Keynote Speech

Reconstruction and Community

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Good afternoon. I feel extremely honored to be invited to Hiroshima University today. I came to Hiroshima once, over 10 years ago, so there are still a lot of places I would like to see. It is truly unfortunate that I need to go back tomorrow morning without spending enough time here to see those places. But I cannot leave without eating okonomiyaki.

As you heard in the introduction, I teach architectural design at the University of California, Los Angeles. To be a little more precise, I have design offices in Japan and the United States, in Sendai and Los Angeles. I work on various designs, traveling back and forth between Japan and the United States, while I teach at the university. Sendai is my hometown. My parents, brothers, and relatives have lived there for about a hundred years. So I have inevitably been involved in various reconstruction activities.

In addition, I am the director of an institute at UCLA called Terasaki Center for

Japanese Studies, established to support Japanese studies.

This is probably why I get a little carried away, and always think about how unique Japanese cultures are, how they can be of value in global society and how we can contribute. I will talk today a little about reconstruction from an architectural viewpoint with this in ofmind. Unfortunately, discussion architectural design and discussion of reconstruction seem related, but not so closely related. So I will probably put various pieces together in this lecture to cover a wide range of topics in various ways.

Today's theme is "reconstruction and peacebuilding." I do building design, so peacebuilding sounds close to what I do, but it isn't really. The words are similar in Japanese. "Kenchiku" means "architecture," and "kochiku" means "to build." But the concepts are not so similar in reality. So I inserted the word "community" in the theme of my lecture,

"Reconstruction, Community" and Peace. Today, I would like to talk about how we can link architecture, which is my specialty, with reconstruction and peace, using "community" as a medium, and how we can maintain peace.

First, I would like to go over what happened on March 11, 2011. Let's watch a video now. This is a portion of a short movie produced by a newspaper publisher based in Sendai City, Miyagi Prefecture, called Kahoku Shimpo. (The short movie was shown in the lecture)

Figure 1 The situations in coastal area in Sendai after the earthquake



Source: Kanada no Blog (loyalty free)

Do you remember? When I saw videos like this in Los Angeles, I couldn't believe how the various towns and scenery I knew so well were being destroyed, as if they were in a Hollywood movie. My mother is from Ishinomaki, so the damage to Ishinomaki and Oshika Peninsula was really shocking since I know those places so well.

I believe a magnitude 9 earthquake is the fourth biggest earthquake to have occurred in

human history. I wasn't able to get in touch with my parents, who live in Sendai, for the first three days. I felt powerless to do anything about the situation during that time.

Figure 2 The Tsunami that engulfed buildings 30-60 feet high occurred after the main shock



Source: ©Atelier Hitoshi Abe

Basically, this blue line—in other words, most of the coastline of eastern Japan—was destroyed. In addition to that, the nuclear accidents in Fukushima caused extensive damage to Japan, as you all are very well aware.

Table 1 Damage Summary

	Fatality	Missing	Structural Damage	
			Washed Away/	Major/
			Collapsed	Moderate
Miyagi	9,456	2,149	73,261	79,502
Iwate	4,656	1,692	20,199	4,483
Fukushima	1,603	241	17,549	46,574
Total				
(other areas	15,781	4,086	115,151	161,889
included)				

Tsunami debris 23Mil ton (54% reomoved, 3 years to complete)
Temporary housing 49,124(94% of dememand, 84% settled)
Economic Damage 16-25 Trillion JPY - 1/4 of Annual National Budget

Source: ©Atelier Hitoshi Abe

This is the data obtained immediately after the earthquake occurred. Basically, the death toll was 15,781; 4,086 people were reported missing; and over 200,000 buildings were destroyed. The tsunami produced 23 million tons of debris. The damage was worth over one-fourth of the national budget back then. It is much higher now, I believe. This was the worst natural disaster in the history of Japan. You probably remember the disaster clearly now. Today, I would like to look at it from a little different angle.

