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Maintaining and building ‘place’ through managed and forced community relocations: Lessons for a climate changed world

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Abstract

Climate-induced environmental change is likely to render some of the places in which people live and maintain livelihoods uninhabitable. While our understanding of the interactions between environmental change and migration has increased, less attention has been paid to places becoming uninhabitable and the processes of relocating entire communities. Therefore this article attempts to fill this gap in our understanding, by applying concepts from place attachment literature to two different relocation cases through the experiences of affected communities: a managed and voluntary relocation of a coastal village in Alaska; and a forced relocation post-disaster in Honduras. In this article, we posit that a decrease in resilience is, in part, a function of how resilience is bound up in place and identity, and associated with the specific characteristics of the location. Four main findings emerge. Firstly, place attachment is transferable between locations if certain resources to which attachment and identity are formed remain constant. Secondly, to increase resilience we may want to break attachment with place, when this attachment is to negative practices and relationships. Thirdly, positive place attachment associated with resilient communities can be created in new locations, representing a case of ‘building back better’. Finally, access to decision-making processes by communities is crucial for successful relocation. Taking into account place attachment and identity not only increases resilience to climate change impacts and extremes but raises both collective social capital and individual wellbeing.

A. Introduction

Throughout history, cyclones, storm surges, tsunamis, and major flooding and drought events have led to short term and short distance displacements, as people moved to escape natural hazards and risk. However, in more recent years, these risks have become exacerbated as climate-induced environmental change, including sea level rise and its associated impacts,

renders the places in which people live and maintain livelihoods uninhabitable. This may occur as a result of permanent land loss (through submergence and erosion of coasts or river banks), declining natural resources necessary for sustaining human well-being and livelihoods (through increased salinity, salt water intrusion or insufficient water resources), or greater exposure to natural hazards (e.g. increased frequency of tropical cyclones) (Ferris,

2014; IFRC, 2004). In addition, climate change mitigation efforts, such as hydro-electric dams, may also render environments uninhabitable, as these large-scale infrastructural developments are given preference over the maintenance of livelihoods in-situ (Oliver-Smith, 2009).

An observed consequence of many of these climate change impacts is the need for populations to move away from stressed and marginal areas (Warner, 2010). A recent renaissance in research on the linkages between environmental change and migration has led to a burgeoning literature on the complex role of the environment in influencing migration decisions, matched by a growing number of environmental migration policy frameworks and principles (Nansen Initiative, nd; Peninsula Principles, 2012; Renaud et al., 2007; Warner, 2010).

These discussions are complex, and solutions are not always clear or straightforward given the challenges of understanding the problem in its entirety across diverse contexts. One complex dimension relates to whether or not migration can be considered as a “positive adaptation response... rather than as a failure to adapt” (Baldwin, 2013, p. 1475s). A growing cohort of academics, policy-makers and news media reports, posit that migration is part of the solution to respond to the impacts of climate change rather than a failure of adaptation in-situ (Bardsley and Hugo, 2010; Foresight, 2011; McLeman and Smit, 2006). Both arguments include complexities, some of which will be illuminated in this article. Whether migration is a desirable and effective form of adaptation is largely dependent on the

specific place-based context, as well as individual, household and community characteristics, and involvement in the decision-making process. The discussion is complicated by the fact that some people are unable to leave at all (Alaniz, 2012a; Masquelier, 2006) and become trapped populations (Foresight, 2011). Ultimately, exposure to climate change impacts and migration are often socially and politically differentiated.

Migration is a costly activity, both psychologically and financially, and is rarely the first option for people faced with degrading environmental conditions (Jha, 2010; McLeman and Smit, 2006). For many faced with the impacts of climate change, migration is considered as an option of last resort and is heavily resisted because of a strong commitment to place which is intimately connected to culture, food subsistence and heritage (McNamara and Gibson, 2009). For the small island nation of Tuvalu in the South Pacific (with 11,000 people) such a position is driven by people’s connection to place and its associated necessity for identity, culture, spirituality and psychosocial well-being – a position that is often echoed across the globe (Mortreux and Barnett, 2009). Similarly, in the Arctic, the connection to land has made the decision to relocate elsewhere extraordinarily difficult for Alaska Native communities.

