

Re-telling time in grassroots sustainable economy movements

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Abstract:

This article argues that grassroots sustainable economy movements re-tell (or re-story) time as a core part of their activities. Rather than conforming to proposals for more 'sustainable times' that are prominent within sustainable economies literatures, the process of retelling time represents complex efforts to coordinate between disparate values, meanings, actors and hierarchies. I initially set out a typology of 'temporal counter-narratives' which have been suggested will better support sustainability, namely (1) long-term thinking, (2) critiques of growth over time, (3) slowing down, (4) cyclical temporalities, and (5) increased discretionary time. Drawing on materials from a field philosophy project, I note some minimal take-up of these narratives. However, by looking at three specific cases I suggest that the binary thinking encouraged by sustainable times (e.g. fast/slow, short-term/long-term) does not capture the everyday challenges of building more sustainable livelihoods. Instead these cases highlight the importance of developing better understandings of how grassroots actors coordinate their activities across multiple kinds of times, and the opportunities and pitfalls that accompany these efforts.

Keywords: *sustainable economies, social time, slow, long-term thinking, field philosophy, grassroots innovations*

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With the convergence of environmental, resource, and economic crises, concerns about what the future might hold have found one expression in efforts to build alternatives to dominant economic forms. Examples include movements to expand gift economies (Eisenstein 2011), co-operatives (Curl 2009), resource sharing (Harris and Gorenflo 2012), distributed networks (Rifkin 2011), the new commons (Large 2010) and self-provisioning (Astyk 2008). Responding to the realisation that nothing less than a wholesale societal shift is required, these movements have sought to challenge a wide range of fundamental assumptions including about the nature of human relationality, what constitutes the good life, and the meanings and values ascribed to growth, progress and prosperity. While less prominent, contestations over assumptions about time have also played an important role.

As has been shown across the social sciences, the notion of time as a neutral flow, *à la* Newton, fails to recognise the socio-historical and non-singular nature of time (see Adam 1994, Hassard 1990, Sorokin and Merton 1937, Zerubavel 1979 among others). Further, the traditional philosophical bifurcation of time in terms of objective or subjective time (Hoy 2009), has not done justice to the ways that time is actively shaped across societies, communities and individuals (e.g. Flaherty 2003). As Paul Huebener notes “‘time’ is never a single entity, but is rather a collection of multiple, contested practices and experiences that continuously take shape through...negotiations” (2018, 327). As such, time does not provide a homogeneous background to social life, but is itself a multiply contested terrain.

Within discussions of economies specifically, there have been many claims suggesting that changing economies are accompanied by changing structures of social time. One particularly prominent suggestion is that pre-capitalism's task-based time gave way to early capitalism's clocks (Thompson 1967), which has in turn been superseded by late capitalism's

accelerated time (Rosa 2013). The nature of these shifts has been the subject of much debate. For example, the significance of clock-time prior to the industrial revolution has been demonstrated by Paul Glennie and Nigel Thrift (2009), while Sarah Sharma (2014) has demonstrated the patchiness of experiences of speed and acceleration. But whether dominant expressions of time are thought to be undermined and displaced by new forms (Hassan 2007, 51), or in our search for larger trends we have been insufficiently curious about the varieties of time both past and present (e.g. Birth 2012, Wajcman 2015), current discussions of neo-liberal capitalism continue to emphasise the temporal. This includes, for example, the anticipatory logics at the heart of Naomi Klein's 'disaster capitalism' (e.g. Anderson 2010), as well as the intrusion of capitalism into geological time in the Capitalocene (Malm 2013, Malm and Hornborg 2014).

Efforts to challenge the dominance of the capitalist model and move towards more sustainable economic forms have continued this emphasis on time. As I will set out in the first section of this paper, a range of temporal counter-narratives have arisen, contrasting a dominant temporal framework with hopefully more beneficial alternatives. Examples include supplanting progress narratives of unending linear growth with visions of steady-state futures or degrowth (Kallis and March 2015), as well as attempts to reconfigure life around seasonal tempos or non-linear models of social change, such as in the Permaculture or Transition Towns movements (Bastian 2014, Brook 2009). In order to get a sense of the variety of these counter-narratives, I propose a typology of 'sustainable times' consisting of five key themes, namely (1) long-term thinking, (2) critiques of growth over time, (3) slowing down, (4) cyclical temporalities, and (5) reduced working hours.

While the diagnoses of a number of 'capitalist times' mentioned above are based on analyses of current contexts, an important difference in these narratives is that 'sustainable times' are

proposals for temporal frameworks that might better guide us into the future. That is, while they draw on past and present models, they take on a speculative role in regards to what is to come. As I have argued elsewhere (Bastian 2013), contestations over the future are not only focused on the specific content of the future, but also include struggles around which conceptions of time are thought to be best able to get us there. At the heart of this paper, then, is an interest in the ways that time is not simply told, but *retold* — indeed re-storied — within efforts to effect social change. In particular, I ask whether the above 'sustainable times' — which have increasingly entered into common sense as appropriate antidotes to capitalist times — are the kinds efficacious guides we hope them to be.

In order to test the promise of sustainable times, I reflect on materials produced from a research project that explored the relationship between time and sustainable economies, and which took place in the UK and Australia in 2013. While there are, of course, many different sets of actors one might follow to explore the intersection of sustainability, economic systems and time (e.g. Hall 2016), this project centred around grassroots organisations in particular. Widely discussed within geographical literatures in terms of their prefigurative potential (e.g. Seyfang and Smith 2007), the project explored what these community-based experimental efforts might tell us about the potential futures of 'sustainable times', including the relevance of the five identified themes to everyday struggles for change.

Importantly, particularly given this journal's interest in the intersection between geographical and humanities approaches, this project was an exploratory one where my contributions involved developing a transdisciplinary practice interweaving my disciplinary background in philosophy with field-based research practices in the form of a 'field philosophy' (see Buchanan, Bastian and Chrusew 2018). I will discuss the approach in more detail below, but put briefly, I sought to

combine a philosopher's interest in identifying, unpacking and evaluating the concepts that shape beliefs and actions, with a more geographical sensibility tuned to the importance of situated and located knowledges.

