**Frugal Abundance in an Age of Limits: Envisioning a Degrowth Economy**

*Samuel Alexander*

**1. Introduction**

This paper considers whether, or to what extent, different forms of ‘austerity’ exist, or could exist, in relation to material standards of living. Could an austerity externally imposed be experienced very differently from an austerity voluntary embraced? The analysis seeks to show, somewhat paradoxically, perhaps, that although reduced consumption and production within existing capitalist economies tends to impact negatively on social wellbeing – representing one form of ‘austerity’ – reduced consumption and production within different economic frameworks, and within different value systems, could open up space for a positive, enriching form of austerity. This latter form of austerity, it will be argued, has the potential to increase social and ecological wellbeing in age of environmental limits (Meadows et al, 2004; Jackson, 2009; Turner, 2014). It is extremely important, of course, that these two austerities are not confused, and the present inquiry into the potential for enriching forms of austerity must not be interpreted as defending the neoliberal or capitalist forms of austerity being implemented in many economies today (see, e.g., Hermann, 2014; Pollin, 2013). A distinction will be made, therefore, between an austerity of degrowth – which will be the focus of this analysis – and a capitalist austerity.

Even a cursory inquiry into the definition of austerity highlights the various ways this term can be understood. In recent years this notion has been used almost exclusively to refer to a macroeconomic policy of crisis-management provoked by the global financial crisis, where governments cut social services in an attempt to reduce budget deficits and stimulate growth (see, e.g., Ivanova, 2013). One online dictionary defines austerity as a ‘severe and rigid economy’, and that is certainly how many people would experience austerity under capitalism today. Note how austerity in this sense is oblivious to the limits to growth critique. Far from trying to move beyond the growth paradigm, austerity under capitalism is defended on the grounds that it will help get the engine of growth started again.

But this is a relatively new way of understanding austerity. Prior to the global financial crisis, austerity did not refer primarily to a strict macroeconomic policy that cut social services. Instead, online dictionary definitions define austerity as ‘simple or plain’, ‘not fancy’, ‘unadorned’, or ‘a situation where money is spent only on things that are necessary’. In this very different sense of austerity, the term can be understood as a synonym for frugality or simplicity of living (see Alexander and McLeod, 2014), and it is this second form of austerity that will be the focus of this paper. It is a form of austerity that is arguably necessary in an age of limits – necessary, that is, if we are to turn current economic and environmental crises into opportunities by way of a degrowth transition (Latouche, 2009; Schneider et al, 2010; Kallis, 2011; Alexander, 2015).

Among other things, a degrowth transition will involve examining or re-examining what is truly necessary to live a dignified life, as well as letting go of so much of what is superfluous and wasteful in consumer societies today (Vale and Vale, 2013; Hamilton and Denniss, 2005). A strong but perhaps counter-intuitive case can be made that the wealthiest regions of the world can get by with a far lower material standard of living and yet increase quality of life (Alexander, 2012a; Trainer, 2012; Schor, 2010; Wilkinson and Pickett, 2010), and this is the paradox of simplicity that lies at the heart of what I am calling an ‘austerity of degrowth’. A degrowth economy may be ‘austere’ (but sufficient) in a material sense, especially in comparison to the cultures of consumption prevalent in developed regions of the world today. But such austerity could also liberate those developed or over-developed societies from the shackles of consumerist cultures (Kasser, 2002), freeing them from materialistic conceptions of the good life and opening up space for seeking prosperity in various non-materialistic forms of satisfaction and meaning.

Serge Latouche (2014) writes of degrowth as being a society of ‘frugal abundance’, but what would this look like and how would it be experienced in daily life? The degrowth movement to date has focused a great deal on the macroeconomic and political dimensions of ‘planned economic contraction’ (Alexander, 2012b), but less attention has been given to the implications such contraction would have on our lives, at the personal and community levels. Consequently, this area of neglect calls for closer examination, because it is at the personal and community levels where degrowth would be experienced, first and foremost. Indeed, an inquiry into the *lived reality* of degrowth may be one of the best ways of describing and understanding what we mean by degrowth, moving beyond vague abstractions or ‘top down’ macroeconomic and political perspectives. In other words, we might gain a clearer understanding of degrowth by imagining someone mending their clothes or sharing their hammer or bicycle in conditions of scarcity, than by imagining a new financial system or political framework.

Whatever the case, this paper focuses on the former perspective and explores how an austerity of degrowth may be experienced at the personal and social levels. This inquiry follows coherently from the various arguments in favour of degrowth that have been developing in recent years, which have offered many compelling reasons *why* we should ‘degrow’ (see generally, Latouche, 2009; Alexander, 2015). But it is also important to explore more closely what degrowth would actually look like and how it might be experienced. After all, if people cannot envision the degrowth alternative with sufficient clarity, and see it as desirable, it is unlikely that a large social movement will arise to bring a degrowth economy into existence.

1.1 *Framing and Contextualising the Analysis*

Before getting to the substantive analysis a few more introductory comments may help better frame and contextualise the discussion. If degrowth means – among other things – a deep and rapid transition away from high consumption lifestyles, then we could begin an inquiry into an austerity of degrowth with a question: How would citizens in developed nations deal with an ‘austere’ lifestyle of radical simplicity? By radical simplicity I do not mean poverty, which is involuntary and full of suffering and anxiety, and therefore universally undesirable. Rather, by radical simplicity I essentially mean a very low but biophysically sufficient material standard of living. In a world of seven billion people and counting, the transition to a just and sustainable world necessarily implies consuming at far lower material and energy levels than are common in developed nations today (Trainer, 2010). One must acknowledge, however, that from within the dominant culture of consumption, giving up consumer lifestyles would be generally perceived as a something that would reduce wellbeing and signify a turn away from progress.