A major gap in our understanding of migration under environmental change relates to the concept of inhabitability and the relocation of entire communities. The terms relocation and resettlement are often used interchangeably, and are not clearly defined nor agreed upon in the literature. Hence, we will utilize the terms that the

communities themselves use. In Alaska, communities and government agencies use the term ‘relocation’ to describe the process of building infrastructure at the relocation site as well as people moving to and inhabiting the relocation site (Bronen, 2011). In Honduras, both relocation and resettlement are used interchangeably – in both English and Spanish (*reubicación* [relocation] and *reasantamiento* [resettlement]). Based on this, and for the purposes of simplicity, this article will therefore use relocation throughout but will differentiate between the two case studies based on levels of agency: Alaska is an example of a managed relocation transition, whereas in Honduras the relocation was forced.

There are many historical and current examples of relocation throughout the world. They can be induced by government-mandated programs for urban regeneration, hydro-electric power generation and other development activities, or government policies that promote the movement of people to the agricultural frontier (McDowell, 1996; Scudder, 2005). Other examples of relocation may be a result of climate change mitigation policies, pushing for a green economy and increased bio-fuel cultivation (De Sherbinin et al., 2011), or post-disaster recovery efforts (Jackson, 2005; Siembieda, Johnson and Franco, 2012). With relocations already occurring as a way of responding to the impacts of change (Bronen, 2011; Rogers and Wang, 2006), we may witness a rise in unpopular top-down government policies, rebranded as climate change adaptation responses to gain support and even international funding for their implementation (Biermann and Boas, 2012; De Sherbinin

et al., 2011). One of the most concerning features of these relocations is that they are almost always associated with a decrease in the resilience of the population (Cernea and McDowell, 2000).

Therefore, there is a need to determine how to make relocations less disruptive and destructive to the communities they affect. This article focuses on place attachment as an important facet of community resilience and investigates how to maintain and build place attachment in the new location during relocations. In this article we posit that the lack of success with relocations (planned or forced) can be described in terms of a loss of resilience, and in particular social and community resilience. We hypothesize that resilience is lost during the relocation because of two factors. First, the role of place attachment and identity in creating community resilience (and its association with the specific characteristics of the location) is under-estimated. This leads to a lack of consideration when planning new locations, as infrastructure, not social structures, are often prioritized. Second, the lack of resilience and a reduced transference of resilience across sites, stems from the exclusion of relocated communities in making decisions about their future, including the location and design of new sites.

Through this exploration, we hope to identify: whether sense of place (and the community resilience it builds) is transferrable; what the role of social versus physical attachment is in creating resilience; and the degree to which the container (the physical characteristics of the place) shapes the strength and nature of social capital. The article draws from

context-specific experiences and capacities (in Alaska and Honduras) to inform policy and practice of governments that are required to assist with community relocations as a viable adaptation to environmental change. As a result, recommendations can be made to minimize the negative consequences of relocation to ensure that practices are locally and culturally appropriate, effective and resilient adaptation responses.

A. Theoretical background: Resilience and place attachment

In order to understand the place-based nature of resilience, this article draws on the literatures of resilience and place attachment, in combination with insights from human rights law and norms. We utilize existing literature to define resilience, explain why resilience is a desirable attribute for an individual or community, and explain how and why higher levels of place attachment lead to increased resilience. Examining place attachment literature also reveals insights into how resilience, associated with place attachment, can be maintained despite a move to a new location.

Resilience is the capacity of a system to return to normal functioning, or a more desirable functioning after being perturbed by an external shock. While ever-changing, resilience is a desirable state because it provides communities and individuals with the capacity to persist and maintain wellbeing despite socio-political or environmental change (Adger, 2000). Human society is part of a linked socio-ecological system, meaning both social and ecological resilience are of importance. This article focuses on social resilience as separate from, but influenced

by, the ecological system on which it depends (Adger, 2000).

Social resilience is a function of actual capabilities to cope (objective elements) and perceptions of risk and self-efficacy (subjective elements). Resilience is influenced by demographic factors such as life course and the impact of age on place attachment, identity and priorities (Abrahamson et al., 2009). Migration also plays an important role in resilience, as such a strategy is used to sustain or improve wellbeing under conditions of stress (Wrathall, 2012). Resilience in the context of socio-ecological systems describes “adaptive relationships and learning in social-ecological systems across nested levels, with attention to feedbacks, nonlinearity, unpredictability, scale, renewal cycles, drivers, system memory, disturbance events, and windows of opportunity” (Berkes and Ross, 2013, p. 5). Furthermore, resilience has been linked with the ability of a system to maintain its identity, defined as a function of system components, relationships, innovation and continuity (Cumming et al., 2005). Considered in this way, resilience and attachment to place become intimately related since components of a system, the relationships between them and perceptions of continuity are tied to place.

