphere have been expanded by later researchers and that left me with a sense of optimism about the future of public space as a forum for new social and political encounters. The second part of the discussion turns to Neil's thinking and writing as he moved away from having any faith in liberal urban policy, and his conclusion that neoliberalism was waning. Drawing upon publications by his students, I have attempted to assess the impact of his work—particularly on anthropology students focusing on his contribution to gentrification as a global urban strategy and his later turn to revolution as the necessary corrective to the death of neoliberalism. I contrast his revolutionary imperative with my desire to imagine new kinds of translocal public spaces that could expand into a global public sphere.

Keywords: public space, public sphere, political exclusion, politics of public space, Neil Smith, anthropology

Introduction

This article examines the relationship of public space and the public sphere as a starting point for tracing the dialogic nature of Neil Smith's and my thinking reflected in the introduction of *The Politics of Public Space* (Smith and Low 2006) to our disagreements over ethnography and political ideology. He was my co-conspirator (Smith 2008, personal communication): his Marxist and materialist perspective expanded my ethnographic analysis of political and cultural subjectivity and the role that public space plays in producing counter-publics and the public sphere, while he used public space as an entry point into larger political issues. Nevertheless, from our initial contact in 1998 when I was finishing my study of the Costa Rican plaza (Low 2000) to our collaboration on *The Politics of Public Space* conference and book (Low and Smith 2006), we argued about the relevance of ethnography to the development of urban theory. He recognized ethnography as an important methodology, but he worried about its overriding attention to detail and inability to produce midrange theory. Our intellectual collaborations waned as his political trajectory led to revolution and political organizing within the Occupy movement and "Take Back the Land" (Smith 2009), while mine developed into theories of publicness and social justice with different forms of public engagement (Low 2013). Although we both used political action and critiqued urban

planning and design to defend public spaces and their potential, we embarked on these political and intellectual endeavors in different ways.

Post-September 11, 2001, Neil and I, like so many others, were worried about the neoliberal clampdown on public space in the United States and Latin America and were angered by the enforcement of the Patriot Act and the re-instigation of stop and frisk in the name of public safety on the streets of New York City. As Neil had previously pointed out, urban neoliberalism had already taken its toll with the police razing of Tompkins Square as part of the gentrification struggle for the Lower East Side (Smith 1996). But the extent of militarization and penetration of surveillance and policing apparatus to remove "undesirables"—now defined as Middle Eastern men, young men of color, as well as the homeless and unemployed—was increasing (Low et al. 2005; Smith 2008). A neoliberal model of public space, one based on public–private partnerships and business improvement districts (BIDs) funded by local businesses with private guards and workfare maintenance people —and in the case of Herald Square even gates that closed at night—took over the few public spaces left in Manhattan (Brash 2011; Németh 2010). One response was to organize the "Politics of Public Space" conference to draw together colleagues and an audience who wanted to do more. The first year it was composed of academic presentations that were ultimately published (Low and Smith 2006), but in the second and third years local activists from "Right to the City", "Take Back the Land" and "Picture the Homeless" were invited to present their political agendas and run workshops on new strategies of resistance and public space occupation. These activist conferences sponsored by the Center for Place, Culture and Politics and the Public Space Research Group mark a turning point in Neil's re-commitment to a revolution-based approach to change. The moment was right with the global emergence of public space protests and rallies, and there was a cadre of anthropology graduate students ready to join him.

This retracing also attempts to illuminate his impact on anthropology and the students he worked with during these final years. While Neil supported studies of social movements, local political struggles and other forms of dissent, he had by then rejected liberal models of political agency and instead encouraged his colleagues and graduate students to take on research as a radical political project. His influence as a political activist—bolstered by Professors Ida Susser, Jeff Maskovsky, David Harvey and Leith Mullings, who were engaged in political movements in their own right—was to radicalize the work of his graduate students and to encourage a revolutionary perspective at global and local scales. His earlier work on gentrification, urban redevelopment and the revanchist city (Smith 1996) had encouraged anthropologists to re-examine these processes as class and racially motivated projects targeted to remove the poor and people of color from New York City and other global cities, to reduce the social reproductive capacity of the city, and to enhance circuits of capital accumulation through the built environment. While these insights remained fundamental contributions and the major areas of cross-fertilization based on Neil's presence in an anthropology department, it was his later revolutionary ideology that captured the hearts and minds of his graduate students who cite his revolutionary inspiration as his most lasting gift.

I start with the moment when Neil and I were still arguing for the political credibility of a liberal urban policy expressed in our mutual interest in expanding and materializing the relationship of public space and the public sphere. I then turn to how the relationship of public space and the public sphere has continued to be modified, drawing from recent anthropological and political science literature. Through these examples I illustrate how the study of public space and the public sphere remains tied to an ideological social liberalism especially in anthropology and sociology where ethnography is the dominant methodology. Neil, on the other hand, returned to his revolutionary stance arguing that urban life was so dominated by the retreat of the state, expansion of neoliberal governance and flows of global capital that only class struggle and conflict made any political sense. I end by identifying how his revolutionary stance influenced his students and their projects and left a legacy of political action as well as spatial and political economic analysis within anthropology as well as geography.

Public Space and the Public Sphere

In the introduction of *The Politics of Public Space* (Smith and Low 2006), Neil and I highlight the historical and geographical specificity of politicized public space to encourage the possibility of a different kind of politics. This endeavor involves social and political economic analyses of public space as well as taking the geography of the public sphere seriously. At that time we agreed that, historically, public space only comes into its own with the differentiation of a nominally representative state on the one side, vis-à-vis civil society and the market on the other with the household as a privatized sphere of social reproduction (Smith and Low 2006:6). Public space can be considered an expression of civil society, but does not remain contained within it; rather it emerges, according to Habermas (2001:xi) in *The Structural Transformation of the Public Sphere*, "between civil society and the state".

This conceptualization, however, raised a crucial issue, namely the relationship between public space and the public sphere. Neil and I tackled this problem along with a host of illustrious philosophers, political theorists, geographers and literary and legal scholars (Cheah and Robbins 1998; Fraser 1990; Howell 1993; Iveson 2007; Staeheli and Mitchell 2008; Warner 2002) who have identified the institutions and practices that contribute to the generation of publics and interpretations of the public sphere. In most of the non-geographical discussions, the concept of the public sphere is de-spatialized, a theoretical position that has been criticized (Mitchell 2003; Stallybrass and White 1986) as well as defended (Barnett 2008). In Habermas's account, for example, the ideal public sphere is deemed universal and thereby, in any meaningful sense, spatially undifferentiated. Yet, his model of bourgeois civil society is formulated based on the spatial imagery of the urban café where people communicate and exchange views as equals through a bracketing of social class and other forms of difference. Further, as Howell cogently points out, the public sphere is "both a normative ideal of political action *and* an historical phenomenon" (1993:309). It had its origins in Western Europe in response to late eighteenth century ideals of citizenship in the context of an increasingly informed male public, emerging from new forms of political action, and representative and

participatory government (Howell 1993). Thus the public sphere, although posited by philosophers and political theorists as normative, is embedded in historical and political practices. This grounding in physical space offers a spatial location for conflict, cross class associations and social change. And Neil's history of property and class struggle in Tompkins Square (Smith 1996) made a significant contribution to subsequent ethnographies of public space (Brash 2011; Herzfeld 2009; Low 2000; Modan 2007; Newman 2011; Peterson 2010) and to the subfield of the anthropology of space and place more generally (Low 2016).

One of the advantages of clarifying the relationship of the public sphere and public space in this way is that it enables public space to be seen as a site of political practices that go beyond the politico-philosophical notions associated with the public sphere and overcomes some of its limitations. Contemporary social movements and political uprisings belie arguments that public space and the public sphere can be conceptually or physically separated. The tumultuous events of the Arab Spring including the Egyptian "revolution" and the global Occupy movement including Occupy Wall Street and Occupy Boston drew inspiration and generative capacity from the places in which they occurred, the affective atmospheres created and the energy the public settings provided (*American Ethnologist* 2012; Schwedler 2013). If the public sphere can be described as "the sphere of private people coming together as a public" (Habermas 2001:27), its emergence then has a geography as well as history. Once recognized, the spatiality of the public sphere transforms an understanding of the politics of public space.

As Arendt (1998) presents in *The Human Condition*, politics is about sharing a common space and world where people can come together to talk freely in a public space such as the agora of ancient Athens. Arendt is not interested in politics as based on individual preferences, but argues for the idea of and the importance of civic engagement and collective deliberation. Her perspective draws on notions of classical republicanism that resonate with the agora imaginary of citizens gathering in a public space for discussions that may not lead to agreement, but instead to a demonstration of political agency. As Sophie Watson (2006:11) suggests, in the idealized agora people can remove themselves from family life and participate in "a space of heterogeneity". This conceptualization of the public realm includes spaces of multiple publics and the ability through conversation and political practices to transform the public sphere.

Thus, public space and the public sphere represent conjoined arenas of social and political contest and struggle. But as the global public sphere is depicted as increasingly mobile and fluid, able to circulate and integrate discourses (Dahlgren 2001; Kelty 2005; Warner 2002), it is also at risk of being uncoupled from the embodied togetherness so important in contemporary political practice. As the global public sphere is produced as a more elastic and abstract notion, it is becoming dis-embodied and de-spatialized. What seems needed at this time is to clarify how space plays a critical role in political practice and to link that role to Arendt's (1998), Habermas's (2001) or Dewey's (1927) conception of free and open communication and debate.

One way to frame this coherence is to agree with Don Mitchell (2003) that public space is a location for manifesting dissent, while the public sphere has been more

often characterized by exclusion. People take to the street or plaza to express their rights to participation and representation in reaction to their exclusion from the public sphere. For political theorists such as Ranciére (1999) democratic politics is about making dissent visible and widening the public sphere to include diverse publics and counter-publics (Fraser 1990; Warner 2002; Young 2001). Staeheli and Mitchell (2008) further refine this understanding by focusing on public space as property, and more specifically on the bundle of "rights" and "responsibilities" that ownership and other property regimes confer. Their analysis complicates the way that public space can be accessed, understood and enacted as well as the way that publicity and new publics are formed through property and ownership relations and contradictions.

Houssay-Holzschuch and Teppo (2009) offer an alternative reframing of the problem by defining public space as the political and metaphorical space of public debate found in cafés, the press, and the internet—the physical and virtual places where the public sphere is located. They define public space from a judicial point of view that is reflected in ownership and property regimes, and socially in terms of diversity. Their conception of public space resonates with Dewey's (1927) idea that democracy is the cultivation of shared understandings through diverse voices —individual and collective—that can be heard. Thus, public space produces the public sphere through a location where diverse people's voices and bodies are recognized and included (Robeyns 2003; Young 2001).

It was during these discussions of public space and the public sphere that Neil and I parted over whether collective voices and counter-publics could be heard or only coopted and then reframed by neoliberalism. The multiple social movements that began in public squares and plazas starting with the dramatic Arab Spring and continuing with the Occupy movement and more recent anti-eviction actions propelled me toward utopian ideals of how social justice could be manifest in public space. I began to work on propositions of social justice for urban spaces (Low 2013, 2014) and to give lectures to and tweet policy makers, government officials, planners and architects about these proposals. Neil, by contrast, was deeply concerned with the impact of the revanchist city and the power of neoliberalism to eradicate any meaningful forms of public space (Smith 2008). He argued that the only alternative to neoliberalism was to abandon liberal urban policy debates for revolutionary thinking and join the students, workers, the homeless and the disenfranchised in their struggles (Smith 2009).

An Expanding Spatialized Public Sphere

To illustrate the effects of the more spatialized public sphere that produced my optimism, I draw upon a few empirical cases: (1) ethnographic studies of social media and public space; (2) studies of affect and affective atmospheres of public spaces; (3) linguistic and affective analyses of enactments of the public sphere; and, one counter example, (4) the legal analyses of malls and other private spaces that become public through designation by the courts. Each example offers insights into a realignment of the previous arguments that I have made elsewhere in the years after *The Politics of Public Space*. As I mentioned in the introduction, Neil did not

see much potential in these glimpses of an expanding public sphere. To give more voice to Neil's vision of the future, I turn in the next section to the work of a few of Neil's anthropology and geography students to illustrate what his revolutionary turn offered in terms of cross-fertilization.

