

HOUSING FOR DEGROWTH: A FICTION-BASED APPROACH

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ABSTRACT

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Constant economic expansion is harming both people and planet and ‘green growth’ tactics aimed at reducing the associated negative impacts of economic growth on the environment are failing. To see beyond our current pervasive system of growth, alternative narratives must become more well known. Fiction work that illuminates the issues we face now and transports the reader to an alternative way of being can spark ideas and create more change than academic writing alone. This thesis is a creative writing project at the intersection of Degrowth theory and housing. Using Fiction-based research, an Arts-based research methodology, I created the piece, ‘The Last Crash Centennial Commemoration’ to address my central research questions: How can issues of growth-based housing be explored through writing speculative fiction and what kind of window into a degrowth future could this writing create? In fiction-based research, the writing process is the inquiry and the goals of the work inform the design choices. My goals of inquiry were focused at the reader’s experience and were to; 1. Disrupt the dominant ideology of growth in their minds, 2. Unsettle stereotypes that degrowth=suffering, 3. Raise critical and political consciousness, and 4. Evoke resonance with the work. I created a frame for the piece from Anitra Nelson and Francois Schneider’s book, *Housing for Degrowth: Principles, Models, Challenges and Opportunities*, and used it to contextualize the exploration of these goals to inform my choices in structure, characterization, literary tools and in turn, my central research questions. This research and writing process revealed to me the endless possibilities for developing accessible hope through fictionalization.

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CHAPTER I
RESEARCH DESIGN

INTRODUCTION

“Suppose you own a pond on which a water lily is growing. The lily plant doubles in size each day. If the lily were allowed to grow unchecked, it would completely cover the pond in 30 days, choking off the other forms of life in the water. For a long time the lily plant seems small, and so you decide not to worry about cutting it back until it covers half the pond. On what day will that be? On the twenty-ninth day, of course. You have one day to save your pond” (Meadows, 1975).

Housing for Growth

Narratives of growth are present in almost every aspect of our lives. In Western societies, growth has become synonymous with ‘good,’ it is our imperative, it is our addiction. However, following this narrative is not serving us and our constant push for economic expansion is harming the planet. Furthermore, the state-approved solutions that have been proposed like increasing efficiency in energy production, establishing carbon markets, and attempting to separate economic growth from increased environmental harm through decoupling are just not working. The small amount of help these ‘green growth’ tactics can provide is like placing a tiny river rock under the tire of the bulldozer of planetary destruction.

The Intergovernmental Panel on Climate Change (IPCC) is the United Nation’s body for assessing the science of climate change. The 2018 report clarified that we have a very small window of opportunity to make drastic changes in how we operate our society if we wish to continue comfortable human life on our big blue pond. Unfortunately since the report’s release, little has changed. We will most likely look back at this report in years to come as the loudest

and most obvious alarm, screaming at us to jump into action. Yet, there is little concern from the public. It seems there is blind faith in the appearance of a technocratic savior or return of a theologic one.

The built environment is one of the most prominent forces of run-away consumption in our lives. In the United States, the built environment accounts for 39% of total energy use, 68% of total electricity consumption, 40% of landfill waste, 38% of carbon dioxide emissions, and 12% of total water consumption (GBA, 2018). When we look at our current narrative for growth, housing-related environmental impacts can be categorized by material consumption, energy consumption, and land-use associated impacts (Xue, 2014). Decoupling, the policy of trying to separate environmental harm from economic growth, is one of the more publicly accepted tactics to combat climate change. But despite some effort, decoupling is just not happening in the built environment sector. As emerging economies expand their infrastructure, the demand for structural materials continues to rise without decoupling. In many OECD countries, the extraction of construction materials has grown faster than GDP as investments in the building sector grew (OECD, 2019).

Not only does our current narrative for growth negatively impact the environment, but even with all this resource use, our community housing needs are still not being met. Here, in the ‘wealthiest nation in the world’, millions of people lack the basic right of shelter. The chasing of larger and larger profit margins and loan paybacks by a few has rendered even the simplest forms of shelter prohibitively expensive to the masses. In our current system, houses are built in order to turn a profit, but what happens when no one can afford to live in them? The capitalist necessity to accumulate wealth prohibits anything from being given for ‘free’ and as a consequence, in the United States alone, over 580,000 people are homeless while 16 million

houses sit vacant (United Way NCA, 2023).

There is so much excess and yet there is not enough for those who need it. So much excess and yet emptiness spreads through our communities. "The underbelly of the growth narrative is, perversely, insufficiency of housing for all, serious environmental impacts from housing developments and a political dynamic binding householders to growth capitalism" (Nelson, 2019, p.5).

Insufficient housing is not the only social blight of our current housing for growth system. In our current system, corporate entities and those who control the means of production can make a much larger profit by convincing consumers to purchase things for themselves instead of sharing. Thus we have been bombarded with advertising campaigns that foster individualism and strap consumers to lifelong debt. The mortgage industry is one of the biggest perpetrators, selling people houses they cannot afford by promising them as-seen-on-tv lifestyles. In return, private homeowners get a nice garage they can drive straight into, seal themselves off in, and enter their house without ever going outside and seeing neighbors — thus furthering their sense of individualism and separation from community.

Separated and looking inward on our individual lives, we struggle to find ways to tackle large issues like climate change and inequality. We must connect and nurture strong communities to rise up and create resounding change together. We must shift the mindset from life centered on *product* to life centered on *process*. The home is just one node where this transition can begin to take place.

Housing for Degrowth

Degrowth is a theory and practice that is gaining support as an 'equitable downscaling of

production and consumption that increases human well-being and enhances ecological conditions at the local and global levels' (Schneider et al. 2010, p.512). In a degrowth economy, we would refrain from pursuing all that could be pursued, essentially contracting our economy on purpose and establishing it at a steady-state before it collapses in on itself in a massively devastating way (Kallis, 2015). Degrowth is a recognition that we live on a finite planet that cannot support infinite growth. It is centered around sharing, simplicity, conviviality, care, and the commons, and proposes new forms of living and producing that promote self-sufficiency such as eco-communities and cooperatives. "The point is not to refrain from consuming more and more, but to consume less and less – there is no other way of conserving the available reserves for future generations. This is what ecological realism is about" (Gorz, 1980[1977], p.13). In return, we gain meaningful interactions and experiences through our new community-centered way of life while extending our survival on this planet.

This critical theme of adopting new consumption patterns is commonly represented by degrowth theorists through the metaphor of the elephant (growth system) and the snail (degrowth system). The aim of degrowth is not to make the elephant smaller (we don't just want less of the same), it is to transform the elephant into the snail. Degrowth narratives are not just the opposite of growth narratives, they turn growth narratives on their heads, offering an 'altogether different way of approaching the satisfaction of our needs' (Nelson, 2019, p.10).

There is a spectrum of thought currently developing around what housing in degrowth may look like. Some say we may demand to refuse to build at all, while others think we will need to explore 'modest and thoughtful' design processes (Wells, 2018). One policy that degrowth theorist Giorgos Kallis proposes is to optimize the use of our buildings. This can be achieved by halting new construction, facilitating the full occupation of buildings, and

rehabilitating existing structures; or as David Holumgren puts it, ‘retrofitting the suburbs.’ These would all be ways to reduce consumption (Alexander, 2017). Degrowth theorist Francois Schneider argues that housing for degrowth will rely on, “ reducing the total urban area; simplifying and redistributing access to housing; halting industrial urbanization; deurbanizing and renaturalizing areas; renovating dwellings to improve living conditions; sharing dwellings more; and developing low-level, low-impact, small-scale, decentralized, housing settlements" (Schneider, 2019, p.14).

The substantial halt in resource-use and cash-flow these changes would initiate are symptoms of a system that is very different from the one we see today. How can we approach change like this in such a deep-seated narrative of growth and profit? The general lack of storylines that follow a degrowth narrative in our current growth paradigm impedes the possibility of alternative futures (Berg and Hukkinen 2011, Schneider 2019). We have to believe that this change is possible and author our own stories of what it might look like in order to uplift ideas to collectively share and strive for.

We as members of Western society need an attitude adjustment when it comes to what we expect in housing. This adjustment in expectations might come naturally as more alternative narratives develop, but would most likely be slow. Grassroots actions and movements have the potential to push through the change we need in a shorter time frame. This could come in the form of lobbying to reduce or ban advertising for cheap mortgages and luxury houses, viewing houses in terms of their use-value instead of their exchange value, and providing education about the true repayment cost of loans over the whole life of the loan, turning housing ‘dreams’ into nightmares (Nelson & Schneider, 2019).

These actions are about shifting the imaginary so that a large house with a swimming

pool is no longer a desired status symbol. Instead of continuing to struggle to ‘keep up with the Joneses’, there would be satisfaction in the sufficiency of our housing (Nelson & Schneider, 2019). The design of our housing system has remained the same for so long; when does the mold begin to crack? What might it look like when we stop viewing our home as a product?

Despite housing for degrowth being a newer topic of consideration, there are people working to imagine these possible alternative narratives as we speak. Across the ocean in Oslo, Norway, the first conference on the ‘Architecture of Degrowth’ was held. In Australia, a landmark book, ‘Housing for Degrowth’, with contributions from more than twenty authors, was published. People everywhere are stirring to the idea of degrowth. How are these designers and thinkers reimagining home in a degrowth economy? How are they evading the relentlessly persuasive ideology of growth in order to think and share new possibilities? How can we too participate in this work of decolonizing our imaginaries for the sake of our futures? Phineas Harper, a curator for the 2019 Oslo Architecture Triennale says, “fundamentally, degrowth is coming sooner or later. The challenge we’re putting to designers is: let’s get there by design rather than just inevitably collapsing into it” (Stott, 2018).

Exploring Alternative Narratives through Fiction-Based Research

Western society is in need of alternative narratives to growth, ones that can produce visceral, emotional responses that weaken the fissures of the growth narrative; thus providing the opportunity for socially and environmentally responsible futures to emerge. While alternative narratives are developing in degrowth scholarship and in some of the more communal societies of the Global South, narratives that are available, and more importantly, accessible, to those who really need to degrow, namely the West, are all but missing. It is for this reason that I have

decided to explore alternative narratives for housing in degrowth in a way that moves beyond the analytical and often inaccessible surface of academic writing; a way with the potential to disrupt standard Western patterns of thinking and spark interest in new possibilities.

Through a method of fictionalization, I will craft a narrative of future history that winds through the ‘old’ issues of growth-based housing and presents windows into a future degrowth ‘present’. By existing in a medium that is engaged and engaging, reaches a wide audience, and allows for a natural suspension of disbelief, fiction as a research practice has never ending possibilities (Leavy, 2013). Patricia Leavy, a sociologist and leading scholar of fiction-based research writes, “The practice of writing and reading fiction allows us to access imaginary or possible worlds, to reexamine the worlds we live in, and to enter into the psychological processes that motivate people and the social worlds that shape them” (Leavy, 2013, p.20).

By crafting this alternative narrative through a medium that is traditionally viewed as outside of academic research, my hope is to help my readers confront the dominant ideology of growth and use their imaginations as vehicles to transport them to the very possible, though radically different, degrowth futures that are available to them.

PERSONAL MOTIVATION

Since the day my Dad sat me down in front of Al Gore’s *An Inconvenient Truth* in the sixth grade, I’ve held a panic in my heart for the state of our planet in the midst of climate breakdown. My dissatisfaction with the inaction of the general public, along with the tiny, seemingly insignificant changes that are pushed to “save the world” (hello straw ban), have motivated me to pursue work with the Sustainable Communities department at Northern Arizona University.

Through my studies, I learned about degrowth and was at first very resistant to it, I wrote it off as hopelessly idealistic. Conceptualizing a total system transformation as a 23-year-old who had only existed within a neoliberal capitalist system was challenging. As time passed and readings and discussions compounded, I came to realize that degrowth is one of the only proposed solutions I've become familiar with that really gets down to the roots of our issues: growth. This was the movement I had been looking for all along, I just did not expect it would be so subversive and all-encompassing. Through this work, I will add to the small but burgeoning collection of alternative narratives for degrowth and attempt to provoke and inspire my readers to think differently about housing and growth.

This work is an attempt to meld two of my passionate interests, truly sustainable housing and creative arts, into one. I am heading down the academic path of sustainable housing and I've always loved creative work and am motivated to make it a bigger part of my life. One of my side-gig goals has always been to collaborate with scientists and activists to create and show works in support of their research or movements. Marrying creative work and sustainable housing in my thesis feels like a recognition that this work is valid and does not just have to be a 'side-gig'. It's the representative action for personal acceptance of the path I want to follow; a new integration in my present that will hopefully one day become regular.

I chose to zero-in on housing in this work because it is an aspect of life that almost everyone can relate to, but also because of my personal interest in sustainable housing. I worked for the Coconino County Sustainable Building Program (CCSBP) and even though it can be rewarding to be doing 'sustainable' work, we are hard-pressed to observe the type of scaled progress really needed. I see a lot of projects that by many standards seem to be a step in the right direction, but with lax regulations allowing for large quantities of materials, energy use, and

waste in the creation of these ‘sustainable homes’, I have to be realistic that these currently existing model for building will not be able to facilitate the changes we need.

Furthermore, my interest in the field expands beyond the CCSBP, as I am interested in pursuing a career in sustainable design and architecture in the future. I intend to pursue architecture as a career. I was fortunate to acquire some architectural experience through two semester-long classes, as well as a summer intensive at UC Berkeley. Unlike what I have previously imagined, it has become apparent to me that sustainability is not at the forefront of many people’s minds in the field of architecture. While there are certainly some amazing practitioners and innovators in the world of sustainable building and architecture, the current projection of the field is still completely inundated in growth. I find myself wondering how an architectural practice centered on radical ecology and social justice would function, one that does not answer to the capitalist system of accumulation, profit maximization and an inundation of unnecessary waste. Thus, it was my motivation to explore how this major aspect of our lives, housing, could be transformed through a degrowth lens. My hope is that through doing this work I will provide myself with a strong sense of what truly sustainable, post-growth architecture might look like. Consequently, I can use this knowledge as a sort of moral compass to navigate the sometimes wasteful and avant-garde environment of architecture school and practice.