The human rights doctrine is currently only weakly incorporated into concepts of resilience. Human rights protections are based on the premise that every human being deserves to live a life of dignity. This means that people should have access to essential basic necessities - such as food, water and shelter - for a good standard of living as well as the capabilities and freedoms to take part in

society in a full capacity (Sen, 1999). By embedding the human rights doctrine into resilience theory, it ensures that bouncing back from external shocks does not mean continuing to be impoverished (if that was the social context prior to the shock) nor does it mean that people will move into poverty after an external shock (if that was not the context prior to the shock).

Place can be defined as a meaningful location (Lewicka, 2011) and place attachment is an “affective bond that connects people to places” (Lewicka, 2013, p. 49). The very act of forming a bond to place can be considered a “universal connection that fulfils fundamental human needs” (Relph, 1976 cited in Mihaylov and Perkins, 2013, p. 61). Disruption of these connections through relocation can have severe psychological and health impacts (Lewicka, 2013). These connections with place serve human needs related to identity, feelings of self-efficacy and our attitudes towards the future (Fresque-Baxter and Armitage, 2012). Moreover, such connections can also be more instrumental, serving our needs for a livelihood (subsistence harvesting, fishing and hunting), social interactions and a secure location.

Therefore, place attachment can be considered to have three components: the physical setting; human activities; and human social and psychological processes rooted in the setting (Stedman, 2002, p. 562). The role of social constructions versus the physical environment is somewhat contested (Stedman, 2003). Places take on significance for their inhabitants because of the social activities and behaviours that are played in and

around them, but they can also have significance in their own right, for example, monuments, natural features and landscapes (Gieryn, 2000). More has been written about social place attachment than physical place attachment because the literature has its origins in community attachment theory, and physical features have often been seen as a “container of social processes rather than an independent object of studies” (Lewicka, 2011, p. 214).

Place attachment is a direct contributor to community resilience that emphasizes “agency and self-organization...people-place connections, values and beliefs, knowledge and learning, social networks, collaborative governance, economic diversification, infrastructure, leadership, and outlook” (Berkes and Ross, 2013, p. 5). People who exhibit place attachment are more likely to work to defend the place in which they live against perceived threats (Devine-Wright, 2009; Devine-Wright and Howes, 2010). Bonds to place form a framework for identity for both the individual and the community (Mihaylov and Perkins, 2013). However, the extent to which place attachment is a shared or communal phenomenon requires further investigation (Mihaylov and Perkins, 2013). Place attachment can be influenced by various community-related factors that include the length of time a community has been together; social capital and collective networks and events; rates of community migration; and levels of trust and reciprocity with others (Sampson, Raudenbush and Earls, 1997).

Community-level place attachment is important because it has a direct link with collective responses to external disruption and stress and is linked with fewer

incivilities, less crime and more physical revitalization (Mihaylov and Perkins, 2013). The degree to which a community accepts externally imposed change depends on “the compatibility of the changes with its symbolic, cultural, historic, or functional meanings” (Mihaylov and Perkins, 2013, p. 65). However, the attributes of a location to which people form attachment may become clear to residents only once the location has been lost or degraded (Mihaylov and Perkins, 2013). In sum, the capacity of a community to react and respond to externally imposed disruptions is a function of various components of place attachment combined with social capital, social cohesion and collective efficacy (Mihaylov and Perkins, 2013).

An approach to relocation that takes place attachment into account ensures that a resilient situation is also one of greater wellbeing (Coulthard, 2012). A community may be resilient to the impacts of climate change, but the state in which it is resilient may not be desirable in terms of the wellbeing of the population. An approach founded in attachment to place takes into account the subjective dimensions of adaptation and the role of values and identity in influencing responses to environmental change (Adger et al., 2011).

However, there can be some negative elements in fostering and maintaining place attachment. Some core concepts integral to place – such as social cohesion and inclusion – can result in negative dimensions of place (Putnam, 2000). For example, the home, a meaningful location with clear boundaries, is most often characterized as a haven. However, in

divorced families this can represent a site of trauma (Manzo, 2013). On a larger scale, if communities become exclusive, possibly in order to maintain their place and community, then this can be a negative attribute which may deprive others from being part of such a community (Forrest and Kearns, 2001) ultimately breaking down social capital. Bonding social capital is more associated with closed, homogeneous places and bridging social capital is more associated with heterogeneous places open to diversity (Lewicka, 2011).