Studies of Social Media, Public Space and the Public Sphere

Jeffrey Juris's (2012) study of Occupy Boston offers an insightful analysis of the links between social media and public space within #Occupy Everywhere movements. He argues that while listserv and websites gave rise to the logic of networking within movements such as the WTO protest in Seattle in the 1990s and 2000s, that more recent use of social media in Egypt, Tunisia and Occupy New York and Boston suggests an emerging logic of aggregation. From his ethnography of Occupy he demonstrates that new media "influence how movements organize *and* that places, bodies, face-to-face networks, social histories, and the messiness of offline political practices continue to matter, exemplified by the resonance of the physical occupations themselves" (2012:260). What is important is how new social media have changed patterns and structures of social and political organization, and even more importantly, physical forms of protest. For Juris, "virtual and physical forms of protest and communication are mutually constitutive" (2012:260). Further, Juris is quite clear that the news reports, listservs, websites, cell phones, and later at Tahrir Square or Zuccotti Park, Twitter and Facebook all mobilize a wider and more diverse public including not only those physically present in the public space, but everyone linked by various forms of mobile technologies. His point is that the logics of the relationship between public space and the public sphere might vary from site to site (networking in the 1990s–2000s versus aggregation today), but that there is a connection between the circulation of ideas (the public sphere) and the public spaces where people gather and protest together. Similar to the work of Bruce D'Arcus (2004) who writes about the impact of the 1960s race riots in the US, Juris's ethnography explores both geography and virtual spaces of dissent that lead to the creation of an expanded citizenship.

Affective Atmosphere, Public Space and the Public Sphere

A number of public space researchers have been working to establish a relationship between unlikely public spaces and the public sphere—such as a public housing museum in Chicago (Fennell 2012) or the intersection of streets at Prince of Wales Junction in West London (Koch and Latham 2011). For example, Catherine Fennell (2012) is interested in how the emplacement of a national public housing museum produces a "sympathetic public" through an encounter with photographs of the ruined housing project and the residents' stories of living there. Through these depictions Fennell argues that viewers come into contact with a place that was once inhabited and that renders contagious "the perspectives, values, and practices they [residents] used to navigate social inequality and state-mediated neglect" (2012:661). This visceral contact with the physical place affects a change in the viewers' politics and expands their understanding of what residents once suffered

as well as including ex-project residents within a discursive public sphere from which they had been previously excluded.

Koch and Latham (2011) on the other hand explore how domesticating a public space such as a troubled "hot spot" in West London expands the public sphere. They argue that through *materiality*—the material used to construct the place, *inhabitation*—the mutual recognition of corporeal practices and embodied routines, and *atmosphere*—the relational intensities that emerge, that a new assemblage of rhythms, capacities and affordances emerge that change the ongoing political and representational processes. The authors argue that rather than focusing on the language of exclusion, encroachment and claim-making of the public sphere, it is more productive to consider the new kinds of publicness that are emerging in this complex urban space accompanied by a different set of politics and idea of civil society. Similar to earlier work by Iveson (2007) on women bathers in Sydney, this West London "hot spot" illustrates how the power of public space, located embodied practices and the resulting affective atmosphere combine to ignite dissent and generate a politics based on recognition and open discussion rather than the dictates of the police, planners and city officials.

Performing the Public Sphere

Moving away from material forms of public space to more discursive ones, Rihan Yeh's (2012) investigation of the construction of the public sphere is based on readers' reactions to an article in the web-based edition of *La Frontera*, a Tijuana newspaper. Online entries written in response to a news item entitled "Police Agent Shot Last Sunday Dies", a follow-up to a news report about the ambushing of several municipal policemen the previous week, elicited a large response from the readership. Yeh argues that readers sign their names to statements of support for the Tijuana police to "perform in their brief remarks their identities as upstanding citizens, diligent participants in a public discourse that, while it may sometimes complain or criticize the state remains fundamentally oriented to it" (2012:713). But this online support is disrupted by comments that employ hearsay, "what I heard [*lo que supe*] was that some cops, beat up someone ..." to express other readers' shared sociopolitical reality (Yeh 2012:714).

Yeh employs these online entries to argue that the dominant model of the public sphere does not account for the informed debate between the bourgeois-type public and the heresay public she finds online. Instead through contrasting discourses two publics—a public and a counter-public in Warner's (2002) terminology—are being created. She argues that the public sphere is produced by a range of "performative enactments of collective subjectivity" (Yeh 2012:724) such that groupness is a discursive achievement. Performativity is a way to understand empirically how social groups are imagined and embodied since it is through performative processes that the individual "I" is transformed into the "we" such that "large scale groups can emerge as collective subjects" (Yeh 2012:728). Her critique of the liberal politico-philosophical tradition leads to a broader analysis of the public sphere as created through multiple voices, but that is inherently unstable and contested (Yeh 2012:718). While a critic might argue that the discursive perspective moves us away

from the materiality of public space, the newspaper and online blogs do offer a virtual public space that enables emergent counter-publics to form and be heard. In this sense, the newspaper and the places where these deaths occurred are linked by anonymous virtual conversations that expand the public sphere by protecting dissenters in what would otherwise be a very dangerous situation.

William Mazzarella (2003) contends that these discursive performances of publicity refer not just to the collective subjects but also the spatiotemporal world in which they live. In a recent ethnography he argues that in mass-mediated societies a theory of performative dispensations regulates the "open edge of mass publicity", that is, the:

> anonymity that characterizes any public communication in the age of mass publics; the sense that what makes a communication public is not just that "it addresses me" by way of a public channel, but also that "it addresses me insofar as it also, and by the same token, addresses unknown others", others who share my membership in an emergent general public (Marrazella 2013:37).

His analysis of film censorship in India explores the material grounding of political and cultural authority in mass-mediated society. He argues that movies in India, as well as the public space of the movie theater, are sites of public-making that occurs through the affective intensities of crowds and other abstract publics. Contrasting the moral order of film censorship as caught between colonial and postcolonial notions of modernity and conservative Hindu politics, the film critic becomes the guardian of the public sphere and the mediator of public affect management. Hindu cinema reaches a broad literate and illiterate audience and through this mass-mediated form of "spectacular, affect-intensive performativity" (Mazzarella 2013:24) mobilizes and activates a corporeal public sphere. Negt and Kluge (1993) describe this as the "proletarian public sphere" in contrast to Habermas's (2001) incorporeal bourgeois public sphere. Along this line of argument, S.V. Srinivas (2000, cited in Mazzarella 2013) argues that the cinema hall was always a site for bourgeois public discourse on citizen's rights and middle-class behavior and now has become a location for "the political mobilization of new subaltern claims to public space" (Mazzarella 2013:24).

Mazzarella (2013) adds another degree of complexity to this discussion by focusing on the affect-intensive performativity found in cinema and other art forms that produce and contest attempts by the government and the middle-class to restrict the content and participation of the expanding mass-publics and the public sphere. In the movie house, on blogs and in newspapers, counter-publics and new publics make spaces for their representations and identities. Whether virtual space, movie houses or newspapers can be considered as material as a location in the built environment, they offer provocative insights into the ways that publics and new kinds of public space can form even in the face of neoliberal surveillance and private governance strategies.

The Public Sphere in Private (de facto Public) Space
Privately owned malls that are commonly used as quasi-public spaces are another site where the shifting relationship between public space and the public

sphere is evident. In the mall, the question is whether private ownership directs the rules of access and action or whether the everyday use of the mall for social life and political debate succeeds in publicizing these privately built and secured sites. Staeheli and Mitchell (2008) document the history of legislation regulating access to public spaces and trace the escalating role of government in deciding who should have access to public space and when and where access would be allowed. They conclude that even designated public spaces, such as National Park Service properties or Washington DC public monuments, are subject to constraints and restrictions of certain types of activities and publics. Therefore, it is not surprising that malls and other privatized public spaces, including amenities accessed through private property such as public beaches in California or lakes surrounded by gated communities, are subject to fierce regulation of their public use and access.

A number of court cases have tested the constitutionality of disallowing political debate and free speech in these privately owned but publically accessible sites—particularly in US suburban communities where malls often play the role of town square and public market. Planners, in fact, design suburbs with the central mall complex incorporating municipal and town offices and even a post office to encourage its use as a social center. The first test cases challenging the right of mall management to restrict political speech in the US were turned down in recognition of private ownership laws that restrict civil rights and enforce corporate and commercial property rules and regulations. More recently, however, in individual states including New York and California, legislation has been passed protecting free speech and public gatherings based on the argument that malls are the de facto public spaces of suburban communities, and therefore critical to freedom of speech and democratic practice.

Anthony Maniscalco (2015) explores these legal contests over publicity in privately owned marketplaces to better understand the relationship of public space and incidences of unauthorized speech and conduct in US shopping centers. He focuses on conflicting interpretations of First Amendment freedoms as adjudicated by the US Supreme Court and considers what expressive activities are legally safeguarded in public places that are also protected in the Fifth and Fourteenth Amendments on privately owned property. He concludes that although free speech is usually de-spatialized by judicial determination, court rulings have also established where public forums are considered to be held in trust for people's participation rather than as places identified as property and legally separated from the public sphere and political practices. In this sense, Maniscalco (2015) employs court rulings as a means for excavating the terrain between public space as a site of protest and struggle for rights and visibility, and the viability of an inclusive and diverse public sphere located within private property regimes.

Staeheli and Mitchell (2008) also consider the constantly negotiated region between public and private as regulated by normative accommodations of protesters, government officials and the police. Maniscalco (2015) adds to this analysis by tracing Supreme Court rulings that at first privilege civic engagement and the First Amendment over the rights of property (Marsh v Alabama 1946), and even after two decades reaffirmed that changing landscapes and suburban publics required

a reformulation of what could be considered a public forum (Amalgamated Food Employees v Logan Valley Plaza 1968). These decisions, however, were subsequently reversed just a few years later to overturn any First Amendment protection in shopping malls. The final outcome has been the ruling on Pruneyard v Robins (1980) in which the Supreme Court still precluded First Amendment protections for public expression in shopping centers, but "now invited individual states to conduct their own independent analyses of the matter, and to extend rights of speech and assembly in malls if their constitutions warranted expressive protections" (Maniscalco 2015:9).

Maniscalco (2015) concludes by borrowing the "right to the city" concept to recast malls as de facto urban centers that share commonalities with their counterparts in cities and should require the same protections. Unfortunately the law is currently opposed to this position. Nonetheless, urban and suburban planners continue to place public amenities and social centers within the shopping center building. Examining the legal underpinnings of free speech and political expression in these quasi-public spaces, like the museum and cinema hall, emphasizes the relationship of public space to a vibrant public sphere. However, in the mall example it is through Supreme Court rulings and contested interpretations of First Amendment and civic rights that the public sphere is diminished. In the case of the mall, laws and local regulations mediate the relationship between structural arrangements of space and the publics who inhabit it. The disappearance of counter-publics in suburbs where social centers are located in private shopping centers offers a negative case of how public space is tied to the public sphere through laws and Supreme Court rulings. Without legal protections of suburban de facto public spaces, the public sphere will continue to be restricted in these communities.

The ethnographic cases document how the relationship between public space and the public sphere produce greater publicity and a more inclusive public sphere through an expansion due to virtual space, affective processes and discursive practices. Virtual communication through mobile technology, social media and websites expands the reach of public space through networks and aggregations connecting the circulation of ideas to the physical spaces where people gather and protest (Juris 2012). Embodied practices and affective atmospheres of public spaces such as a public housing museum or a busy street intersection generate a politics based on recognition of the experience of others (Fennell 2012; Koch and Latham 2011). Online discursive practices contest bourgeois public sphere dominance by opening up the conversation and allowing counter-public expression and recognition (Yeh 2012). Affective-intensities and performativity also determine ways of regulating the public sphere through censorship within mass-mediated societies (Mazzarella 2013). Through these processes, individuals and social collectivities previously excluded from the public sphere become central to its construction.

