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A systems analysis of the social impact of regeneration

A case study of Govanhill, Glasgow using Theory U to co-create transformative intervention proposals to enable socially equitable regeneration

Sustainability and Adaptation

Robin Duval

June 2020
Abstract

This study uses Theory U to address issues of social inequality during urban regeneration. The drivers of regeneration and gentrification are outlined in the context of post-industrial urban development. Gentrification is framed as a wicked problem; symptomatic of neoliberal economic policy (Kallin and Slater, 2014, Brenner and Theodore, 2002, McKendry and Janos, 2015, Smith, 1979, Smith, 1996, Anguelovski et al., 2016).

Theory U is a systems-thinking methodology which aims to transcend the market-based political and economic paradigms, which produce inequality (Scharmer and Kaufer, 2013). This study applies Theory U to a regeneration project in Govanhill, Glasgow to enable socially equitable regeneration by analyzing the structural and relational dimensions of inequality (Tschakert et al., 2013).

The iceberg model and social fields of relating are introduced as frameworks to support a paradigm shift and influence the social construction of systems (Scharmer and Kaufer, 2013, Scharmer, 2018). These frameworks were used to analyse personal and systemic sources of change which could influence the beneficiaries of regeneration. Sensing Journey interviews and a Social Presencing Theatre 4D relationship mapping event explored how personal and relational attitudes influence local outcomes (Scharmer, 2018). A systems map was produced which identified leverage points to enable socially equitable regeneration (Meadows, 2008).

This analysis identified the following intervention proposals which could enable equitable regeneration: creating spaces where the challenges people experience due to structural inequality can be approached with an open mind, heart and will; strengthening community cohesion to improve intercultural understanding and opportunities for multi-lingual people; developing structures to support equality of opportunity and awareness of ecosystem limits; and utilizing the power of counterculture and social media to transform societal objectives towards interconnected socio-ecological wellbeing.

Emerging approaches which could increase social equality were also used to construct a short and long-term vision (Ricigliano, 2020). These approaches included: intercultural events; improving attitudes to linguistic diversity in education; resource sharing and solidarity economy initiatives; community outreach, mental health training and fulfilling opportunities for low-income and underrepresented groups in the workplace; and social enterprises paying a living wage and sharing positive stories on social media.

This study illustrates that Theory U can be used to develop a transformative approach to regeneration which address the challenges of environmental gentrification by incorporating structures and relational attitudes to enable equality of opportunity and support collective socio-ecological wellbeing thus transcending neoliberal economic paradigms.
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Acronyms

CAT  Centre for Alternative Technology  
GCC  Glasgow City Council  
GRG  Govanhill Regeneration Group  
ITA  Inequality and Transformation Analyses  
LGBTQI  Lesbian Gay Bisexual Transgender Questioning Intersex  
SPT  Social Presencing Theatre  
UEL  University of East London  
UN  United Nations  
UNFCCC  United Nations Framework Convention on Climate Change  
WHO  World Health Organisation

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1. Introduction

1.1. Context

Cities are microcosms of global environmental change presenting both the challenges and solutions for sustainability (Grimm et al., 2008). Cities produce 60-70% of the world’s greenhouse gas emissions (UN_Habitat, 2011, Garcetti, 2015), and house more than 50% of the world’s population (UN, 2017, Garcetti, 2015). Therefore, distributed action in cities is key to limiting global warming to 1.5 °C above pre-industrial levels (Watts et al., 2016, Garcetti, 2015, Spector, 2015, UNFCCC, 2015).

By 2050 the global population is set to rise by 29% (UN, 2017). Urbanisation is increasing due to expectations of ‘better living standards, improved health, higher education and greater gender equality’ (Head and Lam, 2011) but people often end up in dire financial situations, homeless or in slum housing, due to lack of affordable housing and rising food and fuel costs (Head and Lam, 2011).

Urban densification, or regeneration, aims to address the sustainability challenges of population growth and urbanization by providing city-center housing, with an integrated network of greenspace and improved public and active travel infrastructure (Rudlin and Falk, 1999, Benedict and McMahon, 2002). However, these environmental improvements to historically disadvantaged inner-urban areas, often lead to an influx of affluent residents, increasing rent prices and displacing long term low-income residents (Rigolon and Németh, 2018). This suburbanisation of poverty increases social inequality, one of the issues densification was designed to address (Wolch et al., 2014, Cooke, 2010). This paradoxical effect is called environmental gentrification (Wolch et al., 2014).


The literature is clear that gentrification is a symptom of neoliberal economic thought. However, there is limited evidence of efforts to transcend these economic paradigms to enable socially equitable regeneration.
1.2. Research strategy

Theory U is a systems-thinking methodology which supports people to transform social systems by transcending the market-based political and economic paradigms, which produce inequality (Scharmer and Kaufer, 2013). This transformative systems-thinking approach has been used to analyse the contextual structural and relational dimensions of inequality (Pelling et al., 2015, Tschakert et al., 2013, Popper, 1966, Burns, 2007). This approach enables the identification of leverage points, where a small change can lead to a large shift in behavior (Meadows, 2008). Figure 1 details the research aims and objectives.

<table>
<thead>
<tr>
<th>Research Aims</th>
</tr>
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<tbody>
<tr>
<td>This research aims to explore systemic issues which increase social inequality during urban regeneration through a case study of Govanhill, Glasgow.</td>
</tr>
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<table>
<thead>
<tr>
<th>Research Objectives</th>
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<tbody>
<tr>
<td>1. Explore how Theory U could be applied to regeneration projects to increase social equality.</td>
</tr>
<tr>
<td>2. Implement a case study applying Theory U to regeneration in Govanhill, Glasgow.</td>
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<tr>
<td>3. Define gentrification.</td>
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<tr>
<td>4. Identify the forces driving social inequality during urban regeneration using Sensing Journey interviews and Social Presencing Theatre 4D mapping.</td>
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<tr>
<td>5. Explore personal and systemic sources of change to increase social equality during regeneration using Sensing Journey interviews and Social Presencing Theatre 4D mapping.</td>
</tr>
<tr>
<td>6. Produce a systems map identifying key leverage points to increase social equality during regeneration.</td>
</tr>
<tr>
<td>7. Generate and appraise intervention proposals.</td>
</tr>
<tr>
<td>8. Evaluate how shifts in participants social fields (operational behaviours, relationships and structures) could contribute towards a more equitable future.</td>
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Figure 1. Research aims and objectives (Author, 2020)

This study applies Theory U to a regeneration project in Govanhill, Glasgow to enable socially equitable regeneration (Figure 1, 1). A case study was selected to enable deep analysis (Thomas, 2016) of social relations during regeneration (Figure 1, 2). In Govanhill, a public petition has called for government intervention to address the deterioration of tenement buildings which has led to investment in regeneration initiatives (Stewart, 2018, Botti, 2013, Turbett, 2018). Social enterprises and a new cycle path have recently appeared on the main high street. It is the most multicultural area in Scotland with a historic working-class community and a recent influx of more middle-class residents (Stewart, 2018, GRG, 2017). These qualities present an ideal case study to address complex challenges in urban transitions and racial and socio-economic inequality in the UK.

The research scope has focused on community organisations’ approaches to social inequality and sustainability in Govanhill.
Theory U’s social fields and iceberg model frameworks were used to identify personal and systemic sources of change which could influence the beneficiaries of regeneration (Figure 1, 5). Social fields address how qualities of behaving and relating collectively create the procedures and symptoms visible in the social system (Scharmer and Kaufer, 2013). The iceberg model is a visual representation of the products of the global economic system which aims to involve affected communities in the co-creation of structures and economic concepts which support collective wellbeing (Scharmer and Kaufer, 2013).

Data was collected using Theory U’s Sensing Journey interview and Social Presencing Theatre 4D mapping methods. Sensing Journey interviews apply principles from appreciative inquiry by using open questions to influence paradigms of thought, activate personal agency and build energy for change (Whitney and Cooperrider, 2011). Sensing Journey interviews were conducted with community organisations and social enterprises who’s work addressed socio-economic vulnerability and aimed to contribute towards a more equitable sustainable future. These interviews enabled the researcher to develop an understanding of the interviewees social field: their values, motivations and relational attitudes (Scharmer, 2019a).

An SPT 4D relationship mapping event enabled participants to investigate how relational shifts could influence future outcomes in the local social system (Scharmer, 2018). The event was conducted in Govanhill as part of the Scottish Government Firestarter Festival (WorkforceScotland, 2019).

These methods support participants to reflect on how their interactions contribute to systemic conditions. The operational behaviours, relationships and structures presented in the social fields and iceberg model frameworks were used to analyse interview and event data in order to identify shifts in social fields which could contribute towards a more equitable future (Figure 1, 8).

A systems map was produced which used causal feedback loops to articulate drivers of social inequality during regeneration and identify leverage points to enable socially equitable regeneration (Figure 1, 4 & 6) (Meadows, 2008).

Common meaning and capacity for learning are core principles of adaptative capacity which increase resilience to the change and uncertainty present in complex social systems (Missimer et al., 2017). Stage 1-4 of the U-process involves uncovering a common intention by listening to divergent voices, realising one’s role as part of an emerging future, crystallising this vision and learning through iteration (Scharmer, 2018). Emerging approaches which could increase social equality were identified and used to construct a short and long-term vision (Ricigliano, 2020).

The structural and relational leverage points identified from the systems map and social fields analysis informed intervention proposals which considered how to strengthen existing transformative capacities to realise a vision for socially equitable regeneration (Figure 1, 7).
2. Literature review

2.1 Regeneration and gentrification

The shift from an industrial society to the information age (Bell, 1973, Castells, 1996) has led to the redevelopment, or regeneration, of urban ex-industrial areas (Cervellati, 1984) to provide housing for a growing population (Rudlin and Falk, 1999). City consumption of food, water, land and energy resources provide a microcosm of global land-use and environmental change, presenting both the challenges and solutions for sustainability (Lehmann, 2010, Grimm et al., 2008).

The compact walkable city has been posited as a model to address environmental concerns (EU_Commission, 1990, Rudlin and Falk, 1999) encompassing ‘..public transport, health, poverty, social exclusion, public space and inner city landscapes’ (Pachauri, 2009 in Lehmann, 2010). Urban densification aims to address the challenges of population growth and urbanization by limiting urban sprawl through mixed use developments providing city-center housing (Rudlin and Falk, 1999, Benedict and McMahon, 2002). An integrated network of green and active travel infrastructure is often incorporated in these developments to reduce demand for transport fuel, address health concerns, biodiversity loss, air pollution, storm water and the urban heat island effect and improve urban quality-of-life (Rudlin and Falk, 1999, Benedict and McMahon, 2002, Diaz et al., 2019). However, urban greening measures often lead to environmental gentrification (Checker, 2011, Dooling, 2009). This occurs when investment in improvements to environmental quality in historically disadvantaged neighbourhoods, causes an influx of affluent residents. This rising demand, increases property value and rent prices, displacing less affluent residents (Rigolon and Németh, 2018). Greening measures may include green infrastructure (Cucca, 2012, Wolch et al., 2014, Haaland and van den Bosch, 2015, Anguelovski et al., 2016, Haase et al., 2017), new cycle paths (Stehlin, 2015, Flanagan et al., 2016) or the redevelopment of brownfield sites into ‘small scale, boutique, clean and green manufacturing businesses’ (Curran and Hamilton, 2012, Checker, 2015).

Some authors argue that public-private green growth partnerships invest in environmental improvements as a deliberate strategy to increase property values and tax revenues in historically industrial or disadvantaged neighbourhoods by attracting a new urban middle class (Gould and Lewis, 2017, Immergluck, 2009, Loughran, 2014, Roy, 2015, Rigolon and Németh, 2018). However, displacement of low-income residents is not an objective of green urbanist theories. On the contrary, key objectives include affordable housing, sense of place and cultural identity (Lehmann, 2011).
Wolch et al. (2014) refer to the ‘urban green space paradox’ where successful urban greening projects improve the liveability of low income and/ or industrial areas ‘altering housing opportunities and the commercial/ retail infrastructure that supports lower income communities’ (Zukin et al., 2009), leading to the displacement of the very people green space strategies were designed to benefit. The displacement can hence be seen as a systemic effect which requires greater consideration of the contextual in which the problem is embedded (Popper, 1966).

2.1.1 Underlying causes of gentrification

Deindustrialisation and austerity have created unemployment, state welfare-cuts and national disinvestment in urban development (Lees et al., 2013, Brenner and Theodore, 2002, Cocola-Gant, 2019). However, neoliberal discourses individualise and de-structuralise poverty, presenting it as a result of individual failure (Cochrane, 2007). These factors contribute to the stigmatisation of people and places, rather than addressing how systems of economic distribution or political control produce inequality (Kallin and Slater, 2014).

The literature on gentrification includes production and consumption side theories relating to the consumption of culture in an emancipatory city (Ley, 1996, Lees, 2000, Cocola-Gant, 2019); and the production of urban space through the exploitation of rent-gaps between the current and potential value of inner urban land (Harvey, 1978, Smith, 1979, Smith, 1996, Cocola-Gant, 2019). Underdevelopment devalorises inner city capital producing a rent-gap which enables profitable reinvestment through gentrification (Smith, 1979, Smith, 1996, Cocola-Gant, 2019).

Cocola-Gant (2019) argues that investment in urban redevelopment which exploits rent-gaps (Smith, 1979, Smith, 1996) reproduces capitalism in urban space (Slater, 2017, Smith, 2002) by promoting capital mobility and consumption (Brenner and Theodore, 2002), over human needs and equity, a central quality of neoliberalism. Kallin and Slater (2014) contend that gentrification is a market-based solution to stigmatised places which does not address the political and economic root causes of inequality and socioeconomic vulnerability. The displacement of low-income communities and communities of colour in the process of gentrification highlights intersectional (Crenshaw, 1989 (re-published 2018)) structural oppression (Pincus, 1996, Bonilla-Silva, 1997) within the planning system and resilience research which increases the vulnerability of these communities (Walsh, 2018, Walsh, 2015).
Transformative adaptation requires the root causes of climatic risk and vulnerability to be addressed (Pelling et al., 2015) by examining the ‘structural and relational dimensions of inequality that shape multiple socio-cultural, economic, institutional and political drivers of vulnerability’ (Tschakert et al., 2013). This requires a shift in ‘the way individuals perceive the world and their place in it’ through a critique of the prevailing balance of rights and responsibilities, or power dynamics, in society (Pelling, 2011). This transformative approach to political, economic or environmental shocks ‘opens scope for new understandings of identity and social organization’ (Pelling, 2011).