I found myself searching for a methodology like fiction-based research for a few reasons. The first being logistical, in that my previous thesis plans involving extensive traveling and in-person communications, were no longer possible in the world of Covid-19. For the sake of time, my sanity, and the avoidance of any additional major roadblocks, I wanted a research process I could carry-out with minimum reliance on, or coordination with, potential participants. I have also struggled with the idea of how generally little impact theses seem to have. Besides

acting as a good in-depth experience with a research process and fulfilling the requirements for a degree, most theses seem to have little impact outside of the researcher themselves, their committee, and a handful of close friends and colleagues. As I searched for a new methodology, I delved deeper into the world of arts-based research and discovered that the evolution of fiction-based research offered a perfect vehicle to explore my work in a creative and accessible way that allows me to reach a much broader audience while at the same time remain as physically isolated as necessary in this pandemic.

RESEARCH QUESTIONS AND GOALS OF INQUIRY

Through this work, I intend to use the future history genre to explore the ‘old’ issues of growth-based housing and present a window into a future degrowth ‘present’. I am interested in laying bare the inadequacies of the growth narrative, allowing the reader to recognize it like a fish discovering water, then, using a curricular narrative for housing in degrowth as a baseline, create an alternative narrative experience for the reader of what housing in degrowth may be like. My central research question is ‘How can issues of growth-based housing be explored through writing speculative fiction and what kind of window into a degrowth future could this writing create?’

The fictional narrative itself will be guided by the questions, ‘What would the experience of a social narrative in a degrowth-based housing future be like?’ and, ‘How would a future historian in that narrative look back on our current growth-based housing narrative?’ I will utilize Anitra Nelson and Francois Schneider’s seminal work on housing for degrowth as a way to focus these questions and build off of current work in the field. Schneider’s work introduces a six-part circular narrative of housing for degrowth that feeds back on itself, conceivably transforming

towards sustainability through time. The pieces of this cycle are: the right to housing, housing sufficiency, reducing housing demand, reducing urbanization, reducing ecological impacts, and de-monetization of the home (Nelson & Schneider, 2019, p.14-29). Nelson examines the growth-based housing narrative and summarizes three overarching issues; 1. The growth narrative is born from and maintained by pressure for social status, driving individuality and dissatisfaction, 2. The ecological destruction perpetuated by this narrative can in no way continue long-term without impending disaster, and 3. The indebtedness created by this narrative entraps people in a vicious cycle that reduces their agency while perpetuating growth (Nelson & Schneider, 2019, p.1-13).

In fiction-based research, the writing process is the inquiry and the goals of the work inform the design choices (Leavy, 2013). My goals of inquiry are focused at the reader's experience and are to; 1. Disrupt the dominant ideology of growth in their minds, 2. Unsettle stereotypes that degrowth=suffering, 3. Raise critical and political consciousness, and 4. Evoke resonance with the work. I will create a frame from Nelson and Schneider's work and use it to contextualize the exploration of these goals in order to inform my choices in structure, characterization, and literary tools and in turn answer my central research question.

PURPOSE AND SIGNIFICANCE

I've chosen to focus specifically on how housing relates to degrowth for a few reasons. First, this is such a large sector of our Western economy that heavily affects our lives and resource use, and so a targeted transformation of consciousness here could have an insurmountable impact. The domain of housing is also grounded; it is something that the average person in Western society can relate very easily to on a personal level, and so imagining

transformations should not be as difficult as something more abstract per se.

Next, the literature on housing in a degrowth economy is slowly developing; however, it is still slim in quantity and needs to be expanded on. Though there are some ideas around what housing in degrowth may look like, there is a large gap in the narrative, especially in what is readily available in mainstream discourse. To see beyond our current pervasive system of growth, these alternative narratives must become more well known. Fiction work that illuminates the issues we face now and transports the reader to an alternative way of being and interacting with housing can create change and spark more ideas than academic writing alone. The first architecture conference to examine the theme of degrowth, the Oslo Architecture Triennale, was held in Norway in the Fall of 2019. As part of the program, a collection of short fictional stories were published, written by architects, many of whom had only heard of degrowth when the conference theme was announced. The stories are very interesting examples of these professionals picking up, examining, and playing with a few degrowth ideas in relation to their own work and worldviews. I would love to see this kind of experimentation and accessibility from degrowth scholars and hope that this work might highlight the potential fiction-based research can bring to the field. The overall goal of fiction-based research is to create a work that is both ‘aesthetically good and good *for* something’ (Leavy, 2013, p.54).

In general, the purpose of this work is to introduce more people to degrowth theory and alternative housing models and policy. My broad audience is anyone who feels concerned about the climate crisis and is looking for ideas to address it. More specifically my aim is at Western architects, planners, policymakers; those involved in our current housing narrative who may have the ability to think differently about their work. If we are going to attempt to make the kind of rapid, far-reaching, and unprecedented changes that the IPCC calls for, we need to popularize

radically new alternatives. Leavy writes, “The ability of fiction to create empathetic engagement, self-awareness, and social awareness, is intimately linked to other strengths; the capacity to disrupt dominant ideologies or stereotypes, build critical consciousness, and raise social or political awareness” (Leavy, 2013, p.50). Using these strengths to bring awareness to the harm of the growth narrative and to present an alternative is how this work strives towards the SUS goal of fostering ‘good and sustainable communities’.

A final purpose is to share how exciting the possibilities of degrowth are. Degrowth, as I will get into further in my theoretical frame, is a deliberately subversive slogan. Often when people hear the term ‘degrowth’ they associate it with a sense of lacking, simply because our language has trained us to make this association with the prefix ‘de’. This work is an opportunity to show that just because a degrowth economy wouldn’t chase economic growth, that doesn’t mean that our need for innovation and experimental ideas will fade. In fact, the parameters of degrowth have the potential to create some of the most exciting challenges for designers and thinkers to solve. This work can show that degrowth can improve our lives without creating a lack of any necessities.

THEORETICAL FRAME

Why is a System Overhaul like Degrowth Needed?

Growth is not just how our system runs, it is the imperative we’ve created for ourselves, it is our addiction (Jackson, 2009). With growth as our societal mantra, it is no surprise that our initial answer to this call to climate action has been to propose ‘green growth’ solutions. The four of these ‘solutions’ that have been widely accepted are better, more efficient technology, the integration of Carbon markets in our financial system, the decoupling of GDP from

environmental impacts, and a transition to renewable energy. Unfortunately, none of these will create the drastic changes we need to see to avoid collapse. Here I look a little closer at why these ‘solutions’ don’t get at the root of the issue and therefore necessitate a more in-depth system overhaul like degrowth.

Better technology that increases efficiency is pushed on a large scale as a way we can decrease consumption, but ironically, it does the exact opposite. More than 100 years ago, Jevons wrote, “It is wholly a confusion of ideas to suppose that the economical use of fuel is equivalent to a diminished consumption. The very contrary is the truth.” Economists now refer to this principle as the Jevons Paradox (Holladay, 2009). An easy example of the paradox may be that savings from efficiency improvements in appliances mean a family can now afford an even larger refrigerator. Similarly, the savings may allow them to travel more, resulting in higher levels of consumption. This phenomenon of efficiency gains being reinvested in more material goods is known as rebound consumption (D’Alisa et al, 2015). Thinking about this in terms of household appliances is a manageable way to conceptualize the issue, but it holds true across large scales of consumption. Jevons first realized his theory when looking at efficiency and use of coal in engines in London (D’Alisa et al, 2015).

The idea of carbon markets is to establish a cap-and-trade on GHG emissions. Only a certain amount of pollution is permitted each year, companies purchase the right to pollute, and over time the cap decreases. Despite carbon markets having been established in the 1997 Kyoto Protocol, so far no measurable reductions in GHG emissions can be attributed to them (Bohm, 2013). One reason for this is that industry lobbying has made carbon credits so cheap that low-carbon technologies are not incentivized; however, if carbon prices suddenly increased, these markets would still struggle to create real change. First world countries offset their carbon

pollution in developing countries, corruption is hard to keep track of and unsustainable practices are fueled by monetary incentives. For example, companies who generate renewables are able to sell their carbon credits to others who buy and use them to increase their pollution levels. AT Biopower is an example, they generate renewables by burning rice husks and then selling the carbon credits. Rice husk is presented as waste, but it's actually a vital source of fertilizer in local subsistence farming. Farmers now have to buy petroleum-based, chemical fertilizers with a wide range of environmental and health impacts. "Carbon markets have given the appearance of us doing something about climate change, while actually legitimizing the constant rise of emissions" (Bohm, 2013). They allow those with wealth to evade their moral responsibilities to the planet and its inhabitants.

The third proposed logic for continued growth is decoupling, which is the notion that we can separate economic growth from environmental impacts. In other words, GDP could continue accelerating without exploiting more resources nor causing additional harm (Parrique, 2019). This is a comforting notion, one that many world leaders have shown support for, yet, the data discounts it. In order to prevent more harmful environmental impacts, the decoupling would have to be absolute; however, we are seeing only relative decoupling, meaning that while resource-use is growing at a slower rate than GDP, it is still growing (Parrique et al, 2019; Jackson, 2009). This partial decoupling may be due in part to some gains in efficiency but its harm is also likely masked by the effects of a number of major factors. These factors include substitution (switching from one environmental impact to another), financialisation (the economy appears to grow without increased resource-use due to trading, credit, and mortgages), and cost-shifting (moving resource-intensive practices to developing nations but boosting local GDP) (Ward et al., 2017).

The last proposed solution, a transition to renewable energy, is probably the most well-known and accepted by the general public. If we transition away from fossil fuels to green energy our emissions will drop and the climate crisis will be solved, right? Unfortunately, while renewable energy will certainly play a critical role in stepping away from fossil fuels, a full transition is not compatible with the energy demands of an ever-growing economy (Hickel, 2020). Despite solar installations and sales of electric vehicles hitting record highs in 2022, renewables only partially met the growth in energy demand, meaning that while they may be diversifying the global energy mix to some degree, fossil fuel use is still growing (Lovegrove, 2023). Aside from the fact that fossil fuels are not being replaced by renewables, a narrow-minded focus on a switch to clean energy ignores the intersecting crises of mass extinctions, deforestation, soil degradation, water scarcity and pollution, among others that result from endless economic pursuit.

In summary, the state-sponsored solutions to climate mitigation within our capitalist economy include increased efficiency, carbon markets, decoupling, and renewable energy. Unfortunately, as previously discussed, these solutions will not realistically tackle the issue of climate jeopardization. When it comes down to it, the pursuit of infinite economic growth is not compatible with a finite system that wants to avoid collapse.

Degrowth Discussion

Degrowth is a theory and practice that is gaining support as an ‘equitable downscaling of production and consumption that increases human well-being and enhances ecological conditions at the local and global levels’ (Schneider et al., 2010, P.512). In a degrowth economy, we would refrain from pursuing all that could be pursued, essentially contracting our economy on purpose

and establishing a steady-state before it collapses in on itself in a massively devastating way (Kallis, 2015). Degrowth is a recognition that we live on a finite planet that cannot support infinite growth. The degrowth movement provides a frame where various schools of post-growth thought can come together to imagine new possibilities. Interpretations vary to some degree and provide us with a spectrum of thought, but across the board degrowth is understood as a critique of growth, capitalism, GDP, and commodification. It is centered around sharing, simplicity, conviviality, care, and the commons. New forms of living and producing that promote self-sufficiency such as eco-communities and cooperatives are proposed, and government institutions can provide support through programs like work-sharing, reduced working hours, and basic and maximum incomes. Thus, shifting time from paid work to unpaid but supported, communal, and caring activities (D’Alisa et al., 2015).

Though grassroots degrowth practices aim to provide opportunities for a transition away from a potential systematic crash, they also provide a vital framework for recovery after possible collapse. While this surely isn’t advocating to stop working at averting crisis, it is saying we need to also prepare for one. Paul Gilding, a lifetime environmentalist and author, envisions our response to crises in two different, though simultaneous ways. The first, that our current system will try to fix itself through efficiency gains and emissions reductions with no questioning of economic growth. The second, a push to build a new economy that does not rely on economic growth and consumerism. Gilding argues that both responses are needed, though, the second will move much slower (2011). It seems like degrowth may have a place at the table. As Milton Friedman says, “Only a crisis – actual or perceived – produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around.” That is a foundational piece of the degrowth movement, “to develop alternatives to existing policies, to

keep them alive and available until the politically impossible becomes the politically inevitable” (Friedman, 1982).

There is discussion around if ‘degrowth’ is the optimal word choice for this movement. Some scholars think it does a disservice to have a word with a negative connotation represent a movement with a desired positive outcome, though many believe it to be vital that the movement has a ‘deliberately subversive slogan’, as it is a path towards decolonizing the dominant imaginary of a one-way future. One that views ‘growth’ and ‘development’ as inherently good, as associated with well-being. One where the word improvement, our word for ‘making better’, is ‘rooted in the word for monetary profit’ (Wood, 1999). When discussing sectors like education, medical care, and renewable energy, words such as ‘flourishing’ are used rather than ‘growing’ or ‘developing’. While these sectors need to be maintained, the desired change is qualitative, like in the flourishing of the arts. It is not quantitative, like in the growth of industrial output (D’Alisa et al, 2015; Demaria et al, 2013).

Critics say that degrowth is too drastic, that a system change this large could never happen. But is it really when we look at the alternatives? Consume ourselves to death under the false assumption that green growth will save us, or accept the death of the planet and move onto colonizing the next? We already know that green growth is only a band-aid. We cannot continue to answer problems created by growth with narratives of green growth. The other alternative, designing for outer space colonization, “is not bold visionary thinking - it is escapism, seductive only to those who can imagine no alternative to infinite economic growth despite a finite planet” (Harper, 2018). We need more narratives of degrowth in order to imagine possibilities and decolonize our public debate from one that values economic growth above all.