On March 11, 2011, this tsunami destroyed various infrastructure, utilities, roads, houses, and various facilities, mainly in the coastal area. Many people evacuated their homes and ran to so-called shelters established at schools and public facilities, but it took about two weeks from that point before utilities such as water, electricity, and gas were restored. This restoration was done very fast compared to other countries, but even still, various public functions and systems we rely on in our daily

lives were paralyzed for two weeks.

Now, what happened during these two weeks? I'm not going to say that it was a state of chaos, but the social structures we rely on every day weren't functioning at all. Nonetheless, we heard through various media in Los Angeles how Japanese society and communities supported each other and were functional while maintaining order.

What people mentioned in particular was how people could wait in line for hours even when they were put in such a difficult situation. People lined up in order and waited for six or eight hours to buy gasoline. Social order was maintained. People didn't get out of line, or cut in. Vandalism and robberies seen in other countries in similar situations, like in the United States, almost never occurred. You can see many photos on the Internet, showing that everyone waited really patiently in line.

Because I live outside Japan, it made me wonder why that was the case. It may be, of course, that Japanese people like waiting in line more than American people. Nevertheless, from an outsider's viewpoint, the power that Japanese people showed in maintaining society here was very strange, yet very moving. As you can see from the data, due to the earthquake disaster the systems underlying society were dysfunctional for two weeks. Depending on how you look at it, that could be seen as a state of emergency in which we could ignore all laws established to maintain society in under normal circumstances. Law works like this: if we commit ourselves to law, then law is

guaranteed by society in return. Law is built on this balance or mutual relationship, I think. But for two weeks after the earthquake occurred, nothing was provided from the system's side. People are the other side of society. Even in a situation during which people could easily break that promise, which happens a lot in many cases overseas, the people in Tohoku tried to maintain social order as usual. How were they able to do that?

I came up with a hypothesis back then. At the root of what constitutes Japanese society, there may still remain an old style of community, especially in areas where many elderly people live, like Tohoku. Not the systems that exist externally and function from the top down, but emergent rules of mutual help, which are born through the relationships among individuals. In other words, the community is interwoven with an unwritten order that exists within person-to-person relationships at the root of society. This may be the reason those people were able to maintain a peaceful state without disturbing the mechanism of the society, even when there were no laws existing externally or a framework of supporting systems.

I looked up the definition of law and morality on Wikipedia, and researched whether such actions were morals. Law and morals are usually defined from the Western viewpoint, so what I found there seemed a little off. It said "law is an ethical minimum," and law requires people to adopt minimal ethics to maintain society.

I thought I could try to understand the relationships I saw back then using a little different framework. My opinions may be a little pro-Japanese, but perhaps Japanese society is not something that was built from the outside using a big framework; it may be a system that is a little more flexible and contemporary, born out of relationships among individuals and potentially built on very flexible relationships.

One interesting example of this is the story about shortage of supplies at supermarkets after the earthquake occurred.

Figure 3 Long line in front of the convenience store in Sendai after the earthquake



Source: Wikimedia (Public domain)

This is a photo of a convenience store taken back then. Most of the food items are gone. It's nothing surprising, because all the people ran to stock up on food. In these first two weeks, when no measures were taken, most major supermarkets became totally nonfunctional. This is because the distribution system people usually used didn't operate at all.

My son was actually in Japan back then.

We live separately, so I asked him, "Are you

alright? How do you get food?" He said, "There is no food left at supermarkets, but small stores nearby have food." I asked him how, and he said, "At those privately-owned stores, the owners go visit growers and get food items themselves to sell. So, the supermarkets are nonfunctional, but small stores have a few things."

The owners of these privately-owned stores probably realized that when the distribution system was paralyzed, a pile of food items remained in stock somewhere, so they found their way to those places, purchased merchandise, brought it back and sold it. For two weeks following the earthquake, people in a situation where various systems were dysfunctional used networks built on connections among individuals and got the things they needed to survive.