Conversely, the final case illustrates the way that legal rulings by the US Supreme Court have resulted in the restriction of political discourse in privatized public spaces such as malls and private developments thus diminishing suburban citizens' participation in the public sphere. And there are other kinds of urban spaces

emerging similar to the privatized public spaces of malls such as parks and playgrounds within gated communities that do not offer a rosy picture of the future.

Globalization, Revanchist Urbanism and Neoliberalism

Neil wrote extensively about the impact of globalization on social reproduction and how global flows of capital and labor are transforming localities and creating more fragmented, differentiated and re-territorialized urban spaces (Smith 2002, 2005). Uneven development of transnational spaces produced by circuits of people, capital and culture as well as products, services, knowledge, and other goods that cross borders are producing new social and geographical relationships (Smith 1990). Globalization also radically changes social relations and local places due to interventions of technology and mobility and the consequent breakdown in the isomorphism of public space and "community", neighborhood, nation or any form of social collectivity.

In this globalized context, the restructuring of spaces of social reproduction, community and neighborhood also realign public space and the public sphere. Neil was passionate in his critique of the negative impact of gentrification, utilizing his case of the Lower East Side of New York City (Smith 1996) to forecast a pattern of destructive global property speculation and subsequent reconstruction of central urban districts as diverse as the Soldiere project in Beirut, the Docklands in London, and Harborplace in Baltimore (Smith 2002). His outrage at neoliberal states promulgating a global form of revanchist urbanism that replaced liberal urban policy in the advanced capitalist world was formulated well before the publication of the *Politics of Public Space* (Low and Smith 2006). In his essay "New Globalism, New Urbanism: Gentrification as Global Urban Strategy", Neil documents his contention that gentrification would eventually restructure the urban scale and reconfigure both developing and command cities through the new role of global capital in urban real estate markets (Smith 2002).

The loss of community and public space, the exclusion of neighborhood residents from planning decisions, and the forced relocation of poorer residents due to rising rents and deteriorated buildings galvanized Neil and many of his students to begin a series of anti-gentrification projects and to participate in political dissent. For example, Zoltán Glück met Neil in 2010 at a conference in Budapest where Neil encouraged him to join him at CUNY's Graduate Center. By 2012 Glück had become involved in a gentrification research project in Crown Heights, Brooklyn joining neighborhood groups who were fighting displacement and landlord harassment. He worked with residents to identify particular landlord holdings, mapping the reach of management companies and giving tenants hard data for their struggle. This work supported both building-level tenant organizing as well as litigation in an effort to slow the gentrification process. He wrote that Neil gave him the tools to:

> critically engage public spaces and the transformation of the urban neighborhoods that focused attention squarely on the political and the systems of power that go into producing such spaces. His [Neil's] work urged us to engage *politically* with the politics of

space: that is, to take a stand as scholars and position ourselves within the field of power that is the production of space (Glück 2013:2).

The legacy of Neil's later work on globalization, the revanchist city and global gentrification can also be seen in work of his more senior students who then became his colleagues. Julian Brash (2011) cites Neil's influence in his decision to take on the myth of the apolitical approach of Michael Bloomberg's administration in New York City. Instead, Brash argues that the "Bloomberg Way" was ideological, a class-based project to reinstate the economic elite including both a transnational corporate class and a local professional and business class. Brash (2011:9), referencing Neil's concept of class as "one owns companies or is owned by them" (Smith 1996:106), agrees with Neil that understanding the power of elites is central to a political economic analysis of neoliberalism. His ethnography of Bloomberg's administration focuses on the spatialization of elite class interests through the creation of a luxury city and the abandonment of the working poor and homeless. Drawing on Neil's conceptualization of the role of gentrification and urban development as a strategy to maximize the wealth of property owners through speculative real estate transactions (Smith 2002:437), Brash (2011) uses his ethnographic lens to go beyond how space reflects class differences, but instead are mutually constitutive. He points out that the best-documented link between neoliberalism and class formation is that of gentrification.

Brash takes on Neil's challenge through his detailed ethnography of the Hudson Yards, a development that was to transform Manhattan's far west side into a "high-end district" but was ultimately thwarted by activists and entrenched local interests. The influence of Neil's work on Brash's theorization of global elites and gentrification is evident, and the resulting analysis combines these insights with an ethnographic accounting of why the Hudson Yards project failed. Brash points out that Neil's linking of class projects and spatial processes was a cornerstone of his thinking (Brash 2015, personal communication). But he was equally influenced by Neil's linking of cultural narratives to political economic processes—for example Neil's identification of the importance of the "wild west" discourse to the gentrification of the Lower East Side (Smith 1996)—a point that Brash develops further in his analysis of the Bloomberg imaginary of running New York City like a business and improving its "competitiveness" and how this vision became integral to the remaking of the physical and social space (Brash 2015, personal communication).

Revolution: Neil's Final Legacy

According to many of his graduate students, what was most inspiring about Neil's work was its relevance to activist circles and his direct influence on social struggles (Glück 2013). Max Rameau and Rob Robinson—activists from "Take Back the Land"—still talk about how important Neil's work is for their own (Glück 2013). Citing Neil's *Social Text* article "Contours of a spatialized politics" (Smith 1992), his geography students wrote a tribute that credited his "flexible schema for understanding the capitalist production of scale at distinct but related levels" including the body, home, community, urban, region, nation, and global as their

greatest take away (Bacon et al. 2012:953). They then use this schema to illuminate the importance of Neil's revolutionary project that included the re-appropriation of the body and the creation of the "Urban Revolution" course in 2007 "because Neil was frustrated by the lack of revolutionary imagination in a city that was shaped by revolt" (Bacon et al. 2012:954). Glück recounts how supportive Neil was of his students taking on political organizing work alongside their graduate study, saying that he himself had "learned more on the picket line than he ever did in class". Neil also spoke honestly to his students about his own "need to re-tool", that is, to move from being on the defensive fighting neoliberalism, but to take up the task of political organizing, working with social movements, and pushed students to develop a militant scholarship that also engaged with political work (Glück 2013:1–2). Manissa Maharawal, another anthropology student in Neil's sphere of influence who was involved in Occupy Wall Street from its beginning, ultimately developed a research project to study radical youth politics. She continues to be an anti-eviction activist and organizer in San Francisco, Oakland and Brooklyn, combining activism and research methods in a way that also embodies Neil's idea of militant scholarship (Maharawal 2014).

This is not to say that Neil's interest in social movements and political activism was the only source of inspiration for anthropology graduate students as there were many others, but Neil was convinced by 1999 that neoliberalism was atrophying and would be finished off by the economic crisis of 2008. In his last *Antipode* article, "The revolutionary imperative" (Smith 2009), Neil argues that it was during this period of waning neoliberalism and with the faltering promise of poststructuralism that the stage was set for revolution and greater political imagination. He optimistically forecast the fading of the neoliberal moment and the rise of the possibility of revolutionary change as would be borne out by subsequent political turbulence. The hopefulness of Seattle, uprisings in China, the election of leftist regimes in Latin America and the growing anti-globalization movement bolstered this optimism. Convinced that "social change and political transformation are not optional but a fact" (Smith 2009:59), as Don Mitchell sensitively put it: "Neil turned his attention to revolution" (2014:220).

I think it was at the point when Neil was convinced that revolution was the only solution that we parted ways in our discussion of public space and its significance for the public sphere. While I was trying to find ways to bring public space into the foreground as a meeting place for diverse constituencies and a forum for political dissent, Neil was moving into more radical projects, joining both the "Right to the City" coalition and "Take Back the Land" activists in their struggles. His preference for political action is also reflected in some of his students' research and writing, perhaps captured in anthropologist Andrew Newman's (2011) work on environmental activism in Paris. Newman studied a new park built in a low-income immigrant neighborhood, proposing that the building of this park would highlight the class, gender and ethno-racial inequalities. More to the point, however, Newman argued that the use of "green politics" became "an emerging front in long-standing forms of struggle that are central to capitalist urbanization" (2011:192). His ethnographic case study of a neighborhood-based mobilization drew on environmental politics to spatially express their longstanding social demands. Newman's ethnography

demonstrates Neil's contention that imaginative politics and neighborhood-based struggles can succeed in the hands of a community of immigrant-origin residents. He credits Neil's ideas about the production of nature and his work on gentrification as a global urban strategy in his text, and does not cite Neil's revolutionary imperative piece. But like so many of Neil's students, Newman was primed to look for political activism and struggle as the real basis for social change.

Translocal Public Spaces and the Global Public Sphere

At the same time that Neil (2009) was writing on revolution, Brash (2011) on the "Bloomberg Way", and Newman (2011) on class-based struggles in a Parisian park, I was grappling with the creation of new geographies and imagining global public spaces and spheres in a different way (Low 2014, 2016). Looking back, I now think that I too was responding to Neil's challenge to develop greater political imagination. By studying Moore Street Market—a socially significant public space located in Brooklyn, but connected to Puerto Rico, Mexico and the Dominican Republic through its patterns of use and users—I proposed that a new kind of social space that was radically different from those I had previously studied was being created (Low 2014). My question was whether the spatial forms and social relations offered new possibilities for the generation of a global public sphere or would foreclose this possibility through private funding and capitalist control.

Specifically, I posited that "translocal spaces" link multiple places through the bodies and embodied spaces of individuals, families or large collectivities producing new kinds of emergent public spaces. Participants are able to reach across national and regional boundaries circulating ideas from the multiple places that participants inhabit thus widening the network of political awareness, protest and strategies for participating in a global public sphere. Concrete places, such as Moore Street Market in Brooklyn, New York, function as social centers for Caribbean and pan-Latin American first-, second- and third-generational encounters and transmission of transnational ideas and politics including the multiple publics who remain "at home". Through the translocal public space of Moore Street market, family and friends who live outside the United States and Brooklyn are just as much part of the network or aggregate of political life as those who are physically present. The southern Tel Aviv bus station and the Gare du Nord in Paris are other examples of these socially and political powerful places (Kleinman 2014). These translocal public spaces create opportunities for new solidarities and political alignments that restructure and expand localized notions of the public sphere, and support a locality connected to an ever widening circulation of ideas, dissent and struggle (Low 2014).

Conclusion

This article attempts to untangle two threads of the intellectual legacy of Neil Smith. The first concerns the work that Neil and I did together in the *The Politics of Public Space* (Low and Smith 2006) on public space and the public sphere and then explains how our paths diverged. I elaborate with examples of some of the ways that

the public space and public sphere have been expanded by later researchers and that left me with a sense of optimism about the future of public space as a forum for new social and political encounters. The second part of this discussion turns to Neil's thinking and writing as he moved away from having any faith in liberal urban policy, and his conclusion that neoliberalism was waning. Drawing upon publications by his students, I have attempted to assess the impact of his work—particularly on anthropology students focusing on his contribution to gentrification as a global urban strategy and his later turn to revolution as the necessary corrective to the death of neoliberalism. There were also moments where our passions came together, especially in our work with students. His revolutionary imperative resonated with my desire to imagine and support new kinds of translocal public spaces that had the potential of creating an inclusive, multi-vocal and multi-local public sphere. The "BlackLivesMatter" movement is one example of an imagined solidarity and sense of political collectivity that draws from both revolutionary and utopian thought (Sharad Chari, personal communication).

As I think about our divergent and convergent intellectual histories, I think he would be very pleased that he inspired his students' participation in Occupy Wall Street and other forms of activist politics in public space. He was always committed to the protection and use of public space as a means for political confrontation, bringing together diverse people, and opening up the often middle-class dominated public sphere to emerging and previously disenfranchised publics. Neil was already arguing that virtual space and mobile technology would improve political organizing, although I am not sure that he saw virtual space as public in the sense that capitalist interests and commercial endeavors are directing most of its development and co-opting its potential. Virtual space, however, and the cyborg realities of real and virtual hybrids offer one way of thinking beyond the revolutionary/reformist binary as new publics will continue to emerge through these processes.

