PRESERVING BAD ARCHITECTURE
- Radical Preservation in the Post-disaster Era -

by

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Abstract

The essence of trauma is precisely that it is too horrible to be remembered, to be integrated into our symbolic universe. All we have to do is to mark repeatedly the trauma as such.

- Slavoj Žižek

This thesis re-examines the role of ruins preservation by speculating on the inherent tension between disaster ruins, psychological interventions and collective memorialization. It challenges the misconception of architectural preservation which is against human interaction as well as possibilities for future change. In other words, the historicization of past events should not only be manifested as the physical integrity of artifacts, but rather shape and be shaped by the present and future of a place. The thesis seeks to rethink the act of preservation as a means of integrating memorialization into the everyday experience of the inhabitants.

Sited in the 2008 Wenchuan Earthquake in China, the thesis proposes an alternative way to restore and memorialize the aftermath of the Beichuan town. By establishing a live memorial versus a frozen ghost town, the thesis positions the quake aftermath in a direct relationship with the contemporary citizens and thus projects the site towards its future.

The thesis traces the frozen ruins in both geographical and ideological terms. It explores preservation through memorialization by embracing future collapse, growth or transformation. After analyzing the existing urban context, the thesis welcomes change as a positive element in the preservation process. The project adapts and recycles building waste; transforms physical memories into resilient infrastructure; utilize the secondary disaster to reshape the landscape; and celebrates the tectonic rubbles together with natural or sub-natural elements, such as debris, dust, mud, as well as annual flooding.

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By Ienji La
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Beichuan preserved ruins of earthquake now is open to the public

Corruption and shoddy construction before/after 5.12 earthquake

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Introduction
The Earthquake

In May 12, 2008, a devastating earthquake (magnitude 7.9) rocked the Sichuan province and ravaged the Beichuan town into a hellish jumble of concrete and limbs. Beichuan is a rural town located approximately 143 kilometers north of the provincial capital of Chengdu, in a valley well-known for the Longmen earthquake fault. After the quake, more than 86% of the buildings in Beichuan leveled to the ground, more than 8,600 people are believed to have died, almost half of the town's population. Among these were 1,300 children when a large populated school collapsed.
Landslides

The Beichuan town situates in a valley between a sandstone mountain and a limestone mountain. During the quake, two landslides from each side crashed into the town, burying part of the south town as well as an over-populated middle school.
Debris Flow

Right after the primary disaster, a series of debris flow traveled from the main mountain ridge all the way down to the valley floor, gradually swallowing the entire south half of the town into a 'new' territory. The boundary dissolved in an unexpectedly natural way, with an unnatural reason - the consumption of over reclamation and deforestation.
The unexpectedness of the secondary disaster also was coming from the uncontrollable river extension on the upstream, which was triggered by the landslide infill. The increasing level of the riverbed caused severe flooding, threatening the post-earthquake town on the downstream in the next couples of decades.
Building Damage

An investigation of the building damage revealed that 77% of the government buildings after earthquake maintained reusable and inhabitable, while 80% of the schools and 74% of the housing buildings were severely or entirely collapsed. Apparently, there were not obvious improvement of the construction quality after year 1979.
Corruption

The intense anti-corruption campaign under the new government generation leadership unfolded the hidden social network inside and outside the political party, in particular profoundly associated with the corruption scandal of the shoddy construction across the country. Furthermore, it revealed the initial decision of establishing a tourist-oriented memorial park in Beichuan.
3. NEW VIEW DECK
First-hand experience of landslide area has already been open to the public.

4. NEW GATE WAY
A series of new corridors have been constructed to link several buildings clusters.

5. NEW MUSEUM
A new museum has been proposed to construct on the site of Beichuan Middle School, where hundreds of students' bodies are still buried underneath.

2. NEW FACADE
Additional structures have been constructed to the primary damaged buildings.

1. NEW TOUR
4 million dollars will be invested in a new tourism development of tram system.
In May 20, 2008, only 8 days after the earthquake, while the previous Chinese Premier visited Beichuan, the town was arbitrarily pronounced to maintain its physical integrity forever. All the damaged buildings were suddenly frozen almost as they fell, expressing themselves as physically eternal instances.
Memorialization

The architectural essence lies in its absence rather than its presence when human activities have totally disconnected with the natural or built environment. Here, the memorialization was subtracted out of victims' everydayness due to a physical misalignment. It became occasional, secondary, and non-essential.
At the same time, a new town, 13 miles away from the site, was proposed to construct in order to accommodate all the survivors from the quake. However, some of them determined to return only several months after the mandatory relocation, struggling to reconnect back to the place where their families belonged.
On July 21, 2008, Prof. Changfu Wu was commissioned to the preserved ruins project. His team came up with the strategy of the memorial park on Feb 1, 2009. On Jan, 2010, the preserved ruins started to provide special jobs related to on-site management. Many quake survivors treated it as an opportunity to move back to the old town after the new town relocation process.
Demographic Shift

