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Building transitions to post-capitalist urban commons

Abstract

This paper opens up a novel geographical research agenda on building transitions beyond the capitalist present. It brings into conversation two previously disconnected areas of academic debate: socio-technical transition studies and more radical work on post-capitalism. The paper offers empirical evidence of real-life socio-spatial practices that build post-capitalist socio-technical transitions through a case study of the daily experiences, motives and values of residents in a community-led cohousing project in the UK. I begin by exploring definitions around post-capitalism and transition thinking, and then introduce the notion of the urban commons to point towards the geographies of post-capitalist transitions and illustrate the kinds of social and spatial relations that underpin them. The paper then provides empirical substance for a geographical agenda around post-capitalist transitions through the case study, highlighting themes of experimentation, transformation and direct democracy. The paper concludes with some strategic future reflections and makes a claim for a geographical research agenda which elaborates the possible radical geographies and place imaginaries of post-capitalist transitions in our teaching, research and policy work. Unless geographers forge direct and necessary links between transitioning and moving beyond capitalism, our ability to take decisive and meaningful action on the challenges that lie ahead will be limited.

Keywords

Introduction

We live in an age marked by increasing commentary and anxiety on the growing array of problems facing global and local society (see Homer-Dixon, 2006; Holmgren, 2009; Dator 2002; Giradet, 2008). Actors including unspecified transnational elites and malevolent global corporations are identified as bringing the world ever closer to financial and ecological catastrophe. In this, a range of transition pathways, ranging from possible future collapse, radical transformation, business as usual, as well as technocratic-led renewal are put forward. Contained within each of these are assumptions over competing social relations, agencies and power structures, deployments of technologies, levels of corporate control, institutional realignment, values and forms of governance, and community and behaviour change. Living in an age awash with complexity and change it is difficult to get a sense of whether transitions point towards reformist, escapist, ruptural or revolutionary outcomes. One aspect we need to know much more about is the extent to which current transitions take us away from capitalism.

This paper sits in the middle of these debates, and emerges from something I have been particularly struck by over the last few years. What remains under-developed in academic and activist debates is a connection between socio-technical transitions studies on the one hand, and more radical work that directly confronts capitalism on the other. One of the motivations of this paper is the limited capacity of work on socio-technical and ecological transitions to capture the practices and motives of projects that are committed to a future where features of capitalism are named, confronted and reversed. My aim in this paper, then, is to reach out to both these debates to find and forge productive connections. I reclaim and redirect the significant and useful body of work on socio-technical transitions as a framework for exploring what transitions to post-capitalism might mean. In many ways, given that socio-technical transitions studies are all about how niche innovations can transform wider regimes and landscapes, there is more critical, perhaps even anti-capitalist, analysis bubbling just under the surface and struggling to get out. But, there remains a reluctance to name and advocate for the more radical nature of

transitions that society needs to embark upon to address the huge challenges it faces. My analysis here is more normative than evaluative, and is part of a scholarly tradition that advocates for how the world ought to be (Sayer and Storper, 1997; Smith, 1997). In this sense, what remains unarticulated in explorations of sustainability transitions is a concern about what the future actually holds if we do not somehow move against and beyond the capitalist present.

For the purposes of this paper, I use the label post-capitalism to capture these sentiments (see Gibson-Graham, 2005). While this is quite a nebulous term, it points to a desire to reinvent and reinvigorate the revolutionary process away from older top-down, elite-led models of change. Many grassroots sustainability projects align closely with this sentiment and draw upon a particular set of concepts including social ecology, anarchism, ecological and climate justice and variants of neo-marxist calls for a right to the city (Marshall, 1992; Schlosberg, 1997; Bond, 2010; Harvey 2012; Bookchin; 1992). Much of this has been embodied through recent anti-capitalist movements which have promoted a range of leitmotifs around horizontalism, direct democracy and autonomy and the wider quest for self-management (see Angus, 2001; Albert, 2004; Solnit, 2004; Barber 1984; Featherstone, 2008, Holloway, 2010).

An important geographical research agenda emerges from this work, especially if critical and radical geographers are to help articulate the social and spatial forms that point beyond the capitalist present. In particular, geographers can deepen debates around post-capitalist transitions by returning to longstanding critiques of our largely globalized and urban industrial society. Since the groundbreaking work of Meadows (1972) and E.F. Schumacher(1972), a constellation of of ideas and actions have spread across the globe (see Douthwaite, 1999; Jackson, 2009; New Economics Foundation, 2010; Simms and Chowla, 2010; Schor, 2010; Bookchin, 1992; Sale, 2000; Mander and Goldsmith, 1997). This work presents not only a sustained argument against recent neoliberal casino-capitalism, but also a broader de-growth