In this paper I want to suggest that radical simplicity would not be as bad as it might first seem, provided people were ready for it and wisely negotiated its arrival, both as individuals and as communities. I am tempted to go further and suggest that radical simplicity may be exactly what consumer cultures need to shake themselves awake from their comfortable routines and habits of consumption; that radical simplicity would be in our own, immediate, self-interests (Trainer, 2012). This is a promising possibility, because it seems clear enough that in an age of gross ecological overshoot (Global Footprint Network, 2012; Vale and Vale, 2013), degrowth as a macroeconomic and political program in wealthy nations requires and depends upon lifestyles of radically reduced consumption. But again, it must be emphasised that reduced consumption under capitalism would be very different to reduced consumption under a planned, equitable degrowth framework, in ways that I hope to explain.

It goes without saying, of course, that if a radically lower material standard of living were to be imposed upon people suddenly by force of circumstances and without anticipation and some preparation, most people would find such a dramatic change terrifying and painful – an existential disaster. Such a response would be quite natural and understandable, for many people would have their identities and worldviews shaken beyond recognition. But the subtext of this paper is that if such dramatic lifestyle changes were to be stoically anticipated and prepared for, even embraced, people could discover that lives of reduced consumption might lead to a new form of abundance, a new form of wealth, a new connection or reconnection with nature, our communities, and indeed, ourselves. This is the possibility, at least, that makes degrowth such a tantalising movement for deep societal transformation, for it gives rise to the possibility that there could be ‘an upside to down’ (Homer-Dixon, 2006; Odum and Odum, 2001).

If this understanding of degrowth is correct (see Alexander, 2012a), it would seem that high consumption cultures could benefit greatly from anticipating and preparing for radical simplicity; benefit greatly, that is, from ‘prefiguring’ a simpler way of life (Trainer, 2010). Consumerism and the growth paradigm that supports it have no future, a diagnosis that I will not attempt to defend here but rather take as given, the case having been made many times before (see, e.g. Meadows et al, 2004; Jackson, 2009; Smith and Positano, 2010; Turner, 2014). When consumerism’s time is up, we will all be living more simply, to varying degrees, whether we want to or not. So it is important that individuals, communities and governments deal with this inevitable change positively, and embrace the changes that are likely to lie ahead of us and make the best of them. We are being challenged to make opportunities out of the crisis of capitalism, and envisioning the practical realities of this challenge is an issue that deserves increased scholarly attention.

In the following substantive sections, therefore, I attempt to describe a radical alternative economic vision, an economic vision based on notions of simplicity, frugality, moderation, sufficiency, resilience, relocalisation, and mindfulness. In the broadest terms, this form of economy would be one that has low energy and resource requirements relative to developed economies, but which sufficiently provides for local material needs using mostly local resources, without being relentlessly driven to expand by the growth-focused ethics of profit-maximisation. What would an economy based on material sufficiency look like?

It should be acknowledged that there are a huge number of important structural issues that the following analysis does not attempt to deal with in any detail. I am referring here to issues such as property rights, banking systems, urban infrastructure, political systems, and so forth. These are all important issues to consider. But the present analysis will focus primarily on some of the socio-economic implications of degrowth at the personal and household levels, briefly discussing how our relationships to water, food, clothing, housing, energy, work, money and technology may need to evolve, on the assumption that capitalism continues to break down over coming years and decades (Bauman and Bordoni, 2014; Tverberg, 2012; Gilding, 2011), and as emerging movements try to build an alternative degrowth economy from the grassroots up (Alexander, 2013).

It should be clear that this is not an inquiry into theoretical issues, but instead an inquiry into what may be experienced as the most basic features of day-to-day life in a degrowth economy. The aim is to ground the theory as far as possible in practical considerations; to give the theoretical bones some flesh by way of an ‘envisioning’ exercise. The intention, to be clear, is not to prescribe a blueprint that should be mechanically imposed everywhere, but rather to provoke thought about how degrowth could be realised in various ways. If the reader disagrees with aspects of the analysis, please adapt and refine the analysis and apply it in context-appropriate ways in order to advance the discussion.

**2. Envisioning an Austerity of Degrowth**

2.1 *Water*

This envisioning exercise begins by considering water, it being an essential basic need. In most urban contexts the amount of roof space available to collect water would be insufficient to secure the necessary water supplies for such dense populations, especially in relatively dry climates or seasons. What this means is that most urban contexts *require* the water mains to exist, at least for the foreseeable future, for if they failed for more than a day or so most people would quickly perish. Accordingly, a degrowth economy must at least have the energy supply and stability to maintain the water mains at a sufficiently high level of regularity and safety. The water mains is the most critical piece of urban infrastructure we have, and I suspect it will be the last thing we will allow to fail. Even in a severe crisis, I think the human ‘will to survive’ will ensure that the water mains keeps functioning.

Nevertheless, in a degrowth economy attitudes to water consumption and collection would undergo a revolution. Today, average daily household water consumption in the United States is around 370 litres per person (Wikipedia 2014); in Australia it is around 230 litres per person (Australian Bureau of Statistics, 2014). By way of contrast, the United Nations (UNHCR, 2014) and the World Health Organization (WHO, 2013) advise that 20 litres per person, per day, is the minimum needed for the most basic subsistence requirements, which is a the baseline used in refugee camps. In a degrowth economy, we could imagine that domestic water consumption might need to fall to somewhere between 50-70 litres per person, per day, which is enough to live a dignified existence without leaving much room for waste. Watering our productive gardens may increase this, but organic food production is more water efficient than industrial methods (see, e.g., Wood et al, 2006), so ultimately this would save water overall.

