QUESTIONING SUSTAINABILITY: A TRANSFORMATIVE APPROACH TO HUMAN RESETTLEMENT

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ABSTRACT: Within the discourse of sustainability, two worlds collide. When translated cross culturally, sustainability does not hold the same meaning within different epistemologies, as demonstrated by anthropologist, Peter Rudiak-Gould in the Marshall Islands. Additionally, the use of terminology such as 'sustainable development', has a marginalizing effect – us versus them. Even within the context of urban renewal projects in the United States, development holds connotations of 'minoritization' (Laguerre), gentrification, and white-washing. Furthermore, the use of sustainability does not capture the complexity that is inherent in creating sustainable development. Ulrich Beck implements the term 'reflexive modernity' in his description of the 'risk society'; perhaps if development is thought in terms of the inherent risks associated with 'progress,' then we can achieve more regenerative processes. What does sustainability actually mean in practice? Through a literature review on the implications of sustainable development in alternate epistemologies this paper builds a critique of the current practice. The view of sustainable development as a neocolonial agenda is carried forward into the case study of a series of sustainable development projects on Namdrik atoll, Republic of the Marshall Islands, which earned the 'Equator Prize' in 2012. The rising issue of human resettlement as the next embodiment of sustainable development is brought to light and the implication for the future resettlement of low lying atoll nations, such as the Marshall Islands, is discussed. Resilience is brought into the discussion in order to propose a way toward mitigating neocolonial agendas in development programs and leading toward the sustained role of social justice in policies and practice.

KEYWORDS: Sustainability, resilience, development, resettlement, displacement

INTRODUCTION

> The meanings, practices and policies of sustainable development continue to be informed by colonial thought, resulting in disempowerment of a majority of the world's populations, especially rural populations in the Third World (Banerjee 2003, 144).

The term 'sustainable development' has an inherent bias; the terminology is rooted in a western epistemology and could be construed to have a hidden agenda. There is an unconsciousness amongst those educated within a western epistemology that sustainable development implies progress. And to an extent, this carries over to all influenced by the western, scientific rationale of progress. However, this bias is based on a world view of the dominant, global, largely westernized culture. When translated cross culturally, sustainability does not hold the same meaning within different epistemologies, as demonstrated by Peter Rudiak-Gould (2013) in the Marshall Islands[1]. Additionally, the use of terminology such as 'sustainable development', or just 'development', has a marginalizing effect – us versus them. It is important to understand the ramifications of these western ideologies within the context of alternate epistemologies across the globe, or as Anaya Roy terms 'subaltern realities' (Roy and Crane 2015). Even within the context of urban renewal projects in the United States, development holds connotations of 'minoritization' (Laguerre 1999), gentrification, and white-washing. Furthermore, the use of sustainability does not capture the complexity that is inherent in creating sustainable development

An overarching technological approach has consumed the discourse of sustainability in architecture as demonstrated by Guy and Farmer (2001). If we take into consideration Ulrich Beck's description of the "Risk Society", the technological solutions produced by scientists leave the power in the hands of a few. Arguably, power and the reproduction of that power have led to the current crisis of global climate change[2]. As Urlich Beck (1992) demonstrates, technological advances have inherent risks that require technological knowledge to interpret – thus perpetuating the cycle of the risk society. Through interpreting Bourdieu's theory of practice together with Beck's theory of the risk society, it is apparent that the discourse of sustainability is promoted by the very power structures that have led to global climate change. The very definition of sustainability, as promulgated through the Brundtland report, demonstrates the extent of these power relations, and the reliance on a largely western, scientific approach. The World Commission on Environment and Development was commissioned by the United Nations to seek solutions that would reduce the negative impacts of industrialization in developing nations. The commission largely consisted of Western European delegates, who were

still rooted in an epistemology that saw the world as a binary; the developed and the undeveloped. Thus the solution to unsustainable practices became reliant on technocratic solutions, such as green technology. The post development discourse provides an extensive critique of issues inherent to sustainable development (refer to James Ferguson and Gupta (1997) and Arturo Escobar (2008)). In addition, Jacka (2015) argues that development fails in its bureaucratic processes; it simplifies complex local practices and ignores the contribution of local knowledge. Development practices concerned with rendering technical problems, separate the scientific knowledge from the indigenous or local knowledge. Within the overarching field of global climate change, the appropriation of sustainable development should be seen as a contentious matter if we are to approach the discourse through a critical lens. It is especially important to utilize and develop this critical lens in undertaking urban and rural development projects and resettlement programs that are in response to the outcomes of global climate change.