I believe that Neil would be less sanguine about the performative and affective dimensions of public space I recognize as becoming central to the production and inclusion of new publics and an expanded public sphere. He preferred materialist understandings of political struggle and action. Nonetheless, these openings offer a useful ethnographic corrective to more narrow theorizing about how public spaces produce the public sphere. And, of course, Neil had already documented the restrictive role of government in shutting down the political potential of private public spaces in his work on the revanchist city (Smith 1996).

Finally this article has attempted to cover some new ground by drawing upon anthropological studies of the public sphere and its relation to public space. The ethnographic examples provide evidence of ideas that philosophers have argued for, but without empirical data (Dahlberg 2005). Fennell (2012), Yeh (2012) and Mazzarella (2003) demonstrate how "the informal discursive public sphere allows voices and conflicts to be expressed in ways in which the more inflexible formal institutions of democratic governance do not allow" (Dahlberg 2005:130). Further, it is evident from Yeh's (2012) work on the discursive public sphere of an online version of a newspaper and Mazzarella's (2013) mass-mediated cinema that the public sphere includes both material and discursive processes with continually contested

boundaries of difference and power and the emergence of bourgeois and hearsay publics and counter-publics. Mediated communication is an important part of the contemporary public sphere, while public space continues to play a foundational role for emergent relationships and political engagement.

I have endeavored to make it clear that I believe Neil would not have agreed with this theoretical turn in anthropology, and instead emphasized the end of neoliberalism and revolution as the correctives to the growing political, social and economic inequalities that plague this historical moment. It was these later passions, along with his work on gentrification and the re-spatialization of the city by elite interests that had the greatest impact on his anthropology students. Clearly, Neil's position in the PhD Program of Anthropology at the Graduate Center of CUNY changed the direction of many students' research and theorizing of the city. Most importantly, as Brash recently wrote me, he encouraged his students just to go for it, to forge ahead into battle and political struggles for what they believed in. This legacy and his contribution to a more politically engaged anthropology will be remembered (Low and Merry 2010). He gave us all the courage to speak out, intellectually and politically, and to create our own futures.

References

American Ethnologist (2012) Forum—Egypt's 2011 revolt. 39(1):1–70
Arendt H (1998[1958]) *The Human Condition*. Chicago: University of Chicago Press
Bacon N, Bissan M, Brady M, Glück Z, Kanuga M, McFarland S, Miller J, Sibilia E, Siodmak E and Mei Turbin L (2012) The contours of a spatialized influence: A tribute to Neil Smith. *Environment and Planning D: Society and Space* 30:953–955
Barnett C (2008) Convening publics: The parasitical spaces of public action. In K Cox (ed) *The Handbook of Political Geography* (pp 403–417). London: Sage
Brash J (2011) *Bloomberg's New York: Class and Governance in the Luxury City*. Athens: University of Georgia Press
Cheah P and Robbins B (eds) (1998) *Cosmopolitics*. Minneapolis: University of Minnesota Press
Dahlberg L (2005) The Habermasian public sphere: Taking difference seriously. *Theory and Society* 34:111–136
Dahlgren P (2001) The public sphere and the net: Structure, space and communication. In W L Bennett and R M Entman (eds) *Mediated Politics: Communication in the Future of Democracy* (pp 33–55). Cambridge: Cambridge University Press
D'Arcus B (2004) Dissent, public space and the politics of citizenship: Riots and the "outside agitator". *Space and Polity* 8(3):355–370
Dewey J (1927) *The Public and its Problems*. Athens: Ohio University Press
Fennell C (2012) The museum of resilience: Raising a sympathetic public in post-welfare Chicago. *Cultural Anthropology* 27(4):641–666
Fraser N (1990) Rethinking the public sphere: A contribution to actually existing democracy. *Social Text* 25(26):56–79
Glück Z (2013) "Thinking in Times of Disaster: Neil Smith's Legacy as Militant Research." Paper presented at the American Anthropological Association annual meeting, Chicago, November
Habermas J (2001[1962]) *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. Cambridge: MIT Press
Herzfeld M (2009) *Evicted from Eternity: The Restructuring of Modern Rome*. Chicago: University of Chicago Press
Houssay-Holzschuch M and Teppo A (2009) A mall for all? Race and public space in post-apartheid Cape Town. *Cultural Geographies* 16:351–379

Howell P (1993) Public space and the public sphere: Political theory and the historical geography of modernity. *Environment and Planning D: Society and Space* 11:303–322

Iveson K (2007) *Publics and the City*. Oxford: Blackwell

Juris J S (2012) Reflections on #Occupy Everywhere: Social media, public space, and emerging logics of aggregation. *American Ethnologist* 39(2):259–279

Kelty C (2005) Geeks, social imaginaries, and recursive publics. *Cultural Anthropology* 20(2): 185–214

Kleinman J (2014) Adventures in infrastructure: Making an African hub in Paris. *City and Society* 26(3):286–307

Koch R and Latham A (2011) Rethinking urban public space: Accounts from a junction in West London. *Transactions of the Institute of British Geographers* 37(4):515–529

Low S (2000) *On the Plaza: The Politics of Public Space and Culture*. Austin: University of Texas Press

Low S (2013) Public space and diversity: Distributive, procedural, and interactional justice for parks. In G Young and D Stevenson (eds) *The Ashgate Research Companion to Planning and Culture* (pp 295–310). Burlington: Ashgate

Low S (2014) Spatializing culture: An engaged anthropological approach to space and place. In J Gieseking, W Mangold, C Katz, S Low and S Saegert (eds) *The People, Place and Space Reader* (pp 34–39). New York: Routledge

Low S (2016) *Spatializing Culture: The Ethnography of Space and Place*. New York: Routledge

Low S and Merry S (2010) Engaged anthropology: Diversity and dilemmas. *Current Anthropology* 51(s2):s201–s330

Low S and Merry S (eds) (2006) *The Politics of Public Space*. New York: Routledge

Low S, Taplin D and Scheld S (2005) *Rethinking Urban Parks: Public Space and Cultural Diversity*. Austin: University of Texas Press

Maharawal M (2014) Protest of gentrification and eviction technologies in San Francisco. *Progressive Planning* 199:20–24

Maniscalco A (2015) *Public Spaces, Market Spaces and the Constitution: Shopping Malls and the First Amendment*. Albany: State University of New York Press

Mazzarella W (2003) *Shoveling Smoke: Advertising and Globalization in Contemporary India*. Durham: Duke University Press

Mazzarella W (2013) *Censorium: Cinema and the Open Edge of Mass Publicity*. Durham: Duke University Press

Mitchell D (2003) *The Right to the City*. New York: Guilford

Mitchell D (2014) Neil Smith, 1954–2012: Marxist Geographer. *Annals of the Association of American Geographers* 104(1):215–222

Modan G G (2007) *Turf Wars: Discourse, Diversity and the Politics of Place*. Oxford: Blackwell

Negt O and Kluge A (1993[1972]) *Public Sphere and Experience: Toward an Analysis of the Bourgeois and Proletarian Public Sphere*. Minnesota: University of Minnesota Press

Németh J (2010) Security in public space: An empirical assessment of three US cities. *Environment and Planning A* 42:2487–2507

Newman A (2011) Contested ecologies: Environmental activism and urban space in immigrant Paris. *City and Society* 23(2):192–209

Peterson M (2010) *Sound, Space and the City: Civic Performance in Downtown Los Angeles*. Philadelphia: University of Pennsylvania Press

Ranciére J (1999) *Disagreement: Politics and Philosophy*. Minneapolis: University of Minnesota Press

Robeyns I (2003) Sen's capability approach and gender inequality: Selecting relevant capabilities. *Feminist Economics* 9(2/3):61–92

Schwedler J (2013) Spatial dynamics of the Arab uprisings. *PS: Political Science & Politics* 46:230–234

Smith N (1990) *Uneven Development: Nature, Capital and the Production of Space* (2nd edn). Oxford: Blackwell

Smith N (1992) Contours of a spatialised politics: Homeless vehicles and the production of space. *Social Text* 33:54–81

Smith N (1996) *The New Urban Frontier: Gentrification and the Revanchist City*. New York: Routledge

Smith N (2002) New globalism, new urbanism: Gentrification as global urban strategy. *Antipode* 34(3):427–450

Smith N (2005) *The Endgame of Globalization*. New York: Routledge

Smith N (2008) Neoliberalism is dead, dominant, defeatable—then what? *Human Geography* 1(2):1–3

Smith N (2009) The revolutionary imperative. *Antipode* 41(s1):50–65

Smith N and Low S (2006) The imperative of public space. In S Low and N Smith (eds) *The Politics of Public Space* (pp 1–16). New York: Routledge

Staeheli L and Mitchell D (2008) *The People's Property: Power, Politics and the Public*. New York: Routledge

Stallybrass P and White A (1986) *The Politics and Poetics of Transgression*. Ithaca: Cornell University Press

Warner M (2002) *Publics and Counterpublics*. New York: Zone Books

Watson S (2006) *City Publics: The (Dis)enchantments of Urban Encounters*. New York: Routledge

Yeh R (2012) Two publics in a Mexican border city. *Cultural Anthropology* 27(4):713–734

Young I M (2001) Activist challenges to deliberative democracy. *Political Theory* 29(5): 670–690

Uneven Development and Scale Politics in Southern Africa: What We Learn from Neil Smith

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Abstract: Southern Africa is probably the most unevenly developed region on earth, combining the most modern technologies and an advanced working class with the world's extremes of inequality and social militancy. The two most extreme countries, both with settler–colonial populations and accumulation processes that created durable class/race/gender distortions and extreme environmental degradation, are South Africa and Zimbabwe—both of which Neil Smith visited in 1995. His contribution to our understanding of political economy, before and after, was exemplary. We consider in this article how Smith's theory assisted in the understanding of crisis-ridden financial markets within the framework of capital overaccumulation and intensified spatial unevenness; the politics of scale, difference and community; and the ways that class apartheid and durable racism in the two countries together fit within contemporary geopolitical economy.

Keywords: capitalist crisis, resistance, solidarity, scale, uneven development, urbanisation

Introduction

Southern Africa was an ideal site for Neil Smith to visit, if even just once. In 1995, he was in both South Africa (when Durban hosted the International Geographical Union) and Zimbabwe (the Bvumba mountains straddling Mozambique, where he illegally jumped a mine-infested border trail on a bird-watching quest). Periodically from the early 1980s until his death, he encouraged our application of the core Marxist ideas about uneven development here. Those ideas affected our research and contestation of financial markets (Bond), urban processes and regional dynamics (Ruiters) and geopolitical strategy (both of us), in a context of durable yet ever-shifting class–race–gender oppressions and environmental degradations. The most important theoretical contributions from Smith come from his earlier works, which we have drawn upon most in the pages that follow.

  We knew Smith personally thanks to doctoral studies in geography at Johns Hopkins University in the 1980s–1990s and occasional suppers at David Harvey's Baltimore residence. What we permanently value from Smith's remarkably hard-line yet also nuanced revolutionary Marxist project, is not only the unstinting conviction for which he was world famous, but a sense that without the rigour, creativity and eloquence he epitomised, we are all bound to live in an intellectual ghetto.