Thus after discussing my proposed typology of sustaining times and giving an overview of the methods used, this essay will first outline some of the ways the project's participants drew upon the above counter-narratives. Even so, I will suggest that these narratives were not particularly relevant to the participants in their everyday work of building their organisations. Instead, by moving to an analysis of three specific cases, I will suggest that the work of re-telling time was more clearly visible when participants found themselves caught up in conflicts *between* particular assumptions about time. In these cases, rather than conforming to a binary thinking encouraged by sustainable times (e.g. fast/slow, short-term/long-term etc.), time became salient as a mode of operating across and between disparate values, meanings, actors and hierarchies. I conclude by arguing for a reduction in emphasis on time primarily in terms of flow (e.g. speed, horizons, rhythms, pace etc.), and instead a greater focus on drawing upon work that illuminates the role of time in coordinating across unequal power relations (e.g. Adam 1994, Elias 1992, Greenhouse 1996).

Identifying temporal counter-narratives

The field of what I have broadly referred to as sustainable economies is undoubtedly vast. It includes proposals for comprehensively transforming dominant capitalist models from within (e.g. environmental economics, [Porritt 2007]), for developing alternative models (e.g. green economics [Cato 2009]), as well as more specific proposals to do with product lifecycles (circular economies [Hobson 2015]), speed of production (slow food, [Petrini 2001]), working hours (Coote and Franklin 2013), modes of transaction (e.g. gift economy, sharing economy), and profit distribution (e.g. social enterprises,

cooperatives [Curl 2009]). Given the constraints of this paper, I am not proposing to set out an overarching framework for sustainable economies, or to evaluate the merits of various models. Rather, I want to offer an account of the kinds of overarching temporal counter-narratives that we might identify within these literatures. I briefly set out five candidates as a tentative schema to compare with the findings from my fieldwork. This is not necessarily an exhaustive schema, but serves as one way of opening up discussion about the role of concepts of time in efforts to reshape economic relations. As we will see, terming these candidates 'counter-narratives' captures an important element of these temporal proposals, since each one arises as a direct contrast to the process under critique.

The first deals with temporal horizons and challenges short-termism, both within economic thinking and politics more broadly. Across a range of accounts *long-term thinking* is seen as necessary both for recognising, and responding to, the various environmental crises at hand. Arguments of this kind are well-illustrated in one of the most influential texts in the field, namely *The Limits to Growth* (Meadows et al. 1972), where the authors argue that the short timeframes of dominant economic thinking make it almost impossible to register the non-linear effects of exponential growth, particularly larger trends towards resource collapse. More widely, Rachel Carson's *Silent Spring* (2000), Edith Brown Weiss' *In Fairness to Future Generations* (1989), and the World Commission on Environment and Development's *Our Common Future* (1987) all provide further examples. Carson encourages longer-term thinking in order to raise awareness of the unprecedented nature of pesticides and their far reaching consequences, while Weiss argues that the temporal framing of international law has been interpreted too narrowly and that environmental issues push us to think of the intergenerational consequences of legal frameworks. *Our Common Future* redefined the concept of development so that it too would ideally be framed in a longer term perspective that sought to ensure that

current development would not cause future generations to be unable to meet their needs.

A second set of counter-narratives offer *critiques of growth over time*. At stake here are the particular values that have been grafted onto the passing of time within Western progress narratives. This grafting creates a shorthand where seemingly innocuous statements about the passing of time are read in positive or negative ways. In particular, narratives of unending growth suggest that comments such as, 'that was 20 years ago,' should be read as 'things are more developed now,' and likewise that things from that time are 'less developed', 'old-fashioned', or even 'obsolete'. A decoupling is thus proposed so that the values and ideals attached to change over time can be renegotiated. Thus in place of positive narratives of growth-over-time, proposals for sustainable economic forms argue for revaluing notions such as equilibrium (Meadows et al. 1972, 171); stationary or steady-state economies (e.g. Daly 1991, Dietz and O'Neill 2013, Jackson 2009); or paradigms of managed decline or de-growth (e.g. Georgescu-Roegen 1975, Martínez-Alier et al. 2010). Note that these approaches not only propose these counter-narratives to dominant temporal frameworks, but are indeed named after them.

An emphasis on *slowing down* processes of consumption and exchange counters narratives of the benefits of speed, acceleration and instantaneity. While this third temporal counter-narrative is most obviously associated with the slow food movement and its various offshoots (Petrini 2001), it can be seen in earlier foundational texts. To return to *The Limits of Growth* for example, Meadows et al. see a slowing down of economic processes as necessary for bringing the twin goals of adopting long-term thinking and valuing equilibrium to fruition. Using the metaphor of a water tank, they suggest that while both 'slow trickle in and out' and a 'fast inflow and outflow of water' can

maintain equilibrium, the latter supports longer-term horizons (Meadows et al. 1972, 173).

Tied closely to visions of encouraging a slower rate of turnover in production and consumption are moves away from the short-termism of the throwaway society toward extended product lifetimes as well as reuse, repair and recycling. Borrowing aspects of the move towards longer-term thinking, this trend centres on a fourth temporal counter narrative of *cyclical temporalities* which encourages a consideration of the full life-cycle of a process or product. Bringing to light the longer pasts and futures of items, which consumers may only encounter for a very short time, is thought to encourage a more holistic approach to resources and waste, cycling through multiple distribution chains to cut down on materials used and recover materials from disposal to be regenerated through new uses (Ellen MacArthur Foundation 2014, Cooper 2005). Additionally, food systems in particular are thought to benefit from a strong alignment to cyclical rhythms of seasonality, rather than the high-energy costs associated with year-round availability (Kingsolver 2007, Kloppenburg et al. 2000).

Finally, the fifth temporal counter narrative evident within the literature is often described as a natural consequence of reduced economic production and consumption, and the increase in labour expected to accompany cultures of slower production and reuse. Supporting *increased discretionary time* is thought to support a reorientation of values away from material growth for its own sake, towards progress in social and cultural spheres, which is often assumed to be less resource intensive (Meadows et al. 1972, 175). Efforts in this direction can be seen in campaigns for a basic income (Raventós 2007) or for reductions in working hours (Coote and Franklin 2013).

The five temporal counter-narratives identified here constitute efforts to transform the temporal frameworks guiding no less

than dominant conceptual frameworks (long-term versus short-term), relationships with material objects (retaining versus throwing-away) and the rhythms that guide everyday life (working less versus being more 'productive'). Indeed there is evidence to suggest that disagreements over what a sustainable economy entails might themselves be understood as conflict over what this temporal re-telling should be. For example, part of degrowth proponent Nicholas Georgescu-Roegen's (1975, 369) critique of equilibrium based models, such as that found in *Limits to Growth*, focuses on a critique of how time is understood within them, in particular the nature of historical time. These counter-narratives suggest that re-telling time holds an important place in efforts to develop pathways toward more sustainable futures. Indeed within the literatures cited here examples abound of the use of alternative metaphors, images, and analogies in support of these narratives, and which seek to provide greater purchase on the temporal complexities of economic and environmental systems.

