The Social Reduction of Risk: History, Tangible, and Intangible Heritage in Minamisanriku, Japan

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Sociologists have detailed what they termsthe 'social production of risk[1][2]. This means that disasters are not natural occurrences, rather they develop from social processes. We can see from the history of Minamisanriku how risk was socially produced. Early populations moved down out of the mountains to the seaside. From there they filled in land closer to the ocean. However, through these same accounts we can observe what could be called the 'social reduction of risk.' Through community reactions to previous tsunami, the town relocated important buildings to higher ground. That these social reductions of risk were swathed in ritual behavior that was familiar to many people in the area enabled the actions.

1. Introduction

Minamisanriku was created as an administrative district in 2005 from the merging of the towns of Shizugawa and Utatsu. Shizugawa became a town through the 1955 merger of Iriya, Togura, and Shizugawa. Kaminoyama Hachimangu used to be just Hachimangu until it moved up the mountain in response to the Chile Tsunami in 1960. Hundreds of years before that it was created by acolytes of the Horowa Shrine, far up in the mountains. Nothing about Minamisanriku has ever been static in structure or frozen in time. Much like the small boats anchored in the harbor the town has moved with the wind and currents, while never drifting away completely. This capacity to change while maintaining its traditions and sense of community would face its largest test in March of 2011.

Minamisanriku is a small town on the northeastern coast of Japan. It is made up of four small areas: Shizugawa, Togura, Utatsu, and Iriya. In February of 2011 the population of Minamisanriku was 17,666. 29% of the population was over 65. This is higher than the national average(Town of Minamisanriku). Steep mountains lead down to small bays spilled into by narrow rivers. Patches of homes cling to whatever flat surface lies in between. Much of town life centers around fishing, with sea squirts, seaweed, and octopus being readily available.

At 2:46pm on March 11th, 2011, a magnitude nine earthquake struck off the coast of Tohoku. Around forty minutes later the first tsunami approached Minamisanriku. As people evacuated to the nearby hillsides it became apparent that the tsunami was much larger than had been expected. Town employees gathered in the Disaster Management Center in Shizugawa. The townspeople began to clamber to higher ground as the Disaster Management Center was inundated. 620 people died on March 11th in Minamisanriku. 211 are still declared missing. Around 60% of the housing in the town was completely destroyed[4]. By February of 2012 1941 households— 5841 people out of 9746 residents—were living in temporary housing [5].

Sociologist Kai Erikson notes that groups of people who are uprooted and moved from their traditional homes due to disaster or unrest often experience trauma related to that experience[6]. But this is not always the case and does not apply evenly across an entire population who have suffered during and been displaced by a

disaster. Scholars of social work noted what Marks termed a 'trauma bond' following Hurricane Katrina[7]. This type of bond indicates a kind of collective memory that forms as the product of a disaster experience, but also as an indication of previously existing structures and networks tied deeply into the cultural heritage of an area. This does not have to be the case. It is possible to imagine trauma bonds being formed exclusively in the context of a present disaster. However, as I will argue in this paper, the case of Minamisanriku indicates that the local social reduction of risk is very much related to cultural ties to the area.

Scholars of disaster have noted a seeming tension in the post-disaster landscape wherein communities that should seemingly be deconstructed by major disasters somehow maintain, reshape, and continue[8]. It has been found— especially in the case of New Orleans following Hurricane Katrina— that populations who had previously shown little measurable involvement in civic engagement still maintained robust interaction with neighborhood based organizations such as churches, school groups, and associations[9]. Minamisanriku provides us with a window into that tension and offers so possible answers as to how communities are able to maintain themselves and change to accommodate the upheavel of disasters; to socially reduce risk through the utilization of cultural heritage, both tangible and intangible.

Figure 1 Minamisanriku Japan. Map by author using data from Google Maps

2. Methodology

This research article uses the extended case method to understand how local history and culture adjust to disaster. This method triangulates data through multiple methods. For this research article 31 long-form, semi-structured interviews were conducted with local residents, archival research was preformed, and participant-observation was undertaken. Beginning on March 28th, 2011, multiple site visits were conducted in Minamisanriku. The longest of these being six weeks living in the town in the summer and fall of 2017.

The extended case method was utilized for this research. This method connects the microsocial—in this case the localized situation in Minamisanriku— to the macrosocial— the broader frameworks, policies, and economic concerns that affect post-disaster reconstruction in general. The extended case method situates itself in its field sites as well as in wider society. It seeks to refine, correct, or contradict existing theory through empirical investigation [10,11]. Participant observation works with interview data to inform each other reflexively. This methodology centers the existing situation as the object of analysis.