critique of the western development project and the schism between humans and the natural world. What geographers can take from these debates is a renewed ability to articulate why, and how, to build transitions beyond capitalist urbanization. Innovation, industrial or social systems which are more sustainable or ecologically-focused are all well and good. But these are the low hanging fruit. The real, and admittedly bewildering, challenge is to slow down and reverse the process of capitalist industrial urbanization that is unfolding on a planetary level (Merrifield, 2013). Beyond mere transitions to more low carbon variants of life under capitalism, there needs to be a geographical research agenda around niche experiments that repoliticize debates over urban development and infrastructure provision, highlight ongoing processes of uneven development and spatial inequalities, and Swyngedouw's (2009) concerns about a turn towards the 'post political'. In sum, geographers need to re-engage with the concept of transitions as a means of slowing and eroding mechanisms of capitalist commodification, challenging existing capitalist social relations and uneven geographical outcomes, and focusing on issues of redistribution rather than mere resilience (MacKinnon and Derickson, 2012).

The aim of this paper, then, is to offer some empirical evidence of real-life processes of that build socio-technical transitions with a post-capitalist hue (Shove and Walker, 2010). To this end, I introduce the idea of the urban commons to point to a parallel set of social and spatial relations and values alongside traditional public and private ones to illustrate an emerging geography of post-capitalist transitions. Here, I am interested in critically exploring how daily post-capitalist practices get built and how they can embed an urban commons, especially those practices that go beyond the status quo of intense individualism, corrosive consumerism and financial austerity.

The empirical basis for the paper is an in-depth engagement with the daily experiences, motives and values of residents in a community-led housing project called Lilac in the UK. I have outlined the detail of this project elsewhere (Chatterton 2015), but here I use this example to open up a new area of

conceptual and practical enquiry around post-capitalist transitions. While the empirical context for this paper is a relatively small grassroots sustainability niche, it provides lessons for broader work on self-managed and community housing which encompasses self-build and self-help housing, co-operatives, land trusts, ecovillages, low impact dwellings, intentional communities as well as cohousing (see Bunker et al, 2011; Durrett and McCamant, 2011; Field 2011; Jarvis, 2011; Peters et al., 2010; Pickerill and Maxey, 2009; Sargisson, 2007; Scotthanson and Scotthanson, 2005; Sanguinetti, 2014; Williams, 2005). These novel housing types contain more or less radical elements, but they all offer productive insights for thinking through what post-capitalist transitions mean in practice and how they can embed an urban common in areas such as governance, social relations, economic exchange and value, identity and behavior change, land ownership, and the use of technologies.

This paper is structured in three main sections. First, I give some more detail on the meanings of the terms I am using, specifically post-capitalism, and transition thinking. I then introduce the notion of the urban commons to illustrate the kinds of social and spatial relations that a transition beyond life under capitalism could represent. The second section reflects on in-depth engagement with the Lilac project to explore the building of post-capitalist transitions in practice, and in what ways an urban commons can underpin such transitions. The final section draws on my case study to provide some strategic reflections on the geographical and political implications of transitioning to a post-capitalist urban commons. I conclude by outlining the geographical research agenda that emerges from this work.

Post-capitalism and socio-technical transitions: joining up debates

This paper is grounded in the interconnected ideas of post-capitalism and transitions. Both these terms are contested and thus I begin by briefly outlining them. First, the term post-capitalism is deliberatively open and provocative, especially given the use of the prefix 'post'. As soon as we begin to deal with what comes next, we enter the terrain of speculation, conditionality and advocacy, as well as hope and

imagination (Roelvink et al., 2015). But this term does point to transformations that are in some way anti-paradigmatic and in multiple ways pitch themselves against and beyond the status quo. Climatic, energetic, environmental, social and economic crises are colliding in profound and dangerous ways (Homer-Dixon; 2006) and underpin a desire to move beyond capitalism. In particular, since the 2008 global financial crisis a deeper structural crisis in capitalist economies has been exposed. The global response of austerity measures can be seen as an elite response to reinstate control management and devolve risk to the public (Panitch et al., 2010), and although the 'business as usual' economic model is regarded as bankrupt it remains deeply entrenched. The overall direction of global development remains oriented towards urban industrialization, pro-growth economics, corporate expansion, the penetration of commodification, marketization and individualization into more spheres of life, along with tendencies towards centralized bureaucratic structures.

By using the idea of post-capitalism, I focus on those activities which critically intervene in and attempt to solve societal crises but in ways that foreground equality, openness and social justice. Society is running out of options to 'adjust', and therefore has to look into options for deliberate transformation in the face of multiple crises. We need to be critically aware of experiments which actually deepen and reinforce capitalist neoliberal policies, reboot or re-embed new forms of capital accumulation, value production and commodification. This 'post-capitalist' approach foregrounds a different set of ontological priorities, theoretical traditions, and policy implications. It falls into what Geels (2010) calls a conflict/power ontology where the causal agents of transitions are collective actors, social movements and the contestation that emerges from a context full of power. This ontology is different to that mobilized by socio-technical transitions where, for example, organized technocrats deploy smart technologies on an ordered citizenry with the intent of making urban life more efficient and low carbon, floating free from oppression, poverty, power, corporate control or the deep social and spatial inequalities underpinning capital accumulation. The shift in emphasis towards post-capitalism that I introduce in this paper comes

from my own life experience based on social movement participation over the last fifteen years, as well as an academic commitment to the practices of radical geography, and the relevance I see in neo-marxist, anarchist, and autonomous thinking (Chatterton 2010b; Chatterton and Pickerell, 2010). This is a practical and conceptual approach that is more urgently needed than ever given the depth of the crises, and inadequacy of responses. Where has the sense of urgency and outrage gone from our analysis?