In addition, the most impressive remark among the voices of the people who were there back then was that they realized mainstream media were totally useless in such a situation. If we were to live in a disaster-affected area where systems were made totally dysfunctional, so-called mainstream media would tell the story in articles or news programs, saying, "This is a devastating disaster. This many people have died." They report this to create a sensation, but the information is meaningless.

What people needed was information on how to survive, such as where toilet paper was sold, who was staying where, or where they needed to go and what they could get. Even simple information about which supermarket was open was very valuable, from what I heard. Under normal circumstances, if we go to a supermarket by car and it is closed, we can return home immediately. But if we can't use a car and have to walk for 40 minutes only to find the supermarket is closed, then an hour and a half of a previous day would be wasted. So, even a minor piece of information like this is important.

What was helpful under such circumstances was the information people uploaded via social media, such as Twitter and Facebook. People posted information they gathered through experience, such as which supermarkets still had toilet paper in stock. Others were able to obtain information they needed to survive by accessing those posts.

The two weeks following the disaster were the toughest times, when social systems, which existed as superordinate concepts, vanished instantly. During that time, the style of community unique to Japan, which formed the basis of our relationships through personto-person ties but was hidden under normal circumstances, may have come out of hiding. That style of community made it possible for people to avoid the worst chaos, I think.

If technology were added there, I think we may have been able to glimpse the very interesting "form of bottom-up society," which society should move toward in the future. This may be an idealistic thought, but I saw great potential in the Japanese style of community I witnessed in a very tragic situation.

Architects were involved in various activities during the post-disaster period. For

example, the architect Mr. Shigeru Ban created partitions to protect privacy at temporary shelters and constructed temporary houses using containers. Architects such as Mr. Toyoo Ito raised funds themselves to build meeting places within temporary housing communities.

While these architects were seeking various ways to contribute to the disaster-affected areas, about 200 other architects, including me and my friends, created a network for earthquake disaster reconstruction called "Archi Aid," to support reconstruction of Tohoku. The idea that a bottom-up society might really be possible is at the foundation of the concept for Archi Aid's establishment. We thought we could contribute to rebuilding Tohoku if we architects joined hands.

There are three very simple goals. The first is to build a multilateral platform for reconstruction support and regional reconstruction through an international network. The point is, how can we visualize the future and show our visions to the people in Tohoku? How can we reflect the visions in the future reconstruction plan? The second goal is to rebuild architectural education in the disaster-affected areas, and combine the powers of young students with actual reconstruction efforts to support their education and encourage them to be involved in the area in the future. Finally, we thought we could probably put together various efforts, know-how on reconstruction, and knowledge of the earthquake disaster itself and use this to raise awareness.

Less than two weeks after the earthquake occurred, architects who teach at various universities went to various places with their students. They started by helping people clean up debris and began to think about how they should visualize the future of the area while helping the area's people. In particular, people from many universities came to Oshika Peninsula, which I mentioned earlier, and thought about the future of the area together.

What will be different about the results of this, compared with a top-down reconstruction plan? For example, you can see the crosssection of the housing lot development in this illustration. When people try to build a town in a top-down fashion, they tend to proceed very roughly, by cutting the land into pieces like this and making it flat. But with the bottom-up approach, which Archi Aid aimed for, we propose community-building, utilizing the characteristics of the area in a flexible fashion and making the best use of the existing topological features. We can show people other options and offer advice to the administration. Ultimately, we published a book that included those alternative plans and worked on construction of buildings and communities.

In the reconstruction project for a public facility, we supported the proposal to select superior designers and supervised the project. We helped to make it a building with a superior design that could serve the future of the area, focusing on the post-disaster period, rather than just rebuilding the original building.

Figure 4 Activities by Archi Aid



Source: ©Yasuaki Onoda(Tohoku Univ.)