Southern Africa is the last place, however, one would expect to ghettoise historical geographical materialism given how many attempts there have been at neo-Marxist (albeit sometimes un-Marxist) political-economic theorisation (Bond and Desai 2006). Until the last decade's attempts by the likes of Samantha Ashman, Richard Ballard, Sharad Chari, Ashwin Desai, Ben Fine, Gill Hart, Susan Newman, Melanie Samson, Trevor Ngwane and ourselves, no one here tried to pull together the perspective on uneven development Smith pointed to from 1984 onwards. No one here properly specified the structured character of divergences in production, reproduction and society–nature relations under global capitalism, *in spite of Southern Africa being the most unevenly developed region on earth.*

Smith warned that uneven development in capitalism is "structural not statistical" (Smith 1990:xiii). Still, some simple data offer a starting point that makes this abundantly evident (Bond 2014):

- Gini income inequality coefficients for South Africa, Botswana, Lesotho and Namibia are the world's four highest, with South Africa's measured by the World Bank at 0.77.
- In polls (of business leaders) regarding worker militancy within national working classes, those in South Africa and Angola are, respectively, the least and the fourth least cooperative, according to the World Economic Forum.
- South Africa can boast amongst the highest levels of protests (counted by police reports) per person in the world that we know of (nearly 2300 ended in violence in Bond 2014).
- From the top down, Johannesburg hosts the most corrupt capitalist class anywhere (as measured by PricewaterhouseCoopers), with its settler–colonial cultural forms and brutal orientation to accumulation through extractive dispossession.
- The region suffers life-long political leaders whose patronage-based rule is tied to crony capitalism in Swaziland (Africa's last feudal monarchy under King Mswati), Zimbabwe (where Robert Mugabe persists at age 91, in his 35th year in power, as we write), Angola (the most extreme kleptocracy, where José Eduardo dos Santos has ruled since 1979) and the war-torn Democratic Republic of the Congo (a Kabila family kingdom following Mobutu's 1965–1997 dictatorship).

Finally, some of the most important *ideological and strategic* lessons we learned from Smith, once a leader in a small revolutionary political party, are urgently needed in our politically turbulent region. Smith had what (he often confessed) was a formulaic approach to Trotskyism during the 1980s but his departure from the fold due to a dispute over whether feminist socialists should have the space to organise a caucus within the International Socialism tradition, showed how genuinely concerned he was to avoid the most rigid kind of vanguardist Leninist party in search of something more appropriate to the context.

That openness is the sensibility required to penetrate the politics of uneven development in Southern Africa at a conjuncture in which Smith would, as do we, celebrate the dissolution of old alliances that are no longer in the interests of the broad phalanx of the oppressed: poor and working-class people, women,

youth, the elderly, the LGBTI community, and environmentalists. But it is in making the new that the challenges arise—especially resurgent xenophobia amongst the lowest income urban residents—and here, Smith's ideas about uneven development inform our own sense of capitalism's limits. Indeed it is in the depraved character of capitalist crisis, Smith would agree, that amplified uneven development and financialisation are most obvious. In turn, the most grounded revolutionary strategies must now consciously link class, race and scale politics.

Uneven Zimbabwe and South Africa (Patrick Bond)

My first mentor was, in retrospect, not hard to find. It was a moment of considerable frustration, in the society and for me personally, immersed as I was in classical guitar studies during winter–spring 1982. The season was a cold one for the left, as Reaganism gathered pace. Warmed considerably at the Johns Hopkins University Grad Club, which Smith had established for conviviality's sake—so necessary at that staid institution—there was an unending series of informal seminars on Marxism. Thanks to Smith, I found myself shaking off the musty tradition of Kennedy liberalism along with my training in neoclassical economics received up the highway at Swarthmore College. My junior-year semester sojourn was at the Peabody Conservatory, a few miles down Charles Street from the Hopkins Homewood Campus protests, pubs and polemics where Smith was a constant presence. More than any period, those were the formative weeks for my personal politics. I had not met David Harvey at that stage. But after many hours learning from Smith and his mates, and nearly joining the International Socialist Organisation under his tutelage, I drifted back to finish my BA Economics in Philadelphia. After graduation and a (repay-the-student-debt) job at the Federal Reserve augmented by finance studies with Edward Herman at the Wharton School, by 1985 it was time to move on. I took very seriously Smith's suggestion that I start my PhD with Harvey, a stroke of great luck. Smith's life-changing advice is something that so many others can also testify to.

He made one vital intervention as I thought through research topics for the doctorate. Smith remarked on how much theoretical work on capital's spatial, sectoral and scalar unevenness was now accomplished, what with *Limits to Capital* placing these matters so centrally within political economy. The era of globalised financialisation was gaining unstoppable momentum, and Smith motivated an empirical study of the phenomenon using a particular place that was comprehensible as a country unit within a fast-changing world context: the uneven development of Zimbabwe.

That led to my permanent move to Southern Africa in 1989 where over the past quarter century, Smith's ideas came to serve with a force as great only as Harvey's. Since then, I have spent most of my time cataloguing the unevenness of neoliberal public policy, capital accumulation and social struggles in Zimbabwe and South Africa. Zimbabwe was especially important because a century of colonial power could be traced, from 1890 to 1990, with a national specificity rare in doctoral case studies. There were, of course, both imported and organic forms of capital accumulation, as the dynamic of class formation corresponded

tosettler–colonial economic interests. For these reasons, Smith's work has been vital to my analysis, and grows ever more so the more capitalism teeters.

The core transferable insight from Smith (1990:149), in my view, is that uneven development represents "the geographical contradiction between development and underdevelopment where the overaccumulation of capital at one pole is matched by the overaccumulation of labour at the other". Drawing upon Harvey's (1982) *Limits to Capital* framing, there are two core dynamics of a geographical nature here. First, the fulcrum of geographical unevenness is the differentiated return on investment that creation and/or destruction of entire built environments—and the social structures that accompany them—offer to different kinds of investors with different time horizons. Meanwhile, different places compete endlessly with one another to attract investment and in the process they tend to amplify unevenness, allowing capital to play one local or regional or national class configuration off against others. The territorial power blocs that emerge are the subject of geopolitical analysis, in a formulation that works well at various scales. Understanding the defence of territory against devalorisation of overaccumulated capital helps identify causality in geopolitics.

Smith's (1998) later argument stressed the continual, if never permanent, resolution of opposing tendencies toward the geographical equalisation and differentiation of the conditions and levels of production. The search for a spatial fix is continually frustrated, never realised, creating distinct patterns of geographical unevenness through the continued see-saw of capital. How well does Smith's sense of see-saw unevenness relate to societies where capitalist and non-capitalist relations are in such constant tension as in this region? Others within the Western Marxist tradition had already noted capitalism's unevenness in Africa (Arrighi and Saul 1973). But after noting the obvious, few investigated the dynamic underlying it.

One was Ian Phimister (1992), who telescoped out to the global scale at the critical moment in the colonial-capitalist era, the late 19th century. The Scramble for Africa was codified in the 1885 Berlin Conference continent-carving of borders, an outcome of overaccumulation, financialisation and shifting geopolitical power that ebbed and flowed according to both metropol and settler–colonial relations. Reflecting Smith's mode of argument, Phimister (1992:1) showed how the Scramble occurred because of "capitalism's markedly uneven development" which led "France, and to a lesser extent, Britain, to embark on programmes of colonial expansion. British intervention, however, invariably reactive and reluctant, was crucially shaped by City interests encapsulated in the policy of Free Trade".

The organisation of this region's capitalist space by settler–colonial regimes intensified following the discovery of diamonds (1860s in Kimberley) and gold (1880s in the Witwatersrand area better known as Johannesburg). From the 1890s, the anticipated gold finds in Zimbabwe led to a similar settler–capitalist invasion, one described by Giovanni Arrighi (1973:336) as "the most important single element determining the nature of economic and political development". Overestimating the potential for gold finds near what are now the country's second and third largest cities (Bulawayo and Masvingo) meant that Cecil Rhodes had to

recoup his railroad and telegraph infrastructure expenditures by importing more than 20,000 English settlers with the promise of free land and a future in farming—with all that this entailed for displacement and dispossession. Rhodes, who gained his fortune consolidating the diamond industry by hook or by crook in the 1870s–1880s, had completely missed the mid-1880s gold finds that made Johannesburg Africa's richest city. This made him more desperate to find the next seam, taking the unprofitable risk with the British South Africa Company invasion of Zimbabwe.

But as Arnold Sibanda (1990) then showed, it was not Rhodes' mistake, but the inexorability of mining capital's imposition of wage relations—formal capitalism—that would cement its extreme uneven development. I recall Smith agreeing with this bigger-picture argument, stressing the necessity of capital's outreach rather than the contingency—no matter how compelling a personal story—of Rhodes' outsized ego. (That ego, in turn, meant the University of Cape Town, received its original bequest from Rhodes' ill-begotten fortune, but in 2015, his dominating statue there briefly became the national focal point for #RhodesMustFall activism—which began with a black student hurling a bucket of excrement on Rhodes and ended a month later with the statue's eviction—thus symbolising how little of the "elite transition" had trickled down even at the country's main tertiary education site of elite reproduction.)

How was this unevenness expressed in terms of the space economy of production relations? In South Africa, the phenomenon of apartheid-era unevenness was considered a case of "articulations of modes of production", as the exiled lawyer-sociologist Harold Wolpe (1980) theorised in the early 1970s, based on Claude Meillassoux's (1975) study of articulations between capitalist and non-capitalist relations of agricultural production in the Ivory Coast. Smith (1990:156), however, explained it in more abstract theoretical terms:

> The logic of uneven development is theoretically prior to the problematic of articulation of modes of production. The point is that today the "articulation of modes of production" is a product of the developments and limits of capital, not vice versa. More concretely, it is the logic of uneven development which structures the context for this articulation.

The settler–colonial and minerals-based power of those who accumulated most capital in the period prior to national independence—Zimbabwe in 1980, South Africa in 1994—led to such structured unevenness, that the phenomenon was not reversed after liberation but instead amplified when conjoined with neoliberalism. Indeed, Smith's ideas were vital to us understanding the process by which capital worked through the inherited spatial form and abused it further, for example, after 1994 in the extension of migrant labour for South Africa's new platinum mines and lowering of prevailing wage rates; ubiquitous suburban sprawl; rampant property speculation (with a small amount of central city gentrification in Cape Town and Johannesburg); and perhaps most importantly, the region's deepened insertion into a world system intent on debt peonage, reversion to primary commodity export orientation and the deindustrialisation of manufacturing.

Finance was central to both the neoliberal policy regime and to the amplification of unevenness. Both Harvey and Smith showed how, theoretically, the tendency to overaccumulation crisis affects capital's search for geographical differentiation and how space then becomes a much more crucial means of production (Smith 1990:85–87). As overaccumulation sets in, productive investment meets gluts and is redirected into financial circuits. In turn, the public policy of finance remains state neoliberalism, and in both Zimbabwe and South Africa this policy frame was utterly dominant over the past quarter century (Bond 1998, 2014). It was a despairing time, with no obvious countervailing forces on the horizon aside from internal capitalist contradictions.

All this we agreed on. However, there was not a complete overlap in our perspectives, notwithstanding common roots. As one example, the relationship between finance and uneven spatial development was, at least initially, inadequately conceptualised by Smith (1990:150). He situated the origins of uneven development in "the constant necessary movement from fixed to circulating capital and back to fixed. At an even more basic level, it is the geographical manifestation of the equally constant and necessary movement from use-value to exchange-value and back to use-value".

But because the movement from exchange-value to use-value and back *depends on money as a medium of exchange and store of value*, with credit amplifying these roles, the dynamism of uneven development relates at least to some degree to the exercise of financial power, a point Smith observed empirically with anecdotes in his *Uneven Development*, but one he simply neglected to theorise (as Arrighi [1994] did later, for example, in *The Long Twentieth Century*). During the prior century's epoch of imperialism, entire currency blocs battled each other for trading dominance. This sort of totalising process was one through which finance *seemed to* level local dynamics of uneven development, in the course of imposing similar conditions drawing closer the various components of the global space economy into a universal law of value.

But in this respect, scale differentiation proved a vital ingredient in understanding unevenness over time in a case study site like Southern Africa. Again, we have Smith (1990:134) to thank for this insight, for scale is a "crucial window on the uneven development of capital, because it is difficult to comprehend the real meaning of 'dispersal', 'decentralisation', 'spatial restructuring' and so forth, without a clear understanding of geographical scale".