Sustainability needs to be viewed within the parameters of a complex system, taking into consideration latent potentials and their impacts on society. In considering resilience, the architectural discourse should be more inclusive of non-technological viewpoints, such as indigenous knowledge. Sustainability is in fact a cultural and a societal issue in need of approaches from both science and society. Perhaps, utilizing the term 'resilience' rather than 'sustainability' allows for a more productive method for continuing the development discourse.

1.0 A CASE STUDY OF SUSTAINABLE DEVELOPMENT ON NAMDRIK ATOLL

> [Disciplinary power] is a mechanism of power that permits time and labor, rather than wealth and commodities, to be extracted from bodies…This new type of power, which can no longer be formulated in terms of sovereignty is one of the great inventions of bourgeois society, a fundamental instrument in the constitution of industrial capitalism and the type of society that is its accompaniment (Foucault 1980, 105).

In 2012, Namdrik, a small outer atoll of the Republic of the Marshall Islands with a population of approximately 600, received the UNDP Equator Prize, "awarded to outstanding community and indigenous initiatives that are advancing nature-based solutions for local sustainable development" (Perez 2017). Namdrik Senator Mattlan Zackhras, was instrumental in implementing sustainable development goals on his atoll. This objective is especially important since the atoll is facing the detrimental implications of rising sea levels and decreased habitability due to climate change. The goals were part of a larger national strategy aimed at fighting climate change and working on adaptive strategies for building community resilience. Through these sustainable development goals, largely designed by researchers from the United States, Australia, and New Zealand, steps had been taken to: establish gardens for diversification in agricultural production, including conservation of endemic producing plants; the Asian Development Bank provided support for an atoll-wide coconut replantation project to replace senile trees; and large portions of reef and land were designated as protected marine environments under Ramsar[3] ("Mangrove Rehabilitation and Replanting Project for Namdrik and Jaluit Atolls Ramsar Sites, Marshall Islands | Ramsar" 2017). As part of the economic development goals in the larger sustainable development agenda for Namdrik, eighty-six acres of the lagoon were designated for the Pearl Oyster farm as part of the marine protected area and a lumber milling project was to be implemented as part of the coconut replanting project and broader sustainable forestry goals. Together these projects would provide more capacity for cash economies in the harvesting of black pearls, coconut lumber, and the production of copra and coconut oil.

1.1. Methodology

As part of a multi-sited case study of the Marshall Islands, I worked on Namdrik analyzing both the socio-spatial patterns of the community as well as the implications of sustainable land-use development practices on the atoll. In addition, I examined closely the desire for sustainable building practices. The community had recognized the need for more regulation on site selection along with the need for alternative building techniques that reduced the impact of construction on the environment. I spent four weeks on Namdrik, living with community members and engaging with daily life on the atoll, closely studying eleven family compounds[4] using self-selected sampling. The data included site surveys of forty-two buildings and over fifty acres of land, eleven interviews with the heads of each of the eleven households, interviews with the mayor and senator, and participant observation. The interviews with households concerned climate change adaptation along with questions aimed at understanding life on the land and supporting socio-spatial patterns. Interviews with the mayor and senator covered these topics with the addition of questions concerning the sustainable development goals of Namdrik.

Through the participant observation of the study, I became very familiar with the pearl oyster project, helping with the pearl farmers often, and also became familiar with the other development projects through the eyes of several different community members. It became clear that many of the sustainability goals were not being met and it was not clear as to why (refer to Table 1). Some community members agreed that it was due to the lack of maintenance funds, while others alluded to the disinterest of the community as time went by. I observed that projects were not maintained because they did not fit within the daily pattern of life on Namdrik and were outside of socio-cultural norms. For example, the

gardening project which took place behind the school was largely abandoned, and a pig pen that was constructed using the same funding was primarily used by the landowner rather than the larger community. When asked about it, several community members said it was used for school children to learn about horticulture, but as funding waned so did interest.

Table 1: Sustainable Development Projects on Namdrik

	Support	Undecided	Negative Consequences
Pearl Farm	Most supported the Pearl Farm		The viability of the project was questioned by community members and its implementers.
Coconut Felling and Planting	Copra is a significant portion of the cash economy. The project would benefit everyone.	Few understood the scope of the project.	Expert support had waned and little progress has been made.
Coconut lumber milling	When asked, community members were interested in the economic benefits as they saw the senile trees a waste otherwise.	Few knew of this project.	Lack of support for this project leaves the community feeling that such projects fall through.
Coconut Oil	Most supported.		The benefits from the oil extraction were not equal.
Gardening program		To most, the project was unsupported and undervalued.	
Environmentally sensitive building siting	Some saw the benefits of re-siting housing away from the shoreline, but were more concerned with norms.		Without proper consensus between landowners, who define where housing can be built, and federal regulators it seems that proper land use zoning will be ineffectual.
Protection of Mangrove Forests	Many understand why it might be beneficial to protect the mangrove forest in order to protect shoreline erosion.		Most everyone see the designated protected zones as inhibiting cultural norms and believe these rules are not followed.