Building on the work of Wright (2010) and Holloway (2010), it is important to note that we are not dealing with a term that represents a meta-narrative or strategy about how the future could or should unfold. Rather, it embraces those who envision ruptures against capitalism, a multitude of possibilities of what could come after, as well as building daily competences to leverage social change. Thus, many aspects might agitate against current state and market relationsand attempt to usher in radically different social deals. Some are more reformist seeking incremental change and working symbiotically within existing structures, while taking a longer and incrementalist view on change. Others are more utopian, attempting to opt out on the basis of principle or frustration, and creating interstitial or prefigurative examples of the future in the present.

Two important points can be taken from this work. The first is that these are not disconnected tendencies, but pragmatic and strategic choices that build upon and give momentum to each other. This brings new levels of complexity to discussions about niche transitions. For example, working inside the system symbiotically can open up post-capitalist cracks to develop more interstitial practices, or indeed build capacity for ruptural change. But the key point is that a longer strategic focus on building momentum beyond capitalism is retained. The second is that there are no clearly bounded, pure territories outside of capitalism that can be defended or expanded. Rather, what might come after capitalism can only be built from where we stand, using the multiple and messy resources and capacities that present themselves. This shifts strategy away from merely scaling-up niches towards a multiplicity of

ways to corrode the overall regime and landscape through more networked forms and distributed social relations (see Mason, 2015).

Given their unknown and incomplete character, then, what we are dealing with in terms of post-capitalism is something quite provisional that proceeds through experimentation, prototyping and taking risks. It is a set of practices that are contentious, messy and deliberative. This is quite different to experiments to explore causal relationships in controlled environments.[i] Indeed, urban community settings offer fertile ground for something more akin to open field experiments, where the aim is not to control variables, but to intervene and test ideas and possible outcomes (Evans, 2011). Elements include horizontal and collective approaches to institutional and governance forms, a focus on process as much as content, attention to difference and conflict resolution, as well as building strong interpersonal relations based on trust and solidarity.

The second conceptual driver of this paper is transition thinking which has gained prominence over the last few years. It is an important device for thinking through how change can occur, and hence the task in this paper is to open up opportunities to expand its use, especially in less instrumental and depoliticised ways. Transition is used as a concept across many subdisciplines including population studies, chemistry, evolutionary/biological studies, environmental, political and social sciences. Given this diversity of uses there is no clear agreement in terms of meaning (Bailey et al., 2009). The word transition signifies some kind of movement from one place, state or condition (for which there is discontent) to another (for which there is a more favourable outlook). But it implies more than movement, suggesting that these passings also represent transformation and adjustment. Transitions also contain a sense of conditionality in terms of something yet to emerge.

I focus specifically on the substantial body of work around socio-technical transitions, which is interested in the co-evolution of social and technological phenomena and the dynamics by which fundamental change between these occurs. Debates on socio-technical transitions draw together various areas of inquiry including evolutionary economics, Science and Technology Studies (STS), Innovation Studies and multilevel governance (Geels, 2005). It has also recently become heavily associated with the Multi Level Perspective (MLP) framework. MLP examines how socio-technical systems are organized, transformed, and reproduced by multiple actors and institutions at three different levels: 'niches' where innovation and learning occur; 'regimes' where rules and relationships shape daily practices and use of technologies and frame what is possible; and the overall longer-term regime 'landscape' comprised of wider cultural, political and economic influences (for a sample see Smith et al., 2005; Geels, 2010; Smith et al., 2010; Bulkeley, 2005; Bulkeley et al. 2011; Hopkins, 2009; Mol, 2009; Middlemiss and Parrish, 2010; Seyfang and Smith, 2007; Seyfang, 2009). In such a complex and multilevel arena, the idea of transition management comes into play where transition teams steer the process through establishing drivers of change, pathways, scenarios, milestones and back/forwardcasting (Shove and Walker, 2007). Most of the work to date has explored how socio-technical transitions are emerging in areas of infrastructure provision such as water, transport and energy. Usefully for this paper, there is emerging critical commentary on low carbon and community housing as niche transitions (see Killip, 2103; Gibbs, and O'Neill, 2015; Horne and Dalton 2014). Here I push this analysis further to highlight the radical potential of community (eco)housing to point to post-capitalist transitions and the social and spatial practices of the urban commons.