Furthermore, not everyone feels positively about their environment. Some people for instance have ambivalent or negative attitudes towards their location. In some locations attached with stigma, such as social housing, people can exhibit anxiety in their attitudes to place with a tension existing between belonging and a sense of exclusion (Manzo, 2013). Additionally, heterogeneous neighbourhoods, such as those growing in the peri-urban areas alongside major Global South cities may also have low place attachment. In Tegucigalpa, Honduras for example, crime, violence and poverty rose with the exponential growth of the city. These negative attributes led to a lack of place attachment, in which residents were glad to leave and move to a post-disaster relocation after the 1998 Hurricane Mitch (Alaniz, 2012a).

B. Case studies

At its core, sense of place is also about a sense of belonging – a membership of sorts to a particular place. Talen (1999, p. 1370) describes it succinctly as a: “right to belong”. In this way then, how might membership and place attachment be

translated or moved from one place to another? We investigate this question using two contrasting case studies. The Alaskan case study provides an example of planned, voluntary, inclusive and ‘managed relocation’ in response to a combination of slow-onset environmental change accelerated by repeated extreme weather events. The Honduran case study exemplifies the issues surrounding emergency ‘forced relocation’ in response to rapid-onset climate variability where there is little time to plan or create an inclusive and human-rights based approach.

1. Loss of sea ice and erosion of land: Relocation of the community of Newtok, Alaska, United States (U.S.)

In Alaska, accelerated rates of erosion caused by a combination of decreased Arctic sea ice, thawing permafrost and repeated extreme weather events is causing communities on the western coast to choose relocation as the only adaptation strategy that can protect them from these climate change impacts (Bronen, 2010; Bronen and Chapin, 2013; Bronen, 2014; Marino, 2012; Oliver-Smith, 2011). Climate change presents a new scenario in which a community is aware of the projected environmental threats and can make a decision to relocate in advance of the worst of the impacts. In this case, the changes in the environment are so severe that the stress threshold of all individuals in these communities has been reached and all favour relocation over other alternatives (Bronen, 2014). Place attachment is enormously significant in the decision of these communities to relocate and where to relocate to. The tribal and local governments of Newtok identified potential relocation sites, presented the

relocation site options to community residents who were then given the opportunity to vote and choose the relocation site (Bronen and Chapin, 2013).

However, each community is only accessible by small 10-seat passenger planes and no roads connect the communities to any other location. The relocation sites chosen by each community have no pre-existing infrastructure. As a consequence, federal and state government funding and technical assistance are essential in order to build the necessary infrastructure to make the relocated communities habitable, including sewage and water systems, health clinics and schools.

A mixed-method approach has been used to understand the community relocations occurring in Newtok (and two other communities of Kivalina and Shishmaref). Numerous surveys, interviews and participatory observation of approximately 50 multi-level governmental relocation meetings in Anchorage, Newtok and Kivalina since 2007 have been undertaken, as well as the analysis of organizational documents of the Newtok Planning Group, the Shishmaref Erosion and Relocation Coalition, and the Alaska Sub-Cabinet on Climate Change Immediate Action Workgroup. Observation of meetings included those of the Newtok Planning Group and the Immediate Action Workgroup and the Adaptation Advisory Group created by the Subcabinet on Climate Change. Archival documents reviewed included erosion assessments by the U.S. Army Corps of Engineers, results of the Newtok Housing Survey, community relocation lay-out documents, geotechnical documents for each

community and community relocation reports.

2. Hurricane Mitch affected areas: the new communities of Divina and España, Honduras

Hurricane Mitch (1998), was one of the most powerful in human history and devastated the small impoverished nation of Honduras, affecting nearly half the nation's population and displacing hundreds of thousands. Aid flooded in at an unprecedented rate and the Honduran President promised that the nation would 'build back better'. Indeed, most Hondurans hoped that with the aid of foreign nations and non-governmental organizations (NGOs) they could utilize this tragedy as an opportunity to address issues of poverty and crime that plagued their country. This has unfortunately not been most Hondurans' experience (Ensor, 2010). Although the nation's infrastructure was rebuilt, larger social issues now haunt the small country. Crime is ubiquitous, corruption entangles many institutions lowering citizen trust in their government, and gang violence has earned the nation the infamous title 'homicide capital of the world'. Yet, this context contrasts sharply with the experiences in some of the post-Mitch relocation sites, despite the difficult environment these communities have higher levels of social health than many non-affected neighbourhoods.

Ciudad Divina Providencia (Divina) and Ciudad España (España) are prime examples illustrating how place attachment may impact future community development, given their similarities immediately after the hurricane in contrast to their dramatically different situations today. In response to Hurricane Mitch,

NGOs built Providencia and España to accommodate citizens from Tegucigalpa who had lost their homes. Members of each community arrived with comparable working and lower-middle class socio-economic statuses, racial homogeneity, and similar local infrastructure. These new relocation sites of Divina and España are within walking distance of one another.