Another frequent critique is that degrowth is only applicable to the overdeveloped Global

North. While it is true that degrowth in the North will allow space for growth in the South, poverty in the South is often the result of ecological and human exploitation by the North. With demand from the North reduced, there will be room for the South to grow to satisfy basic needs. However, the North should not pursue degrowth in order for the South to follow in their footsteps of unchecked growth, but to ‘liberate conceptual space for countries there to find their own trajectories to what they define as the good life’ (D’Alisa et al, 2015, p.34). Many alternative economic projects are flourishing in the South such as Buen Vivir in Latin America (or Sumak Kawsay in Ecuador); Ubuntu in South Africa; or the Gandhian Economy of Permanence in India. These visions and practices for social and environmental justice ‘only stand to flourish by a retreat of the growth imaginary in the Northern countries that have promoted it, if not forced it to the rest of the world’ (D’Alisa et al, 2015, p.34).

Degrowth Frame

In this work, I recognize degrowth as a “good and sustainable” theory to use as a guide for creating change in communities. I use the six pieces of Schneider’s circular narrative for housing in degrowth: the right to housing, housing sufficiency, reducing housing demand, reducing urbanization, reducing ecological impacts, and de-monetization of the home as guiding parameters to craft my narrative within. Each of these pieces was given a focal section in the creative writing section in which I pulled details and ideas from the corresponding chapters of *Housing for Degrowth*. This process is detailed further in the ‘Methods for Inquiry’ section of this chapter. I found this book through my review of the literature on degrowth housing and sustainable housing more broadly, all of which is covered in the following review.

LITERATURE REVIEW

Degrowth narratives are needed to reimagine every aspect of current life. In this section, I will focus on possible narratives scholars are imagining for the built environment in degrowth. This is a sector that until recently has largely been missing from the degrowth discourse. After taking a broader look at the built environment, we will then look to possibilities in the field of design and quickly narrow in on housing in degrowth. From solutions more accepted by mainstream society like size reduction and retrofitting, to the more radical like decommodification of the home and the human right to housing, we'll explore what people are saying about this. Housing in degrowth is still a fairly new line of thought and there is much that needs to be discovered and discussed; beginning to imagine these alternatives is a vital process for us and our future.

The Current State of 'Sustainable' Building

If we are to limit global warming to an increase of 1.5 degrees Celsius; the recent Intergovernmental Panel on Climate Change's (IPCC) Incheon report calls for rapid, far-reaching, and unprecedented changes in all aspects of society. To achieve this limit and not shoot beyond it like our current projection, these changes would require human-caused carbon dioxide emissions to decrease to 45 percent of our 2010 emissions levels by 2030, and then further to net zero by 2050 (IPCC, 2018). We've been hearing a limit of 2 degrees for a while now, what difference is a half of a degree? As many scientists have come to understand and the IPCC iterates, 2 degrees of global warming means a staggering increase in wildfires, storms, floods, droughts, heat waves, heavy snowfalls, and sea-level rise. Every incremental degree matters. With our understanding of the consequences of exponential growth and how embedded

it is in so many aspects of our society, we run smack dab into a wall of realization that cutting our emissions essentially in half in twelve years is a herculean feat of unparalleled magnitude.

It may appear perfect timing that the same week the IPCC's report put 12 years on a ticking clock to halt ourselves before reaching this catastrophic milestone of warming, the new European Bloomberg corporation headquarters received the highest possible BREEAM score, the world's leading sustainability assessment, and is heralded as "the world's most sustainable office building" (Harper, 2018). Surely this is a step in the right direction. If these building standards, the highest currently available, were adopted universally, would that not be an example of the rapid, far-reaching, and unprecedented change the IPCC calls for?

Unfortunately not. Stephen De Gray, the head designer at the architecture firm responsible for the design of the sustainable Bloomberg building, has researched international building performance standards and what they mean for temperature rise, concluding that even if these standards were universally adopted, we would still be on track for three to five degrees of global warming (Harper, 2018). Nadav Malin, President of Building Green and long-time LEED faculty member agrees in his argument that with our current code system, net-zero homes are too materially intense for any real good to be done. Malin is starting to examine net-zero neighborhood possibilities that may reduce some of the material and energy requirements (Malin, 2010). This means that not only is our highest level of code unattainable for most, it won't even make a difference and isn't even the best option for single-structure sustainability. So what should our built environment look like if this option, albeit better, cannot come close to halting catastrophe climate change? If having every building adhere to the standard of "the world's most sustainable office building" still won't make a dent, we have to look at those underlying growth mechanisms that are holding us back. As Phineas Harper puts it, the Bloomberg building and

corporation, “is the oil in the wheels of the global stock market. You can’t make its corporate headquarters ecological much as you can’t wage an ethical nuclear war or build a sustainable airport” (Harper, 2018).

Design Potential

If we hope to decolonize the imaginary related to growth in the housing sectors, we must create alternative narratives. The field of design may be able to lend some help here. Design, as described by Visual Artist Brian Collins, is ‘hope made visible’, it is ‘a way or looking at the world with an eye towards changing it’ (Berger, 2010). Currently, “good” design references what is ‘usable, profitable, beautiful, meaningful’, but not what is best for society. Design is a field that has been historically been implicated in growth and experienced through private consumerism (Thorpe, 2012). Ann Thorpe argues that designers who wish to be agents of change must work creatively and with dwindling resources to subvert the current system (Thorpe, 2012).

Housing for Degrowth: Utilizing Existing Stock

As Wells says, degrowth might mean that we demand not to build anymore (2018). There is enough existing housing stock already built to house everyone in the world and then some. There are so many houses sitting empty that could be distributed to the world’s homeless (Nelson & Schneider, 2019). Occupying and as necessary, repairing appropriate buildings can adequately satisfy housing needs. The three main goals of repairing and refurbishing as described by Cuchi and Sweatman are first, increasing resource efficiency through productive investments to reduce the environmental impact of buildings; second, improving the habitability and technological facilities of buildings in terms of access to work, health, education, culture, sports and leisure;

and, third, improving access to housing, defined as the right to a decent and adequate dwelling (Cuchi & Sweatman, 2011). Nelson and Schneider argue that a truly ‘subversive’ degrowth housing narrative would address the challenge of reimagining and transforming existing housing stock, especially housing that is at the margins of the housing market. "If existing market conditions engender very high entry costs for new 'alternative' housing, the wider transformative potential of a housing degrowth agenda should be tested against its capacity for transforming existing housing towards greater social and environmental justice"(Ferreri, 2019, p.110).

This transformation of existing buildings is categorized as ‘adaptive reuse’ in the field of design. In a 2007 study surveying building owners in Australia, it was found that the idea of adaptive reuse is generally supported and considered a viable option to demolition and redevelopment (Bullen, 2007).

Housing for Degrowth: Regenerative Design

Regenerative design is seen as building approaches that “support the coevolution of human and natural systems in a partnered relationship” (Cole, 2012, p.1). Regenerative design takes a holistic approach to sustainability while raising the benchmark for building performance through the evolution of engineering approaches to thermal insulation and efficiency (Gou and Xie, 2017). The Living Building Challenge is a green building framework that utilized regenerative design principles in practice. These buildings are often referred to as net-positive because they produce more energy than they use. They account for a wide range of environmental impacts by requiring zero municipal water consumption or wastewater discharge, designing for “car-free living,” requiring locations that have been previously developed on, and more (Malin, 2010). A critique of the Living Building Challenge is that wide-scale optimization

of affordable projects is not yet possible. Almost all buildings certified through the program have been new builds, they can be incredibly expensive, and they take full teams comprised of dedicated individuals from multiple fields of expertise to put together.

Housing for Degrowth: Decommodification and Public Housing

Another goal of degrowth in housing is the decommodification of home (Nelson & Schneider, 2019). How did the United State become a country ruled by private property in the first place? Make no mistake, this was not a natural evolution. The mortgage system was created and insured by the federal government to force people firmly into the capitalist system. Without this state-sponsored program, the majority of people would never have been able to afford their own home and a more cooperative system of living may have naturally emerged as private ownership remained prohibitively expensive to most (Rothstein, 2017). Housing is seen as a human right to most degrowth theorists, therefore it should not be commodified (Nelson & Schneider, 2019).

In the United States, public housing is one of the few widespread housing models that has existed on the outskirts of the capitalist system (Rothstein, 2017). As well-funded and maintained projects, they worked exceptionally well for the people. However, as the trend towards neoliberalism developed, they were systematically underfunded, under-repaired, and their eventual state of disrepair used as an excuse to demolish (Rothstein, 2017). This has happened all over the Western world as privatization became more and more popular. Public housing is in line with degrowth because it increases density and helps shelter people in need without privatization and profit. When public housing is demolished and replaced with private homes, it is described as ‘roll-back neoliberalism’ (Nelson & Schneider, 2019). This has been

described by critical commentators as encouraging gentrification de facto, especially in situations where refurbishment was recommended by independent contractors, and governments still chose to tear-down and then carry out urban renewal (Nelson & Schneider, 2019).

Housing for Degrowth: Intentional Communities

We know that sharing is a main aspect of life in a degrowth society, therefore, this must translate over into housing use and allocation. D'Alisa et al. offer up eco-communities as one of these forms of living. Eco-communities are specifically designed for groups of people, usually 100 or less, to live together with the shared vision of living within ecological limits, most commonly in rural areas. They pursue social and ecological well-being through sharing practices, self-sufficiency, and political practices like direct democracy and some degree of autonomy. D'Alisa et al. posits eco-communities are in line with a degrowth future because members often work cooperatively, much of the community or village can be viewed as a commons, ecological practices and social conviviality are evident, and voluntary simplicity is widespread (D'Alisa et al, 2015). But these communities, for the most part, only exist in rural areas, what about our urban and suburban populations?

Lietart argues that another type of living community, co-housing, also is relevant to degrowth theories. Lietart characterizes the fundamental aspects of cohousing as a community with participatory process, intentional neighborhood design, extensive common facilities and/or activities, complete resident management, the absence of hierarchy, and separated incomes. Co-housing communities usually consist of private homes for individual families, with shared common buildings and grounds. A key feature is the cars are only allowed parked around the perimeter of the entire community. Similarly to eco-villages, Lietart argues that co-housing is

degrowth because it 'enables the spread of efficient sharing habits', therefore shifting consumption from the individual to the collective. For example, shared cooking responsibilities allows for more quality family time while shared childcare leads to better community-building and socialization, not to mention an increased feeling of personhood for the parents. Lietart also argues that the common spaces provided in these communities create non-market alternatives for public spaces where people may gather, unlike in most communities where sites of consumption are most often our meeting places.

The flexible, bottom-up approach of these communities makes them adaptable to their specific locations and makes the promise of communities and non-market relationships are alluring. This is demonstrated by the rise in US co-housing communities from 35 in 1990 to at least 100 in 2010 (Lietart, 2010). Lietart critiques the communities because there is a widespread in ecological beliefs among member which affects the environmental footprint of the community. Also, most residents of these communities are well-off and come from the upper or middle class. He argues that while co-housing may provide an answer to hyper-individualism and the disappearance of community, at the moment this is only for a select few. Lietart purports that government officials would need to provide support and get behind these communities in a big way in order to make them accessible to all.

Another critique comes from Jin Xue; while recognizing that eco-villages and urban villages work for some, she challenges the notion that these are the best spatial organizations for degrowth. Xue critiques the movement for having largely left the perspective of the urban planner unconsidered. Xue argues that multi-scalar strategies in urban planning can play a vital and significant role in the transition to degrowth. One of these strategies is dense urban developments, dubbed the 'compact city'. The compact city reduces the need for transportation,

saves energy because of smaller overall building envelopes, and conserves natural landscapes (Xue, 2014). Nelson and Schneider propose implementing a minimum occupancy rate as a way to increase density and fill unused housing stock in the immediate future (2019).

Angela Sanguinetti provides an opportunity to connect the threads of co-housing and refurbishment through her thesis work on retrofit co-housing. Retrofit cohousing refers to the reuse of existing housing stock. There are eighteen retrofit cohousing communities in the United States as of 2013. N Street Cohousing in Davis is the most prominent example, they grew one house at a time through large suburban tract as residents tore down fences. "Compared to other types of cohousing, retrofit cohousing may be more accessible, environmentally and economically sound, and congruent with dominant cultural values" (Sanguinetti, 2013, p.66). One thing that is agreed on, whether a small eco-community or a multi-complex skyscraper, it is fundamental that the residents are the driving force behind the process (Lietart, 2010, Nelson & Schneider, 2019). Danish architect Steen Rasmussen highlights the need for collective involvement when comparing his mixed-zoning development Tingbjerg to that of Freetown Christiania, a successful intentional community since 1971. Rasmussen designed Tingbjerg to be a community that mixes home, work, and leisure activities. Rasmussen observed that with no collective self-management, the project failed at fostering a sense of community and people chose to commute elsewhere for work and leisure. Christiania, on the other hand, has been able to create a strong sense of community and place through self-management and community involvement in decision making. This suggests that more important than developing new complexes and urban villages for communities is the focus on supporting community self-management, social cohesion through direct participatory democracy, and the separation of housing from market activities in order to have successful housing developments for degrowth

(Nelson & Schneider, 2019). Famous sustainable architect Sim Van der Ryn, would take that participatory process even further. "Let architecture return to its roots in each person, in each place we make. When people can participate openly and together in making something, then architecture takes on its ancient meaning" (Van der Ryn, 2005, p.39).

METHODOLOGICAL APPROACH

In this work, I follow a fiction-based methodology that is categorized under the umbrella term for all artistic approaches to research, arts-based research. Arts-based research is a collection of methodological tools used by 'researchers across the disciplines during any or all phases of research, including problem generation, data or content generation, analysis, interpretation, and representation' (Leavy, 2009, p.2-3). Arts-based research is unique from traditional qualitative methods in that it does not look for specific answers, but instead creates space for multiple new meanings and interpretations (Leavy, 2017, p.363).