In order to reduce water consumption from the mains, various steps could be taken. First of all, every household would maximise its roof water collection via water tanks. People will become proficient in creating and connecting systems of water collection and reuse – learning the skills to do so, perhaps, at community ‘skill sharing’ workshops organised by the local Transition Town (see Hopkins, 2008). Greywater systems will become the household norm, including the use of tank water to flush the toilet. Eventually, composting toilets may be widely used in appropriate contexts, further reducing water consumption (see Jenkins, 2005).

In those times when people are required to draw from the water mains, there is much room for conservation. Being conscientious of water consumption when preparing food and cleaning dishes, and never watering (or even having) lawns, are important and easily implemented conservation strategies. Perhaps the largest savings in the domestic sphere can come from how we wash our clothes and ourselves. Clothes could be washed less often and showers could be shorter and taken less regularly. In fact, if required, cleaning occasionally with a bucket of water and some soap is perfectly adequate for cleanliness and hygiene. This may seem ‘austere’, but the critical point to note is that the same circumstances of radical simplicity would be experienced in totally different ways, depending on the mindset that was brought to experience. An austerity of degrowth may be perceived as a terrible hardship if governed by consumerist expectations, but no hardship at all if approached with a frame of mind shaped by notions of sufficiency. Fortunately, that mindset is within our control (Burch, 2014), even if the material circumstances we find ourselves in may not always be. As the ancient Chinese philosopher once said: ‘He who knows he has enough is rich’ (Vanebroeck, 1991: 116).

2.2 *Food*

A foundational issue for any economy is how it sources and produces its food, and this issue sits next to water on the list of essential needs. The globalised, industrial food production system currently in existence is highly unsustainable for various reasons. Not only are industrial farming techniques causing the severe and widespread erosion of nutrient-rich topsoil (which takes many hundreds of years to rejuvenate), but also the industrialised system is extremely fossil fuel dependent (see generally, Brown, 2011). Natural gas is needed to produce commercial fertilisers, and oil is needed to produce commercial pesticides, to fuel farm machinery, and to create the plastics used in packaging. Furthermore, there are extremely long supply chains that reach all around the world and which are dependent therefore on oil for transport. In Australia, for example, a basket of food from the supermarket typically travels 70,000 kilometres from producer to consumer, if the distance each item travels is aggregated (Salleh, 2007). With respect to the UK, one study has the figure at 241,000 kilometres (Sustain, 2001). This fossil fuel dependency is highly problematic not only due to its link to climate change, but also because it may not be economically sustainable as oil continues to get more expensive (Rubin, 2009; Alexander, 2014a).

In a degrowth economy, food production may need to be highly localised, organic, and based on permaculture (Holmgren, 2002) or ‘biointensive’ (Jeavons, 2012) principles, in order to decarbonise industrial methods. One of the most significant, but often overlooked, implications of the transition away from industrial food production is the increased human labour needed for organic food production. The increased labour requirements arise primarily from the reduced reliance on energy-intensive, mechanised farm machinery, but organic fertiliser production and pest control are also typically more time intensive than industrialised techniques. Organic food production is entirely capable of feeding the world (United Nations, 2013; Jeavons, 2012), but to do so will require a huge increase in the provision of agricultural labour. This transition, however, will have many benefits, including reconnecting communities with the local land base upon which they depend for subsistence, and the health benefits associated with moving away from sedentary office or factory work toward the more active and outdoor work of farming (Mansen et al, 2004; Tremblay et al, 2010). Governments should do everything they can to support localised, organic agriculture, starting by putting a price on carbon. If they do not, grassroots movements should localise food production as best they can without state support.

To begin with, a degrowth economy should aim to maximise organic food production *within* the urban boundary. This would involve digging up lawns and turning them into productive vegetable gardens, and planting fruit trees in all available spaces. Nature strips could be cultivated; parks could be turned into small farms or community gardens; suitable roofs could become productive, herbs could grow on balconies and windowsills, and generally all food producing potential would be realised. Suburban backyards could keep chickens for eggs, and perhaps even small livestock, such as goats for milk and cheese. Animals are also a great source of manure for compost, and many permaculturalists build animals into their organic systems (Holmgren, 2002). There is also great potential for building raised garden beds on driveways, some footpaths or roads, and redundant car parks. Mushrooms could be cultivated on the shady side of the house for protein and household or neighbourhood aquaculture systems could provide urban centres with some of their fish supply.

Even in a degrowth economy, however, we can expect our urban households to ‘import’ various foods in various forms, if not always from around the world, then certainly from rural or peri-urban contexts. This, in fact, would be an absolute necessity in dense urban contexts, because growing space simply does not permit anywhere near strict self-sufficiency (see McCrae et al, 2010). Even inspiring examples of urban agriculture, like Havana, in Cuba (see Friedrichs, 2013; Percy et al, 2010), still require the importation of food – not only portions of its fruit and vegetables, but also its meat, minerals, and other foodstuffs, such as salt.

The mainly local and organic food production would also drastically change our consumption habits. Food would be eaten ‘in season’ in order to avoid having to import non-seasonal foods from the other side of the world. Preserving foods would be the most appropriate way to access those foods out of season. Generally, food would be unprocessed and require no disposable packaging. A robust carbon tax would significantly increase the relative price of meat (especially red meat) and consequently relative demand would significantly reduce, which is a *necessary* part of low-carbon living. This transition to low- or no-meat diets would open up huge tracts of land for human food production or ‘rewilding’ (Monbiot, 2013) that are currently used to produce grain for animals.