To investigate how various factors, including place attachment, led to different social health outcomes, historical documents including crime statistics, 932 household surveys, and 36 interviews with key stakeholders were undertaken over a nine month period from 2009 to 2010. Records and documents from each NGO and community political organization were collected, which offered perspectives of each entity concerning their role and responsibility. Complete police records from each community also provided data on differences in amounts and types of crime. A 96 question household survey as a census in Divina (N=449 of 585 homes) and a random sample in España (N=506 of 1,285 homes) were conducted. These surveys provide insight into the social health consequences and opinions about organizational practices by NGOs. Additionally, multiple Red Cross and Fundación staff were interviewed to obtain a personal perspective on the philosophies and practices of the organizations. Similarly, residents and leaders in Divina and España were interviewed in order to gain a broad picture of the sense of social health and beliefs about the developmental trajectory of their communities.

C. Maintaining and building place through relocation

The two case studies provide contrasting contexts for analysis. In Honduras, the relocation took place under emergency conditions, although survivors lived in shelters between one and four years. In Alaska, the process of relocation has been slow and occurred over decades, with no relocations having taken place yet. As a result of the different time frames, there have been varying degrees by which the voices of the relocating communities have been included in the decision-making processes. The Honduras relocations took place without broad oversight by governments and often without full consideration of the needs and rights of those moving, whereas, in Alaska the communities have been working hard to defend their rights. Finally, connections to place differ substantially. In Honduras, people who did not know each other were brought together to form a community for the first time to create their own meanings of place, whereas, in Alaska the tribal community has been fighting to remain together and preserve the connection to subsistence resources upon which the community has depended for thousands of years.

These contrasts allow us to suggest three options for building place-based resilience after relocation. The first involves transferring the resilience-conferring aspects of place and community and transforming the resilience-reducing aspects of place and community. The second is to increase the participation of those affected in relocation processes with a focus on human rights and decision-making (in particular when, where and how to relocate). The final is through utilizing processes that create place attachment and community from nothing,

and in preventing the emergence of undesirable societal structures. These options for building positive place attachment are described in more detail, drawing from the case studies, in the following sections.

1. Ensuring positive and resilient characteristics of place are transferred

The case of the Alaskan villages demonstrates that there are both positive and negative aspects of place. Positive aspects of place can be a source of identity that constitutes the practices around which a community bonds and creates cohesion which in turn creates resilience. Such characteristics need to be identified and maintained throughout the relocation process. The Newtok community is small, with a population of around 400 people, located along the Ninglick River and approximately 12 kilometres from the Bering Sea. Each community is a U.S. federally-recognised indigenous tribe, governed by traditional councils.

Residents of Newtok are Yup'ik Eskimo; these communities demonstrate an acute awareness of the link between community resilience, place identity and the characteristics of place. The local governments of each community identified potential relocation sites, all located within close proximity to the current village to ensure that the harvesting of traditional foods from the ocean and land could continue. In each community, residents voted on the relocation site and chose the option that best met their needs. Despite going through this multi-year and laborious process, only Newtok is actually relocating to their preferred site. Kivalina

and Shishmaref have encountered governmental opposition to their respective relocation sites because of the concern that the site chosen by each community will be subject to thawing permafrost, erosion or flooding. These issues have not yet been resolved (Bronen and Chapin, 2013).

Newtok's ancestors have lived on the Bering Sea coast for at least 2,000 years and are known as *Qaluyaarmiut* or "dip net people" (Bronen, 2011). There is very little cash economy in the village; livelihood activities revolve around fishing and hunting, the latter with the assistance of guns and snow machines. There is no question that the community is at risk, nor is there any question within the community that everyone will move together. Place is contingent on togetherness and on practices linked to the land. Indeed, although the community plans to relocate, they are in fact refusing to break their attachment with place and are cognizant of the negative impact the loss of such links will have on community function. However, with the accelerating rates of erosion affecting the habitability of each community, such as access to potable water, there are aspects of place which are negative and reduce the resilience of the community as it confronts the impacts of climate change. Therefore, there is scope to use the relocation as an opportunity to create infrastructure and opportunities to transform to a more resilient community.