Thinking this through during my own study of Zimbabwe's financial deepening and periodic crisis formation over the course of a century, it became evident that power established and exercised at the highest scales was also subject to challenge and then to decay, depending on how that power related to the accumulation process. The "uneven development of scale" meant that at some points in time— the 1930s–1940s and 1960s–1970s most obviously—there was much greater national determination (what is today termed "policy space") while at other points (the 1920s and 1980s–1990s) an overarching logic of global capital came to bear, and scale power shifted to world financial circuitries (Bond 1998).

Again, it is interesting to assess minor disagreements, for Smith, relying on *production-bound* understandings of scale derived from the division of labour,

apparently considered the uneven power of finance at different scales a contingent (and relatively unimportant) feature of capitalist development. My objective, in contrast, was to theorise it as a function of the tendency to overaccumulate in the productive sector, switching capital into the financial sector, and then in the process discovering vital policy power shifts from national to global sites. Instead, for Smith (1990:123), the key to uneven development was the changing basis of the centralisation and dispersal of productive capital across international, national and urban scales: "Certainly the spatial centralisation of money capital can be considerably enhanced by the centralisation of social capital as a whole, but in itself the spatial centralisation of money capital is of little significance". To make his case, Smith originally (his 1982 thesis) referred to the accommodating role and lubricating function of finance within capitalism, not factoring in the power of finance to remake economic policy.

But as overaccumulation becomes generalised and financial power rises, the spatial centralisation of money capital (e.g. in the 1970s from petroleum consumers to the New York bank accounts of Arab rulers) is typically the proximate catalyst and facilitator for the subsequent amplification of uneven development. During the 1970s, the flood of Petrodollars to Third World dictators was a central cause in the restructuring of the international division of labour and dependency relations of peripheral regions, especially once the Debt Crisis broke in 1982 when Mexico defaulted. After all, in contemporary times the main way in which spatially centralised financial power is experienced is through the determination of national-level policies by the Washington, DC-based international financial institutions acting on behalf of the commercial and investment banks. By the time of the 1990 edition of *Uneven Development*, Smith delighted in recounting the view of Wall Street's Thomas Johnson, describing the contradictions behind the power of world finance over the Third World: "There is a possibility of a nightmarish domino effect, as every creditor ransacks the globe attempting to locate his collateral" (Smith 1990:161).

In other respects, Smith understood the determination of scale not by productive relations but by financial power. Uneven development of the built environment at the urban scale, for example, intensifies principally because the land rent structure becomes one in a set of portfolio options for financiers. Smith (1990:148) con-firmed: "To the extent that ground rent becomes an expression of the interest rate with the historical development of capital, the ground rent structure is tied to the determination of value in the system as a whole". Rent as an integrative lever—in this case, a means of universalising capitalist space relations—is hence integrated into the broader capitalist economy by another lever of financial power, interest. The rate of interest in turn reflects a combination of factors, of which the most important are the demand for money and the concomitant balance of power relations between creditors and debtors of various sorts.

The financial accentuation of an underlying boom-bust phenomenon is what Smith and I discussed when we occasionally met during the 1990s, as I sought clarity on Zimbabwe's uneven socio-spatial structure. As Phimister was most effective in proving at the outset of settler colonialism's birth, the power of finance profoundly affected the subsequent articulation of capitalist and pre-capitalist

modes of production, generating the basis for disarticulated development. And much earlier, drawing upon secondary research material from South Africa, Namibia and the Democratic Republic of the Congo, Rosa Luxemburg's 1913 text *Accumulation of Capital* has very similar insights about overaccumulation, financial bubbling and extreme tendencies towards accumulation by dispossession (Luxemburg 1968). Smith's argument that the logic of uneven development (at the global scale) is "prior to the problematic of articulation of modes of production" helps put these insights into perspective.

The Politics of Uneven Development, Scale, Difference, Strategy, and Agency (Greg Ruiters)

"Uneven development ... thy name is war", wrote Smith (1990:154). He implored us to connect with a "political treatment of uneven development". What were the kinds of politico-strategic questions and silences that propelled Smith to develop a theory of the construction and politics of scale? And, how might this inform applying his theory of uneven development and scale to collective action and political solidarity, given the vast differences among poor and working people across the globe and on the African continent?

Smith's work on spatialised politics is increasingly relevant in the context of extremely serious challenges (localism, fragmentation, public space, land dispossession or homelessness, gated communities, migration and devastating xenophobia against black foreign nationals in South Africa) facing social and political movements in Southern Africa and beyond. It is also relevant in the context of the sustained scholarly bias against thoroughly incorporating space in theories of social change, social movements and social theory more generally.

Smith insisted that we need to be fully aware that scale defines our politics, our loyalties and the place where we stand. Trained in a Marxist-Trotskyist approach, Smith's work might be seen as an extended conversation with Trotsky (1977) and further refutation of crude forms of mechanical marxism such as is found in Stalinism. Hence, he argues, our spatial ideologies are fundamental to what makes politics progressive (Smith 1990:172–175; Smith 1992). Capital organises uneven development at various scales (Smith 1990:136) with national and urban scales acting as the main forms of organising accumulation and difference, and the international scale pre-eminently driven by the tendency to equalisation (Smith 1990:139). Capitalism "produces *real* spatial scales which give uneven development its coherence" (Smith 1990: xv). National borders, passports, xenophobic and racist attacks and securitised gentrified gated urban "communities" make scale very real, reflecting the various material dimensions of how the bourgeoisie institutionally territorialises and carves up the world.

We owe a great debt to Smith for further developing a conceptual vocabulary for exploring scale by defining specific scales: the body, home, community, urban, region, nation, global and by identifying four dimensions for each scale. The latter were (1) what are the features that render each scale coherent; (2) internal differences within scales; (3) borders with other scales; and (4) political possibilities

for resistance inherent in the production of specific scales, the abrogation of boundaries, the "jumping of scales".

Simply put, "scale" determines how we formulate problems, and implicit in such formulations is how we attribute causes to problems and how we look for solutions. Feminists working at the scale of the body/personal have long argued that the personal is also public-political. By redefining the scale of issues, feminists have succeeded in presenting radically new insights and strategies for overcoming oppression. How we think about, act and try to solve problems is critical in who is part of the solution. Smith in many ways takes up where Marx left off. Marx offered strong scalar arguments with his formulation that "workers have no country" and that capital was global from the beginning (also see Harvey's recounting of globalisation as formulated in the Communist Manifesto). But for Marx scale also defined the communist vision—scale was a political project.

Avoiding the rigid separation of spatial scales, Smith insisted that these were *nested* spheres of social activity that were not hierarchical (Smith 1992:66). Nesting of scales requires human agency and plays out in very different ways in different places for different social groups and it is implied that there is no one way traffic from the local to global and vice versa. But this kind of question can only be dealt with empirically in concrete situations. Racism might be "nested" at various scales in different contexts as a "minority issue" of a black community to be resolved at local levels or as a majority issue of national dimensions.

"Racism", Smith argued, "is every bit a global construct of the financial markets and cultural privilege, encapsulated in the reality of the 'third world'". Smith (1993:105) suggests:

> the community is properly conceived as the site of social reproduction, but the activities involved in social reproduction are so pervasive that the identity and spatial boundaries of community are often indistinct ... Community is therefore the least defined of spatial scales, and the consequent vague yet generally affirmative nurturing meaning attached to "community" makes it one of the most ideologically appropriated metaphors in contemporary public discourse.

At the community scale, Smith supported the broadening of the black power movement in the UK:

> Afro-Caribbeans and many Asians began to call themselves "black," in a clear act of solidarity expressing their own experience of racism. Despite opposition from whites, who feared the consequent racial unity, the broadened label stuck ... the scale of black identity was thereby expanded (Smith 1992:71).

With strong echoes of Biko and Fanon, and like Trotsky who argued in the 1930s that the "black republic" slogan in South Africa was a fundamental issue even though it had no apparent "class content", Smith promoted a non-reductionist form of Marxism. Trotsky had argued (in a mode that even Biko or Fanon might have accepted) that white workers could never act as class-conscious fighters until they shed their racism against black workers (see Drew 1996:149 for Trotsky's 1934 letter). Shocking his South African workerist supporters, Trotsky vehemently put the race/native question as *the* determinant class question arguing that we cannot make even the "smallest concession to the privileges and prejudices of the white

workers" (quoted in Drew 1996:150). Hence, race was not merely a supplementary feature of South Africa's capitalism, but fundamental.

I strongly suspect that Smith's support for the cogency of the idea of "black community" drew on this kind of non-dogmatic Marxism. Yet Smith might agree that blacks might not want to be seen as belonging to "affective communities" where whites are seen as free-floating rational persons. The black person projected as member of a black community is a double edged sword since the term black community is used by neoliberals as an external projection of white power (see Harvey 1996:352 for a brilliant critique of identity politics). The important point to stress is the "relationality" of scales, where the socially constructed interconnections between scales provide a pivot for up-scaling.

Smith went on to argue that social life in general cannot be understood from a singular scalar view, and different abstractions (race, gender, class) and forces are constructed at different scales with very different and contradictory political projects. Smith (like Harvey) remained wary of the fetishism of the local scale of community identity. Hence he aphoristically wrote: "the conquest of scale is the central political goal" (Smith 2002:205). For Harvey (1996:325) there is an ugly side to place-based politics found in a number of forms (notions of organic face-to-face communities, xenophobia, racism and bourgeois exclusionary communitarianism). Smith argued for a "critical internationalism", insisting that although "capital might for now make the world in its own image, it does not control the global or any other scale". The bourgeoisie are able to command global space unlike locally contained social movements of the poor and the working class. The question of scale was simultaneously a methodological, political and organisational one.

Harvey (1989) uses the terms community and neighbourhood, grounding them in the production of class strata and as part of residential differentiation based on reproducing certain gradations of labour power. Our sense of our place (be it the household, townships, suburbs or nation) plays a role in the "relationality of politics".

South Africa uniquely has the strongest trade unions in Africa and among the most militant in the global South (Silver 2013; World Economic Forum 2015). The problem is that although "upscaling" and broadening solidarities and identities is posited as a desirable goal for social movements, Smith remains tantalisingly vague on the organisational methods, coalitions and modalities and agencies for such upscaling.

For example, Smith does not appear to have sufficiently explored scalar debates around the site of production versus the site of reproduction/community (an important theme in the history of South Africa's progressive trade unions, where during the 1980s workerists/syndicalists clashed with community-based nationalists and the Black Consciousness movement). Harvey (1996:22–23) explored the limits of factory politics versus community politics, concluding that for genuine class solidarity to occur, abstraction from the immediacy of place and actual people was essential. The successes and failures of scalar ideologies in South African populism, workerism, the Black Consciousness movement and PanAfricanism might also be usefully engaged using Smith's theory combined with Harvey's insights. Smith's later work on national scale would also have benefitted from more engagement with progressive nationalists, anti-colonial movements and issues

around national self-determination and the national public sphere, e.g. his later discussion on the public sphere as essentially an urban scale phenomenon (Low and Smith 2006:3).

Most urgently, still, the "national question" continues to raise analytical problems of decolonisation and neo-colonialism, self-determination of a people and territorial sovereignty. In South Africa, struggles for de-colonisation, to create a new South African nation are at the heart of contemporary uprisings. The importance of national politics of the black public sphere became an area of interest in Smith's book co-edited with Setha Low (Low and Smith 2006). Likewise, Thandika Mkandawire (2009) argues:

> the national question has always been closely associated with the history of oppressed or colonised peoples. For much of the twentieth century, the national question involved first, simply asserting one's humanity or the presence africaine ... second, the acquisition of independence, and third, maintaining the unity and territorial integrity of the new state.

Fanon's critique of the pitfalls of (bourgeois) national consciousness was premised on an alternative standpoint, but is still located within a nationalist frame. The issue at stake was what combination of class forces would lead the nationalist struggle?