Fiction-based research, also sometimes known as 'fiction as research practice', "combin[es] the tenets of qualitative research and fiction[,] uniquely allow[ing] us to create believable virtual worlds into which we may insert a theoretical, philosophical, or socially minded substructure" (Leavy, 2013, p.40). Fiction as a research method is especially well-suited to, 1. portray the complexity of lived experience or illuminate human experience; 2. promote empathy and self-reflection; and 3. disrupt dominant ideologies or stereotypes (Leavy, 2013, p.38). Fiction-based research can be so successful at resonating with the reader in these ways because it "relies on using language well and creating an engaging experience for readers; it requires us to capture the sights, smells, sounds, and atmosphere of the places we describe" (Leavy, 2013, p.54). As the late narrative ethnographer Bud Goodall says, "We can learn more

from a reasonably good novel about social life than we can from reams of fairly mundane scholarship” (Goodall, as found in Leavy, 2013, p.77).

METHODS FOR INQUIRY

Fiction-based research exists on a continuum where, on one end, the writing itself is the act of inquiry, and on the other, the writing acts as a way to analyze more traditionally collected data. (Leavy, 2013). When writing is the research act, data is not talked about in the more traditional sense and instead refers to the ideas, concepts, and language taken from literature reviews, theory, teaching and/or personal experience that have been selected and crafted to meet the overall goal of the work (Leavy, 2013). Since I mainly used a literature review and theoretical frame as my ‘data’, my writing process, or fictionalization process itself, is the generative work.

Wolfgang Iser (1997) details a three-part process for fictionalization: selection, combination, and self-disclosure. Selection takes identifiable objects, data, details, theories, etc. and ‘imports’ them into a fictional world (Leavy, 2013, p.41). Combination happens in conjunction with selection and brings all these elements together. The elements may be collected in pre-production from more traditional research processes or more abstractly and throughout the process of composition (Barone&Eisner, 2012; Leavy, 2013), in the later case making the details of the fiction-based research the ‘data’ itself (Barone&Eisner, 2012). Self-disclosure refers to how the fictional work is disclosed to the reader and considers how much of the research and objectives behind the work are shared outright (Barone&Eisner, 2012; Leavy, 2013).

Fiction-based research is not a linear methodology as it relies on the individual creative process of each researcher. I created a skeletal structure around Nelson and Schneider’s work,

filling in research from theory and literature to help me achieve my goals of inquiry which were to; 1. Disrupt the dominant ideology of growth in their minds, 2. Unsettle stereotypes that degrowth=suffering, 3. Raise critical and political consciousness, and 4. Evoke resonance with the work. A photograph of this process for the circular narrative can be found in the appendix. As the backbone of the research came together I drafted an overall structure and then storyline using the guiding narrative questions of, ‘What would the experience of a social narrative in a degrowth-based housing future be like?’ and, ‘How would a future historian in that narrative look back on our current growth-based housing narrative?’. As I engaged in the fictionalization process I remained flexible and altered my design choices (structure, characterization, and literary tools) as necessary to satisfy the goals of inquiry.

The aggregate of these choices and my reflection on the process of creating the work allow me to answer my central research questions of, ‘How can issues of growth-based housing be explored through writing speculative fiction and what kind of window into a degrowth future could this writing create?’

APPROACH TO INQUIRY ANALYSIS

Leavy (2013) provides a detailed set of suggested criteria for evaluating fiction-based research. I have summarized them in the following list:

1. Creation of virtual reality - Are there rich descriptions that create a sense of verisimilitude, or perception of realism, which allows the reader to clearly experience the presented virtual world through their imagination?
2. Sensitive portrayals of people, promotion of empathy, and empathetic engagement - Does the narrator’s point of view and the crafted multidimensionality of the characters portray

the complexity and nuance of human experience?

3. Form, structure, and narrative coherence - What does the format of fiction uniquely offer to the work and how do specific design choices align with the research goals?
4. Presence of ambiguity - Are there potentially multiple interpretations and understandings of the work? How do gaps in the narrative or the treatment of the ending help the reader contemplate and reflect on themes and the story as a whole?
5. Substantive contribution - What does the work contribute to its field of knowledge and how it is useful?
6. Aesthetics - Of what quality is the craft of the writing and the attention to the reader's aesthetic reading pleasure? "In projects where the act of writing is the act of inquiry (i.e., data are not collected via a traditional method), attention to the craft of writing and aesthetics is how one achieves rigor" (p.86).
7. Personal signature - Is the writer's personal fingerprint, meaning their style tone, and content choices, present in the work?
8. Audience - How have design choices and disclosure decisions been linked to the target audience?

In the 'Analysis and Reflection' section of Chapter III, I analyze my work by using this list as a jumping-off point for a self-evaluation of how the choices I made in crafting the work act to fulfill my specific goals of inquiry. Because the evaluation of fiction-based research is malleable, I added one more layer of analysis not included in Leavy's list. Reading fiction has been shown over and over again to increase self-awareness in the reader, but throughout the process of writing fiction, the same can be experienced by the writer (Leavy, 2013). Therefore, as the final part of my analysis, I reflect on how my self-awareness evolves throughout the

writing process in relation to the same goals of inquiry I hope my readers are exposed to and changed by.

CHAPTER II
FICTION AS RESEARCH, IN PRACTICE

The Last Crash Centennial Commemoration

Colorado Basin Commonwealth, People's Republic of North America

Summer 2142

Late morning sun peaks above treetops standing at the edge of the meadow, their long shadows beginning to recede as the sun rises higher in the sky, casting the checkered bark of the juniper and scaly cinnamon plates of the ponderosa into shade in turn. People trickle into the meadow on bike and on foot then settle in. They form loose semi-circles around a large parabolic vessel and a hum fills the air until a small man walks up and sits on the carved out bench in the center of the dish.

Greetings all and thank you for joining us today for the centennial commemoration of The Last Crash. My name is Herman Mallow, I help organize The Collective of Growth-Imperative Historians, the host of your remembrance events. Each Commemoration Day we gather to share stories and research of the growth-imperative societies. This tradition remains part of our ongoing attempt to understand their extraordinary blunders, confusing contradictions, and surprising complexity and ingenuity.

Although there are few of us who can personally remember what it was like to live through the various and drastic transitions that came after The Last Crash, let alone in the times before it, it is a history that defines us all. Many work groups today, the growers, forest-tenders, water remediators, waste managers, among others, are aware to some degree of what the old societies of growth were like simply due to the unique challenges they left behind.

That time, often referred to as the Paradoxical Age, feels so far away and yet has shaped the world we are intimately familiar with today. It is for this very reason that it is so important we continue to strive to understand these societies. As a collective of historians we delight in every new discovery that helps us understand the past. Nothing is more enjoyable than sharing our newfound knowledge with you, our eager listeners, and so we thank you for being here today, learners both new and old.

I invite you to take a moment and think about 'The Home'. Some might argue the home is the most foundational aspect in our lives. It is where we come into community with one another, where we spend time with those we love, where we rest, learn, and create. It is this fundamentality that made 'The Home' such an apt theme for this Centennial Commemoration.

Ahead of today's events, any persons interested in the broad topic of homemending were invited to come together to investigate, discover and share. A multifarious group of scholars, workers and hobbyists answered and converged to reexamine this shared interest of theirs, as it was, in the Paradoxical Age. After much exploration and preparation they are ready to present to us, their community, what they have learned.

Even in the hyper-individualized growth-imperative societies of the Paradoxical Age, home touched many aspects of people's lives, and so the homemenders have had quite a time puzzling together their presentation for you today. I found myself to be quite stunned, as one often does when learning about the Paradoxical Age, when I saw them rehearse for today. I am continuously

awestruck by how different a world can look in just 100 short years.

I will start today's events off with a capsulization of life in the Paradoxical Age, the cognitive infrastructure that led to The Last Crash, and the subsequent catalysts of transition that made The Last, truly, the last. I will then introduce the homemenders for the presentation of their work and afterwards the park will remain open for many of the Commemoration events you know and love.

So, what was it like to be trapped in the Paradoxical Age in a so-called 'Western' society, the overdeveloped societies as we know them today?

Imagine a world where you have forty work hours every week, sometimes more, and still struggle to have what you need to live comfortably. You work for a company, which is something like a work group but intensely hierarchical and unequal, and every year this company brings in more and more currency. You are a big part of this growth! You learn to do your job more efficiently, your job might have even been to figure out specifically how to get your fellow workers and the company itself to operate more efficiently.

And yet, all of these gains seem to be for nothing. The company accumulated more and more currency, but you still work the same amount of hours, get the same amount of compensation. None of these gains in efficiency are passed on to you, they are moved up the chain of hierarchy to the top or are invested back into the company to make it even *more* efficient the next year. It was like running a never-ending race where you must run faster every mile and are never allowed time for rest and recuperation.

Perhaps the most overarching paradox of the age was that the economies of growth-imperative societies had to grow in order for the society to be successful, but the very act of growing the economy harmed not only the members of those societies, but the worldwide ecosystem and community. This approach to order is so clearly and absurdly incongruous with life that it can be challenging to imagine how anyone ever reckoned it, but we cannot afford to be dismissive of the very real constraints these growth-imperative citizens lived under.

As a member of The Collective of Growth-Imperative Historians it's my duty to ensure we all start on the same page and remind ourselves what exactly a growth-imperative society looked like.

Unlike immediate post-collapse post-growth societies, and the more advanced steady state societies of today whose economies are embedded within their societal structures and ecological boundaries, growth-imperative societies were embedded within their economies. This meant that failures in their economies were felt fully across their societies.

The economy reigned supreme, the ideology of growth so ingrained that following every collapse of the late 20th and early 21st century, the same strategy would be resurrected and reinstalled, even as citizens and the global community at large weathered extreme hardship.

Growth in a society is not inherently bad. Many key sectors today like healing, education, and remediation are continuously innovating and growing, and we strive for a sense of abundance with our time and our meaningful relationships. Economic growth itself is not always bad either, numerous previously economically-oppressed countries and regions saw huge growth in their

economies during The Great Transition. But all of this is growth *with* a purpose, growth that helps people and our societies, growth that is monitored and kept well within the physical limits of our planet.

As the word ‘imperative’ implies, these systems on the other hand *had* to grow in order to be successful. While initial intentions were surely good, things ran this way for so long that people lost sight of why they were even doing it. The goal was not to grow in order to reach some social good, the goal itself was to grow.

We cannot take for granted that we recognize growth as a means, not an end. That growth at all costs is not a healthy goal seems so obvious now, but it was a spell that took much of humanity far too long to wake up from.

How could a society even attempt to move towards a definition of true prosperity while tied to such a cancer? It could not with any sense, and therefore it is no surprise paradoxes were the defining and abundant coping strategy.

Growthism was the alchemy of the paradoxical age.

We tend to compare many of the principles of growth-imperative societies to articles of faith because, for the general population, there was no alternative explanation other than faith for why these practices were carried on with in the face of immense and undeniable evidence of their destruction. Those in power in overdeveloped countries obviously had self-serving reasons that were based on greed, not faith, but those intentions were veiled under the guise that what would help the materially rich would help everyone.

The drive for growth was almost programmed, not only into these overdeveloped societies as a whole, but into each individual member. This is apparent, if not dismaying, in the paradoxical finding that the drive for higher and higher personal accumulation of currency remained blindly relentless even though scholars at this very time had proven over and over that after obtaining enough currency to fulfill basic necessities and a little more, this accumulation did not increase happiness, and in many cases decreased it.

Instead of community, they had only commerce. In this age, nearly everything was ascribed some currency value, even immaterial aspects of life, and often these values did not even align with the ways items were needed or used.

Many people in this age had blind faith in what they called the ‘market’, this can be confusing because market had a very different meaning then as it does now. The market was not necessarily a place, it usually was not a true relationship, in some ways it was an idea, to some it was a near-mythical thing.

The belief was that if all the exchanges in the community were done with zero guidance or interventions, then the ‘market’ had the ability to solve social and economic problems on its own. There was blind faith in this supposedly omniscient power, this ‘invisible hand’ as they ascribed it, but as the time-old saying now goes, ‘the invisible hand never picks up the check.’

So where did this extraordinary belief come from? Today we think it most likely had to do with a sort of doctrine, a theory that attempted to mold the complexities of human life into something

that could be theorized, even predicted. The doctrine of *Homo economicus*.

Homo economicus, the economic man, a mythical 'ideal' being that acts completely rationally, is driven entirely by self-interest, and whose truest desire is to increase their monetary security above all else. The basis of entire economic systems in growth-imperatives societies took this extremely narrow view of humanity as universal truth.

You see, these overdeveloped societies did not just naturally have an abnormal propensity for greed, they had been brutally forced through a reduction valve of values. This meant that all the constraints of their economic lives forced them to perform a certain kind of reality.

A frog in water will swim, a frog on land will hop. Building a society to function around the theory that humans are inherently greedy, and then using the resulting greedy people to confirm the theory, is like looking at a land-locked frog and determining that frogs cannot swim.

The stories we tell about ourselves become self-fulfilling prophecies.

People often didn't understand how the system they were in worked let alone that they were in it at all. Since their economic reality was nearly ubiquitous, even the possibilities of other realities seemed impossible. We think this is one of the reasons why they couldn't or wouldn't acknowledge the biophysical limits of the earth in any real way. They could mostly only imagine 'solutions' that would continue to perpetuate the problems at hand because they were in that land-locked mindset, they couldn't envision a way out. What answers did exist were labeled as 'alternative', a linguistic choice that harmed the ease of widespread adoption.

They had the idea that all they needed to do was develop the next, greatest innovation and then it would be 'enough'. But the goal posts kept moving, they did not realize that they already had enough, they just needed to be allowed to live with it.