A degrowth economy would also vigilantly compost all its organic food wastes in order to supply the growing need for organic fertilisers, reducing the amount of so-called ‘waste’ currently sent to landfill.

2.3 *Clothing*

The primary function of clothing is to keep us warm, and its secondary function, at least in most societies today, is to cover nakedness. In consumer-orientated societies, however, clothing’s purpose has evolved to become primarily about expressing one’s identity or social status. In a degrowth economy, by way of contrast, the fashion industry may be considered a superfluous luxury and accordingly it could be amongst the first industries to disappear. Of course, people will always want to express themselves through what they wear, so ‘style’ would not disappear so much as evolve (see Reich, 1970). A new aesthetic of sufficiency could develop, and soon enough the social expectation to look fashionable would become a quirk of history, incomprehensible to the new generation.

In a degrowth economy, we could salvage, swap, and reuse clothing diligently, as well as get very good at sewing and mending. For the next few decades we could do this adequately by simply reusing and recycling the (over)abundance of clothing already in existence. In the future, when new clothing is eventually needed, the primary aims of production would be functionality and sustainability, not profit-maximisation strategies playing on the pernicious desire for ever-changing styles. Fabrics like nylon and polyester would be minimised as they are made from petrochemicals and are non-biodegradable. Functional, low-impact fabrics would be used instead, such as agricultural hemp, organic wool, and organic cotton.

2.4 *Housing*

The issue of housing is particularly difficult and complex. Sometimes well-meaning environmentalists give the impression that we can move directly, in the next few decades, to an agrarian village scenario where everyone is living in self-built cob houses. The fact is, however, that over the next few critical decades, most people are going to find themselves living in an urban environment that already exists – suburbia. In other words, the houses and apartment blocks that already exist now, in most cases, will remain over coming decades, no matter how inadequate they are from an ecological perspective.

Given this reality, the immediate task is making best use of existing infrastructure. David Holmgren (2012) calls this ‘retrofitting the suburbs for the energy descent future’. This might involve things like taking in boarders, co-housing, or putting a caravan in the driveway to help resist further urban sprawl, or putting up curtains and sealing gaps in windows and doors to increase energy efficiency. Of course, much of the existing housing stock is poorly designed so there are real limits to what retrofitting can achieve. But much can be done, no doubt, to improve the ecological performance of existing housing (see, e.g., Mobbs, 2010).

In the long term, more people and communities would take part in the construction of their own homes to reduce costs. To limit the resources required, as well as limit the spaces needed to heat and cool, houses would be much smaller and more densely inhabited than is typically the case today. But they would be sufficient. Degrowth is about knowing how much is ‘enough’.

2.5 *Energy*

In terms of energy use, the contrast between a growth economy and a degrowth economy could hardly be starker. Whereas growth-based industrial economies seek as much energy as possible at the lowest market price (see generally, Moriarty and Honnery, 2011), a degrowth economy would require only enough energy to provide a modest but sufficient material standard of living for all (Alexander, 2012c). This means much lower energy requirements than is common in the developed world, supplied primarily through renewable sources, although the exact levels cannot be known with any precision and are likely to be context-dependent (see Heinberg, 2011). Renewable energy sources should not be relied on to sustain an energy-intensive, growth orientated society (Honnery and Moriarty, 2012; Trainer, 2013a; Trainer, 2013b), and even if they could, we should not want this (Smith and Positano, 2010). A society based primarily on renewable energy is a low-to-moderate energy society.

These reductions in energy would inevitably imply significantly reduced production and consumption (Ayres and Warr, 2009; Hall and Klitgaard, 2010; Murphy and Hall, 2011; Murphy, 2014) – that is, would imply degrowth. This would not necessarily be a problem, however, because as has already been made clear, consumption levels in a degrowth economy would be considerably lower than in consumer societies today, thus requiring much less energy to support them (see Odum and Odum, 2001). As well as economic contraction, efficiency improvements and conservation efforts would also lessen the energy requirements of a degrowth economy. That said, ‘efficiency’ measures would have to be subordinate to a more fundamental ethics of ‘sufficiency’, in order to avoid the ‘rebound effect’ (Princen, 2005; Polimeni et al, 2009; Alexander, 2014b).

2.6 *Transport*

In a degrowth economy major reductions in transport energy may need to be achieved through the relocalisation of economies (De Young and Princen, 2012). As many parts of the global economy get suffocated from expensive oil, or reshaped through carbon taxes (Alexander, 2014a), local producers may regain the competitive advantage (Rubin, 2009). Many things once imported from all around the world will now be able to be produced more economically at the local level, although presumably some global trade will remain, only far less of it (Trainer, 2010).

Energy savings achieved through relocalisation especially applies to food production. As already noted, industrial food systems are highly dependent on oil not only for transport, but also for things like pesticides and plastic packaging. When the costs of oil increase, and if a robust carbon tax is introduced, these methods may no longer be affordable or economic. The consequence will be more localised, organic food production, and therefore vastly reduced energy requirements for transport and production. Some of the imported food for cities could be transported from farms lying on the periphery of urban contexts, using electric trains.

The other area of major energy savings in the transport sector, as implied above, relates to driving cars. In order to decarbonise the economy, people will need to drive much less, or not at all (Moriarty and Honnery, 2008). Electric cars will not be able to escape this imperative, because producing them depends on fossil fuels, and also for most people electric cars remain unaffordable. Just as importantly, it would take several decades to replace the one billion petroleum-powered vehicles on the roads today with electric vehicles, and we do not have that much time to mitigate the effects of peak oil and climate change (Anderson and Bows, 2011; Alexander, 2014a).