This is an illustration created by Professor Onoda at Tohoku University. He is also a member of Archi Aid. It shows that Archi Aid takes part in a wide variety of activities in disaster-affected areas, from urban planning to architecture, working directly on a project or being indirectly involved in surveys and so on. What we tried to do was to create a reconstruction plan that makes use of the person-to-person ties we saw in the first two weeks after the earthquake occurred, to build a flexible community by entering between the government and the residents, regional involving professionals and linking them smoothly.

It's been six years since then. Reconstruction was to be completed in five years. So Archi Aid also finished its aid activities after five years. Where are we now, in 2017?

According to the information released by Reconstruction Agency last year, the number of evacuees went down from 470,000 to about 80,000. It uses numerical values to show that reconstruction is proceeding steadily. They finished cleaning up debris. Utilities have been restored. They are building seawalls one after another. Relocation of people is going smoothly. Many disaster-recovery public housing units have been built. Promotion of public facilities and various regional industries is going well.

What is important in a reconstruction period like this is first to create safe places. Because of the unprecedented tsunami strike, the government has spent a considerable amount of money to create an environment people can safely come back to and where tsunamis can be stopped.

To protect the area from tsunamis, they are building a gigantic seawall, 400 kilometers long, along the coast across the three prefectures affected by the disaster. The total project cost is 1.4 trillion yen. This is a national project close to that of the Channel Tunnel in terms of cost. This is not so well known, however. Let's take a look at the project briefly. In addition to just building the seawall, what do they do with the hinterland behind it? There are many types of land, depending on the area, but look at the photos. You will be surprised.

Figure 5 The seawall in Rikuzentakata, Iwate Prefecture



Source: ©Katsuya Hirano(Tohoku Univ.)

Right now, these things are being built one after another along the coastline of Tohoku. So, the scenery we see from the inside is not the ocean now, but concrete walls. This appears clearly too much from our viewpoint, but from the opposite viewpoint, it shows how terrified people were of the earthquake disaster. In

other words, people have a strong desire to go back to their homeland and live safely. There are various administrative districts, and various people have taken root in those areas. Restoring those areas back to their original conditions and allowing people to live there like they used to requires tremendous efforts.

But is it really possible to return them to their original conditions? Is it possible to forget the earthquake ever happened, or to believe the ocean no longer exists? I think the plan for this gigantic seawall is a little bit of a stretch.

In one questionnaire survey conducted right after the earthquake, nearly 70% of people answered "I don't want to go back to the place I used to live" or "I don't feel like going back" to the question, "Do you want to go back to the place you used to live?"

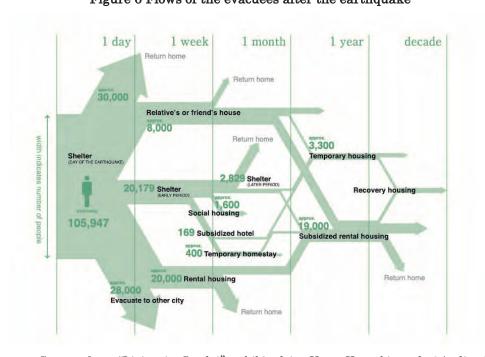


Figure 6 Flows of the evacuees after the earthquake

Source: from "Living in Sendai" exhibited in Hong Kong biennale @Atelier Hitoshi Abe

Since the disaster, many people have moved out of the three prefectures struck by the earthquake. Here (Figure.6) is a diagram. It shows how people who had homes to live in and took root in the community split up in various ways; for example, some went to the shelter and then moved to other towns from the shelter; some rented an apartment somewhere or stayed at a hotel; and others started living in temporary housing units. We can see that the community began to gradually fall apart and split up between various places from the day the earthquake occurred.

From here on, you see many documents that show various ways of living, like what kind of places the disaster victims lived in after the disaster. But we don't have enough time for that today, so I will skip this part. Here, we are just going to look at how people lost their homes and had to live in various places in various ways.