Uneven Development, Scale, and Spatio-Temporal Politics

Marx argued that with the rise of capitalism, "in place of the old local and national seclusion and self-sufficiency, we have intercourse in every direction, universal *interdependence* of nations ...". (Marx and Engels 2012:39). In his 1906 book *Results and Prospects*, Trotsky (2005) emphasised deepening interdependence between countries and urban centres, given that imperialism uses "such *tiger-leaps*, and such raids upon backward countries and areas that the *leveling of world economy* is upset by it even more violently and convulsively than in the preceding epochs".

Smith's idea of nested scales emphasises the interdependence of these political-economic processes. More difficult to work out is the relative balance of equalisation/levelling and differentiation. Along these lines, Smith issued a number of caveats about uneven development: first, many tend to neglect *equalisation* as an aspect of uneven development (Smith 1990:xii) preferring to look at only differences (inequality, etc.). Yet, equalisation, as Smith argues, is the overriding imperative of working class politics and indeed its "political future lies in the equalisation of conditions and levels of development of production ... laying the basis for socialism" (Smith 1990:153).

On the other hand, Marx might have overemphasised capital's levelling and universalising tendencies, argued Smith (1990:94–95), and while not oblivious to differentiation, he saw the former as primary. In retrospect Marx's prediction that India would equalise if not overtake Britain rings more true even though this development has taken much longer than Marx anticipated.

Smith used the awkward and somewhat mechanical metaphor of a see-saw to describe the "development of underdevelopment", arguing that this is central to

uneven development at the urban scale as well as globally. He believed (wrongly if Arrighi [2009] is right) that the basic global pattern of development centred on US dominance and that underdevelopment in the periphery would remain constant with perhaps only a "handful of so-called newly industrialising countries" emerging to disrupt that pattern (Smith 1990:151–158).

What then can we learn from Smith's method about understanding complex changes that drive the production of difference and implications for solidarity within the broad working class? And secondly, what levers might be built to "jump scales"—a difficult task that involves talking across scales, understanding differences, and building organised coalitions and united fronts between sections of the class in different places and countries (see Ashman et al. 2010; Ashman and Pons-Vignon 2014; Bond et al. 2013; Ruiters 2014).

Differences across national capitalisms (or the scale of the nation state) might be dismissed as epiphenomena, mere "warts on the face" of capitalism. Similarity of neoliberal conditions across the global working class (regional or international) in this view is what makes international working class action more possible. This, however, is a doubly flawed idea, and one that does not consistently link to a Marxist methodology. What makes common politics possible and *concrete* is an understanding of the real peculiarities (or "recombinations of places and events", as Smith 1990:ix called it). Moreover, Smith earlier had grasped that differentiation is not an epiphenomenon but is rooted in sites including the household and the bodily scales (Marston and Smith 2001).

Where Smith wrote of "differentiation and equalisation", Trotsky used the formulation "combined development" which refers to the multifarious ways in which spaces and historical stages are fused in novel ways. The notion of less developed areas (or countries) "leapfrogging" intermediate stages of development under the "whip of competition" seems crucial in understanding why some places might be more volatile than others.

The importance of context and specificity of time and space in both Trotsky and Smith cannot be overstated. Similarly, as noted by Smith it is not about the abstract primacy of class but in different places, gender or race could be the decisive issue for that working class as combined and novel social forms take root. To illustrate, Smith's (1990:174) own writings on Lower Manhattan's Tomkins Square Park conflict suggest that progressive and potentially revolutionary struggles can start anywhere at any scale. He shows enormous sensitivity to the role of agency in deciding strategically how to place and define the geography of particular struggles. This is an "open" form of Marxism which Smith keenly promoted, especially in more recent work.

Smith reasserted the spatial but did not pay as much attention to the temporal as a co-element of uneven development. But, space and time, as Harvey shows, are inseparable, leading him to fashion the term spatio-temporal scales (Harvey 1996:353):

> The relational view of space holds there is no such thing as space outside of the processes that define it. This very formulation implies that, as in the case of relative space, it is impossible to disentangle space from time. We must therefore focus on the relationality of space-time rather than of space in isolation.

Here the idea of spatial unevenness has been combined with temporal unevenness in a fashion developed by Trotsky. Smith's central work on scale has significant implications for political strategy and for socialist internationalism. But there is a danger of a one-sided focus on equalisation and differentiation as *separate* dynamics, and consequently a neglect of the ways in different parts and scales of the globe are related, connected to form an organic whole. The crucial political point is that similarity cannot be a foundation for class politics within a highly differentiated global working class, with each national working class facing distinct contexts.

Smith and Harvey spent years arguing for a dialectical, relational method. Applied to the world, their focus has been the relatedness of parts and the ways in which parts and scales are determined by the whole and do not exist as original entities. Harvey (1996:290), for example, argues that without seeing relations between places, identities and processes we run the risk of worshipping the condition that produced difference. "Discovering the nature of [such] connections and learning to translate politically between them is a problem for detailed research". For Harvey, like Trotsky, historical time and periods are compressed under capitalism—a mode of production ceaselessly "searching out new organisational forms, new technologies, new lifestyles..." (Harvey 1996:240). Where Trotsky explored the wider socio-political strategic implication of time–space compressions for working-class power (struggles for democracy and socialism), using the terms "uneven and *combined* development", Harvey's focus remains largely on cultural and populist reactions to time–space compressions (people clinging onto national and local identities). There is enormous relevance, as we write, to a South Africa today terribly divided by xenophobia by the poorer sections of the working class, themselves facing persistent unemployment of more than a third of the working-age population.

Smith's mentor, Harvey, goes on to argue for an epistemology that permits a deeper understanding of the distinction between the "significant" and "insignificant othernesses" (Harvey 1996:363). Harvey believes that the "mere pursuit of identity as an end in itself" that is focusing single-mindedly on difference does not help to overcome the conditions that produce difference in the first place. Here it is to a "critical re-engagement with political economy" that we must turn to discover how commodities, money, market exchange and capital accumulation creates a shared and interdependent world (Harvey 1996:360). However, such a view would need to take into account the multiple institutional and scalar fragmentations of the working class, blacks, women, nationalities—in short political forms of uneven and combined development that make us different. The approach adopted by Chandra Mohanty (2003:226) on third world feminism, like Harvey, emphasises that in:

> knowing differences and particularities we can better see the *connections* and commonalities because no boundary is ever complete or rigidly determining ... Specifying difference allows us to theorise universal concerns more fully ... it is this intellectual move that allows for women of different identities to build coalitions and solidarities.

Iris Marion Young (2011) in her classic discussion of difference and multiculturalism argues for "differentiated solidarity" where *difference* not sameness of

experience became the lodestone of universality/internationalism/solidarity. Yet we cannot fetishise difference since both sameness and difference have to be explored not theoretically but in practical ways of knowing.

As already noted, the common conceptual error—the mistaken search for only sameness of class experience as the basis of social solidarity—has significant strategic implications. The basis of class solidarity, however, may not be mechanical sameness but interdependency and mutual understanding of particularities and context. These interdependencies are best approached through the prism of uneven and *combined* development.

Theories of uneven development fall apart when they presume that the particularity of each country or region is merely of supplementary significance and simply needs to be seen as an added factor to be taken into account when thinking about progressive politics. This is much like those for whom national, racial or gender oppressions are mere residual factors that deserve airtime after more primary class oppression. In this respect, it is instructive to revisit the Trotsky–Stalin debate on uneven development and to indicate why the combined aspect is so crucial. Stalin argued that:

> the foundation of the activities of every Communist party ... must be the *general features* of capitalism, which are the *same for all countries*, and not its specific features in any given country. *It is precisely on this that the internationalism rests*. The specific features are merely *supplementary* to the general features.

Trotsky (2005:126), in contrast, argued that:

> it is false that world economy is simply a sum of national parts of one and the same type. It is false that the specific features are "merely supplementary to the general features", like warts on a face. In reality, the national peculiarities represent an *original combination* of the basic features of the world process. This originality can be of *decisive significance* for revolutionary strategy over a span of many years ... it is absolutely wrong to base the activity of the Communist parties on some "general features", that is, on an abstract type of national capitalism ... National capitalism cannot be even understood, let alone reconstructed, except as a part of world economy.

South Africa's Politics of Scale

Smith's ideas navigate a number of difficult terrains we trek on today when confronting race, class and space in "post-apartheid" South Africa. For South Africa even *after* official apartheid was abolished in 1994–1995 still actively produces racialised inequality through new mechanisms as well as durable systems such as migrant labour. South African "national capital" has, especially since 1999, rapidly globalised both by shifting financial headquarters to London and expanding into the rest of Africa through mining, construction, supermarkets and shopping malls, banking, weapons commerce, tourism, cellphones and other services.

At the same time, millions of economically desperate refugees and migrant workers from the continent have come to South Africa, mostly illegally under desperate conditions, often because of extreme political stresses in at home. They

have taken up precarious non-unionised jobs at low pay, jammed male migrants into scarce urban housing (hence raising rental rates), and outcompeted local household-scale retailers ("spaza shops") because they combine resources and buy in bulk. In each such case, the immigrants have generated tensions with South African residents and workers over production and reproduction that have had tragic results, as violent xenophobia regularly pulses through South African working-class townships. Scores of deaths and hundreds of attacks on foreign blacks have torn apart solidaristic politics.

The alliance between the African National Congress (ANC) and Congress of South African Trade Unions (COSATU) also began to fray after 2009 when anticipated changes in economic policy—away from post-apartheid neoliberalism—failed to materialise. The 2012 massacre of 34 platinum mineworkers at Lonmin's Marikana mine was a gory reflection of the ANC's obedience to multinational capital. In late 2013, the biggest trade union in Africa (the National Union of Metalworkers) withdrew support for the ANC and called for an independent working class party based on the united front tactic. The rise of a left parliamentary force—the Economic Freedom Fighters (EFF) won more than a million votes in the 2014 national election—plus widespread student uprisings in 2015 added to the ferment. There are new possibilities for combining this deep unhappiness with the failed nationalist project so as to address deep-rooted problems of inequality, regional chauvinism, localism and a divided labour movement, ultimately leading to a regional socialist movement.

But to learn these lessons requires a brief overview of 1970s debates. In apartheid South Africa, the key political debates on the Left were framed around the primacy of race or class, leading to a split between those who wanted to build a class-conscious socialist orientated movement centred on the massive South African black proletariat, versus those who wanted a broad alliance of all classes opposed to racial domination. The scalar debates have been intense as workerists saw the factory as the key site for developing a class consciousness, uncontaminated by petit-bourgeois community/nationalist politics. The contest over strategies—a two-stage versus a socialist revolution—was the dominant theme. For the "populists" the democratic/national/community issues would be solved by the nationalist movement with strong support from the working class, but based on building a black bourgeoisie. As ANC intellectual and later president Thabo Mbeki insisted in 1984: "The ANC is not a socialist party. It has never pretended to be one, it has never said it was, and it is not trying to be" (Mbeki 1984:609).

The ANC-UDF tradition came head to head with workerism in the late 1970s and was able to decisively defeat the workerist/socialist impulse. But this divide has fundamentally resurfaced and shaped the debates even after the Marikana massacre, the breakup of COSATU after 2014, and the rise of EFF. However, what makes these dramatic shifts difficult to sustain is something Smith would quickly recognise: increased tensions between places (e.g. provinces and cities competing for investment, tourists, skilled labour, universities, etc.). For example, xenophobia against African foreign workers and migrants and fear of internal migrants are important aspects of South Africa's scalar politics and urbanisation. At the urban scale we also see gated communities: mini-suburbs of mainly rich whites that act

as separate mini-states protected by private armies of men employed by mostly foreign companies which have more fire power than the police (Ashman et al. 2010; Lemanski 2004; Miraftab 2007). Drawing on seminal work by Smith, scholars have documented the rise of revanchism (see Smith 1998) in South African cities whose managers have declared a low-level war on the poor and the homeless in the city.