The only solution is driving less. Various Australian studies have reported that the median distance travelled in a car is less than 5 kilometres (Department of Transport, 2009: 4), and around one third are less than 3km (BTRE, 2002: 43). In many cases those relatively short trips could be replaced with walking, cycling, or public transport. In order to make these options viable governments may need to invest heavily in a good system of electricity-powered public transport, such as light trains or trams, as well as networks of safe bike lanes.[[1]](#footnote-1) Putting a price on carbon will also provide appropriate economic incentives to reduce car dependence. When necessary, carpooling should be practised.

In the longer term, however, the most significant reductions in car dependence will result from economic relocalisation. If this transformation were to occur, driving would be unnecessary for many people, as their place of work would be either at home or reachable on a bicycle. Longer distances would generally be covered by public transport.

2.7 *Work and Production*

In a degrowth economy, the most significant changes to work and production, noted immediately above, is that the household would once again become a place of production, not merely a place of consumption. Rather than hiring other people to grow our food, cook our meals, make our clothes, build our furniture, look after our children, maintain our houses, etc., we would generally take care of such things ourselves, so far as it were possible (Astyk, 2012). Furthermore, households would sometimes produce goods for trade or barter, such as furniture, crockery, clothes, or food, and thereby contribute to the broader local economy. Artisans might also produce speciality goods at the household level, such as musical instruments, paintings, or various tools.

Nevertheless, a degrowth economy should not be understood to mean strict self-sufficiency at the household level. It would still be desirable for much production to take place beyond the household, but the nature of what would be produced and the values motivating production would need to be very different. The provision of basic needs – such as food, clothing, shelter, tools, and medicine – would be the primary focus of production, and the motivation would be to produce what was necessary and sufficient for a good life, rather than to produce luxuries or superfluous abundance. While some large factories would no doubt remain in order to provide certain materials or hi-tech equipment, small private businesses and worker cooperatives would in most cases replace the mega-corporation, with the local grocer and hardware store returning to Mainstreet, and community owned-and-operated farms providing much of the community’s sustenance (Hopkins, 2008; Hopkins, 2013).

The greatly reduced level of production and consumption in a degrowth economy would allow for reduced working hours for most people, at least in the formal/cash economy. This would create far more time for leisure and the necessary home production.

2.8 *Money, Markets, and Exchange*

The question of what role money, markets, and exchange would play in a degrowth economy is also complex, and cannot be fully addressed here. Nevertheless, some broad comments can be made on these subjects.

First of all, it is worth noting that throughout history, human beings have exchanged goods and services with each other, either by way of barter, gift, or through the use of money. These practices are going to continue although the nature of money, markets, and exchange will have to evolve greatly, as will our attitudes toward them. It is likely that there will still need to be ‘markets’ for various goods that cannot be produced within the household, and money will likely remain as the most convenient tool for ‘keeping accounts’, so to speak. But non-monetary forms of exchange, such as gift and barter, are likely to become much more prominent modes of economic activity (Nelson and Timmerman, 2011). Since profit-maximisation would not be the aim of market activity in a degrowth economy, less attention would be given to producing things that fetch the highest price, and more attention would be given to producing what the community most needs.

The fact that markets of some variety would probably still remain in a degrowth economy implies that some forms of private property are likely to endure, although it is just as likely, and desirable, that more of the economy comes under local democratic control (Trainer, 2010). Although the balance between private and social control of the economy could unfold in an infinite variety of ways (Alexander, 2011) – a decision that will rightly be left to each democratic community – a degrowth economy must be designed so that everyone has enough, and this means taking eco-socialist (Sarkar, 1999) responsibility for ensuring that the basic needs of all are universally met. This will require a significant degree of social democratic control of the economy, as basic needs would not be adequately met if resource allocation were left to market forces. The most important issue would be that everyone had access to land and affordable housing, and communities might have to experiment with how best to ensure this occurred.

With respect to existing monetary systems, one of the greatest problems is that money is currently loaned into existence as debt that accrues interest, and for such systems to function they require economic growth in order for the debts *plus* the interest to be paid back (Sorrell, 2010). Interest payments imply an expansion of the money supply. A degrowth economy could not by definition have a monetary system that required growth, so it follows that interest-bearing loans could not be the primary means of money creation in such an economy (Trainer, 2011). But what should replace this debt-based system – and how the transition beyond such a system would play out – are open questions that have not received the attention they deserve (but see, Douthwaite, 2012; Kallis, Kerschner, and Martinez-Alier, 2012).

2.9 *Technology*

In a degrowth economy, many technological conveniences we know today may largely disappear. Microwaves, vacuum cleaners, dishwashers, electronic kitchen gadgets, etc., may all become relics of history, but without causing much hardship at all. We survived without them not so long ago. But degrowth is not ‘anti-technology’. Rather, it is a position that advocates a critical consideration of ‘appropriate technology’ (Schumacher, 1989 [1973]; Latouche, 2014).

We should also remember, however, that a degrowth economy will likely emerge only in the wake of industrial civilisation’s deterioration. This will mean that vast quantities of industrially produced goods, tools, and materials will already be in existence, and for many decades, perhaps centuries, we would be living in what some have called the ‘salvage economy’ (Greer, 2009). Human beings will doubtless prove to be exceedingly creative in the use and reuse of existing materials and technologies. The old ethics of the depression era may return, as people learn to ‘use it up, wear it out, make it do, or do without’.