A widespread disillusionment with elite and nation-state politics is leading to renewed interest in radical transition grassroots experiments (see Spratt and Sutton 2008; Moulaert et al., 2010). The more intense the patterns of marginalization from state restructuring under conditions of austerity or 'zombie' capitalism (Mason, 2015), the greater the need for post-capitalist transition experiments. But what is

striking about the socio-technical transitions literature is the lack of discussion about capitalism, and especially anti-capitalism, as niche, regime, landscape or otherwise.[ii] Geels (2011) points out that work on sustainability transitions is goal-orientated or purposive in that it attempts to address societal challenges such as climate change adaptation and mitigation, environmental degradation, infrastructure renewal and social participation. The key issue we still need to address is what kinds of goals, and more importantly means, are we aiming for? The idea of transition is used so extensively that it is often used interchangeably with social change or indeed rupture, rebellion or revolution. There remains, then, a considerable gap in terms of language, practice and concepts between many aspects of the transition literature and those interested in post-capitalist politics. Work on socio-technical transitions is reluctant to take a normative stance and name the kind of transitions needed given the scale and nature of the challenges faced. Given the current context of global capitalist crisis and the now well-rehearsed links between capital accumulation and climate change (Klein, 2014), this needs addressing. How we transition, and where we think we are transitioning to, are central issues. If we are committed to greater social and environmental justice, as well as challenging further capital accumulation, what does this mean in terms of transitions? For those interested in post-capitalist transitions, it means that socio-technical transitions that lack an ability to confront the mechanisms that perpetuate capitalism at a daily level are not transitions worth making. They could create 'lock-in' to weak gains in terms of emission reductions and social justice outcomes as well as submission to techno-fixes and the extension of commodification into more areas of our lives. With these come a host of problems including exploitation, isolation, competition, anxiety and powerlessness.

Promisingly, there is a growing interest in exploring the more radical meanings and practicalities of transitioning. Critical political research is emerging around issues of social justice, an ethics of care, networked politics and rejections of naïve localism and post-political discourses (Mason and Whitehead, 2012; North, 2011; Aiken 2012; Bailey et al., 2009; Lutz and Schachinger 2013; Kaika and Karaliotas,

2014). There is also an identifiable strand of work which stresses the role of community practices, capacities and identities in shaping transitions (Seyfang and Smith, 2007 Seyfang and Haxeltine. 2012; Middlemiss, 2012), as well as hybrid and bottom-link approaches which highlight the contribution of counter-hegemonic social innovations to multilevel governance (Eizaguirre et al., 2012). And there is a recognition that for the full potential of socio-technical transition studies to be realized, it needs to become less elite and technological focused, account more for the role of urban power and politics, and consider how to destabilize power in existing regimes through disruptive innovation (Rutherford, 2014; Rutherford and Coutard, 2014; Lawhon and Murphy, 2011; Shove and Walker, 2007, 2008; Scrase and Smith, 2009; Geels, 2014; Moss, 2014; Radywyl and Biggs, 2013). Usefully for this current paper, Geels (2011) outlines revolutionary pathways for socio-technical transitions, including what is labelled 'grassroots fighters' and the volcanic model of transitions where an upswelling of revolution grievances come from below (see also Dahle, 2012), and Cretney and Bond (2014) outline how grassroots groups are using activism to implement post-capitalist visions following disaster events. What we need to know is how post-capitalist niches actually emerge and function, how post-capitalist regime diffusion works, and how long-term landscape changes beyond capitalism can be embedded. In essence then, the time is ripe for further critical research and action around post-capitalist socio-technical transitions.

The geography of post-capitalist transitions: the urban commons

There is growing interest in understanding the spatiality and place politics of socio-technical transitions (see Lawhon and Murphy, 2011; Gibbs and O'Neill, 2014; Truffer and Coenen, 2011). What we still lack, however, is a spatial vocabulary for socio-technical transitions beyond the capitalist present. I propose the concept of the urban commons to illustrate the geography of post-capitalist transitions. The commons is an idea that has been mobilized by a range of actors for a variety of ends. It has long been used for the better management of common pool resources or the brokering of international agreements for global resources (see Ostrom 1990). What I stress here is the significant potential the commons offers

for thinking through social and spatial relations beyond capitalism (De Angelis, 2007; Dyer-Witheford, 2001; Hardt and Negri 2009; Linebaugh, 2008; Midnight Notes, 1991). I focus specifically on the urban, as it is here that radical new potentials are being formed where experiments with life beyond capitalism can unfold through networks of city-based experiments (see Mason, 2015).