Community resistance to environmental gentrification provides a platform to challenge the neoliberal ideology of green growth to incorporate social sustainability (McKendry and Janos, 2015). Anguelovski (2016) calls for the income inequality and lack of affordable housing which drives socio-spatial inequality to be addressed, by fundamentally altering economic growth paradigms (Anguelovski et al., 2016, Kates et al., 2012, Pelling et al., 2015) to consider collective welfare (Methmann and Oels, 2015, Oels, 2005, Bäckstrand and Lövbrand, 2019, Patterson et al., 2017). Proactive engagement with social justice issues is critical to building political feasibility for 1.5°C transformations and avoiding a backlash against climate action (Patterson et al., 2017). Participative processes can be used to construct a new form of urban solidarism which prioritises those excluded from the post-industrial economy by asking how redevelopment will strengthen existing businesses and improve the pay and wellbeing of existing residents (McKendry and Janos, 2015). Anguelovski (2016) calls for open multi-level dialogue with marginalised urban residents to evaluate the distribution of adaptation benefits, costs and responsibilities across society, manage private interests and ensure equitable provision.

2.2 Systems approach to gentrification using Theory U

Systemic effects such as the urban green space paradox are characteristic of wicked problems, where a single intervention can have cumulative, non-linear, opposing outcomes (Burns, 2007). The overall behavior of the system is determined by cumulative interactions, and may not correspond to the intentions of any single actor; the system purpose is emergent, deduced from its behavior (Meadows, 2008, Wheatley and Frieze, 2006). Wicked problems are complex, they have no simple solution, no single agitator or set-list of causes (Rittel and Webber, 1973, Trigg, 2017); they require consideration of the system in which the problem is embedded (Popper, 1966, Ricigliano, 2020).

Gentrification is a wicked problem requiring a contextual solution therefore a systems-thinking approach was applied in this study. This approach enables participants to make sense of interactional contradictions (Weil, 1997) by considering how values and power dynamics (Ulrich, 1983) influence the structural and relational dimensions of inequality (Tschakert et al., 2013) in urban socially constructed systems (Midgley, 2000, Flood, 1999, Byrne, 1998, Burns, 2007).
Systems thinking aims to identify leverage points where a small change can be taken up and amplified by the system, leading to a large shift in behavior (Meadows, 2008, Ricigliano, 2020). Leverage points can be identified by developing causal feedback loops to form a systems map (Stroh, 2015, Senge, 2006 [1990]). Meadows (2008) notes that transcending paradigms, by acknowledging the lack of certainty in any worldview, is the most powerful leverage point to intervene in a system. She notes individual paradigms are the sources of systems; ‘shared social agreements about the nature of reality’ from which goals, information flows, feedbacks, stocks, flows and everything else comes (Meadows, 2008). Transformation, she says, comes about from suspending personal paradigms and utilizing different paradigms in different contexts (Meadows, 2008).

2.2.1 Transcending economic paradigms using Theory U

Theory U is a consciousness-based systems thinking methodology which aims to ‘transform capitalism’ (Scharmer, 2008) by evolving the paradigms of thought which inform human consciousness (Scharmer, 2018). Theory U aims to close the feedback loop between collective impact and shared awareness by making the system sense and see itself (Scharmer, 2018). Sensing refers to an embodied process of meaning making which transcends cognitive knowing (Ludevig, 2015). Theory U applies principles from action research, design thinking, mindfulness, cognition science, phenomenology and social movements (Scharmer, 2018).

The U process consists of 5 stages incorporating observation, reflection and action through active listening to divergent voices at the edges of the current system to uncover an emergent common intention, realise a role in creating this vision, learn through iteration and scale enabling infrastructure (Figure 2).

| Cointiate: uncovering a common intention through connecting to one’s inner purpose (what life calls you to do) and through empathetic listening to those outside social and institutional bubbles; |
| Co-sensing: noticing what is emerging at the edges of the current system through observation, deep listening and collective sense making; |
| Presencing: connecting to one’s purpose and potential as part of an emerging future; |
| Co-create: crystallising a vision and intention, and learning through iteration; |
| Co-evolve: scaling the new by creating enabling infrastructures, capacity building mechanisms and platforms for cultivating generative relationships. |

Figure 2. The U process (Author, 2020; Scharmer, 2018)
2.2.2 The iceberg model

The iceberg model aims to enable a paradigm shift by providing a representation of the current economic system (Meadows, 2008); contextualizing visible events with hidden patterns of behavior, system structures and worldviews to support lasting solutions (Meadows, no date).

The Theory U iceberg aims to illustrate how paradigms of economic thought create structural disconnects which lead to symptoms of ecological, social and spiritual division in society (Figure 3). It provides a framework to sense emerging alternative approaches, crystallize a vision and create enabling infrastructures.

![The Iceberg model: symptoms, structures and paradigms of thought](Scharmer and Kaufer, 2013)
Symptoms: The 3 divides

Above the surface are symptoms or events which are visible in society. Scharmer and Kaufer (2013) call these symptoms the ecological, social and spiritual divides relating to overconsumption (Pollard et al., 2010), inequality (Davies et al., 2007) and a loss of meaning and sense of potential in individuals, leading to increased rates of depression and suicide (WHO, no date). These symptoms represent a divide between individuals, nature, other people, and their own potential (Scharmer, 2018, Scharmer and Kaufer, 2013).

Structural disconnects

Below the surface are 8 structural bubbles (Figure 3), which contribute to these symptoms and are influenced by economic paradigms of thought.

The financial, ownership and income bubbles relate to speculation, private ownership and income inequality. The technological, consumerism and ecological bubbles relate to quick fix solutions which do not address route causes and overconsumption of resources fueled by a paradigm of economic growth. The leadership and governance bubbles relate to institutional silos and competitive markets.

These structural disconnects produce systems that are designed not to learn because ‘delayed or broken feedback loops prevent decision makers from experiencing and personally feeling the impact of their decisions’ leading to a lack of institutional learning and adaption (Scharmer and Kaufer, 2013).
Paradigms of economic thought

These structural disconnects can be leveraged as a tool to transform visible symptoms by addressing and influencing the paradigms of thought informing these structures.

Scharmer and Kaufer (2013) propose four frameworks of economic thought (Table 1): three which have informed modern economics up to this point; and a fourth awareness-based co-creative framework; each presents different solutions to the problems facing the modern economy. These frameworks are: state centric top-down governance lacking individual freedom and initiative; competitive free-market with social and environmental externalities; regulated social-market where lobbying power creates bias; and co-creative whole system economies requiring methods and tools to rethink and evolve economic concepts by shifting the quality of awareness of participants in the system (Figure 3 & Table 1) (Scharmer and Kaufer, 2013, Scharmer, 2018). This co-creative approach will be applied to the issue of gentrification.


<table>
<thead>
<tr>
<th>Economic paradigm</th>
<th>Aim</th>
<th>Medium</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>State-centric</td>
<td>Order</td>
<td>Top down governance</td>
<td>Lack of individual freedom and initiative</td>
</tr>
<tr>
<td>Free market</td>
<td>Growth</td>
<td>Competition</td>
<td>Social and environmental externalities</td>
</tr>
<tr>
<td>Social Market</td>
<td>Address externalities of the market</td>
<td>Regulation, aid and social security</td>
<td>Powerful lobbyists</td>
</tr>
<tr>
<td>Co-creative</td>
<td>Transcend paradigms to create an economic model with no externalities</td>
<td>Increasing the awareness of participants in the system through generative dialogue and Social Presencing Theatre</td>
<td>Engagement of participants</td>
</tr>
</tbody>
</table>
2.2.3 Social Fields: how individual behavior and social relations can transform systems

The Theory U social fields framework follows a similar structure to the Iceberg model on a personal and relational level (Figure 4) by addressing ‘the social system we collectively enact’ (Scharmer, 2018). At its source is the ‘blindspot of leadership’; a recognition of how personal values, perception and self-identity influence behaviour, relationships, processes and ultimately results (Figure 4). Data analysis will consider how qualities of behaving and relating influence operating structures; and how these structures contribute to symptoms of depression, inequality and overconsumption present in the three divides (Figure 4).

Closing the feedback loop between enacted behaviour and awareness and thought is the essence of systems thinking (Scharmer, 2018). Theory U addresses cognitive dissonance; a disharmony experienced when an individual’s behavior conflicts with beliefs which are integral to their self-identity (Festinger, 1962). The Theory U method aims to reintegrate mind and matter; thought and action; governance, leadership and frontline work (Scharmer and Kaufer, 2013). Addressing this gap between thought and action requires greater awareness of the operational social field; ‘the quality of relationships among individuals, teams and institutions that give rise to collective behaviour and practical results’ (Scharmer, 2018).
Metrics to measure social fields therefore comprise of qualities of behaving and relating that influence the processes and structural bubbles in the iceberg model and hence lead to visible results (Figure 4 & Figure 11). It is these qualities of behaving and relating which create reality.

Theory U refers to two qualities of behaviour: presencing and absencing. These social economies of emergence and pathological destruction differ in the attitudes of the mind, heart and the will (Figure 5) (Scharmer and Kaufer, 2013).

<table>
<thead>
<tr>
<th>Presencing</th>
<th>Absencing</th>
</tr>
</thead>
<tbody>
<tr>
<td>open mind – curiosity – attending to emerging operating structures</td>
<td>closed mind – doubt/ ignorance/ judgement</td>
</tr>
<tr>
<td>open heart – compassion/ empathy</td>
<td>closed heart - fear</td>
</tr>
<tr>
<td>open will – courage to lean into the field of future possibility</td>
<td>closed will - cynicism</td>
</tr>
</tbody>
</table>

Figure 5. Qualities of behaviour: presencing and absencing (Author, 2020; Scharmer, 2018)

Attitudes of emergence or presencing (present-sensing) are characterised by curiosity, compassion and courage, to sense into an emerging future possibility by attending to the cracks; visible disruptions where new personal, relational, institutional and global operating structures are being born (Figure 5) (Scharmer and Kaufer, 2013). Attitudes of absencing relate to the shutting down of the mind, heart and the will to act through mindsets of judgement, fear and cynicism (Figure 5) (Scharmer and Kaufer, 2013).

Scharmer notes that ‘better relating to others; better relating to the whole system; and better relating to oneself’ are core to the transition from a free-market economy to a co-creative economy (Scharmer and Kaufer, 2013). This transition requires greater awareness of the qualities of our personal, relational, institutional and global relationships (Scharmer and Kaufer, 2013). These qualities include individual and organizational identity, perception of and empathy towards others, and awareness of power and agency in realizing the whole system (Figure 6).

| i) Personal/ Self – what are our core values, how do we see our own role in systemic challenges, how do we feel towards others. |
| i) Relational/ Other – how to we relate to & perceive others |
| ii) Institutional – how are our organisations perceived & governed; how do they relate to other organisations |
| iv) Whole/ Global Ecosystem – how do we perceive our power & privilege; what is our personal role & responsibility in enabling equality of opportunity & collective socio-ecological wellbeing. |

Figure 6. Relational social field (Author, 2020)
Elizabeth Walsh (2015) has explored the topic of gentrification in Austin, Texas using Theory U. Walsh used participant observation at community meetings to analyse the social dynamics among actors involved in home repair programs supporting low-income homeowners in gentrifying neighbourhoods. Following each meeting she conducted reflective journaling noting her role in these dynamics, her own qualities of listening, and any shifts in the social landscape. The performance context of each home repair program was analysed using 1st, 2nd and 3rd person perspectives. These social and experiential perspectives were complemented by 3rd person material analysis to articulate political interactions at the interpersonal, neighbourhood and city levels.

Her research employed a dynamic relational approach to justice incorporating capability (Nussbaum and Sen, 1993, Nussbaum, 2001, Sen, 2001) and recognition (Fainstein, 2014, Schlosberg, 2009). These approaches consider how ‘the interactions of actors in political processes and social spaces’ influence the distribution of resources and hence available opportunities (Walsh, 2015). Walsh (2015) argues that these factors affect the wellbeing of individuals and their capacity to care for the living systems they inhabit. She concludes that gentrification could be reframed as an opportunity to recognize ‘other human beings as neighbors.’ She recommends the creation of ‘structures to support recognition, empathetic engagement and collaborative action to leverage diversity in support of flourishing, resilient, just community development’ (Walsh, 2015).

2.3 Social emergence

Burns (2007) notes that ‘systems should be seen as a way of thinking about human relations rather than as a map of reality’. Their transformative potential lies in contextual, adaptive, responsive processes of relating between interconnected people and organisations (Stacey, 2003, Burns, 2007).

During social emergence these processes of relating evolve from networks self-organised to ‘support the diversity and viability of all’; to communities of practice which share and create new knowledge to advance the field of practice; to systems of influence where ‘the practices developed by courageous communities become the accepted standard’ (Wheatley and Frieze, 2006). These collaborative approaches to problem solving stimulate social learning (Robinson, 2003) where the understanding, intentions and actions of individuals change through their relationships (Kahane, 2012). Social learning also contributes to a recognition of personal ontological agency in shaping possible futures, and enables an awareness of the discordant pluralism of multiple irreconcilable perspectives (Vervoorta et al., 2015). Transgressive learning disrupts structural hegemonies of power by engaging with those most impacted by structural inequality to transform beliefs and drive changes in cultural practice (Macintyre et al., 2019).

Missimer (2017) refers to five principles of adaptive capacity which provide resilience to the change and uncertainty present in complex social systems: trust, common meaning, diversity, capacity for learning and capacity for self-organization.
These principles reflect processes of relating and adapting present in social emergence where networks form around a common purpose; self-organise towards socio-ecological sustainability within a culture of trust; and where diversity and learning aid decentralised adaptation (Missimer et al., 2017).

2.4 Transforming paradigms using relational methods

2.4.1 Generative dialogue: using open questions to construct the future

Appreciative inquiry is a generative relational dialogic method to transform paradigms of thought. Generative dialogue influences relational social fields which construct reality by asking questions which inspire positive images of the future. These images guide current behavior, influence inner and outer perception and build energy, knowledge and resilience to change (Whitney and Cooperrider, 2011).

The use of open questions supports the interviewee in a process of reflective experiential learning: where they see themselves as part of the system and recognise how their approach to relationships contributes to systemic conditions.