The clothesline could replace the clothes dryer; the bike will largely replace the car; and the television might essentially disappear, because we will have so many more important things to be doing. I suspect that washing machines and fridges will be the last things we give up, but life would go on even if they became unavailable or unaffordable. Hopefully computers will remain to do some important tasks – sharing important information and facilitating social organisation – although private computers might become much less common.

There are countless other avenues that this analysis could explore: what would become of existing health and education systems, or pension schemes? How would people spend their leisure? How would a degrowth economy differ in urban centres as opposed to rural settings? And how would degrowth in the global North affect the global South? These are all issues that deserve further attention, but they go beyond the scope of the present analysis.

**3. CONCLUSION**

It will have become clear that the degrowth economy, as I have envisioned it, implies a fundamentally different way of life for most people in consumer societies today. While this way of life may seem ‘austere’ in material terms compared to the high-consumption lifestyles widely celebrated in consumer cultures today, the aim has been to describe a standard of living that is low but nevertheless *sufficient* to live a rich and fulfilling life (Trainer, 2012; Alexander, 2015). In accordance with the ethics of voluntary simplicity (Cafaro and Gambel, 2009; Alexander, 2009), the essential living strategy would involve aiming to meet basic material needs in low-impact ways, then redirecting energy and attention away from limitless materialistic pursuits, in favour of seeking the ‘good life’ in various non-materialistic sources of satisfaction and meaning. This is the austerity of degrowth explored in this paper.

This raises the question of how we could transition to such an economy – a question that is obviously of the highest importance (see Alexander and Rutherford, 2014). Could the transition be voted in through the parliamentary mechanisms of representative democracy? Would it require a political revolution and the introduction of some form of eco-socialism? Or would it require grassroots movements to essentially do it mostly themselves, building the new economy underneath the existing economy, without state assistance (and perhaps with a lot of resistance)? My own view is that it would be unwise, at this stage, to commit unconditionally to any one strategy given that the future is so uncertain. Different contexts may also call for differing strategies for change.

I do think, however, that the Transition Towns Movement, while not homogenous in its approach, currently has something of the right strategic balance here (Hopkins, 2008; Hopkins, 2013). Adopting what can be called ‘participatory democracy’, the movement basically accepts that change must be driven at the grassroots, community level, while at the same time being prepared to press on governments (mainly local governments) to assist in the transition whenever that seems to be a good use of limited energies.

Furthermore, if the Transition Movement were ever to succeed in achieving its ambitious and diverse goals, I believe something resembling a degrowth economy may well be the result. What is important, I think, is that the debate gets drawn away from the question of how to *maintain* the existing system, toward the urgent and necessary question of what system should *replace* the existing system. In this sense the humble notion of degrowth can be seen as the revolutionary, but also necessary, proposal that it is.

Degrowth is about moving toward a society of frugal abundance, a society that is not degraded by capitalist austerity in times of crisis, but enriched by an austerity of degrowth based on an ethics of voluntary simplicity. Admittedly, this analysis may have raised as many questions as it has answered, but it is hoped that the exercise of envisioning a degrowth economy at the socio-economic levels helps advance the debate around this necessary movement for deep and rapid societal change.

**References**

Alexander, S. (ed.) 2009. *Voluntary simplicity: The poetic alternative to consumer culture*. Whanganui: Stead and Daughters.

Alexander, S. 2011. Property beyond growth: Toward a politics of voluntary simplicity. Doctoral thesis, Melbourne Law School. Available at:

<http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1941069> (accessed 10 September, 2013).

Alexander, S. 2012a. The optimal material threshold: Toward an economics of sufficiency. *Real-World Economics Review* 61: 2-21.

Alexander, S. 2012b. Planned economic contraction: The emerging case for degrowth. *Environmental Politics* 21 (3): 349-368.

Alexander, S. 2012c. Degrowth, expensive oil, and the new economics of energy. *Real-World Economics Review* 61: 40-51.

Alexander, S. 2013. Voluntary simplicity and the social reconstruction of law: Degrowth from the grassroots up. *Environmental Values* 22 (2): 287-308.

Alexander, S. 2014a. The new economics of oil. *MSSI Issues Paper* (No. 2, March 2014) 1-15.

Alexander, S. 2014b. A critique of techno-optimism: Efficiency without sufficiency is lost. *MSSI Working Paper* (WP 1/14): 1-21.

Alexander, S. 2015. *Prosperous descent: Crisis as opportunity in an age of limits*. Simplicity Institute Publishing: Melbourne.

Alexander, S., and McLeod, A. 2014. *Simple living in history: Pioneers of the deep future*. Simplicity Institute Publishing: Melbourne.

Alexander, S. and Rutherford, J. 2014. The deep green alternative: Debating strategies of transition. *Simplicity Institute Report 14a*: 1-24.

Anderson, K. and Bows, A. 2011. Beyond ‘dangerous’ climate change: Emissions scenarios for a new world. *Philosophical Transitions of the Royal Society* 369: 3863-3882.

Astyk, S. 2012. *Making home: Adapting our homes and our lives to settle in place.* New Society Publishers: Gabriola Island.

Australian Bureau of Statistics. 2014. Water Account, Australia, 2009-10. Available at: [http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/CAE301277A675941CA257956000E646E?opendocument](http://www.abs.gov.au/ausstats/abs%40.nsf/Lookup/CAE301277A675941CA257956000E646E?opendocument) (accessed 2 November 2014).

Ayres, R. and Warr, B. 2009. *The economic growth engine: How energy and work drive material prosperity*. Cheltenham, UK: Edward Elgar.

Bauman, Z. and Bordoni, C. 2014. *State of Crisis*. Cambridge: Polity Press.