Originally, the location of Newtok was visited seasonally as a fishing camp; however, the location became a permanent settlement in the 1950s when the U.S. Government enforced the requirement for all children to go to school. The school and

community were built at a location accessible by barge for transportation of building materials (Bronen, 2011). While there is a strong link to the resources that this place provides and to the other members of the tribe, the physical infrastructure of this relatively new sedentary community is grossly inadequate to ensure the health and well-being of community residents. Houses were constructed to standards incongruous with the lifestyle and practices of people in the area. Some of the houses lack insulation, despite the Arctic conditions, and have no plumbing. None of the homes, many of which have only one or two rooms, have complete plumbing facilities (Bronen, 2011). Instead, most residents haul water or have water storage tanks. Lack of potable water for drinking, hygiene and sanitation, resulting in high levels of community contamination has led to public health issues (Bronen, 2011).

Environmental change processes are worsening these already poor living conditions: several homes are sinking into melting permafrost, and thawing permafrost and erosion are preventing the community from building new homes to meet the needs of its population, causing a housing shortage. Limited access by the summer barge has dramatically impacted the village's ability to receive cost-effective fuel delivery, which strains power sources later in the year when the fuel runs out. Without access to fuel, the community has no electricity (Bronen, 2011). Therefore, the community is determined to use the relocation to improve their standard of living and increase their cash economy by using the relocation to train youth to build the infrastructure at their relocation site.

Newtok residents are planning to use renewable energy to reduce their dependence on diesel; construct houses which will have plumbing; and design and build houses to increase heat conservation. Community lay-out plans designed by Newtok residents show households laid out concentrically around a central evacuation centre and common space to better reflect the way that people connect and interact in the community.

Construction of pioneer infrastructure, including a multi-purpose evacuation centre and barge landing, began at the relocation site in 2009 (Bronen, 2014). However, due to enormous legal and institutional barriers, community residents have not yet relocated. The Traditional Council hired a lobbyist to work with the U.S. Congress because Newtok's preferred relocation site was owned by the U.S. government. After eight years of lobbying, the community of Newtok acquired the land title and began building infrastructure at their relocation site. The same year, the Newtok Planning Group, an ad hoc multi-level interdisciplinary governmental working group consisting of 25 different federal, state and tribal government agencies, began actively working to relocate the community (Bronen, 2011). The Newtok Planning Group has been led by the Newtok Traditional Council, the sole governing body for the community, which makes all the decisions related to the relocation process, including site selection, community lay-out and the process which will be used to physically relocate community residents. State and federal government agencies have provided some technical assistance and financial resources to fund infrastructure development at the relocation site.

2. Relocation decision-making processes and resilience

Both case studies highlight the role of decision-making and access to information on the full range of options available in supporting successful relocation. In the Alaskan villages, the process has been democratic, facilitated in part, by the local governance structure. In Honduras, in the rush to relocate, people were left to make choices without a full understanding of the options open to them and the consequences of each choice on their wellbeing.

In the Alaskan case, the Newtok Traditional Council asked community residents in their relocation survey whether the community was willing to co-locate to an existing village or relocate to a new village relocation site where there was no infrastructure, but community residents could remain close to their traditional food harvesting areas and remain together. The Newtok Traditional Council facilitated three survey polls since 1996. The last survey occurred in 2003 (Bronen, 2011), which was distributed to all current Newtok residents who were enrolled as tribal members and over the age of 18. A total of 148 people voted out of 158 eligible voters (ASCG, 2004). Ninety-two per cent of the residents that voted chose to relocate to the current relocation site of Mertarvik.

In 2011 the Newtok Traditional Council unanimously approved a set of guiding principles - *Maligtaquyarat* - based on the Yup'ik way of life, to guide the relocation to Mertarvik. These guiding principles govern every aspect of the relocation process and include such statements as:

- Remain a distinct, unique community – our own community.
- Make decisions openly and as a community and look to elders for guidance.
- Build a healthy future for our youth.
- Our voice comes first – we have first and final say in making decisions and defining priorities.
- Development should:
 - Reflect our cultural traditions;
 - Nurture our spiritual and physical wellbeing;
 - Respect and enhance the environment;
 - Be designed with local input from start to finish;
 - Be affordable for our people;
 - Hire community members first; and
 - Use what we have first and use available funds wisely.

In the case of Divina in Honduras, people came from different neighbourhoods, but chose to relocate into the housing area of a Catholic NGO. Choice of where to relocate was based on various factors and had implications for the range of options available to the population, some wanted to leave hurricane affected areas as soon as possible, others did not want to have to pay a mortgage, while others wanted to move as extended families. Choice was constrained by a lack of knowledge – few families knew of all options available to them. However, even with the full range of choices available, the residents would have been unable to predict the different outcomes before they moved. People were forced out of their homes by the disaster

and had little time to weigh up all options and consequences. In contrast to the residents of Newtok who had the time to fully contemplate what kind of location would best allow the community to maintain the identity-building practices that created its resilience, especially in the context of lifestyles threatened by the context of climate change.