1.2 Analysis

This analysis shall focus on the pearl farm project, the coconut replanting program, and the designation of the mangrove forest as a natural reserve. As economic development projects, the pearl farm and coconut replanting projects are demonstrable of the commodification of local resources. The constant questioning of the pearl farm's viability is representative of clashing epistemologies. The project had relied on the management from a British environmental scientist who had some managerial experience, but rather than building local capacity for the project to be fully operated by individuals in the community, the project entered a period of uncertainty when this agent left. Fortunately one of the head 'farmers' stepped up when offered training to become the new project manager.

The coconut replanting program and the designation of the mangrove forest as a natural reserve had interesting implications for the use of local resources in construction, handicrafts and other commodities. Based on interviews, it was clear that the preservation of the mangrove forests had an overall negative impact on the repair schedules of local housing and cookhouses because locals no longer had the freedom to select mangrove branches for repairs or construction. One individual expressed that even though the rules were not necessarily followed, it was irksome that they no longer had the freedom to do as they had done for generations. In conjunction with analysis from other interviews, it was clear that there was more of a burden on individual families to apply for the 'Grants and Aid' program in order to import lumber and hardware from the capital, Majuro, in order to carry out home repairs. This demonstrates

the devaluation and replacement of local knowledge by western knowledge. It was the coconut replanting project and removal of senile trees that provided promise for filling in the need for locally sourced wood products. However, with a lack of local capacity to run the milling machinery and a lack of training, the overall program has been at a standstill with the exception of attempting to season coconut lumber in saltwater. The design of these two programs could have formed a synergy that reduced the burden on locals, but arguably the western agenda took priority. In essence the individual deeming the natural preserve irksome is dependent on worldwide trends in resource consumption, trade policies of the World Trade Organization and funding interests of the Asian Development Bank and International Monetary Fund (Giddens 1990).

Land based resource management and sustainable development objectives demonstrated a lack of maintenance of early objectives, and a general burden was placed upon the community as outside funding slowed. As Deleuze and Guattari point out, there is a process at hand of deterritorializing and reterritorializing the flows of exchange (1987). In the case of the people of Namdrik, their local resources and local knowledge for maintenance of their resource base has been deterritorialized by UNDP development goals and reteritorialized for the benefit of global stakeholders.

Geertz (2000) demonstrates that a community forms local knowledge that is specific to their subsistence strategies, helping members to successfully attain viable livelihoods. The social structures and social practice adapt to these circumstances, sometimes subversively. The community on Namdrik carries on their everyday business based on their cultural context. Their local knowledge, which is ever evolving across time and space, is both in opposition to the imposition of development projects and part of it, "as a reflexive understanding of knowledge construction recognizes that it is always grounded in local, and western knowledge forms (Banerjee and Linstead 2001, 690). To a degree the local knowledge of the community is disempowered by the acculturation of their way of life through the globalizing power of western knowledge. It is difficult to resist something that may bring notoriety and progress and with these symbolic goods, monetary gain. It begs to ask, "are participatory processes being used to leverage certain agendas – implementing indoctrination?" Dangers lie within the mode of development to educate and instruct, as ulterior motivations can easily be hidden within our western aptitude for charity, perhaps a reason why Habermas (1991) defined authentic dialogue.

Working across multiple contexts, with alternate epistemologies, it is appropriate that sustainable development goals take into consideration the implications of western motives on non-western communities. Through operationalizing Bourdieu's theory of practice (1990) in dismantling a development project, it is possible to uncover ulterior motives, while analyzing contextual changes and syncretic systems developing in a community. Throsby (2014) utilizes Bourdieu's theory of cultural capital. By not sustaining cultural values that provide people with a sense of identity or invest in the enhancement of both tangible and intangible cultural capital, cultural systems may break down and lead to loss of welfare and economic output (Throsby, 2014). Cultural sustainability necessitates the long-term maintenance of cultural resources such that intergenerational and intra-generational equity are appropriately served.