Brown, L. 2011. *World on the edge: How to prevent environmental and economic collapse*. W. W. Norton and Co., New York.

BTRE (Bureau of Transport and Regional Economics), 2002.Greenhouse policy options for transport. Available at:

 <http://www.bitre.gov.au/publications/2002/files/report_105.pdf> (accessed 2 November 2014).

Burch, M. 2013. *The hidden door: Mindful sufficiency as an alternative to extinction*. Melbourne: Simplicity Institute Publishing.

Cafaro, P. and Gambrel, J. 2009. The virtue of simplicity. *Journal of Agricultural and Environmental Ethics* 23 (1): 85.

De Gues, M. 1999. *Ecological utopias: Envisioning the sustainable society*. Utrecht: International Books.

Department of Transport, 2009. Victorian Integrated Survey of Travel and Activity 2007. Available at:

<http://www.transport.vic.gov.au/__data/assets/pdf_file/0014/31280/VISTA-07-Summary-Brochure.pdf> (accessed 2 November 2014).

De Young, R. and Princen, T. (eds) 2012. *The Localization Reader: Adapting to the Coming Downshift*. MIT Press, Cambridge.

Douthwaite, R. 2012. Degrowth and the supply of money in an energy-constrained world. *Ecological Economics* 84: 187-193.

Friedrichs, J. 2013. *The future is not what it used to be: Climate change and energy scarcity*. Cambridge, MA: MIT Press.

Gilding, P. 2011. *The great disruption: How the climate crisis will transform the global economy*. London: Bloomsbury.

Global Footprint Network, 2013, resources available at:

<http://www.footprintnetwork.org/en/index.php/GFN/page/annual_report/> (accessed 29 October 2013).

Greer, J.M. 2009. *The ecotechnic future: Envisioning a post-peak world.* Gabriola Island: New Society Publishers.

Hall, C. and Klitgaard, K. 2012. *Energy and the wealth of nations: Understanding the biophysical economy*. New York: Springer.

Hamilton, C. and Denniss, R., 2005, *Affluenza: When too much is never enough.* Crows Nest, NSW: Allen & Unwin.

Heinberg, R. 2011. *The end of growth: Adapting to our new economic reality.* Gabriola Island: New Society Publishers.

Hermann, C. 2014. Structural adjustment and neoliberal convergence in labour markets and welfare: The impact of the crisis and austerity measures on European economics and social models. *Competition and Change* 18 (2): 111-130.

Holmgren, D. 2002. *Permaculture: Principles and pathways beyond sustainability*. Hepburn: Holmgren Design Services.

Holmgren, D. 2012. Retrofitting the suburbs for the energy descent future. *Simplicity Institute Report* 12i: 1-8.

Homer-Dixon, T., 2006. *The upside of down: Catastrophe, creativity, and the renewal of civilisation*. Island Press, Washington.

Hopkins, R. 2008. *The transition handbook: From oil dependency to local resilience*. White River Junction, Vt: Chelsea Green Publishing.

Hopkins, R., 2013. *The power of just doing stuff*.Cambridge, UIT Cambridge, Green Books.

Ivanova, M. The Great Recession and the State of American Capitalism. *Science and Society* 77 (3): 294-314.

Jackson, T. 2009. *Prosperity without growth: Economics for a finite planet*. London: Earthscan.

Jeavons, J. 2012 (8th ed.). *How to grow more vegetables*. Berkeley: Ten Speed Press.

Jenkins, J. 2005 (3rd ed.). *The humanure handbook: A guide to composting human manure*. White River Junction, VT: Chelsea Green Publishing.

Kallis, G. 2011. In defence of degrowth. *Ecological Economics* 70: 873-80.

Kallis, G., Kerschner, C. and Martinez-Alier, J. 2012. The economics of degrowth. *Ecological Economics* 84: 172-180.

Kasser, T. *The high price of materialism*. Cambridge, MA: MIT Press.

Latouche, S. 2009. *Farewell to growth.* Cambridge, UK: Polity Press.

Latouche, S. 2014. Essays on frugal abundance (1 of 4) – Degrowth: misunderstandings and controversies. *Simplicity Institute Report 14c*: 1-22.

MacRae, R. et al. 2010. Could Toronto provide 10% of its fresh vegetable requirements from within its own boundaries? Matching consumption requirements with growing space. *Journal of Agriculture, Food Systems, and Community Development* 1 (2): 1-5-127.

Meadows, D., Randers, J. and Meadows, D., 2004. *Limits to growth: The 30-year update.* White River Junction, Vt:Chelsea Green Publishing.

Monbiot, G. 2013. *Feral: Searching for enchantment on the frontiers of rewilding*. London: Penguin.

Moriarty, P. and Honnery, D. 2008. Low-mobility: The future of transport. *Futures* 40: 865-872.

Moriarty, P. and Honnery, D. 2011. *The rise and fall of carbon the civilisation: Resolving global environmental and resource problems*. Springer-Verlag: London.

Moriarty, P. and Honnery, D. 2012. What is the global potential for renewable energy? *Renewable and Sustainable Energy Reviews* 16 (1): 244-252.

Murphy, D. 2014. The implications of the declining energy return on investment of oil production. *Philosophical Transactions of the Royal Society A*, 372, 20130126: 1-19.

Murphy, D., and Hall, C. (2011b). Energy return on investment, peak oil, and the end of economic growth. *Annals of the New York Academy of Sciences* 1219: 52-72.

Odum, E., and Odum, H. 2001. *A prosperous way down: Principles and policies*. Colorado, University Press of Colorado.