They thought that the system gave them ultimate choices, but the system was so pervasive they couldn't see how limiting it truly was. It's no surprise that their participatory processes were incapable of affecting meaningful change when state and market forces dominated everyday lives and thoughts. In the end they had no choice, in order to maintain the system they were embedded in they had to destroy their children's futures.

Of course not all peoples of this time thought this way. Although a way of life based on the 'market' and the constant accumulation of currency seemed omnipresent in the former United States, growth-imperative societies were not ubiquitous. Our ideological ancestors formed resistance groups within overdeveloped countries, creating space for new possibilities within the cracks of the old economy. Across the planet, throughout the economically-oppressed countries, cries for change, for a totally different global system were abundant, and had been for some time.

Following a global economic crash in the early 21st century, triggered by irresponsibility in overdeveloped countries, Indigenous peoples of these countries recognized in the now famous future visioning document, *The People's Agreement of Cochabamba*, proclaimed that "The financial crisis has demonstrated that the market is incapable of regulating the financial system. Therefore, it would be totally irresponsible to leave in their hands the care and protection of human existence and of our Mother Earth."

At the time of The Last Crash, many economically-oppressed countries were already fighting to transition to steady-state, forcing their way out from underneath foreign debts and gaining the autonomy to halt the egregious extractivism induced by the overdeveloped countries' needs. Because of this, their societies fared much better after The Last Crash than the overdeveloped countries, who were thrown into more severe and tumultuous post-collapse environments as they struggled to give up the growth narrative, learn from the economically-oppressed, and then begin to rebuild their societies. The debt jubilee that was forced through after The Last Crash unleashed the power of the economically-oppressed countries and allowed their societies self-determination and true flourishing.

After The Last Crash, the People's Agreement of Cochabamba became a template for many overdeveloped countries and an International Climate Justice Tribunal was established to keep watch over states in the upheaval of The Great Transition. The Tribunal was villainized by those in the overdeveloped countries still trying to reassemble the scraps of market fundamentalism. Many of these overdeveloped countries had crashed into no-growth without much of a plan or safety net and suffered extreme inequality as the rich continued, for a short time, to get richer and hoard more and more from the suddenly stagnant available funds in their economy.

Eventually, the flourishing of the previously economically-oppressed countries became undeniable. This was due in large part to their additive and many pronged approach of abating inequality through many of the programs we're familiar with today; worker cooperatives, taxing high incomes, capping interest rates and rent, shifting to a labor intensive society, among others. As a result, the powers still holding on in the overdeveloped nations were forced to concede and the International Climate Justice Tribunal finally gained the global respect it deserved.

Overdeveloped countries still continued to fail frequently in their attempts to transition. The contradictions of the Paradoxical Age had been so pervasive that when societies conceded to the programs supported by the International Climate Justice Tribunal they often did so by adopting singular programmatic elements. It took some countries an almost incredible number of failures before they were able to recognize that the elements of climate justice are additive and don't work well in isolation.

Our relatives in what became the Colorado Basin Commonwealth were luckier than many in the overdeveloped countries. The prior establishment of the Citizens Governing Body of the Colorado Basin, and our citizens' enthusiasm for the organization, led the region to fare much better than those with no local democratic framework. Some of the early work of the CGB is highlighted today in the homemender's pavilion, 'Home in Transition'. But first, please welcome Donella Sedge to present the homemender's story of 'Home in the Paradoxical Age'.

The man returns to his seat in the audience and is replaced by a woman with a kind face carrying a board filled with curving arrows and words. She places it securely into hoist clips and gives the signal to the young children waiting giddily by the base of the poderosa for her glance. At her acknowledgment they hoist the storyboard into the air, thin guidelines running through loops strung from the branches above, pulling the clips and the board into clear view above the crowd. The children tie their lines around the trunk of the tree and, their task complete, scurry half-embarrassed through the applause out into the field where friends and parents lie awaiting the presentation. The homemender steps to the parablifier

and begins to tell the tale of a nearly inconceivable past.

Most gracious thanks for the introduction Herman, my name is Donella Sedge and I have the pleasure of being a spokesperson for the large cohort of dedicated homemenders who came together for this Commemoration Day. For the past year, we have been researching and compiling the pieces of the story 'Home in the Paradoxical Age' for you.

As homemenders we spend our work hours in and out of the wide array of homes and buildings in our community and are privy to all the wonders and oddities still hidden in those structures that existed before The Last Crash. Many of us have spent time wondering exactly how or why some of the homes were conceived of, and what it was like to be a part of their creation and use in that time.

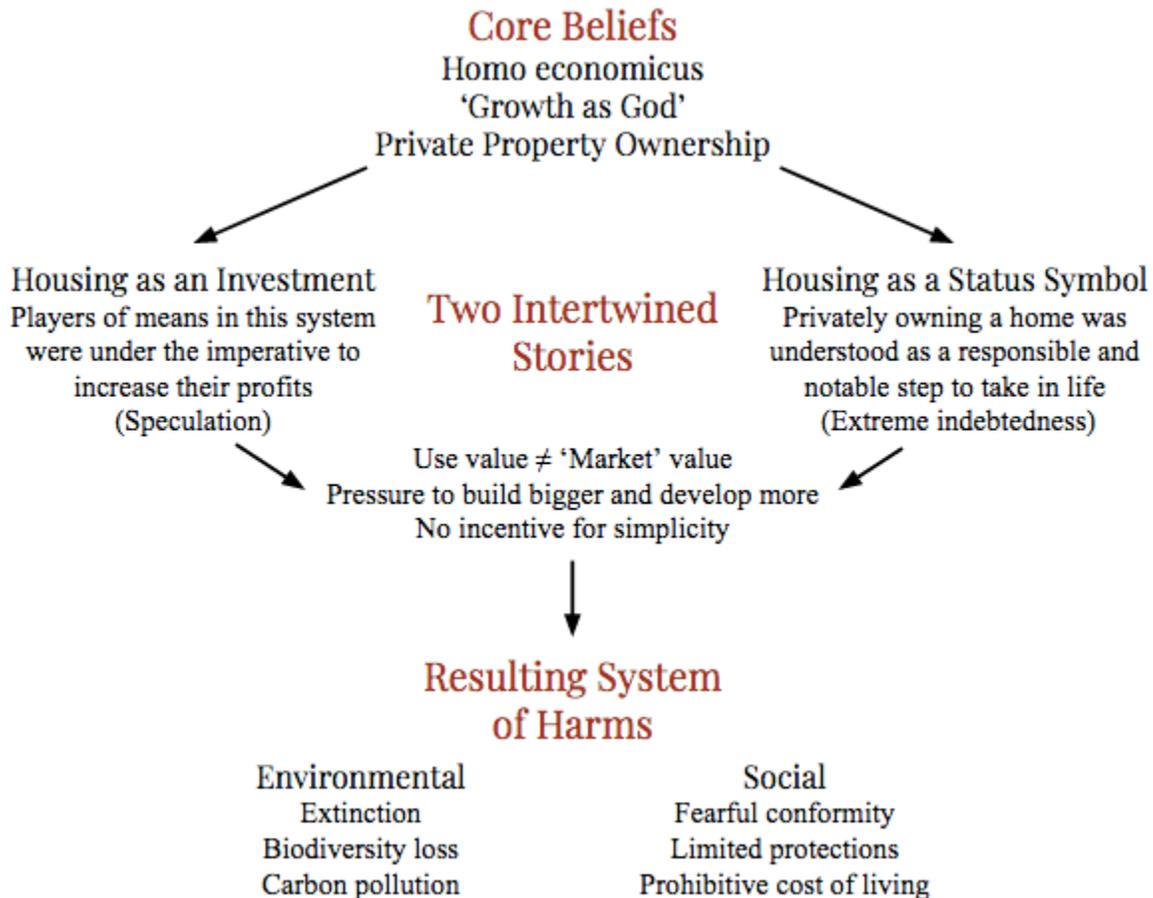
It has long been a fascination of historians and citizens to examine how those in the Paradoxical Age would not or could not implement decisions to change their circumstances, especially when they were armed with incredible amounts of knowledge and evidence showing them the consequences of inaction. In fact, one of the more well known paradoxes of the age was how completely inundated by information and documentation these people were, and yet they did not seem to be able to effectively use it very often.

It is both a blessing and a curse for doing historical research to have such an ocean of materials from this time available to pan through.

In this work we recognized that most aspects of people's lives in The Colorado Basin, and overdeveloped countries in general, were tied directly to their homes. Whereas now what you choose for work, family structure, and interests might have little correlation with the size, type, and organization of your home, in the Paradoxical Age these things were closely linked. Options in housing were extremely limited depending on factors of life which were most often out of people's control.

'Home in the Paradoxical Age' traces the cycle created by the practice of commodifying the home in order to illustrate and examine the system regular people were caught within. It has been fascinating to be able to release some judgements on the people of this age as we realized just how interconnected all the oppressive forces acting upon them were. Like a fish who does not know that water is wet, most of the people in this system did not even understand what they were living in. As we move through this story, I challenge you to ask yourself what you would have done or tried to do, if anything at all, to exit or alter this system.

Home in the Paradoxical Age



In the Paradoxical Age there was no right to home, for neither human nor non-human kin. The home instead was commodified and considered, like most things in this age, a product.

Gesturing to the top of the storyboard hanging above the crowd, she continues.

The core beliefs of overdeveloped countries that set the foundation for the financialized home were *Homo economicus*, 'Growth as God', and Private Property Ownership.

In the Paradoxical Age, many humans failed to see themselves as part of, or connected to, everything of this universe. Despite being planets themselves, walking ecosystems of revolving, undulating interactions of countless life forms, they viewed themselves as 'individuals'. We believe this ignorance of the micro-ecologies of their own bodies, a separation of their consciousness from their reality, had to be what allowed them to spin collective tales of such extreme individualism.

So sure they were of the 'rational' separation of will from planetary bounds, they guided their societies based on the altruism-denying principle of '*Homo economicus*'. This character of self-serving individualism combined with the deep belief in the sanctity of accumulating wealth,

went hand in hand with the exclusionary phenomenon of private property.

Land was subdivided into segments that were then treated as scarce and ‘zoned’ for specific uses, privileging some while remaining inaccessible for others. There was no collective balance in land use, and contrary to what ‘private’ may sound like, the zoning actually had a standardizing effect on a communities’ ability to self-determine their living practices and local governance.

These core beliefs allowed for the creation of two intertwined stories about housing; Housing as an Investment, and Housing as a Status Symbol.

First, because housing was seen as an investment, bankers, housing developers, corporations and private property-owning individuals were under the imperative to increase their profits in all dealings with homes. Harmful practices like speculation made clear how investments were, at their core, about accumulating wealth, not about providing homes.

The larger the home, the larger the market value, and so the size of homes ballooned. This was paradoxically illustrated in the fact that this trend continued even as family size began to decrease. Many of our retrofitted community houses were built in this way, thousands of square feet intended for a single nuclear family, or sometimes even just a couple or an individual.

From our vast examination of property archives, we can see that not only regular people but often the ‘corporations’ bought homes. These were entities that had similar rights as humans but were often extraneous from the humans who ran them, oftentimes shielding those who did wrong from consequence.

At one point, a decade before The Last Crash, corporations owned almost one half of all homes in the former United States. But many of these homes were not purchased with the intent to live in them. They often weren’t purchased with the intent for *anyone* to live in them. They were an investment. They would sit until the magical market changed enough where selling would make them a profit. This was the practice known as ‘speculation’.

It’s plain to see how the depth of investment truly had no bounds when you consider that some of these housing corporations were funded by ‘asset managers’ with unlimited currency and the power to shut almost any regular citizen out of the housing market if they decided they wanted a certain property.

This may sound truly unbelievable, but it was many people’s life’s work simply to manage the currency of others and invest it in ways that would turn it into more currency. Housing was simply one common avenue, one that led to a yawning gap in quality of life between those who could build wealth through owning and trading assets, and those who could not.

Next, because housing was seen as a status symbol, privately owning a home was understood as a responsible and notable step to take in life, the bigger and nicer it was, the larger the indicator that that person was doing well in society. Extreme indebtedness became the standard way to survive.

We’ve found un-ending records of homes that had been posed and posted on the internet, the lists of their ‘amenities’ vying for worship in a similar vein to celebrity. Advertisements for luxurious homes and inexpensive ‘mortgages’, a type of enormous loan, were rampant.

When you think about taking out a loan you probably think about going to your community lender, presenting your case, getting a loan and paying it back over a few weeks or months, maybe a few years if it's something really substantial. Mortgages on the other hand lasted for *decades* and came with so much interest that people rarely understood what they would really be paying over the course of their lives.

Having a mortgage to pay made maintaining a similar income stream at all times a necessity. When it came to work, there was no room to change direction or slow down for fear that they would be swallowed up by the debt and lose all they had worked for. There was such a tight link between work and home that their very freedom to choose what to do with their precious time was limited.

These stories both lie behind the complete dissociation between actual use values and the imposed market values of homes. The pressure from both narratives to build bigger, develop more, and inflate value meant there was little to no incentive to design and build simple homes that meet people's needs.

And so these stories lead us back to the same place where we find ourselves so often in the examinations of the Paradoxical Age. A system that's very design was ultimately a machine for both environmental and social harm.

In this case, the system of commodifying home resulted in environmental harms like extinction, biodiversity loss, carbon pollution from extreme development, urbanization and extractivism. It also led to social harms like anxious and fearful conformity to working standards, limited protections for those who must rent, and prohibitive cost of living for all.

Regular citizens struggled to buy homes and were often forced into renting. This might not seem like a big deal since community rent is such a normal and cherished structure today, but in the Paradoxical Age renting was looked down upon. It was seen as a waste of money, a stepping stone to private home ownership; but housing was an investment, and investment, especially in late capitalism, was extremely risky. Somehow, even though the economy crashed every decade, and banks kicked people out of their homes and into the streets when their mortgages turned upside down on them, buying a house was still seen as the proper thing to do.