As I have discussed elsewhere (Chatterton, 2010a), the commons is a widely understood spatial motif, evoking bounded entities, which exist to nurture and sustain particular groups. In this simple historical form, the common (the fields, the village greens and the forests) are geographical entities governed by those who depend upon them - the commoners. However, it refers to much more than simple bounded territories: it also encompasses physical attributes of air, water, soil and plants, as well as socially reproduced goods such as knowledge, languages, codes and information. The shared attribute is that these entities are collectively owned and managed. It is also important to look beyond these basic physical attributes and regard commons as complex organisms and webs of connections which combine to articulate particular spatial practices, social relationships and forms of governance that produce and reproduce them. The common, then, is made real through the practice of commoning. They are complex, relational and dynamic rather than bounded, defensive or highly localized and thus weave together a rich tapestry of different times, spaces and struggles. Thus, we should not position the common as something always subjugated or in response to the more dynamic practices of capital accumulation. The commons are full of productive moments that continually emerge and create new vocabularies, solidarities, social and spatial practices and repertoires of resistance that can be used against capitalism. The important point to note for the empirical focus of this paper is that commons are always partial, coexisting with a myriad of other public and private forms of ownership and governance. They emerge through experimentation and risk taking in terms of embedding other values and social relations beyond capitalism.

The analysis that now follows in this paper is based on in-depth engagement with members of the Lilac community-led cohousing project. The author is a resident-cofounder of this project based around 20 homes and a shared common house built from straw and timber using a cohousing design approach. This case represents a highly engaged form of fieldwork based upon intimate and insider information. It is part of a tradition of militant co-inquiry (Holdren and Touza, 2005) which was undertaken alongside fellow residents and neighbours. The reflections in this paper draw upon a number of sources: in-depth codesigned qualitative interviews with eight households which were used to build up a collective understanding of the aims, aspirations and motives of residents, engaged participation drawing upon daily life in the community in a range of formal and informal settings such as meetings, shared meals or collective work, and reflections and feedback through a dedicated 'learning' team in the community of which the author is a member. In the section below, I outline the daily practices in Lilac that build post-capitalist transitions and how these place based niche practices can sketch out urban commons.

The daily building of post-capitalist transitions: experimentation, transformation and direct democracy

The first aspect relates to experimentation, risk and security. The development of Lilac took six years and was led by a group of community activists who ultimately acted as clients, developers and residents. They were largely led by the need to respond to three challenges: climate change, the affordable housing crisis and the lack of strong communities at the local level. Lilac was values-led and intentionally-driven and the project concept 'Low Impact Living Affordable Community' was developed through a desire to experiment with radically different ways of living that were low impact, affordable and strengthened local community bonds. It was a classic niche prototype project that emerged from the grassroots. The embedding of risk and experimentation into this transition experiment is reflected in the following quote by one resident:

actually it's going to be a huge leap of faith… a weird leap into the unknown. It's going to be a real

shift. And I haven't really got a yardstick about what my life's going to be like in six months time…

Life's about risk isn't it? Sometimes you just say 'oh sod it', it's worth taking a risk and seeing what

happens. If you don't take any risks then you don't achieve anything.

What the above stresses is the openness to risk taking and a view that early and risky experimentation

could pay dividends given future potential societal challenges, with many residents noting greater global

insecurity as a catalyst for seeking out alternatives, even if they are riskier. In particular, there is a sense

that the initial risk would be overcome through collective behaviour which would lead to greater security

in the longer term.

Part of this de-risking emerges through the formal cooperative structure at Lilac. Lilac is registered under

English law as a bone fide cooperative society for the benefit of its members. This kind of legal form is

embedded in the idea of mutualism, a rich historical tradition based on common ownership and a

commitment to association and how interdependence can benefit wellbeing (Sennett, 2013). It outlines

how people can conduct relationships based on free and equal contracts of reciprocal exchange.[iii] Like all

co-operatives it has to subscribe to the seven principles of the International Co-operative Alliance (ICA)

which stress voluntary membership, member control and economic equality.[iv] In the case of Lilac, there

was a desire to use a legal co-operative framework to embed common ownership and avoid asset

stripping or the accumulation of private wealth or resources. The structured interactions through social

events, meetings and informal community support create commoning practices that are more durable

and legible in the everyday. They create opportunities for discussing risk and developing solutions to

better manage it. Interestingly, this gives confidence to participants to experiment more radically with

change.

In particular, a model called a Mutual Home Ownership Society (MHOS) was adopted to financially innovate beyond the status quo and embed a financial commons which could decouple housing from commodified and speculative housing markets. The MHOS model was first developed by the New Economics Foundation and London-based Co-operative Development Services with the specific aim of promoting radical changes in terms of land ownership and tenure types within the UK housing market. In this model a charge is levied on residents set at 35 percent of net income. These payments accrue equity for each household which, after additions and deductions, represent capital that can be withdrawn. Equity is linked to an index national wages rather than local house prices and this has the effect of constraining speculation, dampening house price increase and promoting greater affordability for successive households. Setting payments in this way gives households longer term ability to plan household finances. The use of the MHOS model creates a novel relationship to housing tenure, and attempts to foster a sense of common rather than private ownership. Linking housing value to national earnings rather than house prices, erodes housing as a speculative commodity that can be bought and sold according to the vagaries of market conditions. This is a significant shift, as it points towards a housing commons that can increase stability in housing markets and reduce volatile local economies. While money certainly does still circulate within Lilac and the project depends on debt financing, it has attempted to embed less marketised forms of financial and social interactions, and a mutual approach to monetary value which is shared across the whole membership.