The social construction of human systems is in relational settings where questions are the source of ideas and discourses, they influence the stories which conceive and construct the future, holding ‘profound implications for changes in social practice’ (Whitney and Cooperrider, 2011).

2.4.2 Social Presencing Theatre: catalyzing action though embodied learning

Theory U aims to transform capitalism by evolving human consciousness. The challenge of the post-industrial age and the essence of systems thinking and is to reintegrate thought (mind) and embodied action (matter). Merleau-Ponty describes the body as ‘the basis of consciousness’; it is ‘the knowledge-acquiring apparatus which enables us to conceive our own existence’ (Thanem and Knights, 2019, 1962 [1945]). His embodied phenomenology ‘rejects the mind/body dualism, and underscores that the body is a subject which both thinks and perceives, ‘a body which is both subject and object’ (Merleau-Ponty, 1962 [1945], Thanem and Knights, 2019). He rejects Kant’s reflective body and insists we can only know the world through the embodied practice of perception (Thanem and Knights, 2019).

We create reality through relational processes which influence and are influenced by our value systems. The perceptual nature of the body ‘involves us in things (Merleau-Ponty, 1962 [1945]) and puts us in contact with the world, with other people and with ourselves’ (Thanem and Knights, 2019).

Social Presencing Theatre (SPT) is an embodied phenomenological, epistemological and ontological approach to reintegrate mind and matter using mindfulness and relational processes. It is a form of ‘presentational knowing’ enabling an aesthetic expression of experiential knowing through movement (Heron and Reason, 2006, Burns, 2007, Heron, 1996).
Mindfulness based cognitive therapy encourages practitioners to process difficult thoughts and emotions through connecting with the associated sensations; by feeling through, rather than thinking out (Teasdale et al., 2014). Shusterman encourages reflection on our conscious somatic sensations to understand and improve our lived embodied actions (2005, Thanem and Knights, 2019). Merleau-Ponty’s embodied methodology encourages the investigation of lived embodiment ‘by observing and describing bodily actions, movements, gestures and appearances’ (Thanem and Knights, 2019).

SPT blends mindfulness, social science theatre and constellation work (Scharmer, 2018), utilizing embodied knowledge to to feel the evolution of the social field in which one is operating (Hayashi, 2020). Using 4D mapping groups can embody the roles of different actors in the system, explore how they relate to and perceive others and identify opportunities to participate, influence and change the social system (Burns, 2007). Tschakert et al. (2013) advocates for these types of anticipatory learning practices to form part of Inequality and Transformation Analyses (ITAs).

Using the iceberg model in combination with dialogic processes and SPT provides a holding space to transform paradigms of economic thought by opening and heightening collective attention (Scharmer and Kaufer, 2013). In the case of gentrification this can be applied to transform interactions between property owners and renters; middle-class incomers and long-term low-income residents.

Approaching the challenges in historically disadvantaged areas with curiosity, compassion and courage activates action through opening the mind, heart and will. This attitude enables social actors to see the transformative potential offered by the emerging operating structures developed by self-organised networks (Scharmer and Kaufer, 2013, Wheatley and Frieze, 2006). By bridging the social divide these operating structures could evolve to address the drivers of socio-spatial inequality and may even become the accepted standard through a process of social emergence (Wheatley and Frieze, 2006).
2.5 A case study of regeneration initiatives in Govanhill, Glasgow

This case study focuses on Victoria Road, the main high street bordering the Govanhill and Strathbungo areas of Glasgow, just south of the River Clyde (Figure 7). Govanhill is Scotland’s most ethnically diverse neighbourhood with a historic working-class community and a recent influx of more middle-class residents (Stewart, 2018, GRG, 2017).

![Figure 7. Govanhill, Glasgow (GRG, 2017)](image)

Govanhill’s first urban developments were built in 1877 to provide housing for workers at Dixon’s blazes, a blast furnace and since then it has remained a predominately working class area (GRG, 2017, Harkins and Craig, 2010). 95% of the housing stock are flats, including these original four story sandstone tenements (GRG, 2017, GCC, 2017a). Govanhill is part of the South-Central ward, where housing tenure is predominately social housing. In 2015, 40% of housing was social rented, 28% was private rented and 32% was owner-occupied (GCC, 2017a). The area has a high proportion of low-income residents with 24% living in poverty (GRG, 2017), 41% not in employment and 22% claiming benefits (GCC, 2017a).

Migrants, asylum seekers and refugees have historically settled in Govanhill beginning with those from other parts of Scotland, Ireland, Jews from Eastern Europe, Italians, people from the Indian sub-continent and more recently people from Poland, Slovakia, the Czech Republic and Romania (GRG, 2017). 40% of Govanhill’s community are from ethnic minorities and 28% were born outside the UK (GRG, 2017).
In 2010, a Govanhill neighbourhood survey by Glasgow Community Planning Partnership found that participants were concerned about ‘the cleanliness of the local environment, school attendance, youth disorder, street drinking, drug-dealing, property damage, vandalism and personal safety’ (Harkins and Craig, 2010). Hence, Govanhill Neighbourhood Management Group was formed and aimed to ‘improve social wellbeing’ by addressing language barriers, ‘offending culture’ and ‘gender-based violence’ through providing training and employment opportunities, increasing school attendance and engaging youth in service development (Harkins and Craig, 2010).

In Govanhill, communal areas of tenements have deteriorated; due to landlords not paying their factoring fees (McDougall, 2019). In 2008, Govanhill Housing Association petitioned parliament to improve housing conditions in the area (Turbett, 2018). When Nicola Sturgeon, the local MSP, was elected as First Minister of Scotland in 2014 political pressure increased (Perring, 2017) triggering investment in regeneration initiatives (Stewart, 2018, Botti, 2013, Turbett, 2018). The Govanhill Strategic Property Acquisition Strategy was launched in 2015 and aimed to improve the building fabric of tenements, reduce overcrowding and address sanitation issues in the area through management interventions and investment in social housing (GCC, 2017c). Over 4 years the Scottish Government, Glasgow City Council and Govanhill Housing Association invested £40 million to acquire 350 housing units in order to shift the tenure balance, address poor landlord practice and introduce preventative maintenance plans (GCC, 2018, GCC, 2017b). Four blocks in Govanhill have been designated Enhanced Enforcement Areas enabling Glasgow City Council to carry out inspections and monitor property standards in the private housing sector (GCC, 2017c).
The South City Cycle Way (Figure 8) is a new cycle path which runs down Victoria Road, the main high street where new social enterprises have also appeared. The cycle path has received £6.5 million in funding from the Scottish Government and Glasgow City Council and aims to address transport poverty (Sustrans, 2016) and ‘redevelop Victoria Road as focus for the community and as a place for sustainable walking, cycling, bus and rail travel’ (GCC, 2016).

These qualities present an ideal case study to address complex challenges in urban sustainability transitions and racial and socio-economic inequality by developing contextual solutions, using participative approaches incorporating the challenges faced by local people, to enable transformative adaptation (Gidley et al., 2009).
3. Research strategy & methods

3.1 Introduction

This research aimed to explore the forces influencing urban regeneration beneficiaries, through a case study of Govanhill, Glasgow. The research objective was to identify interventions which could enable existing low-income residents to benefit from regeneration. The research strategy employed dialogic interviews and relationship mapping to identify personal, relational and structural sources of change through deductive analysis. Collectively these processes have explored how social dynamics and economic paradigms produce inequality. Interventions which could contribute towards a more equitable future have been informed by identifying relational leverage points; emergent operating structures; and by constructing a systems map of factors influencing regeneration beneficiaries.

This chapter begins by outlining the research aims, objectives, strategy and design. Data collection methods are justified and summarized. An overview of the interview and event content, sampling methods and ethics considerations is given. Methods of inductive and deductive analysis are described.

3.2 Methodology

A qualitative approach was selected to enable an in-depth understanding of how personal behaviours and social relations influence the beneficiaries of regeneration. Rather than using quantitative methods to explore large scale trends influencing how gentrification occurs, this research uses qualitative methods to explore interactive aspects influencing why gentrification occurs (Biggam, 2015, Bryman, 2008).

A quantitative approach wasn’t selected because closed questions would limit contextual detail and understanding of how participants answers relate to their perceptions, experiences and beliefs about their everyday lives (Bryman, 2008). Quantitative research methods apply an objective ontological approach which attempt to reify the social world ‘separate from the individuals who make it up’ (Bryman, 2008). Qualitative approaches, on the other hand, incorporate constructionist ontologies and interpretivist epistemologies, where the roles and interpretations of individuals, are connected to the creation of the social world (Bryman, 2008). A less-structured qualitative approach allows meanings and concepts to emerge from the data, leading to the development of theories which are orientated around the perspectives of involved actors (Bryman, 2008).

The research employs a phenomenological approach to action research using a case study. The case study method was selected to enable deep analysis (Thomas, 2016) of the complex social issues related to regeneration projects in urban transitions. A broader scope may have produced a more generalisable study, but at the expense of flattening those complexities. This contextual analysis considers the perception and agency of different actors in the social system.
The research strategy incorporates transgressive action research and systems thinking. Transgressive action research disrupts conventional theories of being and knowing (onto-epistemologies) through decolonizing embodied experience (Macintyre et al., 2019). Embodied primary research methods have been selected to generate ‘accounts of the felt experience of a particular body in a specific social setting’ (Thanem and Knights, 2019). Participative dialogic methods are used to engage with issues faced by low-income residents during urban sustainability transitions resulting in contextual solutions which consider the power relations involved in interconnected socially constructed systems (Byrne, 1998, Burns, 2007, Midgley, 2000, Ulrich, 1983).

The research design was informed by the researcher’s experience. The research question tackles an inner conflict within the researcher’s fields of belonging (Whittington, 2016), where sustainability and social justice agendas conflict, creating internal dissonance and conflict within and between groups. This conflict relates to how socio-economic factors influence distinct economic ideologies, and spatial and temporal campaigning priorities (Agyeman et al., 2003).

The researcher has experienced displacement due to an increasing disparity between rent prices and pay levels. They are also aware that their displacement has contributed towards the displacement of others. They see their role in a wicked complex adaptive social system, where efforts to address one injustice, such as climate change, can produce other injustices, such as the displacement of low-income residents due to environmental gentrification. The researcher has also experienced the impact of mindfulness and participative methods on their ability to identify and sustain pro-active actions to address complex problems.

Theory U was selected because it is a transformative systems-thinking methodology which aims to make visible the mindsets and relational dynamics which produce inequality, overconsumption and depression. Theory U uses relational mindfulness methods to increase cognitive awareness of how enacted behaviour leads to collective impacts. This heightened awareness has the potential to transform the social relations entrenched by capitalism through applying curiosity, compassion and courage to disruptive social conditions. Theory U aims to use these disruptions as opportunities to create and evolve new structural and relational ways of operating which support collective wellbeing. Using participative methods to challenge green-growth, and address the root causes of inequality, could lead to improved livelihoods for existing residents and businesses.
3.3 Methods

3.3.1 Data Collection Methods: Overview

Interviews with community organisations and a 4D mapping event (Figure 10a & b) provide a case study of regeneration on and around Victoria Road in Govanhill, Glasgow enabling deep analysis of systemic structural and relational dynamics within local community development initiatives (Thomas, 2016).

3.3.2 Data Collection Methods: Interviews

A semi-structured interview format was chosen to enable the researcher to adapt the order of questions, request elaboration, and draw out deeper relational patterns, in response to the participants’ train of thought (Rossman and Rallis, 2016, Thomas, 2016).

The ULab Sensing Journey format was selected to: enable the researcher to see the situation through the lens of affected groups through generative listening; to build relationships and gain a systemic perspective; to allow local research participants to set the boundary of the system and envision the best possible future for their situation (Scharmer, 2019a, Thomas, 2016). Sensing journey interviews are a form of appreciative inquiry (Whitney and Cooperrider, 2011). They operate at a deeper level than factual or empathetic listening. By remaining engaged with the interviewee’s train of thought the researcher creates a holding space to bring the highest future possibility into reality through generative listening (Scharmer, 2018, Whitney and Cooperrider, 2011).

The ULab sensing journey questions were adapted to aid clarity following pilot interviews (Appendix 1 & Appendix 2). The questions followed an in-depth interview style using the sensing journey questions as a guide (Rossman and Rallis, 2016). The interview content focused on the social field of the participant; their values, drive, relationships and how they see challenges and sources of change present in the local social system. Interview questions incorporated: what brought the interviewee to the area; the challenges they experience; their motivation for, experience, and perception of positive local initiatives; and the potential these qualities provide to address the challenges mentioned (Appendix 2).

Semi-structured sensing journey interviews were conducted with community development organisations to support co-sensing (Figure 2); data was gathered by suspending voices of judgement, gaining insight into the challenges marginalized groups experience due to structural inequality and listening for emerging transformative potential.

7 interviews averaging 50 minutes in length were conducted with local businesses, housing and community support organisations. Interviews were conducted at the interviewee’s workplace for safeguarding reasons. Observing the interviewee’s context also provided insights which were incorporated into questioning (Scharmer, 2019a). Half of the transcription was conducted by a third party using a confidentiality agreement (Appendix 3).
Interview sampling

The case study consisted of interviews with a range of local community organisations to gain a broad understanding of community perception, with a limited number of interviewees due to time constraints. These were selected using purposive sampling to select key informants (Tongco, 2007) representing different sectors of the community. Community organisations and social enterprises were selected who’s work addressed socio-economic vulnerability and aimed to contribute towards a more equitable sustainable future.

A list of 38 prospective interviewees was compiled using: Govanhill Community Development Trust’s list of community organisations (GCDT, 2019); walkabouts to identify local organizations, publicity material, housing developers and architectural firms involved in new developments in close proximity to Victoria Road. Internet research identified researchers and journalists who have written about Govanhill, as well as local councilors and community Facebook groups.

These organisations were contacted via email. The final participants were influenced by response rates. If there was no reply to the first email, a second was sent two weeks later, including a link to the event and encouragement to promote it in their networks. If there was still no response contact ceased. If an initial response was received, followed by no reply, then a prompt email was sent, if there was no reply to this contact ceased. Some initial replies asked for recontact 6 weeks later, some requested an initial call or meeting to hear more about the project prior to consenting to an interview. Some organisations replied but declined to participate due to limited capacity or organizational priorities. Once an interview date had been set the participant information and consent sheet was shared to enable this to be read in advance of the interview.