The case of the communities in Alaska is fairly unique in that there is a strong local government that can bring consensus and champion the needs of the community with the government. Most communities without such tribal attributes are likely to show much more heterogeneity and may be unable to provide an inclusive yet coherent opinion and voice with respect to relocation. Furthermore, as was the case in Honduras, there is often insufficient time for such participatory processes to take place. When homes have been lost, new homes are built rapidly in a confused post-disaster landscape with conflicting and competing aid actors, reducing scope for appropriate engagement and planning.

3. Injecting energy for positive change

However, in not all cases it there sufficient time to move people in a way that will reduce the disruption to place and resilience and sometimes there is no community to if people are coming together from disparate locations .Therefore, this section address whether it is possible to successfully create place attachment in new locations, drawing predominantly on insights from post-hurricane Mitch recovery in Honduras.

In the post-Mitch context in Honduras, the government was unable to relocate survivors who could no longer return to

where they once lived (Alaniz 2012b; Jackson 2005). Two NGOs - the Honduran Red Cross, which built Ciudad España; and Fundación Cristo de El Picacho, a Catholic organization that built Divina Providencia - spent multiple years building and working in the relocation sites. Both organizations maintained working offices and have played an integral role in the daily business of the respective communities. While both hold similar goals (long-term self-sustaining growth, safety and prosperity for community members), their philosophies and practices in achieving those goals are significantly different.

Though initially similar in many ways, current conditions in each community are remarkably different. Divina thrives economically, sustains a low crime rate and high involvement in community activities. There is a general sense of safety for vulnerable populations such as women and children. In contrast, gang problems, crime and other social ills plague España. Homicide has also been a reoccurring issue in España along with increasing substance abuse. This comparison of two similar relocations beginning anew but experiencing drastically different outcomes offers a unique opportunity for advancing our understanding of how attachment to place or openness to change may impact post-disaster community resilience.

In the cases of Divina and España, the social norms of trust, social cohesion and collective efficacy are central, especially in considering crime rates. The emergent nature of the communities, the lack of long-term social networks and the fact it was a complete relocation, created a

liminal space that enabled previous social norms and understandings of community by residents to be open to redefinition. The way these norms were initially defined by the NGO and residents set a particular standard and expectation for resident behaviour (Alaniz 2015).

One of the unique characteristics of a relocation site built by an NGO is the necessity for the organization and early residents to define behaviour parameters beforehand. A community culture and organizing norms are not clear, as each family arrives with different expectations. In addition, residents have a unique background, having come from peripheral impoverished areas and being recent victims of the hurricane, which typically involves experiences of trauma. Peripheral areas, such as unsanctioned peri-urban areas or poverty-stricken city zones, often wrestle with higher crime and lower social capital compared to wealthier suburbs (Jargowsky and Park, 2009; Shaw and McKay, 1942). Post-disaster primary and secondary trauma (Gill, 2007) and moving into new homes in which residents do not know their neighbours produces a particular site of opportunity, one within which culture can be created. In the case of Divina and España, residents did not want to maintain their place attachment to Tegucigalpa due to the violence, lack of trust among neighbours and general insecurity, arguably making the attachment to a new place more appealing.

It is immensely difficult to create place attachment and community. Essentially, it involves bringing together a group of thousands of strangers from all over a city to live in a new place together. Each individual has their own opinion about

what that new place should look like, how it should run, what the rules are and what is best for the whole community, based on previous place attachment. Each has a set of norms and values that they had previously lived by, which may or may not resonate with others. How does this group of individuals define a common set of rules to live by? The cases of Divina and España illustrate that this liminal space – where everyone is arriving and there is no embedded social structure – allows for new norms to be created from scratch. Whether this new structure will be positive or negative is often connected to the deep attachment to their previous place and its embedded traditions and values.

This exceptional situation provided both organizations and early residents an opportunity to define new social norms, values and social structures. Each NGO chose different development strategies. The Fundación took an interventionist approach to community development that incorporated a focus on the creation of social norms and institutions. The Honduran Red Cross, on the other hand, maintained a partnership approach that encouraged agency by relocated leaders and an independence-driven development. However, when asked about community development theories used, directors from both the Fundación and the Honduran Red Cross noted that they originally did not know of any; they did their best with the resources and knowledge they had available, often making ad hoc decisions.