Before entering the field public records on the reconstruction of Minamisanriku, which are available online and in public displays, were analyzed. While in the field social interaction in the community, occurring within the reconstruction process and the newly emerging built environment was observed. Public events where people from the community interact, such as festivals, religious ceremonies, and public spaces, were attended.

31 interviews were conducted with residents of Minamisanriku. An additional 15 interviews were done with professionals working on reconstruction in Tohoku. These were done as background information and to give context. Sampling for range, a technique that can yield more reliable data than snowball sampling, was utilized. Sampling for range involves identifying sub-categories of the population being studied and establishing a minimum number of respondents to be interviewed from that subgroup (Small, 2009). In order to sample for range, representatives of different subgroups of the Minamisanriku community were interviewed: 4 from construction/forestry, 7 from local merchants, 5 from fishing, 6 from shrines, 2 from recovery, and 7 from tourism. Each resident of Minamisanriku gave explicit recorded verbal consent to have their names used for this research.

3. Minamisanriku as a product of history

Rising above Minamisanriku is Mount Horowa. There is some vagueness about its origins. Mr. Endo, the betto-san of the Horowa Shrine says that the name is because the mountain has the shape of an eagle spreading its wings. Many locals refer to the area as "*Horoke*" instead of "*Horowa.*" Mr. Endo proffers that both "*wa*" and "*ke*" meant "feather" in the Ainu language. "*Horopa* is Ainu for a big trip. You used to put a feather on your head, so it was a big deal to dress up fancy for a trip."

Mount Horowa is home to the Horowa Shrine. According to local members of the shrine community, the Horowa Shrine has existed in its current location for around one thousand years. The building itself is new, but the site is old. Massive, ancient cedar trees surround the small, rustic shrine. On many days the site is not visible from the town as it is shrouded in clouds. Travelers are warned not to go to the shrine by themselves as bears roam the area.

Figure 2 Looking from Kaminoyama Hachimangu Shrine at the remains of the Disaster Management Center and on to Mt. Horowa in 2014

The Horowa Shrine plays an important role in the Minamisanriku community, especially in Shizugawa. Locals insist that the town has developed intentionally along an axis that extends from the Horowa Shrine through the former site of the Hachiman Shrine — which later became the Disaster Prevention Center — up to the current site of the Kaminoyama Hachiman Shrine.

Mr. Kudo, the *Guji,* or chief Shinto priest for the area, explains:

Our shrine's roots are the yamabushi's daily walking route between the two shrines or points. The shrine in the mountains, Horowa Shrine, they made a smaller one lower down so that normal people could visit. Then people moved down into the valley and the shrine followed....the river had another path back then. 200-400 years ago they moved down next to the Bosai (Disaster Prevention) Center.....that part of town used to be water......

Sitting in the living room of his temporary home in Tome City, amongst hundreds of other aluminum constructed temporary homes laid out side by side, row by row, Mr. Kudo recalls the Hachiman Shrine being moved up the hillside to its current location. Hachiman Shrine occupied the site in town that would later be home to the Disaster Prevention Center. In response to the Chile Tsunami of 1960, it was decided that the location was too dangerous for the shrine. Although the structure itself wasn't damaged heavily in the 1960 Tsunami, its interior was flooded, and important religious artifacts were damaged:

Ten years after the Chile earthquake we moved the shrine to its current location. It was moved in one day. It was taken apart and moved. They used big wooden rollers to roll it up the hillside. It was just Hachiman Shrine before then. We wanted to maintain the line between the old shrine and the new. We wanted to make the future around that, or at least to include that orientation.

Mr. Miyazawa is a local barber. He was also living near the harbor in Shizugawa during the Chile Tsunami. He remembers the aftermath. Mr. Miyazawa recalls the moving of the Hachiman Shrine:

I remember it. I saw it. That one that's there now, they carried it from here. At night. It was at night. Eleven or twelve, or maybe some more people. Nowadays you could probably pull it with a car, but we didn't have so many back then so they got lots of wheeled carts and they made a platform , and they rolled it up the highway at night. I remember that. But we didn't have a way to hook it to a car. That kind of convenience came later. It was amazing. That was after the Chile Tsunami. They moved it in response to the tsunami. Lots of things change in response to the tsunami. Forty something people died. But in this area it didn't really, well, it came up to the shrine, but.....Yes, how far it did come, people in this area didn't die, but people down by the sea did.