Participant Background

7 interviews were conducted with 8 people who had worked in Govanhill for between 2.5 and 19 years. Participants were aged between 34 and 58. 7 identified as female, 1 as male. 6 had attended university, 2 had not. 6 did not receive free school meals, 2 did. 5 lived in the G42 postcode, 2 lived in the G41 postcode and one lived in the G34 postcode. 2 followed the Muslim faith, 3 followed the Christian faith, 3 did not identify with a religion. 2 said they were very comfortable on their present income, 5 were fairly comfortable and 1 was struggling on their present income. All worked in management, no-one identified as disabled. 5 identified as heterosexual, 2 declined to answer.
Interview ethics

University ethical procedures were followed and ethical clearance was given before commencing interviews (Thomas, 2016). To comply with data protection all files, video and audio recordings and electronic transfers were password protected or kept in a secure place and will be destroyed 9 months after initial collection (Bryman, 2008, Thomas, 2016). Participant consent was sought for the data generated from video and audio recordings to be anonymized however individual sociodemographic information could be summarized and collated with others in the final report; direct quotations were anonymized (using E for event and I for interview) or used with permission; the names of organisations were anonymized where consent for direct reference was not given (Bryman, 2008). Participants were informed that their raw data would be shared with academic staff at CAT and UEL and that any personally identifiable information would be deleted after confirmation of the award (Rossman and Rallis, 2016). Participants were informed that they could withdraw consent anytime up to the point of submission (Bryman, 2008).

The researcher carried a mobile phone when lone working and had a safe home check-in procedure with cohabitants and an automatic warning and emergency system in place, in case of lost contact (Bryman, 2008). The lawful basis for collection of research data was consent and legitimate interest. Pilot interviews and mapping exercises were conducted prior to the formal research period, to ensure that the selected methods were effective.

3.3.3 Data Collection Methods: Event

The 4D mapping event took place in a community hall in Govanhill and was co-facilitated by a ULab Scotland alumni with experience of SPT.

Appendix 4 details the event agenda. The morning focused on practical exercises encouraging empathetic active listening (using I heard, I saw, I felt responses), engaging embodied knowing using mindful movement, and developing awareness of group dynamics and interconnectivity using a systems game (Macy and Brown, 2014). Finally, a video explaining the Theory U Iceberg model was screened to set the context for the social, ecological and spiritual divides included in the 4D map (Scharmer, 2016a, Scharmer, 2016b). These activities were not recorded but the impact of these exercises on participant experience was incorporated in reflections.

During the lunch break participants were invited to take a paired walk around the local area taking turns to comment on what they noticed. On their return the challenges and sources of positive change identified during interviews were shared. Event participants brainstormed additional factors and placed stickers to demonstrate agreement.
The 4D mapping exercise used mindfulness and movement to plot existing relations between roles and envision how these relationships could shift to create a more equitable future Govanhill. The researcher provided an introduction to the local context for the activity (Figure 9), after which participants volunteered for predetermined roles. These roles were initially selected following pilot-interviews, using a 3D mapping exercise, and were amended during a pilot SPT 4D mapping event.

Name of case: The impact of urban sustainability transitions on different social groups, particularly in relation to housing affordability

Location: Govanhill, Glasgow

Description: The case focuses on an existing community about 15 minutes from the centre of Glasgow in Scotland with a historic working class and migrant community. Most of the housing are private rental or housing association properties. New social enterprises are popping up on the high street and new cycle paths into the city are being developed. There has been a community campaign to improve the quality of housing. Rent prices are increasing as more middle-class young people move to the area attracted by lower rent prices and grassroots social events.

Stakeholders
1. Property owners (Housing developers/landlords) - who are trying to build greener housing, and/ or need the income from renting for their pension
2. Local Councillor
3. Housing association worker
4. 0-waste food shop owner
5. Private renters 30s (for whom owning property is unlikely in the current housing market)
6. Elderly man on a low income who has lived in the area all his life
7. Church community worker
8. Social divide – Unable to influence system – 6-year-old Romani girl who has insecure housing
9. Ecological divide - Earth - represented by the local park
10. Spiritual divide – Highest future aspiration of the system - Affordable wellbeing for all

Beginning with those most powerful, participants decided their position, proximity, orientation, level and shape in the system to create sculpture 1, the current system, and made a short ‘I feel’ statements from their role. Participants were encouraged to engage embodied knowledge using mindful movement to feel where their body wanted to move in relation to others, rather than deciding on a destination (Hayashi, 2020). When all roles had taken position, participants had 5 minutes to shift their position in relation to each other to create sculpture 2; the collective aspiring future. Participants were instructed not to manipulate the direction of other roles, but instead focus on their felt senses within the relational setting. Participants then reflected on the surprising and touching elements, key learnings and potential sources of change observed (Scharmer, 2019b). This activity was video recorded.
The method of 4D mapping using SPT was selected to enable participants to deepen their understanding of the social construction of reality through mapping relational dynamics in the current system and exploring emerging future possibilities using movement (PI, 2019). Engaging felt senses in relational processes can influence individual perception and improve embodied actions through reflection on conscious somatic sensations (Thanem and Knights, 2019, Merleau-Ponty, 1962 [1945], Shusterman, 2005).

Mapping these dynamics at the Firestarter Festival enabled participants to see other perspectives, build relationships, see different roles in the system and identify leverage points and pathways towards a transformative future.

By modelling the system using SPT participants develop greater awareness of the social field; how the quality of our relationships influences collective behaviour and practical results (Scharmer, 2018). This awareness contributes to shifting paradigms; from those orientated around hierarchies and competition; towards collective co-operative awareness-based action (Meadows, 2008, Scharmer and Kaufer, 2013). This shift requires reflection on systems of co-ordination, organising, conversational dynamics and self-awareness which are made evident in SPT (Scharmer and Kaufer, 2013).

Event sampling: publicity and ethics

Event participants were determined by responses to publicity. The publicity platforms and schedule utilised therefore influenced final attendees. The event was publicly advertised with a limited number of tickets. It was advertised as part of the Scottish Government Firestarter Festival for 12 weeks preceding the event. It was also publicised through local community noticeboards, in shops and cafes, through the ULab Scotland network, on Linkedin and to local mindfulness, forum theatre, systemic constellations and climate campaign networks. The event was shared on Facebook: on local organisations pages; in groups; and through an advert targeting the Glasgow and Edinburgh regions with keywords: mindfulness, sustainability, meditation, climate change, gentrification and right to housing. Interviewees were also encouraged to attend: 1 interviewee attended the morning session.

The event publicity received ethics approval and was adapted to attract three different audiences: Firestarter Festival attendees familiar with Theory U, How Could Regeneration Increase Social Equality in Govanhill: A Systems Mapping event using Social Presencing Theatre (Appendix 5); local residents, Do you believe everyone deserves a warm, affordable long term home with good transport links and access to greenspace? (Appendix 6); and on Facebook as Collaborative Mindfulness for Systemic Change (Appendix 7).

Communication with registered participants also determined final attendees. Participants received a confirmation email clarifying content and seeking consent to capture data from the event through photography, filming and written reflections (Bryman, 2008). 17 people registered for the event, there were 6 cancellations, 2 due to sickness, 3 due to work schedules changing, 1 attended but didn’t register on the Eventbrite, 1 could only attend the afternoon, 1 could only attend the morning.
11 participants were present in the morning and the afternoon, 12 people took part in total. A reminder email was sent 10 days before, 2 days before and the evening before the event. On arrival participants filled out consent forms (Bryman, 2008) and socio-demographic information sheets to support transparency during analysis regarding any influence participant background may have on proposals.

**Participant Background**

12 people attended the event, 9 of whom identified as white, 2 as British, 1 as American. All were aged between 21-75. 4 lived in the G42 postcode, 5 lived in other areas of Glasgow and 3 lived in other parts of Scotland. 9 identified as female, 3 as male. 3 had caring responsibilities, 8 did not, 1 declined to answer. 3 identified with Buddhism, Shamanism and Islam, 9 did not identify with a religion. 11 had attended university, 1 had not. 2 had received free school meals, 10 had not. 2 identified as having a disability, 10 did not. 5 identified as LGBTQI whilst 5 identified as heterosexual, 2 declined to answer. 1 said they were very comfortable on their present income, 7 were fairly comfortable and 4 were struggling on their present income.
3.3.4 Methods of Analysis: Overview

Data collection and analysis methods are detailed in Figure 10. Deductive analysis of interviews and reflections from the 4D mapping event considered research participants enactment of the system by identifying how qualities of behaving and relating influence local challenges and organizational approaches (Figure 10c & Figure 11) (Bryman, 2008).

Factors influencing the beneficiaries of regeneration were explored using inductive analysis of interview and event data (Figure 10d) (Bryman, 2008). Inductive themes were clustered into enabling and inhibiting forces to form a systems map; this was used to develop a theory regarding influential factors (Bryman, 2008).

Leverage points and intervention proposals were informed by: reflective journaling on inductive and deductive data (Figure 10e); the systems map produced from inductive analysis; and from where deductive analysis uncovered self-organised networks engaging across social divides to enable socio-ecological wellbeing (Figure 11).

![Figure 10. Data collection and analysis (Author, 2020)](image_url)
3.3.5 Deductive Analysis

Deductive analysis incorporates social fields and iceberg model frameworks (Figure 4) to consider how qualities of behaving and relating influence operating structures; and how these structures contribute to symptoms of depression, inequality and overconsumption present in the three divides (Figure 11).

![Diagram of Deductive Analysis]

*Figure 11. Deductive analysis (Author, 2020; Scharmer, 2013)*

Interview responses and event reflections included participant experience, their perception of challenges in the area and examples of positive local initiatives. Deductive analysis (Figure 10c) initially considered how behavioural attitudes of presencing and absencing (Figure 11a & Figure 5) present in responses, influence relational dynamics (Figure 11b & Figure 6) (Scharmer and Kaufer, 2013).
The second stage of analysis identified challenges involving structural disconnects and compared them to initiatives utilizing alternative operating structures (Figure 11c). To assist analysis the structural disconnects from the iceberg model (Figure 3) were clustered into three groups (Figure 11ci)ii)iii)):

i) *Income, ownership and finance bubbles*: challenges involving income inequality, private ownership and financial speculation were compared to initiatives involving collaborative social entrepreneurs serving the ecological, social and cultural commons.

ii) *Ecological, technology and consumerism bubbles*: challenges involving technological quick fixes and overconsumption of limited resources were compared to initiatives promoting ecologically sustainable technology and conscious consumption.

iii) *Leadership and governance bubbles*: challenges involving competitive siloed approaches were compared to collaborative initiatives.

The third stage of analysis considered the influence of behaviours, relationships and operating structures on symptoms of spiritual, social and ecological division:

*Spiritual Divide*: how personal behavior influences qualities of relating, which when applied to institutional governance and leadership, produce operating structures that contribute to a lack of meaning and purpose in individuals.

*Social Divide*: how personal behavior and empathy towards others influences attitudes to investment and the distribution of wealth and property leading to social division and inequality.

*Ecological Divide*: how individual perception of personal agency and responsibility as part of a global ecosystem, influences attitudes to consumption and technological development leading to unsustainable consumption levels.

*Three Divides*: how personal behaviours and qualities of relating to ourselves, other people, organisations and the global ecosystem influence personal agency (leadership) and capacity for self-organisation (governance) contributing to a lack of meaning and purpose in individuals (spiritual divide), social inequality (social divide) and overconsumption (ecological divide).

The insights gained from deductive analysis have informed relational and structural intervention proposals. Relational interventions have been developed by considering how shifts in behavioural and relational attitudes could contribute towards a more equitable future.
3.3.6 Inductive analysis: developing a systems map

Interview and SPT event data was mined and triangulated in NVIVO using inductive thematic analysis (Bryman, 2008). Open coding was used to identify first order categories which were grouped into themes using axial coding (Appendix 8 to Appendix 10) (Punch, 2013).

A short and long-term vision and systems map was developed following a Systems Practice course led by Rob Ricigliano from The Omidyar Group (Ricigliano, 2020). These visions incorporated inductive and deductive themes relating to emerging operating structures and aspiring futures. The systems map drew on inductive themes. The framing question: ‘what forces influence who benefits from urban regeneration?’ was used to cluster inductive themes into enabling and inhibiting forces (Appendix 11 & Appendix 12). The upstream causes and the downstream effects for each thematic cluster were identified and used to develop causal feedback loops (Appendix 13) (Senge, 2006 [1990], Stroh, 2015). These loops were clustered into regions of similar and overlapping issues (Appendix 14 to Appendix 17). A narrative was developed to describe the dynamics of each region and to identify the dominant story of the system, or core feedback loop.

Thematic regions were arranged around the central loop to form a system map regarding factors influencing regeneration beneficiaries. Feedback on the map and future vision was sought from participants by asking what resonated or surprised them, and if anything was missing from the narrative. Leverage points were identified by locating bright spots, ripple effects or entrenched, disruptive or mixed behavioural dynamics within each loop. These were analysed to determine high-impact interventions which would contribute towards the long- and near-term vision.

3.3.7 Reflective journaling

To support action-learning through reflection (Zuber-Skerritt, 2001) after deductive and inductive analysis reflective journaling was conducted (Figure 10e) (Scharmer, 2019a). The journaling questions considered the individual and collective social field of researcher and participants: how the researcher’s perception changed during data collection and analysis, what aspects connected with them on an empathetic level; the core message, generative source and future trajectory of each data source; and intervention ideas (Appendix 18).

3.3.8 Research Output

The outputs from deductive analysis, the systems map, and reflective journaling were brought together in the conclusion to identify structural and relational leverage points which could enable equitable regeneration.
4. Results & analysis

4.1 Systems map and social fields analysis

Data from sensing interviews and the 4D mapping event were analysed for inductive themes (Appendix 8 to Appendix 10) and used to form a systems map (Figure 12) which illustrates structural factors influencing regeneration beneficiaries. Four major regions were identified (Figure 12): wicked culture, family housing market, race to the bottom and housing demand and standards. A description of the structural dynamics of each region is followed by a deeper relational analysis of corresponding themes using the social fields and iceberg model frameworks.
Figure 12. Systems Map of structural factors influencing regeneration beneficiaries (developed in Kumu) (Author, 2020)
4.1.1 Race to the Bottom

The Race to the Bottom loop incorporates themes regarding the relationship between education, income inequality and the beneficiaries of regeneration (I1, 2020, I2, 2020, I3, 2020, I4, 2020, I7, 2020). The loop describes how high competition for work has reduced pay-levels, time for education and work prospects (I3, 2020, I7, 2020) (Figure 12).