The Reimaanlok Plan, the national framework for conservation, holds promise as a transformative approach to sustainable development in the Marshall Islands (Reimaanlok National Planning Team 2008). Developed as a conservation area planning framework, Reimaanlok puts the control in the hands of local communities to select and manage conservation areas. It has expanded beyond the constraints of conservation planning to include other development goals within its framework, and acts as a facilitator in building community capacity.

2.0. DISCUSSION: HUMAN RESETTLEMENT AND THE NEXT FRONTIER OF DEVELOPMENT'S AGENDA

Embedded within the cultural patterns of a community are two response mechanisms: adaptive strategies and coping mechanisms. Berkes and Jolly (2001) contribute adaptive strategies to mechanisms related to core cultural values of a group that are slow to change and contribute coping mechanisms to the individual/ household and/or small spatial scape. Since these mechanisms are culturally embedded, it would be logical that a sustainable approach must invest in whatever possible models contribute to the mitigation of any possible vulnerabilities to cultural lifeways – such as ensuring that bottom-up processes are not inhibited. In theory processes that build resilience provide for sustainability as long as the system maintains the ability to adjust, reorganize, and rebound. Perhaps through leveraging cultural capital, development can work from the bottom-up in delivering agency to the marginalized society and overcoming the powers-to-be.

> [C]ulture is a dynamic, interactive network of contingencies and possibilities…culture offers innumerable opportunities for variation, creativity, dialectical self-evaluation, and alteration (Wesson 2013, 101).

In considering cultural resilience as an approach to sustainability, change is inherent as an adaptive strategy to disturbance regimes; therefore, culture change does not necessarily mean the loss of culture, but "a creative space where new forms of cultural understanding (and practice) are developed" (Wesson 2013, 108). Based on Wesson's argument, investing in efforts to maintain cultural patterns to reduce the stresses on the health, well-being, and

security of the displaced populations will not sustain the pre-displacement culture, but will provide a mechanism for mitigating further vulnerability[5] to greater stochastic events in the post-resettlement system. Cultural sustainability, therefore, does not maintain culture in the sense of static motion, but rather provides mechanisms that will most likely alleviate the shock and allow elements of the culture to persist – dependent on their desires in the evolution of their cultural identity. Understanding cultural patterns as elements that help support the continuity and enhancement of cultural capital, it is clear that ensuring the continuity is a necessity to create resilience and sustainable resettlement schemes.

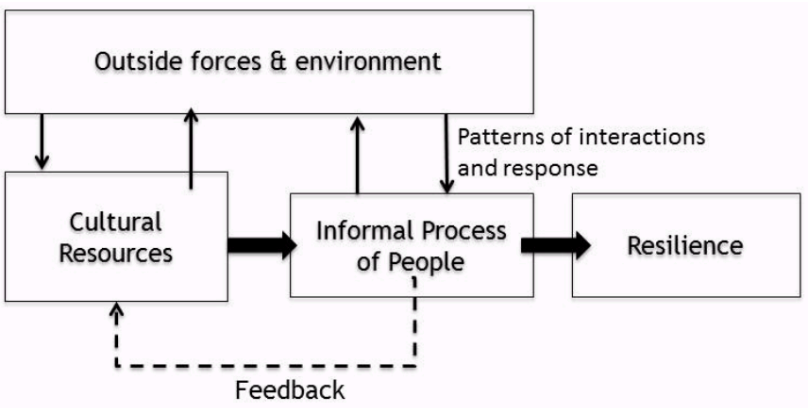

Figure 1: Conceptual diagram of cultural resilience.

A common problem with resettlement programs is the tendency to dismantle the process into digestible components, disregarding the complexity of the system that these mechanisms operate within. Often operating on an outdated mode that utilizes principles of scientific management, governments and multi-national aid organization tend to dismantle resettlement programs, focusing primarily on the one issue, such as the economic problem and disregarding the inherent place-based, social and cultural issues (Oliver-Smith and de Sherbinin 2014; Scott 1998). This compounded by the notion that sustainable development means returning to a pre-resettlement state causes many of the issues apparent in resettlement programs. However, the dynamic processes within a system elude the possibility of returning to a state similar to pre-development or pre-resettlement.

Through a synthesis on the discourse of ecological and generative design, Du Plessis (2012) demonstrates that "ecological design and planning processes have four main characteristics: they are responsive to local conditions, adapt to changing conditions, employ decentralized approaches, and are developed through the contribution and collaboration of many simple entities through processes of bottom-up self-organization that follow certain generative rules[6]" (p.16). These processes are inherently linked within social and cultural capital. Based on this systems approach to resettlement as regenerative development, social and cultural components may prove to be the most important factors in success.