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A philosophy in the field: methods and frameworks

In developing an understanding of how these temporal counter-narratives might be appearing (or not) in everyday grassroots practices, I have drawn on fieldwork undertaken in 2013 in the UK and Australia. Funded as part of a small exploratory project (under the AHRC's Care for the Future theme), this fieldwork and my analysis of it represent my own initial efforts to craft (in the sense discussed by Hawkins et al. 2015) a transdisciplinary approach that operates across fieldwork and philosophy. Field philosophy as an explicit approach has recently arisen from at least three different trajectories, all broadly environmental in nature. Robert Frodeman first coined the term and, with Adam Briggle and J. Britt Holbrook, he has argued for a participatory form of philosophy that addresses problems identified by non-philosophers (Frodeman, Briggle, and Holbrook 2012; Frodeman and Briggle 2016). Responses are coproduced and are only secondarily addressed back to disciplinary colleagues (if at all),

for example Briggle's (2015) contributions to anti-fracking activism in Texas. Second, Lissy Goralnik and colleagues have developed a field-based pedagogy for environmental philosophy (Goralnik, Dobson, and Nelson 2014), while third, philosophical ethologists such as Dominique Lestel and Vinciane Despret have challenged philosophers interested in multispecies studies to work more closely with the animals they are studying and the people who work with them (Bardini 2014, Despret 2015).

Each of these approaches moves away from mainstream philosophy's primary commitment to universal knowledge and principles, instead tending towards what Frodeman has described as 'topical thinking'. That is, thinking which 'begins from both natural and geographical locations...and from personal and social circumstances' (2003, 12). Resonating with geography's adoption of feminist commitments to situated knowledges that are emergent, emplaced and specific, field philosophy is also a transdisciplinary practice that arguably has much to offer the geohumanities (Dear 2015). For myself, it encouraged me to move my previous work on time beyond an analysis of texts, towards a wider engagement with people and practices, and with wider questions that do not always look philosophical (cf Stengers and Despret 2014, 15). As Frodeman and Briggle argue in their recent book *Socrates Tenured*, philosophers should "vary their material culture" (2016, 116). Moreover, "philosophy needs to get outside more often. The sunshine will do it good" (2016, 24). In this project, I found a welcome opportunity to do so.

As I discuss elsewhere however (Bastian 2018), my experiences of developing a transdisciplinary craft of field philosophy has not been a confident striding forward into new territory. Instead it continues to be a messy, sometimes fumbling process, as I try to develop suitable methods and approaches to interpretation and analysis. Geographical work on grassroots activism has been key to my particular project here, helping me to reconsider

aspects of my everyday life, such as my involvement in the Transition Movement, as something that could be addressed in my academic work (e.g. North and Longhurst 2013, Brown, Kraftl, and Pickerill 2012, Chatterton and Pickerill 2010). Such grassroots movements have inspired little, if any, philosophical work and so there are no readily available models to draw on from within the discipline for how to study them. Indeed, feeling that I had little room within philosophy to do this work, I first styled this project as interdisciplinary in nature before discovering *ex post facto* that I had been doing work that could find a potential home within field philosophy.

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Indeed, when reading through the geographical literatures on sustainable grassroots economic movements there are, perhaps unsurprisingly, many examples where questions arise that are central to philosophy, i.e. around the nature of reality, knowledge and ethics. As just one example, in their work on grassroots innovations Gill Seyfang and Alex Haxeltine have argued that these 'green niche' grassroots organisations "provide supportive networks for experimentation and advocacy" (2012, 382). Not only for experiments with sustainable technical solutions, as niche theory often focuses on (e.g. Markard, Raven, and Truffer 2012), but also how "new social infrastructure and institutions, value sets, and priorities are practised" (Seyfang and Haxeltine 2012, 389). Given that values, ethics, and visions of what constitutes the good life have been absolutely central to the discipline, it seems reasonable to suggest that a further set of innovations that may be incubated in these niches would be philosophical in nature.

In fact, literature in geography and sociology suggests that specifically *temporal innovations* might indeed be a core part of the experimental nature of grassroots organisations. For example, sociologist John R. Hall has argued for understanding prefigurative social experiments, such as the communes of the 60s and 70s, as "as lived utopias which may bear portents of

temporal things to come in society-at-large" (1979, 249). While geographers Gavin Brown, Peter Kraftl and Jenny Pickerill, in their examination of more contemporary 'transition' projects, argue that they "are being increasingly articulated as 'niches' in networks with new spatiotemporal logics" (2012, 1618). Thus for a philosopher interested in the ways that time is shaped, given form, and transformed by social relations, there is potentially much to be gained by working from specific locations where contestations over the meaning and enactment of time may be occurring.

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So over the course of nine months, I visited ten different organisations from across the UK and Australia. These organisations varied by the business model adopted, the sector they focused on and the wider movements they were a part of. Business models included co-operatives, sole traders and proprietary limited companies; sectors ranged from repair and reuse, local food, events management and website design and management; while wider movements included Permaculture, Transition Towns and Open Software. What participants all had in common was a strong commitment to creating livelihoods for themselves by developing business practices that aimed to be as sustainable as possible. More specifically this involved developing: co-working spaces, cultures of repair and reuse, support for local food (including skills in growing, distributing and cooking), ecovillages and sustainable approaches to events management and IT services.

As an exploratory project, the recruitment of this wide variety of participants was admittedly eclectic, looking primarily to find promising venues for exploring questions of time and sustainable economies. It was partly guided by the suggestions of the project's advisory board, and partly simply by who found the topic of interest. While some groups I approached thought that exploring the issue of time was too esoteric and a waste of their resources, some seized on it as central to their work. For

others, the research topic was enigmatic and the response was more along the lines of 'I don't really know what you are talking about, but it sounds interesting, come along!'. Researching understandings of time in everyday life can be very complex given that concepts of time often remain largely implicit (Birth 2004, 2013). My approach was thus to analyse documents produced by each organisation (e.g. websites, blog posts, newsletters, etc.) for ways time might be involved, implicitly or explicitly; to visit each organisation as a participant observer, fitting in around their key activities, again noting any aspects that stood out; and then opening up discussions based around these observations and more general questions in interviews and focus groups.