Social fields & Iceberg model analysis: Income inequality & Housing

Gentrification highlights social divisions between people from both ends of the socio-economic spectrum (I2, 2020), ‘like people who are coming from a background where they’re really economically disadvantaged, and people who are moving in who are pretty well off and looking for lovely 3 bedroomed flats for a snip’ (I7, 2020). This disparity is evident where landlords rent poor quality flats to migrant families which would not be tolerated by middle-class residents (I7, 2020).

‘like going with a family that came in here, to look at a couple of flats with them and like they were flats that they shouldn’t even have been looking at, because they were damp, and they had children ... And it’s like... you do you exist in ... your own privileged bubble ... like I would go on gumtree and see that flat and be like I’m not going to look at that’ (I7, 2020).

These inequities in housing impact social relations and reflect wider structural inequalities which influence the opportunities available to different social groups (Fainstein, 2014, Schlosberg, 2009, Walsh, 2015).

Other examples of income inequality included the gap between those with £70,000 cars and those without access to a vehicle (I2, 2020), or aspirational businesses selling sandwiches for £7 and those selling £2 rolls (I2, 2020, I7, 2020), or successful businesses on Victoria Road whilst people live with infestations in the surrounding streets (I5, 2020, I6, 2020).

Participants commented on how zero hour contracts reflect consumerist cultures prioritization of profit over human needs (I7, 2020, E2, 2020, I3, 2020):

‘Corporate greed. Consumerism, capitalism like ... if we’re prioritising making money at the expense of human dignity and human enjoyment then it’s always going to be a bit crap for people at the bottom of the pecking order because.. you know zero hour contracts are an absolute example of that, they’re just hideous, but they’re how vast, you know huge amounts of the British population get by.’ (I7, 2020)

These employment practices reflect free-market paradigms which prioritise growth and consumption whilst ignoring social externalities (Table 1) (Scharmer, 2018, Scharmer and Kaufer, 2013). These operating structures allow businesses to profit from low-paid insecure labour leading to a crisis of meaning and purpose for workers, illustrating how paradigms orientated around competition contribute towards the spiritual divide (Figure 11 c)ii to d)i) (Scharmer and Kaufer, 2013).
This crisis of meaning could be contributing to the incidents of burglary, drug-dealing and substance abuse (I2, 2020, I3, 2020, I5, 2020), child-prostitution (I3, 2020), suicide, infant mortality and domestic abuse (I6, 2020) mentioned by participants which influence perceptions of this community. These narratives create stigmatized places and individualized notions of poverty rather than addressing the economic paradigms of thought which produce these symptoms (Kallin and Slater, 2014, Scharmer and Kaufer, 2013).

A participant referred to Govanhill as ‘a microcosm of the politics of our country and our world’; for them working to improve the integration and life opportunities of migrants and those in poverty reflected their personal values (I1, 2020) and the spiritual alignment of embodied actions and cognitive knowing (Figure 11a)i to d)i) (Scharmer, 2018, Ludevig, 2015). Other participants described involvement in language (I7, 2020, I1, 2020), literacy (I1, 2020), family (I4, 2020, I1, 2020), employability (I1, 2020, I3, 2020) and enterprise (I1, 2020, I3, 2020) support services addressing income inequality and hence reducing the social divide (Scharmer and Kaufer, 2013).

Social fields & Iceberg model analysis: Community Perception – Social Enterprises

Participants were complementary of the role of social enterprises in improving the high street (I4, 2020) and making people think about product origins (I7, 2020). They noted that Locavore; ‘an organic, locally sourced food supermarket’ triggered a ‘succession of social enterprises’ to set up in the area generating ‘really positive stories about Govanhill’ (I1, 2020) and that before this every shop was opening as ‘a charity shop, a bookies… or a pawn shop’ (I4, 2020). However, participants also noted that many of these new businesses were not affordable for low-income residents (I7, 2020, I2, 2020, E11, 2020). Participants acknowledged that social enterprises play a role in gentrification (I7, 2020, I4, 2020, I1, 2020). However, there is a need to balance affordability with overheads which can limit their capacity to engage with low-income residents if external funding is not available (I2, 2020, I7, 2020).

Another participant expressed frustration that climate change initiatives targeting those in poverty forget that affordable food and infestation-free shelter are the top priorities of those in poverty and that higher income residents are likely to have higher carbon footprints (I6, 2020). They wanted sustained investment in ‘basic infrastructure like sanitation, bins… so that people generally have a better quality of life… they don't have, like, rats and cockroaches and stuff’ (I6, 2020). They felt that investment towards climate change should be ‘targeted towards people with a higher income’, rather than trying to get low-income residents ‘who are causing the least climate change’ not to ‘buy a screwdriver from Poundland’ when shopping at Locavore is ‘flat out not possible’ for them (I6, 2020).

This account illustrates the challenge of combining environmental and social objectives. Participant I6 also expressed frustration that those deciding funding objectives do not see the challenges frontline workers experience preventing institutional learning regarding social sustainability (Scharmer and Kaufer, 2013).
Participant I7 articulated how language barriers contribute to a poverty trap where children who speak a different language at home may not ‘enjoy going to school as much’ and their parents may not ‘see the advantage in it as much’ (I7, 2020). Participant I3 mentioned how language barriers contribute to low pay levels:

‘many of them will get a job maybe in a… car wash, but they only get paid £2-3 an hour because they don’t speak the language, they don’t know their rights, and that causes the poverty trap’ (I3, 2020)

Participant I7 and I3 commented on the importance of education to breaking a poverty cycle:

‘the key to… making real social change is education and if children are not participating in education then that’s… going to stagnate’ (I7, 2020)

Participant I3 felt that reception of benefits should be contingent on educational attendance (I3, 2020). However, participant I7 felt that utilising linguistic diversity as a ‘tool for learning’ would increase participation in education (I7, 2020).
4.1.2 Wicked Culture

The wicked culture loop (Figure 12) describes how a high population density has led to sanitation issues and a poor media representation of this community influencing public perception (I1, 2020, I3, 2020, I7, 2020, I6, 2020). This media narrative prompted a pro-diversity counterculture who value social returns and utilize social media to address poor housing conditions and generate a more positive perception of this community (I1, 2020, I5, 2020). However, this shift in perception has increased housing demand leading to reduced standards and further increased population density (I4, 2020, I7, 2020).

Social fields analysis: Diversity & Community Perception - Sanitation & Intercultural Relations

The mainstream media has often depicted Govanhill as a slum (I1, 2020, I2, 2020, Perring, 2017). This narrative has heightened inter-racial tension as issues of cleanliness and safety have become divisive (I1, 2020, I3, 2020, I6, 2020, I7, 2020). Participant I6 noted that ‘problems with sanitation... feed racism and division’ (I6, 2020). They mentioned challenging remarks regarding the cleanliness of local Roma people and compared the social acceptability of commenting on the cleanliness of people of different races: ‘not many people can say, like “Oh, I think, like, black people are dirty” but they would be saying “I think Roma people are dirty”… and they feel like they can just do that and it’s not racist’ (I6, 2020)

Participant I3 mentioned that new arrivals, such as Eastern Europeans, are often not familiar with local cultural practices, and so they put ‘fires on the floor’, rather than using cookers and need ‘to be taught’ (I3, 2020). However, another participant defined culture ‘as just the way we do things’ which varies ‘depending on your own need and your own cultural background and what you’re used to’ (I4, 2020) therefore the idea of teaching someone ‘what they’re supposed to do’ (I3, 2020) could be interpreted as an attempt to assimilate them into the dominant culture. The same participant however, later commented that ‘a lot of people may have somewhere they’ve been homed but they can’t afford to pay for the utilities because the gas and electricity are expensive’ (I3, 2020) which could provide another interpretation.

These accounts illustrate how competitive hierarchical ideas of social status can be influenced by moral judgements regarding different people’s coping mechanisms (I3, 2020). This attitude of judgement is a quality of absencing (Figure 11a)ii b)ii & d)ii) (Scharmer and Kaufer, 2013) which increases social division and hence reduces intercultural understanding. Low-income groups experiences of Govanhill will be different to higher income groups. Competitive paradigms rely on these types of structural and relational oppression to enforce social hierarchies which increase the vulnerability of low-income communities and communities of colour (Walsh, 2018, Pelling et al., 2015, Tschakert et al., 2013). Tschakert et al. (2013) argues that these ‘statuses of social marginality’ (e.g. indigenous, gender, race, class, ethnicity and disability) are systemically related to uneven distribution of resources and are a core structural cause of socially differentiated vulnerability (IPCC, 2012).
The slum narrative in the media also prompted a ‘defiance’ (I1, 2020) by locals, who responded by sharing positive stories on social media (I1, 2020, I2, 2020). Depictions of bohemian multiculturalism (I4, 2020) and new social enterprises have drawn a young ‘hip lefty crowd’ to the area (I1, 2020).

Issues with rubbish and sanitation in the area reflect linear attitudes to consumption detached from planetary limits, a symptom of consumerism representative of the ecological divide (Figure 11c)ii & d)iii (Scharmer and Kaufer, 2013). However, these new social enterprises provide opportunities to contribute towards the health of the global socio- ecological system (Figure 11b)iv).

Participants involvement in cycling (I2, 2020), energy efficiency support (I5, 2020), community gardening (I1, 2020, I5, 2020), resource sharing (I6, 2020, I5, 2020, I3, 2020) and food bank and soup kitchen (I3, 2020) initiatives demonstrate a recognition of personal agency and responsibility as part of a global socio- ecological system with limited resources (Figure 11b)iv) (Scharmer and Kaufer, 2013).

Interviewees expressed a desire for regeneration to improve people’s lives in a way that’s sustainable to the planet (I5, 2020) noting an increased awareness of plastic and climate issues in the area (I4, 2020). However, the affordability of zero-waste alternatives (I6, 2020), issues with fly-tipping (I7, 2020) and council waste management (I5, 2020), food poverty and the health impacts of poor housing quality (I6, 2020) reflect a wider crisis of consumption culture for those in insecure low paid employment demonstrating the interconnected ecological, social and spiritual divides (Figure 11c)ii & d) (Scharmer and Kaufer, 2013).

Social fields & Iceberg model analysis: Diversity – Intercultural relations

Participants motivations for working in Govanhill included personal values of compassion (I1, 2020, I3, 2020), inclusivity (I2, 2020, I7, 2020, I4, 2020) and equality (I4, 2020, I1, 2020) and by a desire to improve the lives of marginalized communities (I1, 2020, I4, 2020, I5, 2020, I2, 2020) and engage in issues around immigration (I6, 2020, I7, 2020) reflecting a recognition of personal agency and qualities of presencing (Figure 11a)i & b)iv).

Interviewees highlighted how the diversity of aspirations of people from different cultures, backgrounds and educational velos (I4, 2020) means community development reflects the competing interests of these groups:

‘no matter what we secure funding for, or no matter what work we’re doing, there’s always someone saying, well yeah but what you doing for the old people? Or what you doing for the trees… or the animals’ (I1, 2020).
These judgmental attitudes of absencing (Figure 11a)ii) (Scharmer and Kaufer, 2013) lead to cynicism between groups (I7, 2020, I4, 2020, I2, 2020) due to polarized attitudes and experiences of change (I6, 2020, I1, 2020, I5, 2020). Participant I6 mentioned that those involved in positive initiatives often ‘cannot... acknowledge the issues’ others in the community experience, whilst others feel ‘Govanhill is ruined, it’s been destroyed’ due to issues with cleanliness and safety. This fatalistic perspective can dissolve an individual’s sense of agency by disabling their sense of purpose which is ‘not... great for mental health either’ (Figure 11b)iv & d)ii) (I6, 2020). This example illustrates how attitude of absencing can contribute towards the spiritual divide (Figure 11a)ii & d)ii) (Scharmer and Kaufer, 2013).

This cynicism may deter people from developing positive initiatives (Figure 11a)ii & c): participant I7 commented that when setting up their social enterprise they worried their efforts and intentions would be met with cynicism, that ‘people would think we were doing something that wasn’t helpful and saying it was... or we were trying to do something good, which actually was just patronising’ (I7, 2020). However, instead of allowing this fear to deter them, they engaged with the language barriers people in this community experience by offering English classes. By engaging with a root causes of inequality (Macintyre et al., 2019, Kallin and Slater, 2014) and ‘giving it a go’ (I1, 2020) they showed courage and compassion: qualities of presencing (Figure 11a)i, b)ii, c)iii & d)ii) (Scharmer, 2018).

Participant I4 questioned whether the hip-lefties who’ve moved to Govanhill more recently are ‘wanting to be part of Govanhill’ and ‘integrate with the existing diverse communities’ or whether they are ‘wanting Govanhill to become... this perfect place’ and are ‘creating another sub-group within that doesn’t really interact with the other...’ (I4, 2020). This reflection highlights a relationship between social division and concepts of place were middle-class incomers efforts to improve the area end up eroding the existing social fabric; leading to a loss of sense of place for low income residents (Wolch et al., 2014, Zukin et al., 2009). This account prompted the researcher to reflect on their own motivations for moving to the area and efforts to integrate with existing residents. The researcher contemplated whether a fear of discomfort prevents greater engagement across divides; as core values, perceptions and cultural practices may be challenged (Figure 11a)ii, b)i & b)ii).

Participants articulated a lack of understanding between people from different socio-economic backgrounds which increases social division. This lack of understanding is reflected in comments regarding the welfare rights of migrants, or how barriers of language and literacy influence the opportunities available for migrants and working-class families (Walsh, 2015, Fainstein, 2014, Schlosberg, 2009)(I1, 2020, I3, 2020, I6, 2020, I4, 2020):

‘folks assume that migrants come here and are given a car, given a buggy for their kids, given money and then given a job and it’s just completely... it’s so untrue, you know? Most of the families we work with live in absolute poverty, and aren’t able, through a number of barriers, literacy, not having English, work experience, racism, discrimination, they’re not able to access the same opportunities’ (I1, 2020)
Participant I6 discussed the importance of engaging in a dialogue regarding racial tension (I6, 2020) reflecting attitudes of courage and presencing:

‘I don’t like it when people write other people off or when they use things like “Oh, it's cultural” to close down discussion that I think needs to be had … if you’re working in a community and something really difficult comes up you’ve got to… work out what’s going on and try and understand people for who they are … and not being like “Okay, this is too complicated.”’ (I6, 2020)

This prompted the researcher to reflect on how their own attitudes to conflict may increase polarization (I5, 2020, I6, 2020) and how challenging preconceptions through intercultural dialogue could increase social learning (Robinson, 2003) and community cohesion.
4.1.3 Housing market and standards

The family housing market loop (Figure 12) describes how low pay levels have increased housing density (I1, 2020, I3, 2020), breaching social housing regulations and forcing these family units into temporary or private rented housing (I4, 2020), increasing demand and rent prices.