Like many people in rural communities, the way things used to be done remain important. For the people in Minamisanriku who participate in shrine culture this continuity can express itself through shrine rituals. Through the stories of the rituals, the history of Minamisanriku unfolds on a personal scale, like an old family member that everyone remembers interacting with in their younger days.
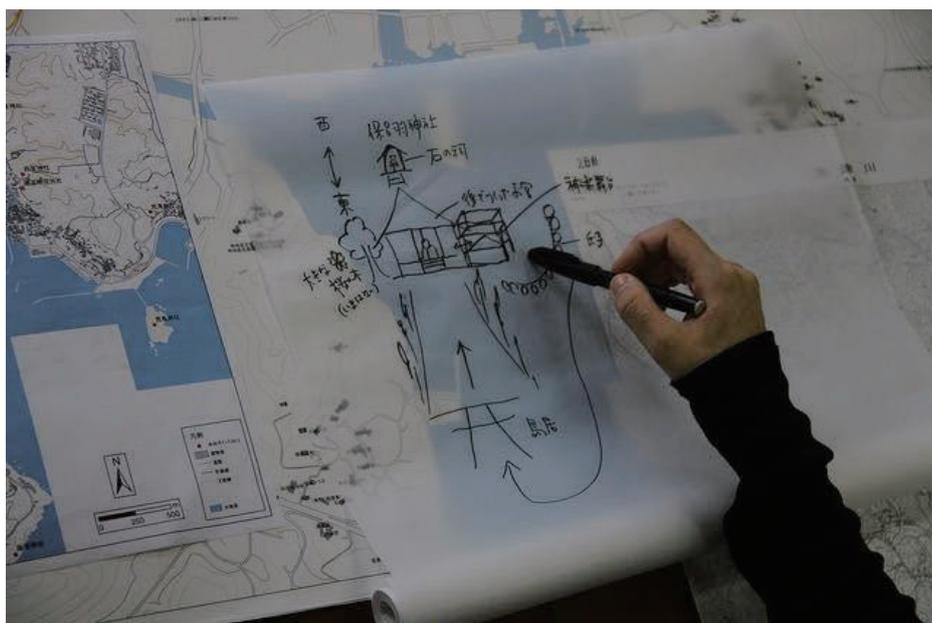
Figure 3 Kudo Mayumi of Kaminoyama Hachimangu drawing a festival procession to Horowa Shrine

A small, unpaved, country road leads to the shrine. "Tengu is the road guide god. He shows the way with his nose." Mr. Endo says, explaining the relationship between the small tengu statues and the route to the secluded shrine. He wears a work jacket over an inexpensive button up shirt, common among the elderly in Japan. He doesn't wear glasses, although his age is advanced. He has uneven teeth and the hard, dark skin of someone who has worked outside most of their lives. He is small the way most people from his generation in Japan are small. They grew up when good nutrition was not readily available in their country. His thinning, black hair is slicked back. He has bright eyes and a speckled forehead:

> *This route was the route even when I was a kid. There are thirteen households in the area now. That area down there is called Irifune. We pull the mikoshi up from there with a tractor. In Irifune they bring the mikoshi into their houses for lunch. People who aren't participating shut their doors. On the second day everyone assembles at ten in the morning. We have kagura at ten thirty. Everyone leaves by around twelve thirty. Kagura is a dance to entertain the gods. It used to be in March. Now we have it on April 25th, I think? There used to be a mikoshi downstairs. Four people would carry it. They would put it in the back of a kei-truck in more recent times. We used to stop with the mikoshi throughout the town to rest. Since the disaster there is no town. (Laughs.) When I was a kid they had a flag they would carry in front of them. They would tie it up with a rope they borrowed from the school. When we were kids, there was only one flag that was used so we would fight over it.*

This area that Mr. Endo is describing, Irifune— which can mean 'where the boats come in'— is topographically both an entry point to the mountains from the city and a misleadingly low-lying section of the town. During large tsunamis that have periodically struck the area, Irifune has had large sections that became inundated. Mr. Endo, a former carpenter who has the short, thick, warped fingers of his trade, continues to explain the importance of the relationship between the town center in Shizugawa and the shrine on the summit of Mt. Horowa:

> *Kagura is a dance to entertain the kami so we have to do it on top of the mountain. Someone said they should cut the trees on the summit so that you can see the bay, but the city hall said that was forbidden, that we have to keep the shrine the way it is. Kamiyama Hachimangu is 800 years old, but its roots are up here on Horowa which is 1,300 years-old. In the old days the Buddhist temple wasn't scary, the Shinto shrine was scary. Dead people weren't scary, but the gods messing around and making noise, those are scary. My grandfather used to tell me that story. The kami are silent, but Hotoke says "Waia, waia, waia!" If you went to the shrine by yourself, it was quiet. That used to scare my grandfather. When people used to see the clouds on Horoke they used to say 'It's going to rain tomorrow.' The peak protects Shizugawa.*

Figure 4 Kudo Mayumi showing Fall Festival children's costumes still kept at Kaminoyama Hachimangu

Mr. Endo, in his role as the *betto* of the Horowa Shrine sets out Mt. Horowa as the defining topographical element of Minamisanriku. This is a commonly held belief amongst the townspeople. There are other notable physical landmarks that also embody cultural and religious significance. To the north of the harbor in Shizugawa is a distinct chunk of rock projecting from the sea, capped with trees, and marked by a steep dirt path ascending up its side. Areshima is not the only island in Shizugawa Bay, but it stands out, both for its proximity to the shore, and for its abrupt rise from the surrounding waters. A seawall runs from the beach at Daimorisaki to Areshima and a vermillion torii gate.

The area that would eventually become Minamisanriku has been inhabited since Japan's pre-history. Artifacts continue to be unearthed throughout the reconstruction process. Centuries ago the people who lived in the area began to move down from the mountains closer to the fertile inlet on the Pacific Ocean. As this settlement became permanent, land was built outwards between the two rivers that flowed from the mountains down into the Pacific Ocean. The area that is now called Minamimachi used to be known as "*Umechi*" because it was "*Umetate*", meaning 'built from the sea'.

This land would eventually become the Motomachi area, which would be the heart of Shizugawa. During the Azuchi-Momoyama Period (1567-1636) the powerful Date daimyos ruled Tohoku. New towns were built throughout northern Japan, and old settlements were reformed. The native Ainu people were pushed farther and farther to the edges of the northern frontier. Their place names remained though: Isatomae, Horowa, Horoke. Much like the area, these names have been reframed as Japanese, but are still based in their Ainu roots.

In the last several decades historians have moved the discourse on Tohoku from a musty frontier— Basho's *Oku-no-Hosomichi* — to a heterogeneous center of its own cultures and histories. This evolving understanding of the Tohoku region provides us with a backdrop through which to understand the everyday lives of the people of Minamisanriku. This chapter will weave together the historical outlines of Tohoku as a region with the role that this particular history plays in the formation and continuation of Minamisanriku as a distinct area within a larger region. Scholars in social work who research disasters tell us that just as the loss of a home can lead to maladaptive behavior, the loss of historical fabric can lead to the impairment of a sense of continuity[15]. The history of this area is not just important background information, it is also an explanation of what local residents have had taken from them.

Prior to the Meiji Restoration in 1868, the Northeastern area of Japan was generally referred to as "Ou." Ou contained both of the official provinces of Mutsu and Dewa. Japanese travelers in the 18th Century still viewed this region of the country as barbaric and not at all like the rest of Japan. This otherness encompassed topography, manners, and dialects. Tohoku is vast in terms of land area, and open in terms of population density[16]. Because of these factors it has been easy to characterize as single unit, strange and unconquered, exploited and forgotten. Tohoku was home to both the Ainu people— displaced and oppressed— and the losing side of the Boshin Civil War (1868-1869) —defeated and disreputable.

Tohoku was characterized as backwards and uncivilized, yet naturally rich and underdeveloped. As Japan modernized throughout the late 19th century the solution for underdevelopment became clear. That solution was: development. An approach towards Tohoku took hold in the center of power. Tokyo saw Tohoku in the same way developing empires around the world viewed their hinterlands, as colonies.

While it is common today to view Japan as a solid unit, a nation born with borders and unified culture, that has never been an accurate view of the country. A relationship developed between Tokyo and Tohoku that would persist in some forms to the present. Tohoku's value to the rest of Japan became its ability to function as a site of extraction. Tokyo's worth to Tohoku was to coordinate and facilitate this exploitation.

Despite the complicated relationship with the national government, the townspeople experienced a sense of community. Daily life, mainly centered on fishing, was punctuated by rituals and festivals. In early September voices of excited children would resound through downtown Shizugawa. Boys and girls who were five, or had just turned six would join hands with their mothers and fathers and parade around the business area. The boys would be dressed in green robes and the girls in pink, small metal crowns resting on their heads.