The second aspect refers to a broad commitment to transformation. Daily activities in Lilac offer opportunities for behavior change in broader ways beyond individualized and solely environmental responses.. Overall, members of the project express a commitment to a 'step change' in terms of their environmental impact, and also in terms of the kinds of relations they have with other people and the wider community. The communal context of the project is regarded as a catalyst to experiment with broader shifts in behaviour change entailing more structural rather than incremental changes in behavior.

One resident expressed how co-operative cohousing projects encourage responses at the level of the community and could guard against the individualisation of responses:

> *our input is acting together and supporting each other and creating a model that can spread. It's a vehicle isn't it? Otherwise you're an individual recycling yet another bottle and wondering does it help?*

Importantly, Lilac supports and rewards changes in individual and group behaviour. One of the overall visions of the project is to act as an inspiration for change. From the outset, residents articulated that the project responded to three challenges – tackling climate change, housing affordability and community breakdown. It has been the ability to express all three of these which allows the project's impact to be framed in a transformative way. Regular open days and learning events have been used to reinforce these messages and spotlight how other groups can take practical action to implement their own projects. This is also achieved through consensually negotiated community agreements covering different areas of life including pets, shared food, and the use of shared space.

The design of Lilac helps shape this transformation. Lilac was specifically designed to offer an intimate village-style feel within a large city context. One of the intentions of a cohousing design approach is to specifically lock-in as much natural surveillance and face-to-face interaction as possible. This is not a trivial issue. As I explore elsewhere (Chatterton 2016), cohousing recognises that localities can be designed to allow novel forms of social interaction beyond everyday public encounters. This is seen through numerous micro-interactions, such as collecting mail or doing laundry, greeting neighbours, chance encounters in hallways or entrances, or talking about business matters. Moreover, the central placing of community facilities within the design, creates a dense mosaic of connections, opportunities for greater levels of social interaction, as well as an enhanced sense of well-being and security. This is

principally achieved through the common house, a centrally located building which contains laundrymail dining and meeting facilities, office and tool space. These additions could also be made through retrofit approaches to existing neighbourhoods through integrating gardens, creating home zones and designating buildings into communal facilities. These kinds of micro-interactions, rather than large scale tehno-fixes, can create broader and longer lasting environmental and social change.

What is evident at Lilac, then, is an experiment with the spatial form of the commons. Residents take on roles as commoners, moderating and laying down principles for interactions, sharing resources and negotiating boundaries and spaces between private homes, shared spaces and the external public realm. One aspect of this negotiation relates to openness and availability in public spaces. The site has been designed to increase natural surveillance and neighbourly encounters, and therefore residents have to set their own boundaries and tactics for moderating levels of interaction with neighbours and visitors. Moreover, the boundary of the site represents the gateway to the broader public realm where access with the general public has to be mediated. While the grounds of Lilac are private, the general public are not discouraged from entering, which blurs a traditional boundary between public and private, and sets it apart from the rapid growth of privatised housing enclaves.

Figure 1. The Lilac site: private homes set in a shared landscape.

Source: Modcell

The final aspect relates to a commitment to direct democracy and how this can underpin the social relations of commoning. Cooperative and community self-governance is at the heart of Lilac where members have equal democratic rights. In particular, direct democracy is deepened through a commitment two aspects. First, consensus based decision-making is used formally at meetings to agree proposals in a dialogue between equals. A number of deliberative steps such as discussion evenings,

working groups, clear templates for proposals and training facilitators, are taken to ensure that decisions are not rushed, and that outcomes can be owned by everyone. What consensus tries to do is unlock whole community decision-making (Starhawk, 2011). Second, members receive formal training in non-violent communication (NVC), an approach developed by Marshall Rosenberg in the 1960s, and the aim is to help improve communication practices within the community. There is a focus on self-empathy (tuning into one's own experience), empathy (listening to others with compassion), and self-expression (allowing individuals to express themselves authentically to inspire compassion in others) (Rosenberg, 2003).

The commitment to deeper democracy at Lilac depends on previous work aimed at instilling a common purpose. While this requires significant effort it has longer lasting effects as it can create behavior shifts from individualised owner-occupiers to self governing resident-members. This dedication to direct democracy is also built up through a commitment to friendship and respect. Indeed, the member controlled nature of the co-operative instils in residents a stronger sense of control over their housing and day to day lives. Through dedicated operational task teams, bimonthly decision making meetings where proposals are discussed and ratified by consensus, as well as community agreements on various aspects of community life, members act as commoners who set their own framework for community self-governance.