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Specific topics that were addressed included rhythms and feelings of time; the role of past, present and future; relationships between time, money and value; the temporality of social change; as well as 'critical temporalities', or efforts to develop critical temporal responses to perceived social or environmental issues. Some of these topics were less obvious to specific groups than others and interviews moved between question and answer and discussion where the participants and I would try to unpack examples we each raised. In this way, many of the discussions became more like a philosophical exchange, with new concepts being introduced (for example the distinction between chronos and kairos), and efforts to test proposed interpretations to see if they helped to uncover things that had not been explicitly acknowledged before. In a notable exchange, one of the discussants expressed frustration at not having been introduced to the idea of 'kairos' previously, as she had only recently recognised the importance of being able to identify opportune moments and act accordingly. Indeed she thought it reflected very poorly on her many years of formal education that she was never taught the importance of attending to time in this way [interview, 3 May 2013]. The discussions with participants in the project thus acted partly as a way of developing an incipient

temporal literacy particular to each group (see Huebener 2015 for more on temporal literacy). How these discussions illuminated the question of how time might be retold within grassroots organisations will be explored next.

Counter-narratives side-lined

In his study of intentional communities, Hall argues that "because any social order's articulation of time is a moral vehicle and behavioral standard of social control, those who would replace that order are compelled to reject that order's orientations toward time" (1979, 248). While keeping in mind that social time needs to be understood as multiple and contested, rather than constituting a single dominant order, this quote is nonetheless helpful in that it captures some of what is at stake in a focus on time, even where temporal themes might remain implicit for many participants. Indeed as I will discuss in the next two sections, there was much evidence to suggest that struggles over how time should be understood and enacted were important to participant's efforts to build livelihoods that emphasised environmental aims. What was not clear was that the alternatives developed to particular dominant orders of time fit easily within the overarching counter-narratives that I outlined above. While many were identifiable, they were not key to the kinds of temporal negotiations and transformations that many of the participants were involved in, which were more situational and context-specific. I will discuss these efforts further in the next section, but first I want to sketch some of the ways key counter-narratives were encountered.

In the interests of brevity, I will focus on the first two counter-narratives discussed above, namely *long-term thinking* and *critiques of growth over time*. Both of these proposals resonated with the organisations involved, but they were unevenly taken up, and mobilised in situationally specific ways with key terms understood in different ways across different contexts. For the directors of a sustainable events management company, for

example, the idea of long-term thinking evoked a range of popular concepts and stories. This included the notion of 'seven generations', the apocryphal story of the Oxford oak beams (see Siddique 2013), and *Into Eternity*, the documentary film on nuclear waste storage. In the abstract then, long-term thinking referred to timeframes of centuries or even millennia. This maps onto the perspectives adopted in *The Limits to Growth*, *Silent Spring* and others. Moreover, these reference points demonstrate the significance of efforts to re-tell or re-story time, identified in section one.

However, when discussed in terms of specific organisational practices, the concept of long-term became much more variable and contextual. For members of a trading co-operative, imagining their business in a 30-40 year timeframe was thought to foster more creativity and an ability to work at a slower pace than what was often common to start-ups or sole traders. Here the frame was largely in terms of their working lifespan. In other cases, long-term was used to indicate anything longer than the industry norm. Thus where this norm was quite short, projects of 7-8 months length became examples of 'long-term thinking'.

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Further, efforts to decouple duration from growth were also evident. For example, when asked about the contrast between ideals of growth and a more steady-state, members of a Welsh ecovillage criticised the way narratives of progress encouraged a constant striving to be somewhere else. As one member argued,

this need to get to somewhere better and other than where we are now is so unquestioned, so deeply ingrained and conditioned that...we have to talk about sustainable development rather than just about being sustainable...it's not enough to just be sustainable, we've got to be changing and growing [interview 15 June 2013].

While implicit, we can see here an argument for challenging Western notions of progressive time and the values often unquestionably mobilised within them, and further that these kinds of challenges are essential to efforts to live sustainably.

Another perspective from a participant in a local food project in Victoria, Australia suggested that the sustainable economy might be more open to shifting between growth and degrowth:

I've never thought about...seeing stuff through [the lens of] time, but I suppose the industrial seems to want to get ahead of time and plan everything out and be smooth and predictable and risk free, whereas a sustainable economy's more about the balance between sometimes getting ahead, sometimes staying behind [interview 22 July 2013].

Importantly, this quote complicates broad brush arguments for replacing growth narratives with equilibrium or degrowth. Instead, it suggests that central to this participant's understanding of duration was the expectation that over time a sustainable economy would need to balance multiple rhythms, and that this balance would not always be predictable in advance.

Indeed there were also examples where multiple ways of understanding the value connoted by the passage of time were utilised in the same conversation. For a member of a co-operative focused on website design and IT services, the passing of time could signal alternatively:

- the dangers of inevitable doom, particularly in the broader context of humanity's future;
- the benefits of progressive growth, for example when challenging ideas of a nostalgia around cooperatives ('if people not that long ago could have those ideas then...surely we should...have them and some more by now' [interview 8th September 2013]);
- and a relative equilibrium, particularly with regard to the open software movement ('fashion...is definitely...another kind of driver, isn't it... it is very present in the IT world, generally, but it's not present in our bit of it' [ibid.]).

Thus, as with long-term thinking, ideas of growth, equilibrium, degrowth and collapse did not work to provide an all-encompassing narrative. That is rather than finding counter-narratives working in opposition to dominant temporal models,

multiple temporal modes remained intertwined. Thus if Hall's temporal 'portents', or what I have referred to as 'temporal innovations', were not characterised by shifts between times often conceived of in dualistic terms, then how did they manifest? What I want to emphasise in the next section is the way that the rejection and replacement of dominant temporal orders within sustainable grassroots organisations does not take place as a wholesale translation from one framework to another, but involves difficult and complex mediations that are shaped by the specific contexts, materialities, communities and technologies etc. of the organisation.