The most typical living situation is temporary housing. There, people try to customize uniform prefabricated units to create a cozy environment. But the reality is that temporary housing is not desirable as a place to live after experiencing such a disaster. This is a sketch that shows how temporary housing is used. You can see the housing units are full of things. If you compare the size of the bathroom and the size of the room, you can see how small the space is.

After going through various forms of housing units, the government is now building disaster-recovery public housing in disasteraffected areas as the ultimate bases to anchor people to their lost communities. Basically, these are apartment building style housing complexes. So, for many people, who used to live in houses, this is not a living environment they are used to.

According to the data from last year, the number of people who somehow secured places to live on their own was 120,000. 30,000 disaster recovery public housing units are going to be built in total. They were supposed to be built by the end of 2016, but they are still being built as of 2017.

What I want you to understand here is, this is not just a problem of finding a place to live. In addition to actual houses, there used to be various people around them; there were jobs and various human relationships in the area. Those communities were ripped apart by the disaster. Physical things were destroyed, but not only that—the communities themselves were split into pieces and scattered among various places. That's where we are now.

So, even if we provide a place that can be protected against tsunamis using physical solutions, like the seawall I mentioned earlier, a big issue will remain of whether those people who have been scattered around will come back and settle down in the area once again in the future.

The Japanese-style community, which I spoke about at the beginning and think has big potential, reached a sort of vigorous peak two weeks after the earthquake occurred. But as people went through the process of

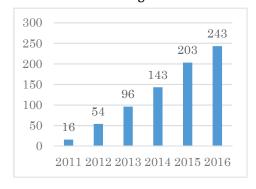
reconstruction, it fell to pieces. That's what has happened.

This is old data, but they say that the number of people we call "evacuees" has decreased now to about 80,000. At the moment, we don't have any tools to measure how many people went back to the places they used to live and really settled down, or how much the destroyed communities were restored to their original conditions.

Now, what is disaster-recovery public housing, which is supposed to be people's final home or the ultimate basis for rebuilding communities? This is what we need to think about.

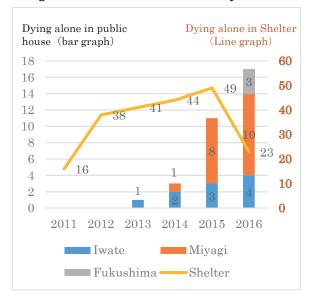
According to the data from 2015, nearly 40% of people living in disaster-recovery public housing are 65 or older. In other words, those who live in disaster-recovery public housing units are people who had to move in there. Most of people who have money have moved to other places or found a place to live on their own. Of these, 25% are old people living alone.

Figure 7 Cumulative number of "the solitary deaths" in three earthquake-affected prefectures in Tohoku region



Source: March 4, 2017 Kahokushinpo Newspaper

Figure 8 The number of "solitary deaths"



Source: Same as Fig.9

It is difficult to determine whether this number is high or low, but you can see that the number of solitary deaths has increased drastically in the three prefectures struck by the disaster.

What we are experiencing now is that "physical environments are being gradually restored with an enormous amount of money invested. But even if the places are back, the activities of the people living there or the communities that support true reconstruction are still split up." We have to put our heads together to come up with a way to keep the communities together.

What we couldn't do during this reconstruction process was remove the framework of the regional administrations and think about reconstruction of Tohoku as a whole. Where and how do we rebuild communities? Where do we provide jobs? Where do we spend money? They could have spent more money on software rather than

hardware aspects. They could have come up with a way to bring people together and maintain their energy instead of letting the communities fall apart. But unfortunately, that's not how it was done.

We unfortunately couldn't get involved in such big frameworks. What we could do was make a small contribution to reconstruction that is, create superior disaster-recovery public housing, the core of community revitalization, through design, which is our specialty. As we designed several disaster-recovery public housing complexes, we tried various things, thinking what we could do architecturally to decrease the number of solitary deaths, or what we could do with disaster-recovery public housing, which is sort of like an apartment building, to make it a place where traditional person-to-person communications emerge within the building and regenerate a community. I would like to show you what we did to achieve this.