One notable aspect of community governance is a commitment to good processes, rather than merely written procedures,. Rrather than merely laying down policies in advance, governance is underpinned by trust and deliberation. As one resident commented: '*When things go wrong if all you do is open a rule book that's a really poor community*' (see Chatterton, 2016)*.* Foregrounding direct democracy within a community setting also means accepting conflict and difference. Where problems do occur, there are clear agreements on how they are addressed and they are used productively as learning opportunities..

Community direct democracy is also evidenced through a commitment to learning and reflection, both within the neighbourhood, and in terms of its relationship with the outside world. Internal learning through discussion evenings on issues that have been identified as potential sticking points, workshops and skill shares on topics ranging from facilitation to large-group cooking helps members to focus on learning from each other, especially in terms of working through, and learning from, differences. Many informal forms of social interaction, such as cleaning, cooking or gardening together are central to building strong bonds of trust and solidarity which allow the project to learn collectively and strong relations to flourish. The kinds of learning that emerge in this context are more akin to the longer traditions of popular education (see Horton and Freire, 1990; Freire, 1979; hooks, 2004) focused on the practices of (re)building community. In sum then, these novel daily interactions based around consensus, nonviolence, a commitment to process politics and learning, all embed social relations of commoning that can help to embed and give life to urban commons.

Transitioning to post-capitalist urban commons: some strategic reflections

When dealing with niche experiments, the 'so what?' question looms large. In this concluding section, I draw on my case study to explore the geographical and political implications of scaling up socio-technical transitions and sketch out three areas of broader strategic significance in terms of what these characteristics mean for post-capitalist urban commons. First, there is the issue of spatiality (see Truffer and Coenen, 2012; Lawhon and Murphy, 2011) and what a post-capitalist geography actually looks like. The Lilac case is only a single place based experiment, and its ability to point towards broader spatial trends is limited. Moreover, the impact of place-based niche transition experiments has to be understood within wider trends. The whole process of transitioning can be associated with neoliberalisation and here Gonzalez and Oosterlynck (2013) highlight that the recent global financial crisis, whilst promising to open up new post neoliberal possibilities, actually served to reinforce ongoing neoliberal urban restructuring (see also, Evans et al., 2009). In relation to housing, certain innovations currently point toward niche

innovations which support corporate-led growth through a new focus on custom build and smart and low-carbon technologies, reinforcing corporate and private ownership. Moreover, what still needs further exploration is the difficult relationship between gated communities and community-led housing and how these commons spaces overlay with private and public space. The Lilac case is instructive through an intent to be an open, externally facing, accessible community through mechanisms like the absence of gates, site tours, coffee mornings and activities with the wider local community. Moreover, its mutual legal structure provides a safeguard against privatization.

If any future spatial trends can be gleaned from place-based niches such as Lilac, it is in terms of a more diffuse and networked spatiality, where non-contiguous projects, ideas and people are strongly connected through counter–topographical networks (Katz, 2001) that create islands of post-capitalist commons. These are more akin to the rhizomatic structures discussed by Deleuze and Guattari (1989), those unregulated non-hierarchical networks that can connect horizontally. Conceptualised as such, we depart from the idea of actually scaling up, and shift emphasis towards a networked micropolitics that can spread mimetically and virally through decentralized swarming, networking and infiltrating, countering and corroding the dominant regime as they connect (Scott-Cato and Hillier, 2011). Experimental commons such as Lilac can begin to embed forms of post-capitalist association that can act as a bulwark against the centralization and hierarchy that are often embedded in traditional upscaling political strategies of states, trade unions and larger social movements. Their effects can be discerned far beyond the quantitative number of projects, and this is where we need to expand our thinking (see Bulkeley and Castan Broto, 2013). Impact can be underestimated when they are assessed in terms of their visible, numerical and institutional impact. What Lilac highlights is that attention to qualitative issues such as caring, nurturing, solidarity as well as the risky and process-based approaches to transitions can be overlooked, but they are at the heart of post-capitalist transitions.

The second point which follows from this relates to issues of institutional form, governance and management. What Lilac highlights is the need to be attentive to a wider range of actors and tactics beyond established stakeholders that promote placed based niche innovation (Shove and Walker, 2007). This is a transition process that inevitably includes groups with uncomfortable and disruptive values and aims, and those who wish to forcefully undermine the status quo and capitalist social relations. What is important to consider here is the extent to which such micro efforts can create alliances and networks to form novel meso-level institutions to deepen the institutional form of post-capitalist urban commons (see Albert, 2004; Moyer, 2001). The Lilac case shows that this is not just a bottom up process. It is also middle-out or bottom-linking (Janda and Parag, 2014; Hamann and April, 2013; Eizaguirre et al., 2014) where disruptive social innovations scale vertically and horizontally seeking upward influence amongst stakeholders and institutions as well as reaching out to multiply projects at the grassroots. To explore this in practice, individuals in Lilac have joined with other grassroots providers to form a co-operative Community Land Trust called Leeds Community Homes to support and replicate more community led housing. This kind of strategy is built on a combination of iterative experimentation to aid networking, the prototyping of micro-examples, and a commitment to clear values to avoid co-optation. Statutory agencies have a role as intermediary enablers of institutional frameworks that can underpin the growth of a wider urban commons, but ultimately this means devolving and relinquishing control (Zibechi, 2012). Together all this can lead to significant socio-technical reconfigurations, but more work needs to be done to outline the regime practices and rules that would embed and extend a city wide commons.