It made sense at this time. Since renting was looked down on, there were few protections for renters. You had little control over the space and could be evicted at any time. In most places rent could be raised every year for no reason whatsoever. There need not be any improvements done to justify an increase. And as more and more buildings were held as investments to use on rare occasions as a second home, or leased out at exorbitant prices for short-term vacation, finding a home to rent became a more and more daunting task.

Since investors pushed the market towards larger and expensive homes, affordable and social housing plummeted. There was no recognized right to housing at this time so the stigma surrounding social housing was even stronger. Though it went through a brief period of flourishing, in general it was systematically defunded and left to decay until its demolition could be justified.

Both narratives of investment and social status led to bigger houses, which meant more resources going to construction, more extraction, and greater environmental degradation. At one point the

building system accounted for nearly forty percent of the total energy use, total carbon emissions, and total waste in the world, coming mostly from the overdeveloped countries.

The commodification of nature was just another commodification of home, the home of endless living beings. Of course resources must be taken from the surrounding environment, it is this give and take relationship that makes us a part of planetary systems. But in the Paradoxical Age, this taking was pushed to the point of extreme unsustainability.

In clear cutting forests, they did not ask if they had the right to remove all those creatures' homes, they did not ask if a proper trade for the extinction of countless species was some more lumber for some more development. The growth imperative did not prompt these questions, as in many cases, the answer would have been contradictory to the imperative to grow.

So how did the transition away from this housing system begin? How did housing transform from a system of commodification and financialization to one of community commons and that aims to meet both social and environmental needs with dignity? My fellow homemenders have assembled a pavilion filled with tales of those who lived through The Great Transition, to examine this idea. We thank you, we hope you enjoy and have a wonderful Commemoration Day.

Under the cover of a small but airy pavilion people mill about. Eight large boards hang suspended from the ceiling, six forming a circle around two. People funnel in to look at the central boards before moving between those that make up the outer circle. Clockwise arrows on the floor in front of each board direct both the feet and attention of attendees.

Home in Transition

How would you feel security if you did not have a right to housing? What if you worked twice as much and still couldn't afford a place to live, yet no housing commons existed to catch you?

For this pavilion, the homemenders have sifted through hundreds of hours of audio files from 'The Last Crash Oral History and Memory Archive' so that you may hear directly from those who had to live these questions we now only ponder.

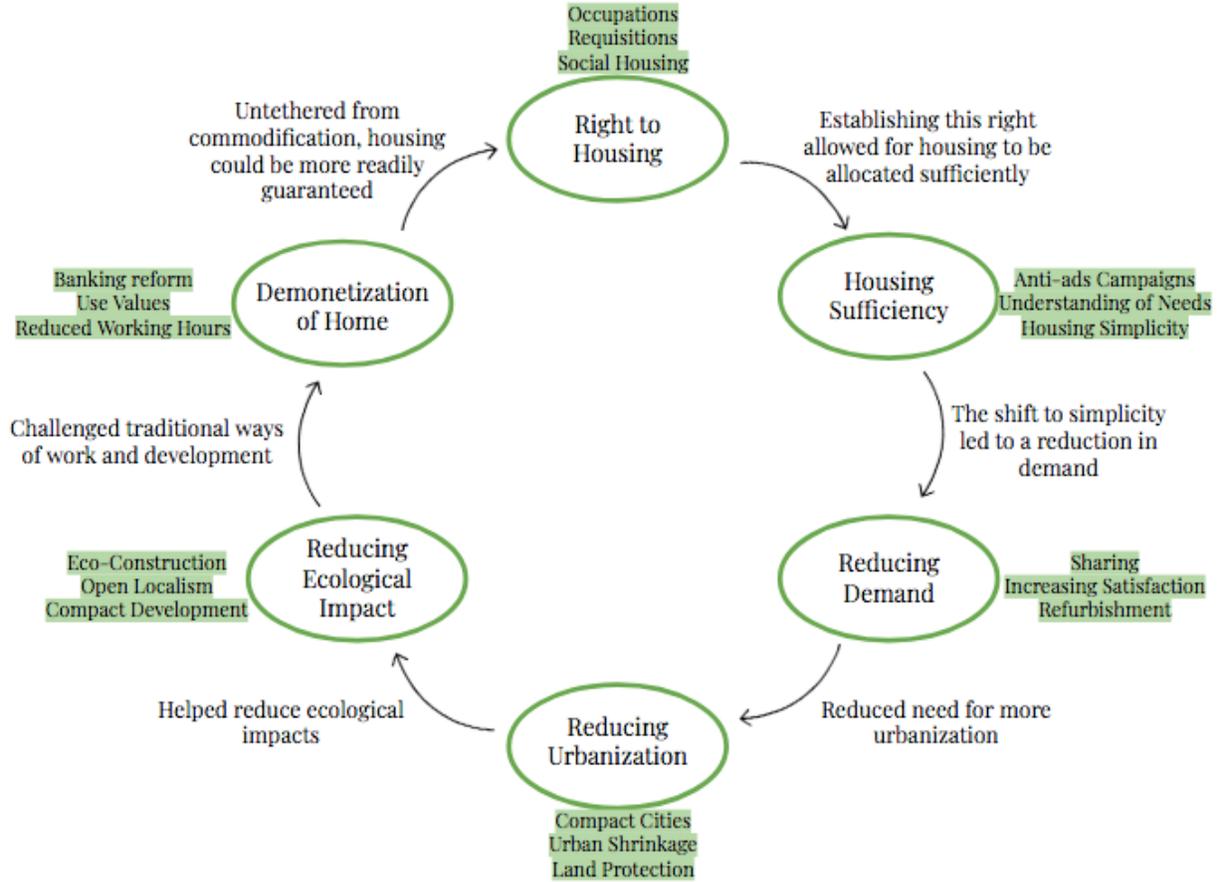
At the time these interviews were recorded, from 2042 to 2052, this now famed historic event was known simply as The Crash of 2042. Surprisingly, it wasn't a particularly catastrophic crash; but bolstered by an increasingly unnerved public ready for alternatives in the face of climate disaster, and compounded with the calamitous fire season of 2041 and subsequent uncovering of the climate redlining scandal in 2042, the period of transition away from growth in the Colorado Basin region was catalyzed. This period of transition is generally agreed to have spanned from 2042 to 2085.

It was not until 2061, almost 30 years after the crash, when The Great Transition had progressed so far along and the ties to capitalism and growth-imperatives were so severed, that its significance as 'The Last Crash' of the old system was recognized and this collection of interviews was renamed as such.

These interviews were conducted by the research arm of the Citizens Governing Body of the Colorado Basin when it was still in its infancy. It was established in 2030 at the insistence of the former federal government of the United States that the region democratically reallocate the water of the Colorado River. Following its successful and radical reallocation the body grew in popularity and became poised to branch out and address the pressing climate and social issues the region faced. This more representative democracy was able to readily provide disaster aid to citizens and recognized that halting and reversing climate change was the only way to avoid the total loss of housing and security.

In this pavilion we trace how reconfigurations in housing led by the Citizens Governing Body in six key sectors of housing following The Last Crash helped society transition away from industrial growth and towards a housing system we can recognize today.

A Circular Narrative for Housing Change



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Right to Housing

The Right to Housing was first established by the Citizens Governing Body and housing, which had been pervasively viewed as a commodity, became a human right in the region. As of the 2040 census there were an astonishing 32 vacant homes for every 1 person without one in the former United States. Establishing the Right to Housing gave the Colorado Basin tools and abilities to re-allocate this housing in a humane way. This new fundamental right took shape through housing occupations, requisitioning of housing, and social housing.

“We noticed a screen door that wasn’t sitting right on its hinge, since it wasn’t closed right it was unlocked so we just went in. Man when I tell you what type of palace was just sitting there empty, I couldn’t believe it. You could tell no one had been in there for a long while, about ready to start falling apart, but all the bones were there. All we needed anyways was a warm, dry place to sleep and no shelter in the city had any space. We were real quiet about it. That was right before the crash, almost two years ago now, no one came by checking so we just stayed. Got the utilities back on, started fixing things up a bit, and now we’re working on one of these recuperation proposals to really make it ours.”

“It’s all a mistake in my book. This is how things have always gone. Sure this crash might be historically a bit larger, but that’s no reason to throw everything off the rails. We foreclose on homes because those people couldn’t pay, it’s not sad, it’s just life. Don’t take out a mortgage if you can’t afford it. Removing these homes from the bank’s purview, not allowing us to recoup our losses on them, it’s criminal.” (When asked if he thought the bailouts were fair enough compensation for the requisitions homes he declined to add any further comment).

“My brother is pissed of course since he had a bunch of investment properties, he knew that places sitting empty risked being requisitioned but he refused to believe that those policies would actually go into effect. He was able to keep two for himself and one extra by saying he was gifting it to me and my family, pretty sweet for us, but the others have been requisitioned for the next 3 years and will be public housing. After that he can choose to reinhabit any of them again himself and the others he has to either sell to the governing body or to a social landlord, or goes through another 3 year requisition. I don’t really get why he’s so upset, like dude, they were all just sitting there, you’re going to get compensated for them if you choose to sell them. He feels like he’s missing out on his ability to cash in in the future but I think that future is gone, they aren’t even insurable anymore, all it would take is another fire year for them to disappear.”

The establishment of this right allowed for housing to be allocated sufficiently.

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Housing Sufficiency

As overconsumption became accepted as the glaring culprit of the climate crisis, a race to humility created a modesty economy where social currency rested in finding a balance between comfort and needs. Whereas before The Last Crash simple and small houses were illegal under many jurisdictions, afterwards, the overwhelming public desire for them was matched with programs and allowances that quickly made them the new norm. Sufficiency in housing was further driven by anti-ads campaigns and was understood as an intentional shift in public opinion to understand needs and favor simplicity over excess.

“I suppose I’d gotten so used to ignoring them that it took me a while to realize they were gone. I got off the subway one day and looked around and the street just looked different in a way I couldn’t name. Later my housemate mentioned the bans and it all clicked into place. I don’t miss them at all, the commute to work feels calmer.”

“Listen, we are just showing consumers their options, we are giving them choices, they have the freedom to buy or not buy anything they want. No one hates ads, they hate bad ads.”

“We went in with the Parker family on splitsy in Rosemont, we never could have dreamed of living there before. The schools are so great but all the houses there felt like mansions, we could never afford one of those massive places. From the outside the place looks pretty much the same and it still feels strange to see it and know it’s where I live, but inside, you know the refurb corps is doing that program where they split these types of places that are available into two or more units. It’s the perfect size for what we need and the kids love that they all have the same backyard.”

“All our neighbors who chose to rebuild are doing the same. You used to have to build a house that was at least 2,400 square feet on these lots, those types of minimum size requirements aren’t allowed anymore and it feels incredible to me that there ever was one. It feels almost embarrassing to live in one of those giant homes by yourself now. What did we think we needed all that space for? And to just lose it all in the fire, what a waste. The new place is built mostly with compacted soil right off our lot, and the best part? It’s fireproof.”

This shift from over-consumption to simplicity led to a reduction in overall housing demand.

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Reducing Demand

Before The Last Crash, demand for housing often outpaced what could be built and this scarcity bred fear and insecurity. This scarcity however was not real, it was a fabricated result of the poor allocation of housing of the time. As the shift in allocation began to take place, new practices were needed to help reveal and structure this ‘hidden’ abundance. When focus was placed on sharing, alternative housing structures, and extensive refurbishment projects with the goal of increasing satisfaction with existing housing, demand was reduced.

“The childcare was the main thing, we joined only about a year before the crash because we were just getting crushed. One of Mak’s friends from work was already in it and wouldn’t stop talking about it, the center was right on the property, he and his partner and his partner’s mom who lived with them all worked a day or two a month at the center and Mateo was able to be taken care of there any day they needed help. All the young kids and their parents who lived in the neighborhood got to know each other really well because of it, it just seemed to make sense. When a housing unit opened up we packed up the duplex that we lived in and made the move. When the crash happened we had a community, it felt like we could still breathe.”

“I lost my construction job in the crash, I thought another crash would end everything for my family but I got one of the refurbishment jobs and it’s been really interesting. Usually when things go South like this people really just stop building, and that’s exactly what’s happening now, at least in the private sector. But this refurb stuff has been a godsend, so many of us across the region back into jobs, not really building new, but fixing things up, changing designs. I’m working on at least 4 different jobs right now splitting single homes into doubles, we’re just keeping it simple, nothing fancy, but double the families are gonna have a place, and a *good* place at that.”

“I don’t think I ever fixed much in my house before all of this. Everything was so over-engineered, it felt like you had to hire someone else out to do it, very impersonal. I never gave 3D printing much thought before, it just seemed like another one of those novelty high-tech fads to me. Funny how now it feels like such an integral piece of getting out of this mess, and the materials research is just getting better and better, mycelial, algal, clay, it’s already making plastic seem like an ancient relic. I can’t even imagine how many parts production factories are about to be obsolete, or how far emissions will drop without having to transport all those bits and bobbles around the world. What’s more local than your neighborhood workshop?”

As a result of reduced demand and increased satisfaction with the existing housing stock, urbanization was not only able to be halted, but a process of deurbanization was even able to begin.

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Reducing Urbanization

In the first decade of The Great Transition in the former United States alone, an estimated 208,000 acres of parking space for personal automobiles were reclaimed. The gamification of parking space reclamation is one of the more well known and certainly charming stories of The Great Transition, but was only one part of the pursuit to reverse the intense urban sprawl that wreaked havoc on the natural landscapes of this time. Along with a focus of developing sustainable transportation for compact cities, shrinking unnecessary urban areas, and protecting land were steps which contributed to deurbanization.

“I can tell a difference since the bench flags started, there’s a lot less cars on the road. Some people don’t like em, they are scared. The mindset is that everyone who picks up hitchhikers is a serial killer and everyone who hitchhikes is a serial killer. Well I’m not one so I choose to believe they aren’t either. People tend to be kind when you give them a chance. There’s not that many people in this town anyways and you get to know people real quick on the ride to the store. I know the sharing flags are a way to make car use less common since more and more streets are turning into pedestrian only zones, and the rail project is opening soon. No more development outside of public transit nodes, they say, and I like that, but in the meantime, I am loving this little way of life.”