It was this Fall Festival that served as a time to introduce the young children to the town. It also served to have them become familiar with the streets they would be taking and the people they would be seeing as they began walking to school the following spring. Their grandparents would line the streets saying, "My how you have grown!" and doting on their own grandchildren while complementing everyone else's. Patients at the hospital would wave down from their rooms. This parade would stop frequently so the children could rest and local merchants would bring out drinks and snacks. Someone would dress as a tengu— a big nosed, bearded, Japanese demon — and make all of the kids dance.

Sometimes there would be a new police captain in town and he would tell them that they couldn't walk on the highway, or that they had to change their route. The townspeople dealt with those changes as they came. The police were usually transferred in from somewhere else in the prefecture and weren't familiar with the local festivals. When it would rain, the kids would run inside and take pictures with the tengu. That night there would be kagura on the outdoor stage at Kaminoyama Hachimangu. It was still hot at the end of the summer, and the children would fidget in their costumes.

In the spring there was a harvest festival. There was a festival where a princess vomited grains out of her mouth, nose, and ears. This used to scare the children. Everyone seems to remember exactly how this worked differently, but they remember enjoying being scared. The tengu would show up again. He used to go by all of the pre-schools to frighten the children until the route was changed. It got to be a hassle. The police wanted more and more forms to be filled out. They wanted to change the routes. They kept asking "Who is going to be the tengu?" There used to be two summer festivals, one at Areshima and another in Shizugawa proper. People remember fireworks and cheering crowds. At some point the city office told them that it was too much to have two summer festivals and made them limit it to one. The Areshima festival was merged and there became one summer festival.

Around town many houses and shrines were decorated with bright paper cutouts, dangling in entranceways and from *kamidana,* small household shrines. These paper cutouts are called *kiriko.* They spin and move with the light breezes that come in off of the ocean. "A slight breeze coming in is like an answer, or at least something to talk about." Kudo Mayumi explains, showing off her kiriko. Some people laminate their kiriko, but Ms. Kudo doesn't think that is a great idea. That will preserve it but it won't *preserve* it!" She cautions, smiling. Not every resident, or former resident of Minamisanriku is a sentimentalist. Some people from the area have told me that they remember festivals but all they really can picture were some fireworks. Still, even these recollections appear to be accompanied by commiserate feelings. It was not a drab area. It was not isolating if one felt like participating. It was not entirely bad or good, thankful or filled with angst, vacuous or fraught with meaning. It was a town, and within that town, community.

4. Conclusions

As scholars of disaster, we should be careful in generalizing the terms that we use across multiple, differing, historically contingent localities. Not only can we confuse specific circumstances for global truths, but we can also obscure local knowledge and practices and impose universal standards. Another danger of generalizing too liberally is the reification of concepts such as resilience, sustainability, or community. In this paper I understand community to indicate a collection of people held together through time, place, mutually recognizable cultural practices, shared common governance, and ongoing communication. I also understand the community, or communities, that exist in Minamisanriku to be partially defined by— as Graeber outlined of Kluckhohn's formulation— what they feel they can justifiably demand from the world[17]. What the people of Minamisanriku, the community as so defined, feel justified in being able to demand from the world is deeply rooted in the local history of the area.

It should be noted, of course, that the overarching political economy, of the world, the nation, even at the prefectural level is the driving actor of post-disaster reconstruction. The local government is the state's emissary in these affairs and political power is not in any way secondary to cultural affinities. I have demonstrated elsewhere how government power can subvert and prevent local control is issues of reconstruction[18]. However, this paper shows that there are mitigating factors that can also affect the course of post-disaster recovery. In this case, I have put forth the term social reduction of risk to reflect how localized

tangible and intangible cultural heritage plays a role in shaping and reshaping the local built environment and cultural folkways in reaction previous disasters and in expectation of future disasters.

Through the accounts given in these interviews, we can see that the town of Minamisanriku has never been static. It has gone through a series of changes over the course of its history. Some of these have been to meet the demands of growth, and to seek out economic opportunity— the social production of risk— others have occurred as adjustments is reaction to previous disasters in an effort to avoid or mitigate future harm— the social reduction of risk.

This social reduction of risk demonstrates that cultural heritage is not just something that is damaged by a disaster, but rather a connecting pathway that can transcend disasters. This does not happen automatically or even easily. It is also not something that is called forth at the onset of a disaster, but an ongoing construction and reconstruction that is working throughout societies continuously. A disaster presents a chance for these connections to be snuffed out, yet at the same time can bring forth these connections to preserve, grow, and transform communities during post-disaster recovery.

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