Third, there is the issue of intent. Bulkeley et al. (2014) point to a constellation of competing transition experiments in cities, some of which promote capital accumulation and some of which engender conflict and challenge the status quo. Moreover, Brunori et al. (2010) stress the difference between more radical novelties and more conventional niches. To explore this further it is useful to return to Holloway's work (2010) and explore transition experiments as a spatial politics of being simultaneously in, against and

beyond life under capitalism. Experiments like Lilac exist in the reality of daily life under capitalism, but are aware of the need to break from it, and ultimately exceed this condition. Important questions arise. Which practical interventions create further openings, and which lock-in co-optation? How do groups keep focused on bigger issues of transformation in the daily grind of paperwork and compromise? How can groups be alive to falling into naïve utopianism or dilution of radical visions? (see Evans, 2011; Karvonen and Heur, 2014).

Drawing on the language of the multi-level perspective (MLP), the Lilac case points towards a transition process less interested in breakthrough, but more in break-out. Daily practices and discourses at Lilac are not simply about scaling-up to influence the mainstream – there is a desire to work beyond niche and mainstream (see Shove and Walker, 2010). What happens when we reconceptualise the niche diffusion process as a corrosion of the dominant regime, attempting to weave together cracks that can purposefully crack the capitalist system? Which kinds of diffusion are acceptable and which are not? What happens when niche experiments entail mass civil disobedience, direct action, land occupations and solidarity with resisting displaced peoples? What needs to be recognized are the highly uneven outcomes for those trying to put down markers against the status quo. There is no flat, pluralist world (Smith, 2005) which would unproblematically see transitions rolling out through well-crafted technocratic arrangements or simple perseverance and ingenuity. More sinister tendencies can also thwart transitioning. These can take many forms such as bureaucratic stalling, infiltration by police informers or political opponents (Lewis, 2013), or, in the global south, violence from military or paramilitary agents. The point for projects such as Lilac is not to adopt divisive categories such as bad versus good project, but to adopt a broader sense of solidarity and support across spatially diffuse and diverse projects attempting to transition beyond the status quo. There are no easy answers here for groups such as Lilac; but co-operative legal forms and consensus based democracy can ensure equal and open debate.

To conclude, I want to return to the distinctive geographical research agenda that emerges from this work on building post-capitalist transitions. First, through the idea of the urban commons, and the commoners that underpin them, this work represents further elaboration on the possible radical geographies and place imaginaries of post-capitalism. Further geographical work would do well to focus on the novel social and spatial commoning practices to gain more insights in terms of how decommodification, mutualism and self-management play out, as well as their limits and potentials. This can be applied to a range of issues central to geographical enquiry: the future nature of the economy, place making and architecture, transport, energy and food. Second, post-capitalist transitioning is a disruptive challenge that takes us into *terra incognita* for geographical teaching and research. This involves a range of issues including where and what we teach, as well as what research agendas we validate and pursue. There are specific ways that we can build post-capitalist activities into our discipline. This could be through collaborative writing and teaching, a commitment to action research and coproducing teaching and research especially connecting with groups who are actively building commons, actively resisting and implementing alternatives to the creeping metricisation and commodification of university life, and even reorganising our departments and disciplinary networks based upon more direct democratic forms. Moreover, careful consideration is needed in terms of the policy and practice that we, as geographers, advocate for in the public realm. Arguments need to gain leverage and provide bridgeheads between the world as it is and the world we would like. Because of the pluralistic and often heretical nature of our discipline, geographers are ideally placed to take on these radical agendas. But unless we make continued effort forge the direct and necessary links between transitioning beyond capitalism and what its geographies might look and feel like, there will be limited, and perhaps tokenistic, ability to take decisive and meaningful action on the challenges that lay ahead.

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[i] However, the largely socially constructed nature of laboratory conditions is now well established. Experiments are in fact highly contingent, open and negotiated spaces, far from immune to external pressures and indelibly mixed up with the outside world (Evans and Karvonen, 2013).

[ii] A bibliographic search returns 44 peer-reviewed articles with 'socio-technical transitions' in the title. Over half of these focus on the energy sector, and there is no single mention to the work capitalism in any of these articles.

[iii] From the nineteenth century onwards, guided by a growing cooperative movement, mutualism provided a strong intellectual bulwark against the rampant individualism of the fast-expanding free-market capitalist economy.

[iv] See: http://ica.coop/en/whats-co-op/co-operative-identity-values-principles.