Re-telling sustainable times beyond dualisms

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In her ground-breaking *Time and Social Theory*, Barbara Adam (1994) argues that a recurrent problem in work on time has been a tendency towards dualistic thinking where time has been conceptualised in terms of incompatible opposites rather than having multiple aspects that are mutually implicated. We have seen this tendency in the five counter-narratives already outlined, with each one arising in opposition to its assumed antithesis. For Adam, accounting for social transformations in terms of absolute shifts from one time regime to another misses the mark because temporal innovations are not successors that replace what went before or additions that "leave everything else intact" (1994, 163). Instead, in seeking to move away from dualistic thinking which impoverishes understandings of time, she emphasises the need to explore how different temporal processes or times are entangled *with* each other through "hierarchical nesting and implication, with enfoldment and resonance" (1994, 162). Given the lack of explanatory power offered by my initial typology, this section will instead look towards the ways that different understandings of time remain in negotiation with each other in sustainable grassroots efforts. In particular, I will draw out further examples that focus on scenes where clashes occur over which times are perceived to be appropriate or inappropriate to a specific context. While these

examples nominally speak to the three themes not yet explored — namely *circular temporalities*, *increased discretionary time*, and *slowing down* — they also demonstrate that the conflicts and negotiations involved in these efforts would be elided if read in terms of binary narratives and counter-narratives.

My first example draws on discussions with the directors and members of an Australian online platform for collaborative consumption. The platform facilitates rentals, often for a nominal fee, for a range of privately owned household items including power tools, sporting goods and AV equipment. The project seeks to reduce the amount of time that useful items are left idle, and the number of items bought and then only used for a single task. Just in its early stages when I visited in 2013, both the directors and members were working to develop a shared etiquette for facilitating transactions between those listing their items and those seeking to rent them. As designers of the platform, the directors were particularly focused on developing an internal etiquette that focused on response times, including determining appropriate ways of nudging owners of the items to respond to requests. Questions around the timing of notifications and reminders were thus particularly on their minds. How soon should an owner be notified of a request? How soon and how often to remind them when they hadn't yet responded? When are the best times for sending such notices? What levels of personalisation around timing should be offered? Time as a tool of coordination was thus a fundamental concern. Conflicts over these issues had already arisen and so calibrating internal senses of timing so as not to put off owners with too many notifications was seen as key to developing a viable community around the site.

Conflicts were also evident between the emerging internal culture of the platform users and the expectations of renters who were not privy to it. As one of the directors described:

there is that sense if they understand truly how the systems works – in that it's another individual and the item lives at their house. And that it's just kind of 'known'...that [the platform] really at the moment is not the place for you to go if you want something 'right now' [interview, 30 July 2013].

These conflicts thus represented further problems of coordination, timing and expectation management in that the directors were also concerned not to lose potential renters because of a lack of a timely response. However, for those renting to people not adequately aware of the temporal expectations they felt were inherent to this particular form of reuse, these conflicts suggested a deeper mismatch between moral and behavioural standards. As one focus group member noted:

But the person that rented my item, he basically didn't know anything about [the platform] but he just wanted the item. So he was looking for a commercial shop that was hiring it and [the platform] was the first thing that came up. So his feeling about the time per hour transaction could possibly be different from mine, because our motivators--, how we got to the site, why we were on there, what we get out of it, is different [focus group, 30 July 2013].

In response another focus group participant suggested the medium of communication might also affect the behaviour. She recalls that:

someone found me through--, I think I put my phone number on--, I don't know how I was able to have my phone number in my message. And a guy just called me, texted me 'can I have it'. And then he left a Facebook message on my Facebook page. So I was not happy about that, that he called me to ask me to hire this item and he was very full on about it because he expected it to be immediate and very specific [focus group, 30 July 2013].

Thus for the community formed around this collaborative consumption site, expectations had arisen around what 'their time' was, that is, the kind of time appropriate to a sharing versus a commercial economy.

What this suggests is that the work of building the collaborative consumption platform centrally involved efforts to explicitly produce and/or reconfigure shared norms around timing. This

work seeks to enable practical goals of coordinating between platform directors, platform members and potential renters, but also to facilitate the enactment of particular values and 'motivators' within the interactions that form the transaction. Importantly the activities involved in laying the groundwork for this collective venture could not be glossed as 'cyclical' as the temporal character of reuse often is, nor could 'slowing down'. At issue in the examples I have quoted here, was not simply that individuals wanted the items too quickly, but that they did not understand the deeper values that guided the temporal rhythms of the transaction.

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My second example moves us to a cheese-making class that is part of a cluster of projects run by a small group of Australian local food enthusiasts. Time as a mode of coordination with others, and as a mode of inculcating values around sustainability was again a prominent feature. Time as coordination could be seen relatively straightforwardly in participants' accounts of how they found time in their schedules to attend, with families at the evening class celebrating special occasions — the time of the event allowing a break in routine— as well as couples who had been walking past the cafe for months and had finally 'made the time' to come along and use their time in novel ways. The invitation to re-evaluate the principles underlying our use of time was more subtle.

Our main task for the evening was to make our own ricotta. A lot had been carefully set up for us beforehand; even the cleaning cloths had been slightly dampened. We had instruction sheets and after receiving some extra guidance we got to work. Soon into the process we found that actually very little needed to be done. Once lemon juice was added to the milk, the process consisted of keeping an eye on the pan and keeping it on a low heat for almost an hour until curds formed.

When I interviewed our instructor after the class I mentioned the anxiety that seemed to fill the room as we waited with our slowing warming milk. She confirmed that in previous classes there had been similar experiences, with comments such as:

'Oh, can we speed it up? What happens if I turn it up?' You know...
And, 'And what do we do now that it's...?' [Interview, 13 July 2013].

She then went on to say:

And I guess for me as well, with that class and the rhythm...is that I...put things in the class during that time...so that I feel like people are getting their money's worth, but also so that they actually have something to do to keep them busy, [sometimes] people do start to mingle and they talk to each other and...just enjoy themselves, but occasionally people...stand there and don't want to talk to anyone else. So I feel that pressure, that I've got to keep people entertained, in a way [interview, 13 July 2013].

In our class this pressure was in part relieved by group introductions, demonstrations of how to make yoghurt, and then turning the yoghurt into labne, a Middle Eastern cheese. Taste-testing was also included, partly for practical reasons, since the timing of class means that people have often come straight from work and are hungry.

Even with these activities, the anxiety over waiting was not done away with entirely. As we stood there, unsure of what to do next, we were coached in the arts of learning how to enjoy ourselves without needing to be busy. In doing so our instructor engaged in her own re-telling of time, which challenged the values we were using to judge whether our time was well-spent. In our later discussion she described this process:

You know that comes up quite a bit with...the ricotta...If you do it 'low and slow,' that it will take...an hour, possibly more, at home. And there are quite a few people who come in and [ask], 'What, what do you mean, you know?' And...when that's brought up, I'm like, 'Yeah, but, you know, you do it at night and you have a glass of wine and you listen to music and, you know, you make it an enjoyable experience.' So yeah, I think I am trying to get people to slow down with time [interview, 13 July 2013].