“The parking lots are the most satisfying. The satellites are still up there beaming away, doing their thing and I like to check on the pictures when I can. I feel like I spent my whole childhood helpless seeing little checkerboards of blankness spreading out over the forests. But I never paid attention to those blank black seas that swallowed up the cities. Every one that blurs to green now makes me feel hope.”

“It was just this old lot over on the corner, trash blew in and got stuck up behind the chain link fence, couldn’t get out, that’s what I mostly remember about it. What started it was the kids got excited about some tree project they learned about at school but we live in the city and they didn’t want to grow a tree in a pot on the window, so they climbed in there without anyone knowing and started putting in seeds. Rod saw what they were doing and at that point, with how crazy everything was, I guess he figured no one would be checking in on the lot for at least a while, not that they had before either, but anyways, he took down a panel on the fence so they could go ahead and get in and out easy. Pretty soon more and more of the fence just kept getting folded up and put away and the lot, well, it looked big. When something that’s been penned up gets let out it spreads its wings you know? Everyone noticed. After that things happened sort of fast. Lots of people in the neighborhood don’t really have much to do, lotsa people had worked for the big companies, or worked for little companies where people who worked for the big companies spent their money, so they were figuring out what to do with themselves and that lot was just ready for their ideas.”

From deurbanization, a reduction in ecological impacts followed naturally.

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Reducing Ecological Impact

As urbanization halted, so did ecological impacts of housing like the loss of natural habitats, the destruction of air and water quality, and perpetually increasing greenhouse gas emissions. Before

The Last Crash, housing had a significant negative impact on the environment. The last data collected on emissions in 2040 showed that the concrete industry alone accounted for 7% of all global carbon dioxide emissions. Ecological impacts from housing were intentionally reduced with tactics like eco-construction, open localism, and compact development, but mostly by not building new structures and relying on many of the previous components in this loop like refurbishment and sharing to meet everyone's needs.

“It was pretty hard to build with anything other than standard materials before. The coding guys had it all figured out for lumber and concrete and steel, but beyond that it was gonna be difficult for you. There has been this incredible push to change that and it's pretty common now for refurbishments, or the few re-builds that still happen to be done with local materials. There's a different feeling building that way, if you're using earth or cob directly from the surrounding land, straw from a neighboring farm, or keeping tires and glass out of the landfill, there's a sense of connectedness. The projects are more approachable and it seems like people are more willing to pitch in and build together which can be fun.”

“As a planner it's undoubtedly been the biggest challenge of my career. There's this imaginary line where housing consumption per person is kept at a level within the earth's bounds, while also guaranteeing everyone a good standard of living, and that line has become my life. When I was going to school for planning we spent hours debating the 'ideal' spatial model for sustainability, but the reality is that most communities are so far from realizing it, that it would mean intense demolition and rebuilding, and our resource load just cannot handle that! Nothing is off the table anymore, I walk into my office every day excited to see what wild and creative new ideas my coworkers have up.”

“I think our grandparents generation often thought of sustainability as leaving the city behind to go work the land and be self-sustaining, a real back-to-the-land type of movement, but we're putting in the work now to show that that experience of abundance people look for in the countryside can be brought to the city. We're tearing down barriers that made it challenging to get projects off the ground, we're planting in every bit of open space. The gleaning program had grown so large that now it's people's jobs to tend to and help distribute all the goods grown in public spaces. We don't need to go out and develop untouched land, this is a citrification of urbanization!”

Because all of these components were such an intense challenge to the industrial housing development complex and facilitated substantial and subversive changes in work/life balance, a window to demonetize housing opened.

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Demonetization of Home

As housing became more and more connected to its true social function, the idea of housing as a pure investment began to fall by the wayside. Massive reforms and replacements occurred in the banking sector which brought debt under control and put small-lending power into the hands of community members. Laws against speculation and profiteering from housing were put into place and houses began to be seen for their use value instead of a 'market' value. In turn, a broad reduction in working hours was observed as people free from debt and bloated housing costs were able to reallocate their time to other activities.

“The banks just don't give credit anymore. You can still get a loan from the community-lender if you need one for a project, but the power the big banks had to just create money out of thin air has diminished. I thought it might feel limiting at first, so many people used to live on credit to survive, but with debts forgiven and all of the new safety nets in place, I guess it's not necessary anymore. What it's really doing is just curbing all the excess consumption.”

“It's incredible how we went from a severe housing shortage to a flood of availability as soon as speculation was outlawed. Those fees to hold onto empty buildings must be significant because all those corporate landlords started dropping properties like crazy. Our apartment complex just went into a community building trust and as residents we now get fifty percent of the vote in decisions like rent, policies, and renovations. Obviously we want to keep the place nice, but our rent is still about to plummet and I feel like I can really breathe for the first time in a while.”

“I think everyone in our town has dropped to a four day work week by now and it seems like three day is right around the corner. The biggest change for me is probably that I have relationships with most people in my neighborhood now? Oh, and that traveling home for the holidays is actually relaxing! Having time to get places has changed everything. Zooming around in a car or plane gets you from point A to point B, but it was hectic and impersonal. It almost felt like teleportation, the journey was so shrunken and inconsequential that it could feel numbing. When I walk and bike to work, or take the train to my parents house, I see friends, I see something funny, I see something beautiful, or I just end up getting lost in my thoughts.”

Untethered from speculation, profiteering, and in many ways commodification itself, housing could be more readily guaranteed, making it easier to make good on the newly established Right to Housing. And thus the cycle looped itself, spiraling out in many directions, through many communities, slowly advancing and transforming the housing system to the one we see today.

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CHAPTER III
CONCLUSION

ANALYSIS AND REFLECTION

In this analysis I use Leavy's suggested criteria for evaluating fiction-based research to self-evaluate how the choices I made while crafting the creative work act to fulfill my specific goals of inquiry. The criteria focus on the creation of virtual reality, promotion of empathy, form, presence of ambiguity, substantive contribution, aesthetics, personal signature, and audience. My goals were focused at the reader's experience and were to; 1. Disrupt the dominant ideology of growth in their minds, 2. Unsettle stereotypes that degrowth=suffering, 3. Raise critical and political consciousness, and 4. Evoke resonance with the work.

When I think about the layout of this work, I separate the creative writing into three main sections, the growthism monologue, the homemender's monologue, and the pavilion boards. To me, the two monologues feel nothing short of a barrage on the capitalist accumulation of wealth, and while I question how effective this intense concentration of critique might be at holding the reader's attention, it met the disruptive spirit I was looking to engender in the first goal. The pavilion boards on the other hand were my attempt to provoke hope and interest in a degrowth future as outlined in my second goal. Goals three and four were not addressed in such obvious sections, instead I broadly aimed for them throughout the entirety of the piece.

The first fiction-based criteria for evaluating this work is focused on the creation of a virtual reality. I chose to use italicized, descriptive narratives to introduce each of the three sections, and though they are short and simple, to me they feel critical for the reader's perception of realism. Without them the piece would read more like a straight transcript of an event and the reader would be left in the dark when it comes to the scene settings and character introductions.

To promote empathy, I tried to put the reader in the shoes of those in the Paradoxical Age and even included an invitation to release judgements on these people who were trapped in that

system. My hope is that readers can gain empathy for the time we're in time by looking at it through this lens of the future.

In regards to form, I was specifically drawn to the future history genre after reading Naomi Oreskes and Erik Conway's book *The Collapse of Western Civilization*. I felt the emotional distance this format allowed the authors to be quite blunt about the issues in our society without seeming cruel. On the other end of things, the format of the pavilion boards allowed the reader to feel a sense of intimacy with those being quoted.

The next fiction-based criteria is the presence of ambiguity. I let the reader know that a transition had happened and gave some information about the historical context that catalyzed it, but I did not try to outline it closely. Leaving this ambiguous allows for the type of divergent thinking that is critical today because there is no one correct way to transition and what we need are people's ideas.

A major motivation in designing this project was the desire to create a work that was more accessible than conventional academic writing. It's here that I think this piece has the best chance of making a substantive contribution to the field of knowledge. In the attempt to make a more accessible work, something that stood out to me was just how much tense can completely change the feeling and imagination of writing. The pavilion boards are essentially just the ideas presented in *Housing for Degrowth* but in a different tense. I think these ideas are fascinating but the academic writing can without a doubt be dry and challenging to follow without the correct niche interest and background. Changing the narrative structure from 'this is a burgeoning idea that has great potential' to 'this is how this idea was implemented and here are the great results' is essentially the development of accessible hope through fictionalization.

I struggle to self-evaluate the criteria of aesthetic quality for this work. For me, this work

has fallen solidly into what Ira Glass calls ‘the taste gap’ (Popova, 2015). This is the idea that having good taste is exactly what inspires creative people to create, yet it takes a lot of time and effort before outcomes live up to expectations. If I had had more robust creative writing practice before going into this, I could have learned from earlier mistakes and perhaps the writing would have been a little closer to what I had hoped for. Because I don’t have this experience, I don’t feel equipped to evaluate the aesthetics of the piece.

My personal signature is most present in this work in the niche content choices and combinations. Part of why this work is necessary is that few people have married the topics of degrowth and housing. The interdisciplinary nature of this project and of the Sustainable Communities MA program in general allowed me to explore my specific interests at the intersection of these two topics, but examining them through the lens of Arts-Based Research made this work unique to me.

Earlier in this thesis I say my audience is ‘anyone who feels concerned about the climate crisis and is looking for ideas to address it’, and more specifically, ‘Western architects, planners, policymakers; those involved in our current housing narrative who may have the ability to think differently about their work’. I met them by trying to provide hope, and an abundance of ideas. In the creative writing chapter I chose to drop my readers directly into the narrative instead rather than explicitly expressing my goals. While this doesn’t make much of a difference for someone reading the entirety of this thesis, as a stand alone piece this choice furthered my intent to keep this work from being academic by allowing readers to experience it as a piece of fiction without expectations.

Personally, this writing process, and especially researching and crafting the pavilion pieces, made me feel more hopeful than I anticipated. That’s because a lot of the programs and

ideas are already in action somewhere in the world. Because I based the creative writing off a book of published peer-reviewed literature in the field of degrowth housing, all of this is very much already being thought about and worked on. There is a lot that could go into action right now with the right public sentiment and understanding, it's just finding that inflection point of large scale accessibility to really make it happen that seems like the biggest challenge. It's for this reason that this project continued to be compelling for me even when faced with the crushing everyday reality of our world and mainstream political/economic systems.

Concluding this analysis I reflect back on my research question: How can issues of growth-based housing be explored through writing speculative fiction and what kind of window into a degrowth future could this writing create? As Leavy establishes, in Fiction-based research the writing itself is the act of inquiry (2013). 'The Last Crash Centennial Commemoration' piece therefore is an 'answer' in part to my question, the research and writing process I embarked on to put the piece together is my 'how', and the windows into the future are endless as each new reader brings their own background and perspective to the work.

This work is only one example of the endless ways the 'how' of my question could be answered. When I was in the earlier stages of this work, trying to land on a form that would work for me, I played around with using collections of poetry or flash fiction. I can see the value in the more utilitarian approach I ended up taking with the monologues and boards as it lent me the ability to represent so many elements of my research, but it's interesting to imagine in what ways this work would be different in both its execution and perception if I had gone another direction. In the hands of different writers, or perhaps even still my own but outside of the constructs of the 'thesis', the possibilities for exploring housing in degrowth through fiction feel unlimited. I think that the potential in all the alternative forms this work could take to tell great little stories and be

really impactful is substantial.

LIMITATIONS

I think something that made working on this project so daunting is that I was constantly faced with just how much I didn't know. It's one thing to be striving for a working knowledge of degrowth and housing for degrowth literature, it's another to try to create a fictional world that is critical of almost every mainstream Western institution and not feel like you're drowning in the task of trying to grasp absolutely everything about how the world works. I will be the first to admit that I am not an expert in banking or housing development and if that ignorance shows in my work I can only hope it is in a way that is inconsequential to my research goals.

The way I designed this project made sense in Covid-19 times. I did not want to chance that another project could be disrupted and so I came up with this idea I could do essentially independently, but I had never attempted a creative writing project as expansive as this before and so I was really creating an organizational process on the fly. I struggled for a long time with how to structure the creative writing, and in the meantime I ended up writing little narrations of my notes from the readings. After a while I had so much written in that style, that for time's sake I had to just figure out how to make it work in the context of a fictional world.

The creative in me wants to throw this all away and start over with fresh perspectives. I wish the monologues sounded less academic, I wish the pavilion boards were more exciting. The writing in general is nothing like what I dreamed it up to be at the beginning of this process and that is okay, that is I suppose, the whole point. I couldn't call it research if I already knew what the outcome was going to be. But as someone doing the work and yearning to read something that inspires me in the way I want to inspire others, I can't help but feel like I'm left wanting.

A significant limitation that I found myself working through was the overwhelming scope of my focus. I thought that by constraining myself to the materials in *Housing for Degrowth*, I would have a manageable frame. That constraint was critical, but in the end it was probably still way too broad. I could have narrowed in on a few of these ideas and been able to go much more in depth. I really struggled with how much I had to simplify to cover all the topics I felt were important or interesting from the book and I ended up having pages and pages of cut ideas.

My ability to achieve the goals I outlined were also somewhat limited in that they were focused on the reader, yet I had no way to actually account for a reader's experience. I had editors' reactions and friends I could discuss bits and pieces with, but the focus of those conversations was generally the process, not the impact. Some sort of public feedback component would have been really interesting and helpful in evaluating how successfully my goals were met, but since the writing was the research for me, that additional step fell outside the scope of the project.