Divina residents were much more open and trusting of the NGO and therefore less attached to previous understandings of community and place. Since it was a Catholic organization, upon entering the

community residents understood that Catholic values would be prioritized and the Fundación's practices created a norm of social order based on these values. Residents were socialized to follow and later maintain, the rules, which then became the cultural expectations and values (collective efficacy) of the community. Due to the high integration of the Fundación, the organization was able to intervene through formal sanctions, such as removing or threatening to remove problematic residents while also empowering many residents to impose informal and formal sanctions upon themselves and each other. Positive sanctions would often be public recognition while negative sanctions could be as invisible as gossip or as overt as using the Fundación or the police to correct neighbour's behaviour. Resident actions consequently supported a common vision and norm formation.

In Divina, social order created social norms, which in turn, reproduced a concomitant level of social order. As outlined below, this is equally applicable for neighbourly trust, community participation and collective efficacy. The philosophy and practice of the Fundación, which included input from residents from the very beginning and the maintenance of that same practice over time, were the critical elements in the vision of what type of social structures would be created and its influence over residents. In a similar vein, evidence suggests that if new visions or norms are not put into place, then residents will fall back on previous norms (Inglehart and Baker, 2000). If this is the case, communities with weaker social norm formation would return to previously understood norms, such as those common

in Tegucigalpa. Perhaps there would even be a breakdown of norms, as conflict among stakeholders would prevent a common set of norms from being created.

Unlike the Fundación, the Honduran Red Cross did not focus on social order or the creation of norms. Their partnership approach let residents independently create community based on their previous attachment to the norms and values of their Tegucigalpa neighbourhood, while also addressing their trauma, new vulnerabilities and issues of livelihood creation. Without the extra support of the NGO or another organizing structure, España residents were unable to develop the new social norms that would provide the foundation for better social health in their community. Their place attachment, with its embedded values and norms, led to the results one would expect – Ciudad España has similar problems to Tegucigalpa.

D. Conclusion

An analysis of these two contrasting case studies of relocation, due to the negative impacts of climate change and extremes, provides four avenues through which sense of place is enhanced during the processes of relocation. Firstly, communities must ensure that positive characteristics are transferred. Secondly negative practices, infrastructure and relationships should be transformed through the relocation process. Thirdly, the people undertaking the move should be involved in all decision-making processes and able to make fully informed decisions. Finally, a sustained injection of energy and effort is required to ensure the new community takes a form that benefits all residents.

Traditionally, disaster management has focused its efforts on the physical needs of survivors, such as the building of homes and infrastructure. This is pragmatic, necessary and obtains funding and support. The maintenance or creation of place attachment, however, is not a core priority for donors and hence is often overlooked. The reasons for this are numerous: the ‘social’ is inherently difficult to measure, cannot be photographed for the front of an annual report, and takes years of financial and human capital (and adaptive management mechanisms) to be successful. Yet, if relocations are to build communities with strong social capital and place attachment and identity, this type of investment is necessary.

This article illustrates why place attachment and identity is critically important to ensure that relocations are appropriate, effective and successful in building resilience. The article suggests that for this to occur, greater attention needs to be given to two key factors. The first factor is that the existing inequalities need to be understood and planned for. This includes inequalities related to decision-making, power, crime, resource access or other vulnerabilities and basic human rights. Placing human rights at the core of this understanding is pivotal to ensure that existing inequalities or vulnerabilities are not built into new locations, which can further marginalize people and reduce resilience. The second factor, building on the first, is the need for self-determination. The role of collective voice and choice in decisions to move to a new location and in deciding on the relocation site should not be understated. The majority of framings around relocation in the literature demote issues of

equity, human rights and self-determination, but these case studies have shown they are critical components for ensuring that place attachment and identity are built and maintained. If relocations can effectively take into account place

attachment and identity, the new community will not only be more resilient to climate change impacts and extremes but it will allow for higher levels of collective social capital and individual wellbeing.

E. References

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Livelihoods are the lattice upon which all human organization hangs, and some of the worst-case scenarios of global change – displacement, migration, conflict and famine – all centrally concern the problems that people face in sustaining productive livelihoods.

The 2013-2014 Resilience Academy is a group of 25 international researchers and practitioners who have recognized that dangerous global change is a threat to the livelihood systems of the world's poor. The Academy met twice, in Bangladesh and Munich, Germany, and developed a set of working papers as an evidence base for the concepts and practices that we, as a cohort of colleagues, propose for addressing this pressing challenge.