Efforts to slow down are thus explicitly acknowledged in the instructor's comments, but this was not simply for its own sake.

If it was, it would have been unlikely that there would be a strong concern over people 'getting their money's worth' or 'keeping them busy'. Instead the effort was focused on trying to make room for the kind of time that enabled homemade cheese-making, and which supported the wider project values of reinvigorating home-cooking, local food cultures, practical know-how and reconnecting with the past.

My final example turns to a re-use project that is attempting to transform an abandoned space in a large city in the UK into a co-working space. Hoping to support the reclamation of discarded materials, foster a stronger sense of community, and teach practical skills, the project has been committed to using community-led design processes and to reusing materials in its own construction. The trope of slowing down arose again in this project, although this has been largely inadvertent. As one of the directors commented:

I don't think we've deliberately thought about it that way...we never said, 'This is going to be a slow building project,' [laughs] you know, but in practice has kind of been one [focus group, 9 September 2013].

This experience of slow has partly been because of the nature of second-hand materials themselves. As one of the site managers describes:

If you get a new piece of material, you just do the job. If you have an old piece of material you have to check, make sure it's this, it's suitable, it's straight, whether it's wood, you know. And to me it takes longer [focus group, 9 September 2013].

So like the local food project, the values that the project participants hope to embody in the co-working space have affected the way time is experienced and conceptualised. In particular, the directors and managers of the projects have found that standard assumptions about timing, project planning and related temporal processes that hold in mainstream building projects have had to be rethought.

While the notion of slowing down has become a cultural shorthand for how to achieve a more pleasurable, communal,

sustainable and ethical life, many critics have challenged the bad fast/good slow binary and demonstrated the many undesired and exploitative aspects of processes cast as slow (e.g. Sharma 2014, Vostal 2017). The undesirability and frustrations with slower paces already arose in the co-working space around second-hand materials, but was compounded by the codesign process. The community engagement process itself is described as long and slow by a number of project directors, and further complications arose from the original plan to build the co-working space primarily with volunteers. There were fewer volunteers involved than were hoped for, and it was hard for the organisers to know in advance who would come along, or what skills or interests the attendees would have. Experience had also shown that volunteers could not be asked to work to a predefined work schedule. Given the changeable nature of the volunteer group it was not easy to set up ground rules which might help projects move along. As another director noted:

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One of the difficult things here is that you kind of want to say, 'Okay, which rules are we going to apply, with each of these projects?'

So...can we all agree that whatever we design here that these are the kind of base elements that we're going to stick with. But in actual fact, we haven't even really been able to do that, because one week five people turn up and the next week a different five people turn up...And it's nearly impossible...in the construction phase, because we've got...these guys who are more able to just say, 'This is the rule that I'm sticking to with this part of the project.' Co-make is more complicated with that, I think [focus group, 9 September 2013].

A key aspect of codesign, and participatory approaches more generally, is to have explicit buy-in for all those involved, including ample opportunities to feed into the process. But this assumes the continuity of a group across time who can work together to build a consensus and then implement shared plans. With the fragmented nature of people's time commitments and involvements, the progressive building toward a shared vision was far from reach.

Partly in response to these unwanted experiences of slowness and temporal unpredictability, the project started to use unpaid

workers who were serving community sentences. Unlike the volunteers, these workers have strict working hours and break times, and so can provide a more steady form of labour. Indeed during my visit, the monitoring of their activities, and their confiscated phones, provided a strong contrast to the flexible time of the volunteers, who were in the same space but inhabited a very different kind of time. While for some, being involved in the project had provided opportunities to learn carpentry or other skills, for others the scheme added another layer to the experiences of slow in the project. The unpredictability of both materials and the project rules had people, who had arrived promptly at 9am, wandering around waiting for work to start. An array of techniques for dealing with this delayed time was put into practice. This might involve finding corners to hide in and wait out the time, taking on an individual project so they do not have to wait on other's decisions, or just standing around waiting to find out what they will finally be doing. In this example in particular then, we see the importance of Adam's insistence on attending to multiple temporalities and unpacking the hierarchies and mutual reinforcing that can occur between them. Specifically, the 'sustainable times' of this project involved the co-implication of the times of materials, project management, legal processes, volunteering and much more. Crucially, the critical importance of some times (i.e. the elongated time of reusing second-hand materials combined with the overall timescales of getting the building project finished) compromised others (i.e. the time inherent within codesign processes with volunteers making way for the time of those required to do community work).

Conclusion

The five widely influential counter-narratives discussed in this paper re-tell time in the hopes of more sustainable futures. Their influence can be seen, for example, in a range of artistic projects hoping to contribute to a reshaping of social time. Projects such as Katie Paterson's *Future Library*, and the Long Now

Foundation's *Clock of the Long Now*, seek to encourage long term thinking. While work under the banner of slow design (Hallnäs and Redström 2001, Strauss and Fuad-Luke 2008) has sought to use technology to promote reflection and rest, rather than efficiency and productivity. This suggests that these counter-narratives have taken on a role as a kind of environmental common-sense. What I have suggested in this paper, however, is that they do not capture the everyday challenges of building more sustainable livelihoods. Rather than conforming to dualistic models that focus on overarching questions of temporal pace, framing or allocation, the examples discussed in this paper presented 'sustainable times' as imbued with competing values, working to legitimate some ways of life over others, and shaping who can be involved in which community and in what ways.

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To date, philosophical approaches to time, which are prominent across the humanities and social sciences, have by and large revolved around debates about the metaphysics of time or time as an interior process that is a foundational aspect of subjective experience (Hoy 2009). In work on political and social change, a further important trend has been to analyse time as a disruptive force that happens outside our control and sometimes our explicit knowledge (such as in theories of 'the event', 'becoming' or 'the messianic') (e.g. Grosz 2004). In all of these accounts the interaction *between* different kinds of times is neglected, as is people's agency in regard to shaping and reshaping the time of social life (Flaherty 2003). By contrast, asking philosophical questions about time from the field, that is within specific efforts to produce social change, challenged the idea that time is fundamentally about relationships between past, present and future; experiences of speed, acceleration and slowness; or how time is framed (short-term/ long-term), visualised (linear/circular), or counted (clock-time/authentic time). Instead, even more fundamental were social efforts to coordinate between disparate values, meanings, actors and hierarchies.