Provinces receiving internal migrant labour seek to blame various problems on the donor province. The Western Cape government, for example, has sought compensation from the central government for the inflow of low-income black Eastern Cape migrants, whom the provincial governor—an upper-class white—controversially termed "refugees". This provincial chauvinism shows how militant particularism in the name of job creation and better services can have devastating results and feed into larger social tendencies such as xenophobia. In the Western Cape, coloured workers vote for the neoliberal party (the Democratic Alliance), endorsing the idea that the Western Cape has to look after its "own people" first.

Since 1994 when South African corporations started to dramatically increase investments in the rest of Africa, millions of refugees from other African countries have come the other way. By 2014 about one third of all South African exports went to African buyers and about 12% of company profits came from African operations. Not only economic but also cultural expansion (mostly of the downward sort) has happened as SA exports its racism, bad television shows, malls and taxis to the continent. Yet African immigrants have faced bleak prospects in assimilating into South African society, not least because of the extremely high unemployment rate. Their critics (and competitors) are mainly lower-income black South Africans. Other (white) immigrants from other continents such as Europe have not encountered such problems.

Yet with South African capital moving north, South African trade unions have seen opportunities to build external links of solidarity. Many social movements also have begun to operate continently. The leading voice of South African labour, Zwelinzima Vavi, made the suggestion in a 2014 speech that:

> [f]or African trade unions the most important principles to defend are *continent-wide* minimum standards of workers' rights: to form and join unions, to have the same labour protection under the law, and the same minimum wages and conditions, regardless of national origin.

As Smith would have explained, the first premise of progressive working-class politics must be overcoming localism, racism and chauvinism within the class, and ensuring its organisational and physical survival. Nik Heynen et al. (2011) provide a trenchant account of Smith's dialectics of survival and political possibility. The politics of scale, or scale jumping as Heynen et al. (2011:242) suggest, is "how we can think about people's ability to organise against the exploitative ramifications of capitalism in important ways not previously theorised within political economic theory".

All this must be understood in the context of the region's "racial capitalism": a durable white ruling business class aided by a tiny comprador elite, racially

segmented working class, migrant labour and enduring apartheid spatial legacy. The specificity of South African capitalism makes it exceptionally volatile and imparts a special responsibility to working-class leadership, given the tendency for reactionary working-class and poor people's organisations (including the ANC on various occasions) to blame foreigners for stealing their jobs, occupying their housing or undercutting their township spaza shops through predatory pricing.

The specificity of South African capitalism and its deepening African connectedness immediately give the events now unfolding a larger scalar character, and help introduce the possibility for a continental socialist politics. As the most advanced proletariat in Africa, South African workers have a special role to play continentally. To paraphrase Trotsky, this does not mean Nigerian or Algerian workers must await the signal from the large organised working class formations, or that Mozambique workers patiently wait for the proletariat of the South Africa to free them. On the contrary, "workers must develop the revolutionary struggle in every country, where favourable conditions have been established, and through this set an example for the workers of other countries".

In the early 1970s the Mozambique revolution led by Samora Machel became the signal for the South African revolution and the Black Consciousness movement as well as the 1976 uprising. Zimbabwe's struggles similarly inspired South Africans. Simultaneously, leadership in small towns such as Cradock—guided by Matthew Goniwe during the 1980s—became beacons for the South Africa freedom struggle (Ruiters 2011). Uneven development leaves open many surprises. A bold approach is needed that includes decisive efforts to organise foreign workers in South Africa (legal or not) into unions and into social movements (Hlatshwayo 2013:243–246).

Conclusion

Smith's conceptual apparatus addresses a basic error of revolutionary politics, one which has significant strategic implications, namely the mistaken search for universality or mechanical sameness of class experience as the basis of political solidarity. Smith's reformulation of uneven and combined development and his politics of scale and place (nested scales from the body to the global) together assist us in understanding specific social formations (class, race and gender and place) and particularities at different geographical scales, as well as the particularities of concrete politics, especially following from his classic work on the "conquest of scale".

Like Harvey, Smith emphasises a dialectic of the social and spatial—a politics of place—and of scalar identities that need to be both affirming and transcendent. The working class, after all, must both constitute itself nationally as the dominant/hegemonic class and abolish itself as a national class through internationalism, while finally liquidating itself in a new classless global society. These challenges, we shall suggest, are best approached through the prism of uneven and *combined* development—an approach that allows for paradoxes rather than simplifications.

The crux of class solidarity lies not in sameness but interdependencies. The prism of uneven and *combined* development provides powerful ways to think about interconnectedness. The political and material basis of class solidarity implodes

when it is assumed that the particularity of each country or region is simply of additional importance and merely should be factored into progressive politics. Racism, gender and oppressions are not secondary features or by-products of class as the mechanical base-superstructure method would have it.

As old ideological and historical allegiances to the ANC melt away aided by the icy hand of neoliberalism, new solidarities develop among the working class (including the poor, the youth, women and unemployed). Uneven development of class awareness and internal divisions plays out across various terrains: casuals versus permanents, skilled versus unskilled, those in large versus small firms, local versus foreign workers and so on. The uneven development of the working class (both its objective and subjective dimensions) and the localism of much protest is a major hurdle but even if it had a halting start, a new United Front politics inaugurated by the National Union of Metalworkers and anti-government union allies could yet become a national and regional beacon for up-scaling struggles.

One crucial test of this new, unifying politics within the conjuncture of South Africa in 2016 is the way xenophobia is addressed. Smith's critique of segregatory unevenness within the urban process is of enormous importance to a new internationalist activism. The challenge will be a scale-jump of activists of the working class (not middle-class moralisers): from the shack settlements, inner cities, migrant labour hostels and smaller villages where attacks on African and South Asian immigrants are recorded, to the sub-regional and continental sites of struggle against artificial borders carved in 1885 in a Berlin conference hall.

Those borders are, in turn, reflective of the geopolitical balance of forces during the prevailing global overaccumulation crisis, in which centralised finance set the context for the Scramble for Africa back in 1885, cementing in so many colonial political-economic processes that divide Africans today. For a long time progressive left internationalists will continue to look to Smith for insights into why unevenness born of that process is still the defining territorial expression of capital. With his sensitivity to the nuances of revolutionary politics, it is Smith's critique of the myriad socio-political, ecological and economic features of uneven and combined development that we can return to, in search of ideas and action by the oppressed.

References

Arrighi G (1973) The political economy of Rhodesia. In G Arrighi and J S Saul (eds) *Essays in the Political Economy of Africa* (pp 336–377). New York: Monthly Review Press
Arrighi G (1994) *The Long Twentieth Century*. London: Verso
Arrighi G (2009) *Adam Smith in Beijing*. London: Verso
Arrighi G and Saul J S (1973) *Essays in the Political Economy of Africa*. New York: Monthly Review Press
Ashman S, Fine B and Newman S (2010) The crisis in South Africa. In L Panitch (ed) *The Crisis This Time: Socialist Register 2011* (pp 174–195). London: Merlin Press
Ashman S and Pons-Vignon N (2014) NUMSA, the working class, and socialist politics in South Africa. In L Panitch and G Albo (eds) *Transforming Classes: Socialist Register 2015* (pp 93–111). London: Merlin Press
Bond P (1998) *Uneven Zimbabwe*. Trenton: Africa World Press
Bond P (2014) *Elite Transition*. London: Pluto

Bond P and Desai A (2006) Explaining uneven and combined development in South Africa. In B Dunn (ed) *Permanent Revolution: Results and Prospects 100 Years On* (pp 230–245). London: Pluto

Bond P, Desai A and Ngwane T (2013) Uneven and combined Marxism within South Africa's urban social movements. In C Barker, L Cox, J Krinsky and A Nilsen (eds) *Marxism and Social Movements* (pp 233–255). London: Routledge

Drew A (1996) *South Africa's Radical Tradition*. Cape Town: University of Cape Town Press

Harvey D (1982) *The Limits to Capital*. Chicago: University of Chicago Press

Harvey D (1989) *The Urban Experience*. Baltimore: Johns Hopkins University Press

Harvey D (1996) *Justice, Nature, and the Geography of Difference*. Oxford: Blackwell

Heynen N, Hossler P and Herod A (2011) Surviving uneven development: Social reproduction and the persistence of capitalism. *New Political Economy* 16(2):239–245

Hlatshwayo M (2013) COSATU's attitudes and policies towards external migrants. In S Buhlungu and M Tshoaedi (eds) *COSATU'S Contested Legacy* (pp 228–258). Pretoria: HSRC Press

Lemanski C (2004) A new apartheid? The spatial implications of fear of crime in Cape Town, South Africa. *Environment and Urbanisation* 16(2):101–112

Low S and Smith N (2006) *The Politics of Public Space*. New York: Routledge

Luxemburg R (1968 [1913]) *The Accumulation of Capital*. New York: Monthly Review Press

Marston S and Smith N (2001) States, scales, and households: Limits to scale thinking? *Progress in Human Geography* 25(4):615–619

Marx K and Engels F (2012 [1848]) *The Communist Manifesto*. London: Verso

Mbeki T (1984) The Fatton thesis: A rejoinder. *Canadian Journal of African Studies* 18:609–612.

Meillassoux C (1975) *Femmes, greniers et capitaux*. Paris: François Maspéro

Miraftab F (2007) Governing post apartheid spatiality. *Antipode* 39(4):602–626

Mkandawire T (2009) From the national question to the social question. *Transformation* 69(1):130–160.

Mohanty C (2003) *Feminism Without Borders*. Durham: Duke University Press

Phimister I *(*1992) "Unscrambling the Scramble: Africa's Partition Reconsidered." Paper presented to the African Studies Institute, University of the Witwatersrand, Johannesburg, 17 August. http://wiredspace.wits.ac.za/handle/10539/9599 (last accessed 30 April 2015)

Ruiters G (ed) (2011) *The Fate of the Eastern Cape*. Pietermaritzburg: UKZN Press

Ruiters G (2014) Spaces of hope. *Politikon* 41(3):421–441

Sibanda A (1990) "The Lancaster House Agreement and the Post-Independence State in Zimbabwe." Occasional Paper 9, Zimbabwe Institute of Development Studies, Harare

Silver B (2013) Theorising the working class in twenty-first century global capitalism. In M Atzeni (ed) *Workers and Labour in a Globalised Capitalism* (pp 46–69). London: Palgrave Macmillan

Smith N (1982) "Uneven Development: The Production of Nature Under Capitalism". PhD Thesis, Johns Hopkins University Department of Geography and Environmental Engineering, Baltimore. https://catalyst.library.jhu.edu/catalog/bib_475251 (last accessed 16 June 2016)

Smith N (1990) *Uneven Development* (2nd edn). Oxford: Basil Blackwell

Smith N (1992) Contours of a spatialized politics: Homeless vehicles and the production of geographical scale. *Social Text* 33:54–81

Smith N (1993) Homeless/global: Scaling places. In J Bird, B Curtis, T Putnam, G Robertson and L Tickner (eds) *Mapping the Futures* (pp 87–119). New York: Routledge

Smith N (1998) Giuliani time. *Social Text* 57:1–20

Smith N (2002) Scale bending and the fate of the national. In E Sheppard and R McMaster (eds) *Scale and Geographic Inquiry: Nature, Society, and Method* (pp 192–212). Oxford: Blackwell

Trotsky L (1977 [1930]) *The History of the Russian Revolution*. London: Pluto Press.

Trotsky L (2005 [1906]) *The Permanent Revolution and Results and Prospects*. New Delhi: Aakar Press

Vavi Z (2014) Keynote address, COSATU General Secretary, to the World Social Forum on Migration, 5 December, Johannesburg. http://www.cosatu.org.za/show.php?ID=9816 (last accessed 30 April 2015)

Wolpe H (ed) (1980) *Articulations of Modes of Production*. London: Routledge & Kegan Paul

World Economic Forum (2015) *Global Competitiveness Report 2015--16*, Davos, Switzerland. http://reports.weforum.org/global-competitiveness-report-2015-2016/ (last accessed 16 June 2016)

Young I (2011) *Justice and the Politics of Difference*. Princeton: Princeton University Press

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