Percy, E. et al, 2010. Planning for Peak Oil: Learning from Cuba’s “Special Period” *Urban Design and Planning* 163(4): 169.

Pollin, R. 2013. Austerity economics and the struggle for the soul of US capitalism. *Social Research* 80 (3): 749-780.

Princen, T. 2005. *The logic of sufficiency*. Cambridge, MA: MIT Press.

Polimeni, J. et al. 2009. *The myth of resource efficiency: The Jevons paradox.* London: Earthscan.

Mansen, J., Skerrett, P., Greenland, P., and VanItallie, T. 2004. The escalating pandemics of obesity and sedentary lifestyle: A call to action for clinicians. *Archives of Internal Medicine* 164(3): 249-258.

Mobbs, M. 2010 (2nd ed.) *Sustainable house*. Sydney: UNSW Press.

Nelson, A. and Timmerman, F. 2011. *Life without money: Building fair and sustainable economies.* London: Pluto Press.

Reich, C. 1970. *The greening of America*. New York: Crown Trade Paperbacks.

Rubin, J., 2009. *Why your world is about to get a whole lot smaller*. London: Virgin.

Salleh, A. 2007. ‘Food Miles Can Mislead’ ABC Science, available at: <http://www.abc.net.au/science/articles/2007/11/28/2103395.htm> (accessed 10 January 2012).

Sarkar, S. 1999. *Eco-socialism or eco-capitalism: A critical analysis of humanity’s fundamental choices*. London: Zed books.

Schneider, F., Kallis, G. and Martinez-Alier, J. 2010. Crisis or opportunity? Economic degrowth for social equity and ecological sustainability. *J Clean Prod*. 18(6): 511-518.

Schor, J. 2010. *Plenitude: The new economics of true wealth.* New York: Penguin Press.

Schumacher, E. 1989 [1973]. *Small is beautiful: Economics as if people mattered*. New York: Harper Perennial.

Smith, J. and Positano, S. 2010. *The self-destructive affluence of the first world: The coming crises of global poverty and ecological collapse*. New York: Edwin Mellen.

Sorrell, S. 2010. 2 ‘Energy, economic growth, and environmental sustainability: Five propositions,’ *Sustainability* 2 (6): 1784-1809.

Sustain, 2001. ‘Eating oil – food in a changing climate’ *A Sustain / Elm Farm Research Centre Report*. Available at: <http://www.sustainweb.org/pdf/eatoil_sumary.PDF> (accessed 10 March, 2014).

Trainer, T. 2010. *The transition to sustainable and just world.* Envirobook: Sydney.

Trainer, T. 2011. ‘The radical implications of zero growth economy’ *Real-World Economics Review* 57: 71-82.

Trainer, T. 2012. Your delightful day: The benefits of life in The Simpler Way. *Simplicity Institute Report 13b*: 1-8.

Trainer, T. 2013a. Can Europe run on renewable energy? A negative case. *Energy Policy* 63: 845-850.

Trainer, T. 2013b. Can the world run on renewable energy. *Humanomics* 29 (2): 88-104.

Tremblay, M., Colley, R., Saunders, T., Healy, G, and Owen, N. 2010. Physiological and health implications of a sedentary lifestyle. *Appl. Physiol. Nutr. Metab.* 35: 725-740.

Turner, G. 2014. Is collapse imminent? An updated comparison of the *Limits to Growth* with historical data. *MSSI Research Paper* (No.4, August 2014) 1-21.

Tverberg, G. 2012. Oil supply limits and the continuing financial crisis. *Energy* 37 (1): 27-34.

United Nations, 2013. Wake up before it’s too late: Make agriculture truly sustainable now for food security in a changing climate. *Trade and Environment Review 2013*. Available at: <http://unctad.org/en/PublicationsLibrary/ditcted2012d3_en.pdf>

UNHCR, 2014. Water, Sanitation and Hygiene. Available at:

<http://www.unhcr.org/pages/49c3646cef.html> (accessed 2 November 2014).

Vale, R., and Vale, B. 2013. *Living within a fair share ecological footprint*. London: Earthscan.

Vanenbroeck, G. (ed.) 1991. *Less is more: An anthology of ancient and modern voices raised in praise of simplicity*. Vermont: Inner Traditions.

Wikipedia 2014.Water supply and sanitation in the United States. Available at: <http://en.wikipedia.org/wiki/Water_supply_and_sanitation_in_the_United_States> (accessed 2 November 2014).

Wilkinson, R., and Pickett, K. 2010. *The spirit level: Why greater equality makes societies stronger*. London: Penguin.

Wood, R., Lenzen, M., Dey, C. and Lundie, S. 2006. A comparative study of some environmental impacts of conventional and organic farming in Australia. *Agricultural Studies* 89 (2-3): 324-348.

World Health Organization, 2013. How much water is needed in emergencies? Available at: <http://www.who.int/water_sanitation_health/publications/2011/WHO_TN_09_How_much_water_is_needed.pdf?ua=1> (accessed 2 November 2014).

1. There are, however, deep structural complications underlying the requirement to stop driving so much, which should not be ignored. For many people today driving is the only way of getting to work, so the injunction to ‘get out of your car’ may frustrate those people who would love to drive less but cannot, due to a lack of viable alternatives. Suburbia was built on the basis of cheap oil, which meant that ‘sprawl’ was not seen as much of a problem. But now that oil is getting more expensive (Alexander, 2014b) and the climate crisis is intensifying (Anderson and Bows, 2011), the long commutes are becoming increasingly problematic, not only from a cost perspective, but also from an environmental perspective. [↑](#footnote-ref-1)