So while the aspects of time mentioned just above remain salient, I would argue that it is insofar as they play a role in supporting some worlds over others. What this suggests is that work that helps us focus more closely on the agencies, conflicts and power plays that occur across multiple times, including that by theorists such as Barbara Adam (1994), Nobert Elias (1992), Carol Greenhouse (1996), Paul Huebener (2015) and Sarah Sharma (2014), may be better guides to understanding the more complicated nature of 'sustainable times'. As Huebener writes, we need to develop critical reading practices that will "equip us to articulate, question, resist, embrace, and reshape the functioning of time as a form of power and discourse within socio-environmental activities" (2018, 328). What this article has sought to show is that the dualistic mode of popular understandings of sustaining times cannot equip us in this way and instead we need more complicated accounts of the temporal innovations that might support economies and ways of life that enable more sustainable habitations of this planet.

References

- Adam, Barbara. 1994. *Time and Social Theory*. Cambridge: Polity.
- Anderson, Ben. 2010. Preemption, precaution, preparedness: Anticipatory action and future geographies. *Progress in Human Geography* 34 (6):777-798.
- Astyk, Sharon. 2008. *Depletion and Abundance: Life on the New Home Front*. Gabriola Island, B.C.: New Society Publishers.
- Bardini, Thierry. 2014. Preface: A Field Philosopher with a Certain Taste for Fish, and Who Does Not Mistake His Hat for an Ethology. *Angelaki* 19 (3):5-9.
- Bastian, Michelle. 2013. Political Apologies and the Question of a 'Shared Time' in the Australian Context. *Theory, Culture & Society* 30 (5):94-121.
- . 2014. Time and Community Economies: An interview with Andy Goldring. In *Temporal Belongings Interview Series*. Available at: <http://www.temporalbelongings.org/interview-series.html>
- . 2018. Philosophy Disturbed: reflections on moving between field and philosophy *Parallax* 24 (4):xx-xx.
- Birth, Kevin K. 2004. Finding Time: Studying the Concepts of Time Used in Daily life. *Field Methods* 16 (1):70-84.
- . 2012. *Objects of Time: How things shape temporality*. New York: Palgrave Macmillan.
- . 2013. The Princess and the Pea: Research strategies for the study of the mediation of timescales by artifacts. Paper read at Requirements for UTC and Civil Timekeeping on Earth Colloquium, May 29-31, 2013, at Charlottesville, Virginia.
- Briggle, Adam. 2015. *A Field Philosopher's Guide to Fracking: How one Texas town stood up to big oil and gas*. New York: Liveright.
- Brook, Isis. 2009. Turning Up the Heat on Climate Change: Are Transition Towns an Answer? *Environmental Values* 18 (2):125-128.

- Brown, G., P. Kraftl, and J. Pickerill. 2012. Holding the future together: towards a theorisation of the spaces and times of transition. *Environment and Planning A* 44 (7):1607-1623.
- Buchanan, Brett, Michelle Bastian, and Matthew Chrusew. 2018. Special Issue: Field Philosophy and other experiments. *Parallax* 24 (4).
- Carson, Rachel. 2000. *Silent Spring*. London: Penguin Classics. Original edition, 1962.
- Cato, Molly Scott. 2009. *Green Economics: An Introduction to Theory, Policy and Practice*. London: Earthscan.
- Chatterton, Paul, and Jenny Pickerill. 2010. Everyday activism and transitions towards post-capitalist worlds. *Transactions of the Institute of British Geographers* 35 (4):475-490.
- Cooper, Tim. 2005. Slower Consumption: Reflections on Product Life Spans and the "Throwaway Society". *Journal of Industrial Ecology* 9 (1-2):51-67.
- Coote, Anna, and Jane Franklin, eds. 2013. *Time on Our Side: Why we all need a shorter working week*. London: NEF.
- Curl, John. 2009. *For All the People: Uncovering the Hidden History of Cooperation, Cooperative Movements, and Communalism in America*. Oakland: PM Press.
- Daly, Herman E. 1991. *Steady-State Economics: Second Edition With New Essays*. Washington, D.C.: Island Press.
- Dear, Michael. 2015. Practicing Geohumanities. *GeoHumanities* 1 (1):20-35.
- Despret, Vinciane. 2015. Why "I Had Not Read Derrida" :Often Too Close, Always Too Far Away. In *French Thinking about Animals*, edited by S. Posthumus and L. Mackenzie: Michigan State University Press.
- Dietz, Rob, and Dan O'Neill. 2013. *Enough Is Enough: Building a Sustainable Economy in a World of Finite Resources*. Abingdon Routledge.
- Eisenstein, Charles. 2011. *Sacred Economics: Money, Gift & Society in the Age of Transition*. Berkley, California: North Atlantic Books.

- Elias, Norbert. 1992. *Time: An essay*. Translated by E. Jephcott. Oxford: Blackwell.
- Ellen MacArthur Foundation. 2014. Towards the Circular Economy: Accelerating the Scale Up across Global Supply Chains. Isle of Wight: Ellen MacArthur Foundation.
- Flaherty, Michael G. 2003. Time Work: Customizing Temporal Experience. *Social Psychology Quarterly* 66 (1):17-33.
- Frodeman, Robert. 2003. *Geo-logic: Breaking ground between philosophy and the earth sciences*. Albany: SUNY Press.
- Frodeman, Robert, and Adam Briggle. 2016. *Socrates Tenured: The institutions of 21st century philosophy*. London and New York: Rowman and Littlefield.
- Frodeman, Robert, Adam Briggle, and J. Britt Holbrook. 2012. Philosophy in the Age of Neoliberalism. *Social Epistemology* 26 (3-4):311-330.
- Georgescu-Roegen, Nicholas. 1975. Energy and Economic Myths. *Southern Economic Journal* 41 (3):347-381.
- Glennie, Paul, and Nigel Thrift. 2009. *Shaping the Day: A History of Timekeeping in England and Wales 1300-1800*. Oxford: Oxford University Press.
- Goralnik, Lissy, Tracy Dobson, and Michael Paul Nelson. 2014. Place-Based Care Ethics: A Field Philosophy Pedagogy. *Canadian Journal of Environmental Education* 19:180-196.
- Greenhouse, Carol J. 1996. *A Moment's Notice: Time Politics across Cultures*. Ithaca and London: Cornell University Press.
- Grosz, Elizabeth. 2004. *The Nick of Time: Politics, Evolution and the Untimely*. Crows Nest: Allen and Unwin.
- Hall, John R. 2016. Social futures of global climate change: A structural phenomenology. *American Journal of Cultural Sociology* 4 (1):1-45.
- Hall, John R. 1979. Time and Communal Life, an Applied Phenomenology. *Human Studies: A Journal for Philosophy and the Social Sciences* 2 (1):247-257.
- Hallnäs, Lars, and Johan Redström. 2001. Slow Technology: Designing for Reflection. *Personal Ubiquitous Computing* 5 (3):201-212.