The housing demand and standards loop (Figure 12) describes how high demand in the private rental market has reduced housing standards, leading to investment and improvements to social housing (I1, 2020). However, this investment has increased property demand and prices (I1, 2020). These higher prices have increased rental demand, leading to reduced standards (I7, 2020).

These relationships between housing density, quality and rent prices reflect the interactional contradictions and opposing outcomes characteristic of wicked problems (Burns, 2007, Weil, 1997, Rittel and Webber, 1973).

Social fields & Iceberg model analysis: Housing demand and quality

Participant I7 acknowledged their role in gentrification and their businesses reliance on the associated income however they are ‘also conscious of preserving the things that were here before and trying to facilitate the participation of people who were here before in the things that we do. Whilst also being aware that we are not from that background ourselves...’ (I7, 2020). This reflection illustrates that participant I7 sees themselves as part of the system (Figure 11b)iv) and is acknowledging the issues and adapting the organization’s approach to incorporate an awareness of structural inequality (Tschakert et al., 2013, Pelling et al., 2015). By responding in this way participant I7 shows an awareness of their ontological agency (Vervoorta et al., 2015) as an actor within the local socially constructed system (Burns, 2007, Midgley, 2000, Flood, 1999, Byrne, 1998). They are pro-actively engaging with social justice issues (Patterson et al., 2017) and are adapting their approach to the local context (Stacey, 2003, Burns, 2007). The operating structure of this organization therefore demonstrates institutional learning and adaption (Scharmer and Kaufer, 2013).

Participant I4 commented on the implications of new businesses and people moving from the west end on existing residents: ‘they can afford more so they pay more, so that the actual house prices are going up. But what that actually means is... some of our folks... they’re actually being priced out’ (I4, 2020). This reflection articulates the interaction between structural and relational aspects of inequality evident in gentrification (Figure 11b)ii, b)iv) & c)i & d)ii) (Tschakert et al., 2013, Pelling et al., 2015, Walsh, 2018, Kallin and Slater, 2014). Tschakert et al. (2013) emphasize how ‘the privileged flourish at the expense of those disadvantaged along the lines of age, gender, race, class, caste and/or ethnicity’ influencing social relations in communities experiencing gentrification.
Participants commented on the physical and mental health impacts on tenants of property being treated as a commodity, rather than a home (I6, 2020). This relationship illustrates how free-market approaches to property ownership contribute towards the social and spiritual divides (Figure 11c)i, d)i & d)ii) (Scharmer and Kaufer, 2013).

Participants commented on how people can be housed in hard to treat homes where they are not able to afford utilities (I5, 2020, I3, 2020) illustrating the social externalities the free-market (Figure 11d)ii) (Scharmer and Kaufer, 2013). However, participant I5’s energy efficiency and advice service provide an example of how new social businesses are engaging with these social and ecological externalities.

Participant I4 commented that provision of housing for large income-pooling family-units was limited by the housing associations stock and by regulations on children’s bedrooms, which reflect the expectations of the majority culture, and leads to families being housed in temporary homeless accommodation (I4, 2020). The experience of these families highlights how attempts to address issues with overcrowding are limited by regulatory compliance within the available housing stock; leading to increased displacement and insecurity. These symptom-based responses ignore the structural inequalities, in pay and life opportunities, which mean more wage earners may be required to afford subsistence costs.
4.1.4 Governance

Social fields & Iceberg model analysis: Governance

Analysis identifying structural bubbles from the Iceberg model also uncovered different institutional qualities of relating in governance and leadership (Figure 11b)iii & c)iii) (Scharmer and Kaufer, 2013). Institutional silos within the council’s governance practices were compared more collaborative approaches including the dispersal of centralized funding to local youth initiatives, a community conversations program discussing the provision of local services and the democratic election of local people to the board of Govanhill Community Development Trust (I1, 2020). Participant I1 discussed the importance of having the courage and humility to try new approaches, incorporate feedback and evolve development initiatives (I1, 2020), reflecting qualities of presencing (Figure 11a)I & c)iii) and aspects of the U process (Figure 2) (Scharmer, 2018). They referred to a peer education program which trained 24 Romanian and Slovakian community ambassadors to communicate information about the health system to the wider community in their own language (I1, 2020).

Governance challenges included: board members and funding bodies lack of understanding of service delivery challenges (I6, 2020); the division of funding between different organisations (I1, 2020, I5, 2020) and types of infrastructure improvements (I1, 2020, I2, 2020, I5, 2020) which contributes to tension and influences each organisation’s capacity to deliver their mission (Figure 11b)iii & c)iii) (E12, 2020). These funding based power dynamics influence organizational relations and limit more collaborative approaches to community development (I1, 2020, I5, 2020, I6, 2020). These power dynamics were reflected in the 4D map.
4.2 Emerging themes from 4D mapping

Reflections from the 4D mapping exercise incorporated a recognition that ecosystem health and quality of life are mutually dependent:

‘I had this moment when. When you put the (earth) pot there and the (affordable) wellbeing there, one half of my brain thought, yes that’s what we do always do, we say we have to treat nature this way because we want to live in nice comfortable houses and have an aspiring lifestyle so we pit them against each other, and another part of my brain was saying you never have one without the other, true wellbeing, if you pay more attention to nature, you will have wellbeing. If you ask yourself what’s really going to make you well, you’re going to go to nature.’ (E5, 2020)

This comment potentially reflects how the physical placement of roles helps to uncover inner discords (Vervoorta et al., 2015) between what the system sets as a purpose (aspiring lifestyles) ((Meadows, 2008) and personal experiences of wellbeing.

Event participants commented that, during the development of the map, they saw a shift from centralized ownership-based power to decentralized socio-ecological power (Figure 11b)iii, b)iv, c)j & d)iii); participants moved from dispersed positioning with the property owner on a chair in the middle (Figure 13 & Figure 15), to a closer circle of participants with the earth at the center and the property owner on the outside (Figure 14 & Figure 15)(E3, 2020, E13, 2020, E9, 2020, E2, 2020, E4, 2020).

Participant E12 articulated that the health of the global socio-ecological system requires a shift in perception from people doing what’s best for themselves to deciding what steps are best for everyone (E12, 2020). Participant E10 expressed a frustration with people centering power around the property owner and felt that noticing ‘the interrelation between people’ is ‘more necessary and able to change things’ (Figure 11b)ii & c)j) (E10, 2020). This acknowledgement of people’s interconnected wellbeing is core to shifting paradigms towards a co-creative economy (Figure 11b)iv) (Scharmer and Kaufer, 2013).
Figure 13. SPT 4D map starting positions (Platt, 2020)

Figure 14. SPT 4D map finishing position (Platt, 2020)
Figure 15. SPT 4D movement map (Author, 2020)
4.3 Emerging transformative capacities

The transformative capacities present in the current system have been used to form an emerging future (Figure 16) which is present alongside the dynamics illustrated in the map. An aspiring vision (Figure 17), or common future intention, was also identified through inductive analysis. This vision incorporates a value shift from private ownership and profit (E2, 2020, I7, 2020, I3, 2020) to social impact (I7, 2020, I2, 2020, I5, 2020) and global sustainability (I5, 2020, I7, 2020, E3, 2020, E13, 2020) reflecting the relational shift represented in the 4D map and from emerging business values expressed in interviews (Figure 11b)iv & c)i). Affordable goods and services (I2, 2020, I7, 2020, I6, 2020) are provided by collaborative social entrepreneurs who pay a living wage (I3, 2020), addressing the issues raised regarding low pay levels and the affordability of social enterprises (Figure 11b)iii, c)i & d)ii). There is equality of opportunity in work and education (I1, 2020, I4, 2020) where linguistic diversity is valued (I7, 2020).

Organisations develop intercultural trust through adaptable practices and by valuing the common good. Events celebrate diversity and empower young people to develop new intercultural creative initiatives. Community ambassadors increase service engagement with hard to reach groups. Communities are actively involved in allocating budgets and developing strategic objectives. Organisations use the income from sales to wealthier residents, to fund free services for lower income groups. Workplaces employ positive discrimination towards low-income and underrepresented groups. Schools engage with multi-lingual parents to support learning for children and adults. Organisations provide mental health training and develop action plans to support vulnerable service users. Safe, clean green spaces are created for children to play. Resources are shared through informal recycling networks. Cleaner travel infrastructure and new social enterprises revive the high street and improve community perception by sharing stories on social media.

Figure 16. Emerging future (Author, 2020)

Existing local initiatives and organisational aspirations show evidence of a potential pathway towards this aspiring future (Figure 16). Participants mentioned: events were cultural diversity is celebrated (I1, 2020, I2, 2020, I4, 2020, I7, 2020); organisations using a pay-what-you-can solidarity economy (I2, 2020); independent businesses sharing resources (I3, 2020); workplaces employing community outreach ambassadors and practicing ‘positive discrimination’ (I2, 2020); and the need for mental health training in the workplace to support vulnerable service users (I6, 2020).

The community is inclusive and collaborative, power is dispersed, cultural diversity is celebrated, and global sustainability and nature are valued over private ownership and profit, contributing to greater wellbeing. Everyone is supported to access quality sustainable housing. Resources and wealth are shared and elderly residents have a support network. Organisations value the impact of their work on others, over financial returns. The local economy is made up of affordable independent shops which support each other and enable local people to utilise their potential and earn a reasonable income. Linguistic diversity is valued as a learning tool in education. Pathways are available to improve people’s lives, in a way that is sustainable to the planet, through equality of opportunity in education and work. More greenspace, better public and active travel infrastructure contribute to healthier, happier lives.

Figure 17. Aspiring future vision (Author, 2020)
These collective visions could increase collaboration across divides by enabling social actors to utilize and scale these approaches to address the drivers of socio-spatial inequality through a process of social emergence and enable equitable regeneration (Scharmer and Kaufer, 2013, Wheatley and Frieze, 2006, Robinson, 2003). Tschakert et al. (2013) discuss the need for preferential pathways for possible future livelihoods to be identified in ITAs, alongside an analysis of how the individual value judgements and social power relations influence the distribution of resources.
4.4 Leverage points and intervention proposals

4.4.1 Systems map: summary and proposals

The relationships between key drivers of social inequality during regeneration are articulated in a core narrative of the system map in Figure 12: low levels of English and literacy lead to low pay (I3, 2020, I1, 2020, I7, 2020) and high population density (I1, 2020) which reduce access to social housing and increase demand in the private rented sector (I4, 2020). Poor community perception (I6, 2020, I7, 2020), related to sanitation issues associated with high population density (I1, 2020), prompts a counterculture who make efforts to combat racism and poor housing conditions. This makes the community more attractive, increasing private rental demand, leading to higher rent and household population density.

Three high impact leverage points were identified through analysis of the dynamic qualities of core elements (Figure 18) of the systems map.

<table>
<thead>
<tr>
<th>Element Dynamics</th>
<th>Description</th>
<th>Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frozen</td>
<td>Behaviour deeply entrenched</td>
<td>Pay and housing density</td>
</tr>
<tr>
<td>Pent up energy</td>
<td>Pent up energy for change</td>
<td>Counterculture, housing density and rental demand</td>
</tr>
<tr>
<td>Mixed bag</td>
<td>Swing positive or negative</td>
<td>Counterculture, community perception and rent prices</td>
</tr>
<tr>
<td>Bright spot</td>
<td>Positive change happening despite an overall trend to the contrary</td>
<td>Counterculture and community cohesion</td>
</tr>
<tr>
<td>Ripple effects</td>
<td>Strong potential for cross-system impact</td>
<td>Counterculture, community cohesion and language and literacy</td>
</tr>
</tbody>
</table>

*Figure 18. Analysis of system map dynamics (Author, 2020, Ricigliano, 2020)*

Counterculture and community cohesion were highly influential elements with the potential for transformative ripple effects. Language and literacy also had the potential for ripple effects. Housing density and rental demand were areas with pent-up energy for change. The link between rental demand and prices was identified as a strong reinforcing dynamic.

This analysis identified the following intervention proposals:

- Providing financial incentives to reduce barriers to language and literacy education;
- Utilizing the power of counterculture and social media to detach rent prices from housing demand;
- Strengthening community cohesion through intercultural events which could improve intercultural understanding, attitudes to linguistic diversity and opportunities for multilingual people.
4.4.2 Social fields and iceberg model: summary and proposals

Social fields and iceberg model analysis exposed some key insights. The process of gentrification exposes structural inequality (Walsh, 2018) and social division (Scharmer and Kaufer, 2013) providing a focus to explore the dynamics of inequity and oppression. The challenges faced by low-income residents come head to head with middle class values and aspirations (I6, 2020). Gentrification addresses stigmatized places (Kallin and Slater, 2014) rather than how the free-markets reliance on low paid (I3, 2020) and insecure labour (I7, 2020) contributes to higher levels of crime, addiction, abuse (I3, 2020) and health inequality in these areas (I1, 2020, I7, 2020) (Harkins and Craig, 2010).

In Govanhill there are efforts to address income inequality (I2, 2020) and inequitable life opportunities (I1, 2020, I4, 2020) but organisations need to balance affordability and running costs to operate within existing market conditions (I7, 2020). Narratives linking sanitation and race (I6, 2020) fail to consider how inequalities in pay and life opportunities influence people’s capacity to care for the living systems they inhabit (Walsh, 2015, Nussbaum and Sen, 1993, Nussbaum, 2001, Sen, 2001).


Community ambassadors (I2, 2020) and intercultural events could increase the participation and dialogue with underrepresented hard to reach groups supporting social learning (Robinson, 2003) and enabling greater cohesion (I1, 2020, I4, 2020, I6, 2020). This would require a holding space which enables people to step from a social field of comfort into a learning zone (Sennniger, 2000) where interactions may challenge pre-conceived values and perceptions leading to shifts in self-identity (Figure 6). Stepping into this learning zone requires courage, curiosity and compassion: qualities of presencing (Scharmer, 2018). This intervention could affect relational dynamics, such as attitudes to linguistic diversity, which influence available opportunities.