FUTURE RESEARCH

My personal and immediate plan for this work is to share it with Anitra Nelson and Francois Schneider, the editors of *Housing for Degrowth*, who I had the pleasure of connecting with briefly earlier in my project. I think it will feel good to close this out by catching back up with them and letting them see how the project ended up coming together. I'm interested in what they think about the usefulness of this piece and maybe we can start a conversation of other venues I could try to share it in the future.

I think that continuing to attempt to make degrowth literature more accessible is critical if the movement wants to continue gaining traction in the public eye. Stories are an incredible

opportunity for people to imagine different realities. Since I did the original literature review for this work and found the *Housing for Degrowth* book, the literature on degrowth has expanded. I am sure an examination of this new literature could spark many interesting ideas for creative writers, theorists, or passionate citizens willing to take up this call.

BIBLIOGRAPHY

- Alexander, Samuel. (2017, April 20). Life in a 'Degrowth' Economy, and Why You Might Actually Enjoy It. *counterpunch*. Retrieved from <https://www.counterpunch.org/2017/04/20/life-in-a-degrowth-economy-and-why-you-might-actually-enjoy-it/>
- Berg, A., & Hukkinen, J. I. (2011). The paradox of growth critique: Narrative analysis of the Finnish sustainable consumption and production debate. *Ecological Economics*, 72, 151-160.
- Berger, W. (2010). *Glimmer: How design can transform your life, your business, and maybe even the world*. Toronto: Vintage Canada.
- Bohm, S. (2013). *Why are carbon markets failing?* The Guardian. Retrieved from: <https://www.theguardian.com/sustainable-business/blog/why-are-carbon-markets-failing>
- Bullen, P. A. (2007). Adaptive reuse and sustainability of commercial buildings. *Facilities*, 25(1/2), 20-31.
- Cuchi, A and Sweatman, P. (2011). *A National Perspective on Spain's Buildings Sector: A Roadmap for a New Housing Sector*. GBCe.
- Cole, R. J. (2012). Regenerative design and development: current theory and practice. *Building Research & Information*, 40(1), 1-6.
- Courrier, K., & Speth, J.G. (2021). *The New Systems Reader: Alternatives to a Failed Economy*. Routledge.
- D'Alisa, G et al. (2015). *Degrowth: A vocabulary for a new era*. New York, NY: Routledge.
- Demaria, F. et al. (2013) What is Degrowth? From an Activist Slogan to a Social Movement. *Environmental Values*, 22, 191-215.
- Erickson, J. (2022). *The Progress Illusion: Reclaiming Our Future from the Fairytale of Economics*. Island Press.
- Ferrari, M. (2019). Refurbishment vs demolition? Social housing campaigning for degrowth. In A. Nelson & F. Schneider (Eds.) *Housing for degrowth: Principles, models, challenges and opportunities* (pp. 109-119). Routledge.
- Friedman, M. (1982). *Capitalism and Freedom*. University of Chicago Press.
- GBA. (2018). *Importance of Green Building*. Green Built Alliance. Retrieved from <https://www.greenbuilt.org/about/importance-of-green-building/>
- Gilding, P. (2011). *The Great Disruption: Why the Climate Crisis Will Bring On the End of Shopping and the Birth of a New World*. Bloomsbury Press.
- Gorz, A. (1980) *Ecology as Politics*. Black Rosa Books. First published in 1977 as *Écologie et liberté*. Galilée.
- Gou, Z., & Xie, X. (2017). Evolving green building: triple bottom line or regenerative design?. *Journal of Cleaner Production*, 153, 600-607.
- Harper, P. (2018). *The world's most sustainable office building isn't enough to save the planet*. dezeen. Retrieved from: https://www.dezeen.com/2018/10/12/opinion-foster-partners-bloomberg-sustainability-climate-change-phineas-harper/#disqus_thread
- Hickel, J. (2020). *Less is More: How Degrowth Will Save the World*. Windmill Books.
- Holladay, Martin. (2009, Sept 4). The Jevons Paradox. *Green Building Advisor*. Retrieved from <http://www.greenbuildingadvisor.com/blogs/dept/musings/jevons-paradox>
- IPCC. (2018). *IPCC special report on global warming of 1.5C, summary for policymakers*. 48th

- Session of the IPCC, Incheon, South Korea. Published Online.
- Jackson, T. (2009). *Prosperity without Growth: Economics for a Finite Planet*. Routledge.
- Kallis, G. (2015). *The Degrowth Alternative*. Great Transition Initiative.
- Kallis, G., Paulson, S., D'Alisa, G., & Demaria, F. (2020). *The Case for Degrowth*. Polity Press.
- Kasakove, S. (2022). Why the Road is Getting Even Rockier for First-Time Home Buyers. *The New York Times*. Retrieved from:
<https://www.nytimes.com/2022/04/23/us/corporate-real-estate-investors-housing-market.html>
- Kimmelman, M. (2012). Paved, but Still Alive. *The New York Times*. Retrieved from:
<https://www.nytimes.com/2012/01/08/arts/design/taking-parking-lots-seriously-as-public-spaces.html#:~:text=Ben%2DJoseph%20settles%20on%20a,it's%20a%20lot%20of%20pavement>.
- Laurenson, J. (2023). *French cities are banning billboards*. Marketplace. Retrieved from:
<https://www.marketplace.org/2023/03/06/french-cities-are-banning-billboards/>
- Leavy, P. (2009). *Method meets art: Arts-based research practice*. Guilford Press.
- Leavy, P. (2013). *Fiction as Research Practice: Short Stories, Noellas, and Novels*. Routledge.
- Leavy P. (2017). *Handbook of Arts-Based Research*. Guilford Press.
- Lietaert, M. (2010). Cohousings relevance to degrowth theories. *Journal of Cleaner Production*, 18(6), 576-580. doi:10.1016/j.jclepro.2009.11.016
- Loha, T. (2011). Housing: It's a wonderful right. *Human Rights Now Blog, December, 21*.
- Lovegrove, P. (2023). Energy Transition Outlook: renewables still not replacing fossil fuels in the global economy mix. *DNV*. Retrieved from
<https://www.dnv.com/news/energy-transition-outlook-renewables-still-not-replacing-fossil-fuels-in-the-global-energy-mix-247880>
- Malin, Nadav. (2010, July 30). The Problem with Net-Zero Buildings (and the Case for Net-Zero Neighborhoods). *Building Green*. Retrieved from
<https://www.buildinggreen.com/feature/problem-net-zero-buildings-and-case-net-zero-neighborhoods>
- Meadows, D. H. (1975). *The limits of growth: A report for the Club of Rome's project on the predicament of mankind*. New York/N.Y.: Universe Books.
- Murakami, K. (2023). The federal government has more than 8,000 vacant properties. Why aren't they being used to house the homeless? *Route Fifty*. Retrieved from:
<https://www.route-fifty.com/management/2023/07/federal-government-has-more-8000-vacant-properties-why-arent-they-being-used-house-homeless/388312/>
- Nelson, A., & Schneider, F. (2019). *Housing for degrowth: Principles, models, challenges and opportunities*. Abingdon, Oxon: Routledge.
- Nelson, A. (2019). Housing for growth narratives. In A. Nelson & F. Schneider (Eds.) *Housing for degrowth: Principles, models, challenges and opportunities* (pp. 3-13). Routledge.
- OECD (2019). Waste Management and the Circular Economy in Selected OECD Countries: Evidence from Environmental Performance Reviews. *OECD Library*. Retrieved from:
<https://doi.org/10.1787/9789264309395-en>
- Oreskes, N., & Conway, E. M. (2014). *The collapse of western civilization: a view from the future*. Columbia University Press.
- Parrique, T. (2019) Decoupling is dead! Long live degrowth! *degrowth*. Retrieved from:
<https://degrowth.info/blog/decoupling-is-dead-long-live-degrowth>
- Parrique, T. et al. (2019) Decoupling Debunked: Evidence and arguments against green growth

- as a sole strategy for sustainability. *European Environmental Bureau*. Retrieved from: <https://eeb.org/wp-content/uploads/2019/07/Decoupling-Debunked.pdf>
- Popova, M. (2015). The taste gap: Ira Glass on the secret of creative success, animated in living typography. *Brain Pickings*, 2.
- Rothstein, R. (2017). *The Color of Law: A Forgotten History of How Our Government Segregated America*. Liveright.
- Sanguinetti, A. (2013). *Cohousing: A behavioral approach, transformational practices, and the retrofit model*. University of California, Irvine.
- Schneider, F et al. (2010) *Crisis or opportunity? Economic degrowth for social equity and ecological sustainability*. *Journal of Cleaner Production*, 18, 511-518.
- Schneider, F. (2019). Housing for degrowth narratives. In A. Nelson & F. Schneider (Eds.) *Housing for degrowth: Principles, models, challenges and opportunities* (pp. 14-29). Routledge.
- Stott, R. (2018). *Degrowth: the Radical (Re)Action Needed to Avoid Total Economic and Environmental Collapse*. ArchDaily. Retrieved from: https://www.archdaily.com/905546/degrowth-the-radical-re-action-needed-to-avoid-total-economic-and-environmental-collapse?utm_medium=email&utm_source=ArchDaily%20List&kth=3,697,317
- Stuart, D., Gunderson, R., & Petersen, B. (2021). *Climate change solutions: Beyond the capital-climate contradiction*. University of Michigan Press.
- Thorpe, A. (2012). *Architecture and Design versus Consumerism: How Design Activism Confronts Growth*. Routledge.
- United Way NCA. (2023). *Vacant Homes vs. Homelessness in Cities around the U.S.* United Way of the National Capital Area. Retrieved from: <https://unitedwaynca.org/blog/vacant-homes-vs-homelessness-by-city/>
- Van Der Ryn, S. (2005). *Design for Life: The Architecture of Sim Van Der Ryn*. Gibbs Smith.
- Ward, J. et al. (2017). *The decoupling delusion: rethinking growth and sustainability*. The Conversation. Retrieved from: <https://theconversation.com/the-decoupling-delusion-rethinking-growth-and-sustainability-71996>
- Wells, B. (2018). *An Architecture of Degrowth*. arspace. Accessed at: <https://arspace.com/column/degrowth-architecture/>
- White, M. (2022). *Extreme Weather and Rising Insurance Rates Squeeze Retirees*. The New York Times. Retrieved from: <https://www.nytimes.com/2022/02/04/business/retirement-climate-change-homeowners-insurance.html>
- Wood, E. (1999). "The Agrarian Origin of Capitalism," *The Origin of Capitalism: A Longer View*. Monthly Review Press.
- WPCCC (2010). 'People's Agreement of Cochabamba'. Retrieved from: <http://pwccc.wordpress.com/2010/04/24/peoplesagreement/#more-1584>
- Xue, J. (2012). Potentials for decoupling housing-related environmental impacts from economic growth. *Environmental Development*, 4, 18-35.
- Xue, J. (2014). Is eco-village/urban village the future of a degrowth society? An urban planners perspective. *Ecological Economics*, 105, 130-138. doi:10.1016/j.ecolecon.2014.06.003

APPENDIX

Skeletal Structure Process for the Circular Narrative

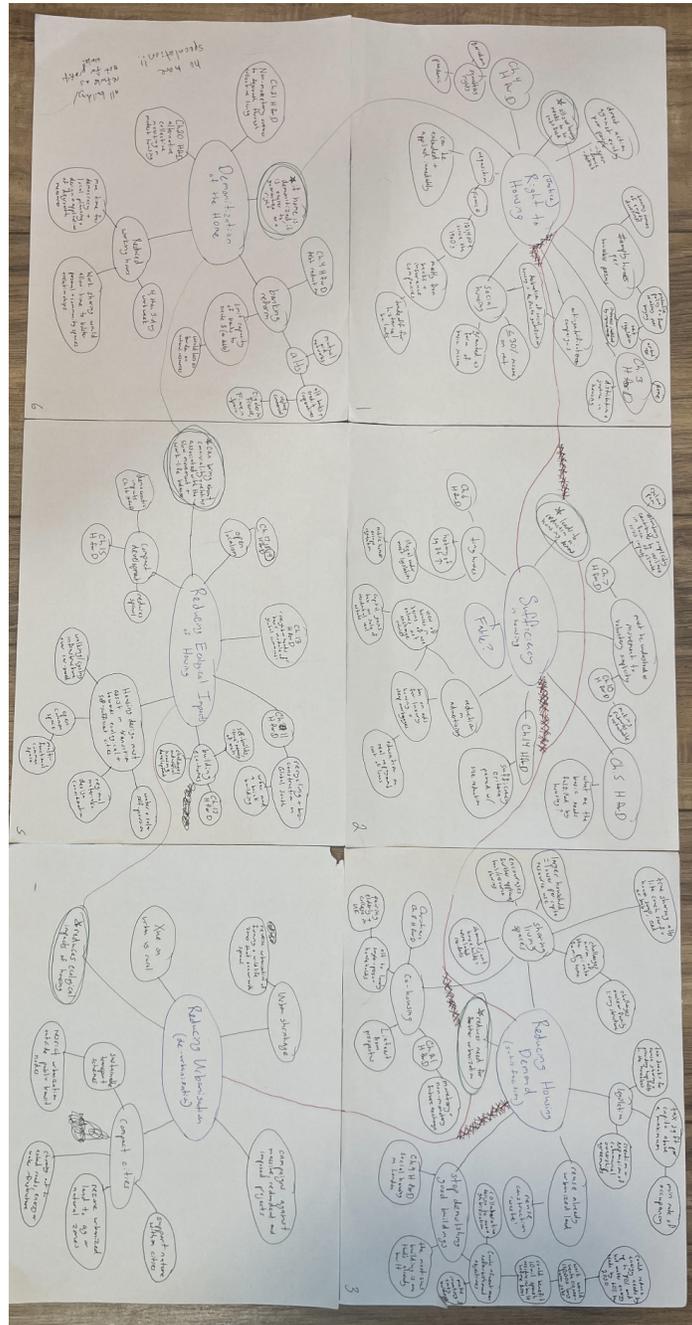


Figure 3. Working flow-chart for the six-part circular narrative for housing in degrowth