CONCLUSION

Building upon Friedman's (1987) transformative approach to planning[7], I argue that sustainability should fall into a radical ethos of architecture: we must change the very structure that maintains the current world order. The current use of sustainability is a tool of the dominant, used to promote progress, but in reality the discourse of sustainability perpetuates control and systems of inequality. The ubiquitous approach to sustainability from a technocratic stance is demonstrative of this problem (see James Scott (1998)), we have a tendency to relate everything to numbers through scientific rational, and in the process we 'fog' the necessity of social systems and culture. Social and cultural factors are far more important than the technological factors. If we only consider sustainable architecture from the perspective of energy consumption, we might ignore the reasons why un-sustainable practices are perpetuated through the habitus (Bourdieu 2005). For example, May's (2008) case study on the sustainable development project in Huangbaiyu, China. May critiques the agenda of capitalist sustainable development goals, as off-setting their own carbon emissions, while negatively impacting the communities these projects are implemented in. While this brings to light the negative socio-economic effects of such programs, more emphasis could be drawn to the exploitive behavior of western ideologies, as demonstrated in Banerjee's (2003) critique of sustainable development. If we can influence the habitus in a positive manner, that would lead to a regenerative change and is inherently more important than a simple technological solution.

The practical aspect of transformative theory is to empower people and move toward changing the system, in this case the exploitative agenda of western, capitalist development. These transformations take place through: 1) Politics of empowerment, through successful engagement of the political struggle; 2) Politics of redistribution of power; 3) Politics

of Place – defending people's life-space against capital and bureaucracy; contributing to life space of neighborhoods - protecting low-income areas from gentrification and displacement; and 4) Terrain of struggle. The goal of the radical architect in the design and development resettlement programs is to engage the community in a participatory process in order to draw their awareness of the political struggles as well as the dark-sides of the structural system. Through this participatory process, the radical architect develops an understanding of generative codes and verifies them with the community. These generative codes provide the basis for designing and developing a culturally supportive environment. Through a community-directed building process, the community ensures the correct implementation of the codes. The next objective of the radical architect is to work as a mediator between the community and the state in order to ensure that the cultural maintenance of the community is not hindered by land use and building codes.

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ENDNOTES

1 Through his ethnolinguistic study of the Marshall Islands, Peter demonstrated that a clear translation or interpretation of sustainability did not exist because sustainability was a state of being amongst Marshallese up until the period of United States occupation following World War II (2013).

2 The following is an example based on a synthesis of arguments developed in Urlich Beck's discussion of the dark side of technological advancement that gives rise to wicked problems, such as global climate change, and Bourdieu's theory of practice. The elite industrialists held the power at the turn of the 20th century and reproduced this power through capital gain, which put a tremendous tax on the environment. These power positions largely remain as privileged decedents hold onto the accrued capital, but rather than industrialists, they have taken on new vocations of power, such as a politician, who might lobby for continued resource exploitation. Here, this decedent might directly affect global climate change through petroleum extraction, release latent implications of drilling technology, and hold the knowledge to understand the negative consequences of such practice, thus truly holding onto the power.

3 The Convention on Wetlands of International Importance, called the Ramsar Convention, is the intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources

4 The Marshallese family compound is defined by the weto, the piece of land that extends from the ocean to the lagoon which is passed down through matrilineal inheritance.

5 The characteristics of a person or group in terms of their capacity to anticipate, cope with, resist, and recover from the impact of a natural hazard. It involves a combination of factors that determine the degree to which someone's life and livelihood is put at risk by a discrete and identifiable event in nature or society (Wisner et al 2004).

6 Alexander et al. propose a new theory of urban design that attempts to capture the process of organic development. They argue that "towns grew as a whole, under its own laws of wholeness (p. 1). Alexander and co-authors attempt to capture this process of creating wholeness and life-enriching environments throughout their subsequent works (The Nature of Order) and develop a process that deals

with the complexity of the urban system through collaborative strategies.

7 Transformative theory consists of five key characteristics: 1) It focuses on structural problems (within capitalist society), such as racism, patriarchy, class domination, resource degradation, impoverishment, exploitation, and alienation. 2) It provides a critical interpretation of reality, emphasizing relationship to the dark-side of systems and analyzing structural conditions. 3) It charts how the system reproduces itself without anyone doing something about it (in order to do so, one must understand the historical context). 4) It elaborates a preferred outcome based on emancipatory processes and holds a normative view. 5) Finally, transformative theory speculates that the best strategy for overcoming resistance requires political will (Friedman, 1987).