Figure 9 The public housing in Shichigahama-cho viewed from the sky



Source: ©Fukamatsugumi

public This is the housing in Shichigahama-cho, near the coastal area of Sendai. We devised various features to make this housing complex a place that encourages interactions among the people who live there within their community. First, instead of building concentrated high-rise buildings, we built low-rise buildings dispersed across several settlements. By designing external spaces, such as gardens and streets, between those dispersed settlements, we built a housing complex where inside and outside are unified, instead of a place separated from the outside world.

Figure 10 The public housing in Shichigahama-cho



Source: ©Daici Ano

The settlements are structured so that the buildings stand around an inner garden and the units face each other. We created an environment that makes people conscious of the community that surrounds the inner garden, so they can get acquainted with each other, allowing them to build some sorts of neighborhood relationships surrounding the inner garden. We can see the hallways

surrounding the inner garden on each floor from anywhere in this settlement.

The public housing complex consists of five of these settlements surrounding an inner garden. Each settlement has various types of units (1LDK, 2LDK, and 3LDK) to accommodate various family structures. We added little twists to this place so that people of different generations can talk to each other and easily develop a circle of community.

The most characteristic thing about the design of this housing complex is the relationship between the hallway and the unit—that is, the way to enter the home. We call this "living access." Normally, people enter an apartment from an entrance located on the north side of an ordinary apartment building. We intentionally reversed this by having people enter from the living room side facing outside, which is why it's called living access. Because the units open to the hallway through the terrace, it will be easier for people to feel the presence of other units from the hallway and to openly build relationships with their neighbors, unlike the ordinary apartment building style that is closed to neighboring units. This will create a space in which people gather around the inner garden and talk to each other. In fact, there was a plan to make a community kitchen in the inner garden so people could sit down and eat together, but we couldn't do this because of the financial circumstances. Before the earthquake occurred, people who lived here had relationships with their neighbors. We are trying to rebuild those human relationships

within the framework of disaster-recovery public housing.

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Figure 11 The image of Living Access

Source: ©Atelier Hitoshi Abe

This is the picture of that space. Can you see? This is living access, the opposite of an ordinary apartment building's entrance. This is a building structure where people can feel the presence of each other, like that someone is home, or notice that that person hasn't come out for a while, or that that curtain has been closed for a while.

In other words, we created an environment where people can feel that someone they know is there, not that someone they don't know is there. We think this can contribute to preventing solitary deaths, and we also want this to be a starting point for community-building by supporting human relationships emerging from the housing units.

Even though we adopted this new idea called living access, we still needed to maintain a comfortable environment, like ensuring enough sunlight. This is the unit. What we did

here is, we arranged the living room from south to north, so that all units open up to the south side. By arranging the units like this, both the units facing each other across the inner garden can get sunlight from the south side. People who don't want to stay near the hallway can spend most of their time in the back of the unit. We added various two-dimensional design considerations so that people could make adjustments based on their lifestyles within a small space.

Figure 12 Ishinomaki City Public Restoration Housing, Shinhebita Area



Source Daiwa House Industry, Reconstruction Support Office

This is a joint project we did with a house builder called Daiwa House. To construct a public building, an architectural firm designs the building, and a general contractor is decided through a bid; this is the ordinary process. But for disaster-recovery housing, we needed to build a lot. And because of escalating construction costs and construction delays, the system called design-build, or responsible construction, is now adopted in many places to guarantee construction prices and construction periods. In this system, both design and construction are ordered together. I agree this had to be done considering the delays in construction of disaster-recovery housing, although it is not what I would wish for as a designer. But I thought it would be a problem if the same old public housing units, shaped exactly the same, were built. Fortunately, we were able to join hands with a major house builder, Daiwa House, to design and build a new style of prefabricated disaster-recovery housing units with living access.