Interviewees demonstrated awareness of their responsibility as an active agent in the local social system (Figure 6 & Figure 11biv) (Vervoorta et al., 2015). They were motivated by: a compassionate commitment to inclusivity and equality of opportunity (I1, 2020, I2, 2020, I4, 2020, I7, 2020); unity as response to crisis (I3, 2020); courage, honesty and awareness of privilege as a component of justice (I1, 2020, I4, 2020, I6, 2020, I7, 2020); and a strong vision (I5, 2020) and desire to serve the challenges faced by this community (I7, 2020, I5, 2020, I2, 2020, I1, 2020, I3, 2020, I4, 2020, I6, 2020). Cultivating these personal values, motivational drivers and collective responses could influence the social construction of the local system (Burns, 2007, Scharmer and Kaufer, 2013).

People’s motivations are consciously or unconsciously affected by societal objectives which dictate the system purpose. Changing societal objectives from competitive aspirational lifestyles based around private ownership to interconnected socio-ecological wellbeing (I3, 2020, I5, 2020, I6, 2020, E5, 2020, E3, 2020, E13, 2020, E10, 2020, E9, 2020, E12, 2020) would transcend current economic paradigms by influencing the system purpose (Scharmer and Kaufer, 2013).
4.4.3 Intervention proposals

Intervention proposals were produced which included personal, relational and structural sources of change. These included: influencing personal attitudes and behaviours; strengthening community cohesion; creating structures to support equitable life opportunities; and affecting the system purpose.

Personal: Attitudes and behaviours

The emerging relational qualities present interview responses (Table 2) could influence the social construction of the local system (Figure 6 & Figure 11) (Burns, 2007, Scharmer and Kaufer, 2013). These values, attitudes and behaviours reflect qualities of presencing and awareness of interconnectivity (Figure 11a)i, b)ii & b)iv). Applying these qualities to intercultural dialogue could transform the relational dynamics which influence available opportunities.


<table>
<thead>
<tr>
<th>Presencing</th>
<th>Personal</th>
<th>Relational</th>
<th>Whole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Mind</td>
<td>A: Appreciate new initiatives</td>
<td>V: Privilege and Justice</td>
<td></td>
</tr>
<tr>
<td>Curiosity</td>
<td>V: Awareness of Ecosystem limits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Heart</td>
<td>A: Compassion</td>
<td>V: Equality of opportunity</td>
<td></td>
</tr>
<tr>
<td>Compassion</td>
<td>A: Inclusivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A: Friendliness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B: Intercultural dialogue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Will</td>
<td>A: Courage</td>
<td></td>
<td>A: Vision</td>
</tr>
<tr>
<td>Courage</td>
<td>B: Unity in crisis</td>
<td></td>
<td>A: Vision</td>
</tr>
<tr>
<td></td>
<td>B: Mediating conflict</td>
<td></td>
<td>A: Vision</td>
</tr>
<tr>
<td></td>
<td>B: Honesty</td>
<td></td>
<td>A: Vision</td>
</tr>
<tr>
<td>KEY</td>
<td>V: Value</td>
<td>A: Attitude</td>
<td>B: Behaviour</td>
</tr>
</tbody>
</table>

Relational: Community cohesion

Strengthening community cohesion through intercultural events and community ambassadors could improve intercultural understanding, attitudes to linguistic diversity and opportunities for multi-lingual people (I1, 2020, I2, 2020, I4, 2020, I7, 2020).

Structural: Equitable life opportunities

Developing a common future intention which incorporates awareness of structural inequality and ecosystem-limits could enable the creation of structures to support sustainable equitable life opportunities whilst preserving existing community infrastructure (I7, 2020, I1, 2020, I6, 2020).
Paradigm: System purpose

Utilizing the power of counterculture and social media could transform the system purpose from competition, consumption and private ownership to interconnected socio-ecological wellbeing. This paradigm shift could sever the link between rent prices and housing demand and enable ‘property’ to serve the commons (Figure 11c)i) (Scharmer and Kaufer, 2013).

4.4.4 Intervention proposal appraisal

The relational values, attitudes and qualities of behavior, illustrated in Table 2, are intrinsically linked to the other intervention proposals (Figure 19). Creating a vision through intercultural dialogue requires participants to approach the challenges people experience due to structural inequality with an open mind, heart and will by stepping into a learning zone (Senninger, 2000). Creating interconnected socio-ecological wellbeing requires structures to support equality of opportunity and an awareness of ecosystem-limits. The effectiveness of these proposals at increasing social equality depends on the quality of behavior that people bring to this dialogue. Using the ULab facilitation guidelines for generative dialogue may influence available opportunities.

Figure 19. Intervention proposals (Author, 2020 adapted from Figure 11 & Scharmer, 2013)
5 Discussion

5.1 Reviewing research aims & objectives

This research has applied Theory U to identify interventions to enable existing residents to benefit from regeneration, through a case study of Govanhill, Glasgow (Figure 20, 1 & 2).

<table>
<thead>
<tr>
<th>Research Aims</th>
</tr>
</thead>
<tbody>
<tr>
<td>This research aims to explore systemic issues which increase social inequality during urban regeneration through a case study of Govanhill, Glasgow.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explore how Theory U could be applied to regeneration projects to increase social equality.</td>
</tr>
<tr>
<td>2. Implement a case study applying Theory U to regeneration in Govanhill, Glasgow.</td>
</tr>
<tr>
<td>3. Define gentrification.</td>
</tr>
<tr>
<td>4. Identify the forces driving social inequality during urban regeneration using Sensing Journey interviews and Social Presencing Theatre 4D mapping.</td>
</tr>
<tr>
<td>5. Explore personal and systemic sources of change to increase social equality during regeneration using Sensing Journey interviews and Social Presencing Theatre 4D mapping.</td>
</tr>
<tr>
<td>6. Produce a systems map identifying key leverage points to increase social equality during regeneration.</td>
</tr>
<tr>
<td>7. Generate and appraise intervention proposals.</td>
</tr>
<tr>
<td>8. Evaluate how shifts in participants social fields (operational behaviours, relationships and structures) could contribute towards a more equitable future.</td>
</tr>
</tbody>
</table>

Figure 20. Research aims and objectives (Author, 2020)

5.1.1 Definitions of gentrification

Gentrification was defined through an analysis of existing literature and the experiences of interview participants (Figure 20, 3). Environmental gentrification was defined as when environmental improvements to historically disadvantaged area, cause an influx of affluent residents, increasing rent prices and displacing long term low-income residents (Rigolon and Németh, 2018). Community resistance to environmental gentrification provides an opportunity to challenge green growth to incorporate social sustainability (McKendry and Janos, 2015) by ‘re-inserting a critical view on the systemic structural and relational dimensions of vulnerability… to include those who cause and sustain vulnerability’ (Tschakert et al., 2013). Tschakert et al. (2013) argue that ITAs must reconceptualize ‘the way we comprehend and realize the dynamic and intersecting vulnerabilities and their multiple drivers,’ and the ways we envision a more just future. The economic paradigms of thought which produce inequality and socio-economic vulnerability (Kallin and Slater, 2014, Scharmer and Kaufer, 2013) must be transformed to incorporate collective welfare (Patterson et al., 2017, Methmann and Oels, 2015, Oels, 2005, Bäckstrand and Lövbrand, 2019) to enable socially equitable regeneration.
Interview participants discussed how socio-economic inequalities are reflected in the housing quality of different social groups (I7, 2020) and how people moving to Govanhill from other areas has increased house prices and led to displacement of low-income residents (I4, 2020). Issues with sanitation have increased social division (I6, 2020), reinforcing social hierarchies which increase the vulnerability of low-income communities and communities of colour (Walsh, 2018, Walsh, 2015, Tschakert et al., 2013). The competing interests of this diverse community have led to cynicism between groups (I1, 2020). However, engaging in a dialogue could increase understanding between people from different socio-economic backgrounds (I6, 2020). Social enterprises are acknowledging their role in gentrification and are adapting their approach to include existing community members and preserve the infrastructure which supports them (I7, 2020). Participant I5 felt that regeneration should improve people’s lives in a way that’s sustainable to the planet (I5, 2020). A 4D mapping event participant expressed the need for a perception shift from individual to collective welfare (E12, 2020).

5.1.2 Key structural drivers of social inequality during regeneration

A systems map (Figure 12) was produced from thematic analysis, of interview and event data, which identified identify drivers of social inequality, barriers to socially equitable regeneration and key leverage points (Figure 20, 4, 6).

Low paid insecure work and low levels of language and literacy skills were identified as core drivers of social inequality, presenting barriers to socially equitable regeneration. A core narrative was developed which articulated how these factors interact with housing quality and density influencing community perception. However, efforts to address these issues make the area more attractive, leading to increased housing demand and the displacement of low-income residents.

Leverage points included utilizing countercultural power, improving language, literacy and community cohesion, addressing issues with housing density and rental demand and severing the link between rental demand and prices.
5.1.3 Personal & systemic factors influencing regeneration beneficiaries

Social fields and iceberg model analysis identified personal and systemic factors influencing regeneration beneficiaries (Figure 20, 5, 8). These factors included how inequities in pay (I3, 2020) reflect free-market paradigms (I7, 2020) and limit people’s capacity to care for the living systems they inhabit (Walsh, 2015; Nussbaum and Sen, 1993; Nussbaum, 2001; Sen, 2001) contributing to social and ecological division (Scharmer and Kaufer, 2013). Participants expressed a need for new initiatives to incorporate an awareness of structural inequalities in housing and available opportunities (I1, 2020, I3, 2020, I4, 2020, I6, 2020). Intercultural events could increase community cohesion (I1, 2020, I4, 2020, I6, 2020) and shift relational dynamics, such as attitudes to linguistic diversity, which influence available opportunities (I7, 2020). Ultimately, there is a need to influence people’s motivations and relational attitudes by influencing the system purpose; from paradigms orientated around competition, ownership and consumption to interconnected socio-ecological wellbeing (I3, 2020, I5, 2020, I6, 2020, E5, 2020, E3, 2020, E13, 2020, E10, 2020, E9, 2020, E12, 2020) (Scharmer and Kaufer, 2013).

5.1.4 Personal, structural & systemic leverage points & intervention proposals

Leverage points identified from the systems map, social fields and iceberg model analysis were compared and combined to form four interconnected intervention proposals at personal, relational, structural and systemic levels (Figure 20, 7):

- creating holding spaces which support participants to approach the challenges people experience due to structural inequality with an open mind, heart and will;
- strengthening community cohesion to improve intercultural understanding and opportunities for multi-lingual people;
- developing structures to support equality of opportunity and awareness of ecosystem limits;
- utilizing the power of counterculture and social media to transform societal objectives towards interconnected socio-ecological wellbeing.

Emerging capacities already present in Govanhill include: events celebrating cultural diversity; schools engaging with multi-lingual parents; businesses sharing resources and using a pay-what-you-can solidarity economy; community outreach ambassadors increasing service engagement; ‘positive discrimination’ (I2, 2020) towards low-income and underrepresented groups; mental health training in workplaces; and social enterprises paying a living wage and sharing positive stories on social media. Scaling these capacities could enable regeneration to create pathways to improve people’s lives in a way that’s sustainable to the planet (I5, 2020).
5.2 Critical reflection on methodology and methods

This study used Sensing Journey interviews and SPT 4D mapping to generate intervention proposals; the effectiveness of this approach has therefore been assessed (Figure 20, 9).

The Sensing Journey questions used terms, such as structures, which relate to Theory U concepts. Interviewees lack of familiarity with Theory U will therefore have influenced their interpretation of these terms. Beginning interviews by asking about the challenges people experience in Govanhill will have influenced the participants mindset during later questions on sources of positive change. Engaging and addressing these challenges in solutions is key to enabling socially just regeneration (Patterson et al., 2017, Macintyre et al., 2019). However, when it came to discussing solutions; participants answers were shorter and some reflected complexity paralysis and or a loss of agency.

Reflections from the 4D mapping exercise did reflect a change to the system objective; a paradigm shift (Meadows, 2008, Scharmer and Kaufer, 2013). However, the transition from sculpture 1, the current situation, to sculpture 2, the collective aspiring future happened quite quickly and some participants ‘couldn’t bridge the gap’ (E1, 2020) or ‘understand what did happen to get me there’ (E7, 2020). The speed of the transition may have indicated use of cognitive processes, rather than embodied knowledge: one participant commented that they ‘slipped back into connecting more with… thinking processes, than my body’ (E11, 2020). This may have been improved by conducting the 20-minute mindfulness exercise immediately prior to 4D mapping or through including additional preparatory exercises.

Due to final attendance levels, the earth and aspiring future were represented by static objects, rather than people. This may have influenced participant interactions, and their perception of the objective of the exercise. Participant movement seemed to reflect an interpretation that the aim of the game was to get closer to the earth and exclude the property owner, which may have been influenced by the case description in Figure 9. This interpretation may have led participants to focus more on this objective than on relational shifts. Some participants therefore felt that the collective connection to nature was ‘kind of artificial, as if almost someone imposed us to be there’ (E10, 2020). Another participant commented on the local boundary of the system: ‘there aren’t any outside influences’ such as ‘the government in London’ (E3, 2020) indicating a need to incorporate broader influential roles in future maps.

The extent to which the exercise activated personal agency (Whitney and Cooperrider, 2011) is yet to be seen however participant E8 commented that it ‘reinforced my interest in sustainable urban communities’ and since the event they have become involved in ‘utilising public green space as a resource to feed, engage, conserve biodiversity and support wellbeing’ (E8, 2020).
6 Conclusions

6.1 Summary & implications

This study illustrates that Theory U can be used to: develop a transformative approach to regeneration which recognizes structural and relational dimensions of inequality that shape vulnerability (Tschakert et al., 2013, Pelling et al., 2015). This research explored factors influencing regeneration beneficiaries through Sensing Journey interviews and 4D relationship mapping. Structural interventions and relational shifts were identified which could enable equitable regeneration and contribute towards a co-creative economy (Scharmer and Kaufer, 2013).