- Harris, Malcolm, and Neal Gorenflo, eds. 2012. *Share or Die: Voice of the Get Lost Generation in the Age of Crisis*: New Society Publishers.
- Hassan, Robert. 2007. Network Time. In *24/7: Time and temporality in the network society*, edited by R. Hassan and R. E. Purser. Standford: Standford University Press, 37-61.
- Hassard, John., ed. 1990. *The Sociology of Time*. London: Macmillan.
- Hawkins, Harriet, Lou Cabeen, Felicity Callard, Noel Castree, Stephen Daniels, Dydia DeLyser, Hugh Munro Neely, and Peta Mitchell. 2015. What Might GeoHumanities Do? Possibilities, Practices, Publics, and Politics. *GeoHumanities* 1 (2):211-232.
- Hobson, Kersty. 2015. Closing the loop or squaring the circle? Locating generative spaces for the circular economy. *Progress in Human Geography* Early View:1-17.
- Hoy, David Couzons. 2009. *The Time of Our Lives: A Critical History of Temporality*. Cambridge, Massachusetts: MIT Press.
- Huebener, Paul. 2015. *Timing Canada: The shifting politics of time in Canadian Literary Culture*. Montreal and Kingston: McGill University Press.
- . 2018. Timely Ecocriticism: Reading Time Critically in the Environmental Humanities. *ISLE: Interdisciplinary Studies in Literature and Environment* 25 (2):327-344.
- Kallis, Giorgos, Hug March. 2015. Imaginaries of Hope: The Utopianism of Degrowth. *Annals of the Association of American Geographers* 105 (2): 360-368.
- Jackson, Tim. 2009. *Prosperity Without Growth: Economics for a Finite Planet*. London: Earthscan.
- Kingsolver, Barbara. 2007. *Animal, Vegetable, Miracle: Our year of seasonal eating*. London: Faber and Faber.
- Kloppenburg, Jack, Sharon Lezberg, Kathryn De Master, George W. Stevenson, and John Hendrickson. 2000. Tasting Food, Tasting Sustainability: Defining the Attributes of an Alternative Food System with Competent, Ordinary

- People. In *Human Organization*: Society for Applied Anthropology.
- Large, Martin. 2010. *Common Wealth: For a Free, Equal, Mutual and Sustainable Society*. Stroud: Hawthorn Press.
- Malm, Andreas. 2013. The Origins of Fossil Capital: From Water to Steam in the British Cotton Industry. *Historical Materialism-Research in Critical Marxist Theory* 21 (1):15-68.
- Malm, Andreas, and Alf Hornborg. 2014. The geology of mankind? A critique of the Anthropocene narrative. *The Anthropocene Review* 1 (1):62-69.
- Markard, Jochen, Rob Raven, and Bernhard Truffer. 2012. Sustainability transitions: An emerging field of research and its prospects. *Research Policy* 41 (6):955-967.
- Martínez-Alier, Joan, Unai Pascual, Franck-Dominique Vivien, and Edwin Zaccai. 2010. Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm. *Ecological Economics* 69 (9):1741-1747.
- Meadows, Donella H., Dennis L. Meadows, Jorgen Randers, and William W. Behrens III. 1972. *The Limits to Growth: A report for the Club of Rome's project on the predicament of mankind*. New York: Universe Books.
- North, Peter, and Noel Longhurst. 2013. Grassroots Localisation? The Scalar Potential of and Limits of the 'Transition' Approach to Climate Change and Resource Constraint. *Urban Studies* 50 (7):1423-1438.
- Petrini, Carlo. 2001. *Slow Food: The Case for Taste*. New York: Columbia University Press.
- Porritt, Jonathon 2007. *Capitalism as If the World Matters*. Revised ed. London: Earthscan.
- Raventós, Daniel. 2007 *Basic income: The material conditions of freedom*. Translated by J. Wark. London: Pluto Press.
- Rifkin, Jeremy. 2011. *The Third Industrial Revolution: How Lateral Power is Transforming Energy, the Economy, and the World*. New York: Palgrave Macmillan.
- Rosa, Hartmut. 2013. *Social Acceleration: A New Theory of Modernity*. New York: Columbia University Press.

- Seyfang, Gill, and Alex Haxeltine. 2012. Growing grassroots innovations: exploring the role of community-based initiatives in governing sustainable energy transitions. *Environment and Planning C: Government and Policy* 30 (3):381-400.
- Seyfang, Gill, and Adrian Smith. 2007. Grassroots innovations for sustainable development: Towards a new research and policy agenda. *Environmental Politics* 16 (4):584 - 603.
- Sharma, Sarah. 2014. *In the Meantime: Temporality and Cultural Politics*. Durham and London: Duke University Press.
- Siddique, Haroon. 2013. David Cameron's tale of Oxford college's trees is a myth, says academic. *The Guardian*, 2 October.
- Sorokin, Pitirim A., and Robert K. Merton. 1937. Social Time: A Methodological and Functional Analysis. *The American Journal of Sociology* 42 (5):615-629.
- Stengers, Isabelle, and Vinciane Despret. 2014. *Women who make a fuss: The unfaithful daughters of Virginia Woolf*. Translated by A. Knutson. Minneapolis: Univocal.
- Strauss, Carolyn F., and Alastair Fuad-Luke. 2008. The Slow Design Principles: A new interrogative and reflexive tool for design research and practice. In *Changing the Change Conference*. Turin, Italy.
- Thompson, E. P. 1967. Time, Work-Discipline, and Industrial Capitalism. *Past and Present* 38:56-97.
- Vostal, Filip. 2017. Slowing down modernity: A critique. *Time & Society* early view (0).
- Wajcman, Judy. 2015. *Pressed for Time: The Acceleration of Life in Digital Capitalism*. Chicago: University of Chicago Press.
- Weiss, Edith Brown. 1989. *In fairness to future generations : international law, common patrimony, and intergenerational equity*. Irving-on-Hudson: Transnational Publishers.
- World Commission on Environment and Development. 1987. *Our Common Future*. Oxford: Oxford University Press.
- Zerubavel, Eviatar. 1979. *Patterns of Time in Hospital Life*. Chicago and London: University of Chicago Press.

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