Figure 13 Living Access of Ishinomaki City Public Restoration Housing, Shinhebita Area



Source: ©Atelier Hitoshi Abe

This (figure 13) is the picture. What's different from ordinary public housing is the adoption of living access. The units on the first floor are one-story units and the units on the second floor are duplex units, both with the living access style. People enter from the hallway on the south side. We tried to create a space where people can talk to each other easily. There are also other elements we added to encourage people to interact with each other.

In addition to this front element, we added a utility yard in the back of the buildings, which consists of storage space, bicycle sheds, and a space where people can work on everyday tasks, like making pickles or doing carpentry. We added various elements so that people can interact and talk with each other during various everyday activities.

In addition this, we set up benches that can be used as toilets in the event of disaster, benches that can be used as barbeque grills, and pet-friendly equipment. But we don't just make these things. What's more important is, for example, to have discussions with the residents in advance about how to live there, to come up with ideas that link the place and the residents, like holding events such as mochimaki (rice cake scattering), which are not seen much today, to allow people to interact with their neighbors and other people in the community.

Figure 14 Oroshi-machi Community Plaza Disaster-recovery public housing complex



Source ©Saaya Muramatsu(Atelier Hitoshi Abe)

This is the disaster-recovery public housing complex built within a distribution housing complex called Oroshi-machi. In fact, I have been involved in community-building activities in Oroshi-machi for about 15 years. We have been doing many things to turn this place from a so-called warehouse district or distribution housing complex, which ordinary person would come visit, into a place where people gather and various cultural activities are held using warehouses, a place people love and live in. However, the regulations were just modified to allow building of residential houses. This is a community consisting mainly of wholesalers' associations, which is very strong, but it is a unique area where no people currently live.

Figure 15 Master plan of Orochi-machi Community Plaza Disaster-recovery public housing complex

Source: ©Atelier Hitoshi Abe



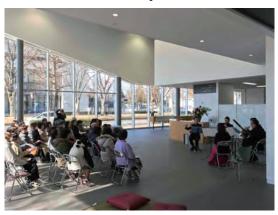
Source: ©Atelier Hitoshi Abe

This is the master plan. When making this plan, we thought it would benefit both sides if we could combine Oroshi-machi, which is a community with no residents, with the

disaster victims who lost their communities. By doing this, we thought we could bring back a strong community for disaster victims once again, so now we are trying to combine the offices of cooperative associations, the area's cultural center, and disaster-recovery public housing, which is rarely seen.

The disaster-recovery housing units will be on the upper floors. The office of the association of Oroshi-machi and a space for various cultural events will be set up on the first and second floors. For example, exhibitions, mini concerts, or lectures could be held here. There is also a kitchen space so they can hold cooking classes. If people living in the disaster-recovery housing units get involved in those activities, they can likely rebuild a new type of community.

Figure 16. Concert in the Orochi-machi Community Plaza



Source: ©Masashige Motoe(Tohoku Univ.)

This (Figure 16) is a mini concert held there. We want to return the community, little by little like this, back to the disaster victims who live there and create a new style of regional interactions.

Many disasters have occurred all around the world in recent years. Haiti, Canterbury, and the Great East Japan Earthquake in 2011; Hurricane Sandy in 2012. As large-scale disasters are increasing around the globe, we have irreversibly expanded development into these vulnerable areas and are living closer to disasters than ever before.

Now, should we take the stance of building a gigantic concrete wall and pretend as if no disasters have occurred? As if the ocean or nature does not exist? I think we need to take the next step and incorporate disasters into the design of daily life. In other words, we need to understand that disasters can happen at any time. While we live peacefully under normal circumstances, that peace can vanish. I think that by integrating the threat of disasters into daily life, we can properly face disaster when it does strike.

By carefully nurturing the community we experience in our daily lives, we can make community a place that functions as a flexible shelter and helps us in times of emergency. This word "community" may be the key to creating a resilient, flexible, and restorable society.

This has been my talk. Thank you very much for your attention.