Regeneration could challenge green growth, address the root causes of inequality and improve the livelihoods of existing residents and businesses by engaging with the challenges of those marginalised from the post-industrial economy using participative processes to enable social learning (McKendry and Janos, 2015, Anguelovski et al., 2016, Macintyre et al., 2019, Robinson, 2003). Approaching these challenges with curiosity, compassion and courage (presencing) could bridge the social divide (Scharmer and Kaufer, 2013). Identifying a common future intention could inspire social actors to self-organise towards socio-ecological sustainability (Missimer et al., 2017). Emerging operating structures (Figure 16) could be utilized to address the drivers of socio-spatial inequality and may co-evolve to become the accepted standard through a process of social emergence (Wheatley and Frieze, 2006, Scharmer and Kaufer, 2013).

Transformative adaptation requires relational presencing (open mind, heart and will) where our interactions shift who we think we are (self-identity) and what we think we know (values). These interactions influence our individual and collective enactment of the system through changes to behavior and social organization (Pelling, 2011, Scharmer, 2018). Whereas, attitudes of absencing lead people to disengage and desensitize from the challenges others experience, and from their own agency and responsibility as a social actor who’s relational attitudes influence systemic conditions (Scharmer and Kaufer, 2013). Qualities of relating provide a leverage point to influence the social construction of systems by asking ‘what’s happening through us’ (Macy and Johnstone, 2012).
The social and ecological externalities of competitive free-market paradigms reflect uneven power dynamics in society which influence behaviours and relationships. Approaching social justice challenges and emerging operating structures with behavioural attitudes of presencing could trigger a shift towards a co-creative economy (Scharmer and Kaufer, 2013). This would address these challenges at the level of paradigm by incorporating structures and relational attitudes to enable equality of opportunity and support collective socio-ecological wellbeing (Figure 21).

Figure 21. Behavioural and relational shifts towards a co-creative economic paradigm (Author, 2020; adapted from Scharmer, 2013)
6.2 Limitations

This study adopted a qualitative approach to research using a case study of local community organisations and social enterprises in Govanhill, Glasgow to enable deep contextual analysis of how social relations influence the beneficiaries of regeneration projects. Intervention proposals therefore focus on personal and relational leverage points; however wider structural factors influence regeneration beneficiaries. This study could be complemented by further policy analysis and engagement with external decision makers whose actions affect this community. Tschakert et al. (2013) advocate for ITAs to include solution spaces which include vulnerable communities and those ‘who cause and sustain vulnerability’ to enable transformative change at multiple scales.

The personal and relational approach outlined here doesn’t imply that influencing the mindsets of those impacted by structural inequality would influence their economic realities. Rather that personal and relational processes influence the construction of the local social system. Creating greater awareness of inequality could influence the lived realities of long-term low-income residents by increasing collaboration across divides.

Interview participants had all worked in Govanhill for between 2.5 and 19 years. However, only a third of event participants were from the G42 postcode; although the event was advertised on local community noticeboards and on local organisation’s Facebook pages. Efforts were made to make the wording in publicity material accessible to different audiences (Appendix 5 to Appendix 7). However, individual interest in the research subject will have influenced participation. Participation may also have been affected by the researcher’s perceived influence on outcomes. Language barriers may have prevented some demographics from participating in the research as all publicity and communication was in English. Local Roma organisations were contacted but no-one from the Roma community participated in the research. Replies indicated that these organisations did not have the capacity to participate which may reflect how structural inequalities in funding provision influence which communities are represented in research. Event participants commented that they would like to repeat the exercise with ‘a more representative group of people’ (E2, 2020). Although efforts have been made to include community organisations who work with different sectors of the Govanhill community this study may not reflect the full diversity of the larger Govanhill population. A longer study would allow more time to establish trusting relationships with other local organisations.
6.3 Further research

Once these relationships were established a second 4D mapping exercise could be conducted with a more representative group. The order of Sensing Journey questions could be adapted to explore how this affects the mindset of participants when discussing challenges and sources of positive change. Policy and decision makers could engage in a dialogue with large families to identify issues with current regulations and generate a collective vision, which addresses the root causes of overcrowding and the needs of these families. A deeper analysis could be made of how shifts in media narrative impact the local system. A pilot project could use the ULab generative dialogue guidelines to explore its effect on intercultural community relations. Further research could also consider what emerging structures could influence wider system structures. Methods to strengthen emerging transformative capacities could be explored through participation in the ULab2x program which supports new initiatives to achieve greater impact and scale. A longer study could investigate whether intercultural dialogue and attitudes of presencing do contribute to the creation of structures to support equality of opportunity; and how this affects the beneficiaries of regeneration. Further research could also investigate the impact of Covid-19 and the Black Lives Matter movement on local awareness of structural inequality, interconnected wellbeing and hence on social relations.
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PLATT, S. 2020. Still from 4D mapping video at Firestarter Festival event.


WORKFORCESCOTLAND 2019. Firestarter Festival.

Appendices

Appendix 1. Sensing journey pilot interview questions (Scharmer, 2019a)

- What personal experience or journey brought you to live/ work in Govanhill?
- What issues or challenges are you confronted with in your life/ work in Govanhill?
- Why do you think these challenges exist?
- What challenges exist in the larger system?
- What are the blockages?
- What are your most important sources of success and change?
- What would a better system look like for you?
- What initiative, if implemented, would have the greatest impact for you? For the system as a whole?
- If you could change just a few elements of the system, what would you change?
- Who else do we need to talk to?

Appendix 2. Sensing journey post-pilot interview questions (Scharmer, 2019a)

- Do you live in Govanhill?
- How long have you lived in Govanhill?
- Do you work in Govanhill?
- How long have you worked in Govanhill?
- What is your role?
- What personal experience or journey brought you to live/ work in Govanhill?
- What issues or challenges are you confronted with in your life/ work in Govanhill? (if live and work break into 2 questions)
  - Interviewer notes key topics
  - How would you describe XXX to someone else? e.g. gentrification
  - Who do you see as the key players in XXX?
  - What structures contribute to XXX?
- So you’ve mentioned XXX, XXX, XXX as key challenges. Now why do you think these challenges exists?
- What challenges exist in the larger system?
- How does XXX influence XXX?
- And how does this impact XXX?
- How do you envisage a more socially equal system?
• So thinking about the challenges in the system what do you think are the blockages to a more socially equal system?

• Could you tell me something you’ve done that you’re proud of? That you personally think of as a success.

• What personal qualities enabled you to do that?

• What other factors contributed?

• Could you tell me about a time when you’ve seen things change for the better?

• Where did that change originate from?

• What are some of the key values of your community?

• Interviewer summarises challenges, blockages, sources of success and change

• Could you describe how a better system would look?

• What initiative, if implemented, would have the greatest impact for you?

• What initiative, if implemented, would have the greatest impact for the system as a whole?

• If you could change just a few elements of the system, what would you change?

• Who else do we need to talk to?
Appendix 3. Transcription confidentiality agreement

Confidentiality Agreement for Transcription Services.

I, ______ Stephen Bell ______, transcriber, agree to maintain full confidentiality in regards to any and all audio files, documentation and correspondence received from the researcher ______ Robin Duval ______ in relation to their research project. Furthermore, I agree:

1. To hold in strictest confidence the identification of any individual that may be inadvertently revealed during the transcription of interviews, or in any associated documents;
2. To not make copies of any audio files or documents of the transcribed interview texts, unless specifically requested to do so by ______ Robin Duval ______;
3. To store all materials related to the research in a safe, secure location as long as they are in my possession, which for electronic materials will include a password-protected folder;
4. To delete all electronic files relating to the research from my computer hard drive and any backup devices. I am aware that I can be held legally liable for any breach of this confidentiality agreement, and for any harm incurred by individuals if I disclose identifiable information contained in the audio files and/or documents to which I will have access.

Transcriber’s name (printed) _______ STEPHEN BELL _______
Transcriber’s signature ___________________________
Date ____________________________ 13/2/20

Appendix 4. 4D mapping event agenda (Author, 2020)

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00</td>
<td>Arrival &amp; form filling</td>
</tr>
<tr>
<td>10.15</td>
<td>Opening &amp; Overview of the Day</td>
</tr>
<tr>
<td>10.25</td>
<td>Active Listening Icebreaker Milling activity</td>
</tr>
<tr>
<td>10.45</td>
<td>Group agreement</td>
</tr>
<tr>
<td>11.10</td>
<td>Comfort break</td>
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<tr>
<td>11.30</td>
<td>20-minute dance</td>
</tr>
<tr>
<td>12.05</td>
<td>Systems game</td>
</tr>
<tr>
<td>12.45</td>
<td>Introduction to Iceberg model and 3 divides</td>
</tr>
<tr>
<td>13.00</td>
<td>Lunch – paired empathy walk</td>
</tr>
<tr>
<td>14.00</td>
<td>4D mapping</td>
</tr>
<tr>
<td>15.45</td>
<td>Closing circle</td>
</tr>
<tr>
<td>16.00</td>
<td>Finish</td>
</tr>
</tbody>
</table>
**Appendix 5. Firestarter Festival publicity (Author, 2020)**

**How Could Regeneration Increase Social Equality in Govanhill:**

*A Systems Mapping event using Social Presencing Theatre*

**Why Social Equality in Urban Regeneration?**

Community action initiatives in Govanhill have called for investment in regeneration to provide quality housing for Govanhill residents. However, urban regeneration presents social and environmental justice challenges due to the frequent displacement of low-income residents as a result of greening measures impacting rent prices. These tensions between environmental, social and economic objectives during urban transitions demonstrate the social and environmental externalities of our current economic system.

**What is Social Presencing Theatre?**

The ULab seeks to transform paradigms of economic thought by encouraging co-creation of alternative approaches. Social Presencing Theatre supports diverse stakeholders to understand the current reality and explore emerging future possibilities.

**Workshop Content**

Following a mindfulness exercise, participants will express an area of their life or work that feel stuck, explore how this relates to others experience and identify how they could collaborate to work towards a collectively desired future. A 4D mapping exercise will then enable participants to make the current social system visible and explore what shifts might enable an aspiring future to emerge.

**Note regarding Participant Consent**

The workshop forms part of Robin's MSc dissertation. Participant consent will be sought for video and audio recording and the use of any data generated for the MSc dissertation.
Call out for workshop participants!

Do you believe everyone deserves a warm, affordable long term home with good transport links and access to greenspace?

Do you think local businesses should provide secure employment, a living-wage and contribute towards a greener and fairer society?

How can we create these changes without increasing rent prices and displacing existing residents?

Saturday 8th February

10-4pm

For more information and to book contact: Robin on robinjonesduval@gmail.com or 07725652095

https://tinyurl.com/g0v4nh11
Call out for workshop participants!

My name is Robin, I’m conducting research on urban development and its impact on rent and well-being in Govanhill. The research is for my dissertation, but the result will also be shared with participants, including local community development organisations.

The workshop is part of the Firestarter Festival and will take place at Bike for Good South. Tea, coffee, snacks and lunch will be provided. The format of the workshop is to use mindfulness and movement to envision a future Govanhill that welcomes people from all backgrounds.

Participants will work together to develop active listening skills and explore group dynamics and power relations between decision makers and impacted communities to create a shared vision of a better environment for us all. People from across the community are encouraged to attend, open-mindedness and a willingness to participate is actively needed, but no prior knowledge or experience is required.

10-4pm Saturday 8th February at Bike for Good South on Langside Lane

LIMITED PLACES please book using https://tinyurl.com/q0v4nhi11 or contact Robinjonesduval@gmail.com 07725652095

If you want to know more about the format of the workshop, or the academic framework I’m working with please feel free to contact me. For more information about the Firestarter Festival please see https://firestarterfestival.com/

Participant Consent
The workshop forms part of Robin’s MSc dissertation. Participant consent will be sought for video and audio recording and the use of any data generated for the MSc dissertation.
Collaborative mindfulness for systemic change

Call out for workshop participants

I'm conducting research on urban development and its impact on rent and well-being in Govanhill. The research is for my dissertation, but the result will also be shared with participants, including local community development organisations.

The workshop is part of the Firestarter Festival and will take place at Bike for Good South. Tea, coffee, snacks and lunch will be provided.

The format of the workshop is to use mindfulness and movement to envision a future for Govanhill for people from all backgrounds.

The morning will focus on practical exercises aimed at encouraging empathetic active listening, grounding individuals in their bodies and developing awareness of group dynamics.

In the afternoon participants will volunteer for roles to create a 4D map exploring existing power relations between decision makers and impacted communities and then shifting these relationships to create a shared vision of a better environment for all.

The event is open to all.

Open-mindedness and a willingness to participate is actively needed, but no prior knowledge or experience is required.

If you want to know more about the format of the workshop, or the academic framework I'm working with please feel free to contact me.

For more information about the Firestarter Festival please see https://firestarterfestival.com/

Participant Consent

The workshop forms part of Robin's MSc dissertation. Participant consent will be sought for video and audio recording and the use of any data generated for the MSc dissertation.
Appendix 8. Diverse community theme identification (Author, 2020)
Appendix 9. Community perception theme identification (Author, 2020)

Intercultural relations
- Media narrative
- Values of success
  - Financial viability
  - Affordability
- Impact on existing businesses
- Youth values

Sanitation

Social enterprises

Community perception

Appendix 10. Housing theme identification (Author, 2020)

Rent prices
- Demand
- House prices
- Income inequality
  - Quality
  - Population density

Housing

Regulations

Housing stock

Social Housing

Family needs
Appendix 11. Enablers of socially equitable regeneration (Author, 2020)
Appendix 12. Inhibitors to socially equitable regeneration (Author, 2020)
Appendix 13. Systems map development (Author, 2020)
Appendix 14. Community perception region (wicked culture) (Author, 2020)

Appendix 15. Work region (race to the bottom) (Author, 2020)
Appendix 16. Housing region (housing demand and standards) (Author, 2020)

Appendix 17. Access to social housing region (family housing market) (Author, 2020)
Appendix 18. Reflective journaling questions (Scharmer, 2019a)

- What was most surprising or unexpected?
- What touched me? What connected with me personally?
- If the social field (or the living system) of the visited organisation or community were a living being, what would it look and feel like?
- If that being could talk: what would it say to us?
- If that being could develop – what would it want to morph into next?
- What is the generative source that allows this social field to develop and thrive?
- What limiting factors prevent this field/system from developing further?
- Moving in and out of this field, what did you notice about yourself?
- What ideas does this experience spark for possible prototyping initiatives that you may want to take on?