For the majority of Chinese families, losing one child means losing an only child. The one-child policy intensified the post-disaster population shift. 'Reborn' children and re-composited families emerged in a short period of time. Religion commenced to play a vital role in projecting the past tragedy into a self-healing procedure.
Earthquake Aftermath

The aftermath of the earthquake has been drastically frozen as a memorial ghost town without any permission of further investigation, excavation or reconstruction.
Existing Treatment

Literally by adding the support of many metal beams, the existing proposal turned the entire Beichuan town into an once-in-a-lifetime tourist destination, a ghost town announcing the forever possession of the physical entity.
Annual Floods

However, besides the consumption from the political forces, the ruins were consistently receiving the external natural forces. The annual flooding during the rainy seasons, swept through the town every year and caused future collapse of the buildings.
Future?

It performs as an annual ritual, recalling the great event in the past, mixing the building rubbles with the landslide debris, river mud and gradually, tended to blend the whole ghost town into the natural landscape.
Preservation
remaking

replicating
intervening

inhabiting
showcasing

museumizing
Calligraphy Preservation in Ancient China
The Kuaixueshiqing Tie

The historical value of the ancient Chinese calligraphy comes from not only the initial master piece, but also the revisiting and tracing of all the owners along the entire history. The overwriting and extending actions in the preservation elevated the perception of future audience by add the time axis as part of the physical matters.
Event Preservation in Japan
The Ise Grand Shrine

The shrine buildings are destroyed and reconstructed on an adjacent site every 20 years in a ceremony known as the Shikinen Sengu. The architectural philosophy behind is to demonstrate the role of performance as the preservation itself, instead of the obsession of the object authenticity.
Robin Hood Gardens
Housing Project
Alison and Peter Smithson
Electric City
Arata Isozaki

The Ethics of Preservation
Jorge Otero-Pailos
Urbanism
Urban Strategy

Comprehensively taking the entire lifecycle of the ruins into consideration, the thesis aims to broaden the range of its landing positions from the past before the earthquake to the future after the current generation. The urbanism is elaborated through reshaping territory, rebuilding community and redefining memorialization.

Instead of freezing the ruins as a tourist-oriented ghost town, the thesis seeks to rethink the act of preservation as a means of integrating memorialization into the everyday experience of the inhabitants. The thesis explores preservation through memorialization by embracing future collapse, growth or transformation. The project starts with adapting and recycling the collapse building waste and transform those physical memories into a resilient infrastructure system. By this, the town is initiated as device with a new order of spatial framework allowing people return to the site.
1. aftermath

2. debris flow
Alternative 4
Sorting Aftermath:

The aftermath of the ruins shows that the south part of the town has been entirely buried by the debris flow, and all the collapse happening in the north is mainly due to the structural failure. In the center of the town, the ruins of the Beichuan Middle School is destroyed by a severe stone landslide, causing the death of around 800 students and teachers. However, the spotlight belongs to the controversial fact that 80% of the buildings survived during the quake are dedicated to government-use.
Dam with Porosity:

A line of concrete cores will be built from the hill of the buried school all the way to one end of the other mountain across the river, serving as anchor points, these cores can stabilize rubble infill in-between, collected directly from all the collapsed buildings, to construct a rubble dam with porosity. Performing differently from normal concrete dams, this one allows water to pass through but resist debris, and mud which are mostly coming from the upstream landslides zones. It is a resilient infrastructure of the live memorial.
Reconstruction On-top:

The rest of building rubble is evenly distributed on-site to maintain the original urban grid with pocketed areas providing direct access to all the inhabitable government buildings. On the top of rubble, 12 mat housing units and one platform for future school are scattered across the new territory. They are interconnected with each other through the ghosts/voids of the collapsed houses, forming 'big houses' with collective living. Memorialization is integrated into inhabitants' everydayness between the two layers of urban orders.
Big house:

Every big house has a centralized living area, paired with public programs such as temple, kindergarten and orphans' home, which can reflect the demographic shift after the disaster. Broken families recomposed into new families, parents who lost their only child adopted a kid. The centralized communal space branches out to several communal courtyards shaped by the ghosts of previous buildings, connecting with past, providing multiple-layer out space and catering for smaller neighborhood. Storytelling.
Aging/Accumulating:

The architectural readability of the new ground as well as the dam will significantly reduce along time axis. All these physical memories start blending into the surrounding circumstance. Meanwhile, the rubble dam resists the penetration of the debris from upstream, which catalyzes intense sedimentation covering the south part of the town. This accumulating process is highly accelerated by the delay of the annual flooding. The south town will gradually dissolve into highly-fertilized landfill, a land of flowers.
Porous Ritual:

Architecture as device, not a sublime monument, reflects memorialization on the presence of human bodies enacting the space. Its porosity interprets inhabitants’ daily experience and how they perform the spatial rituals on a yearly basis. The annual floods, together with the muds, the debris, the dust, the seeds and the building rubbles, reshape people’s everydayness, celebrate a vernacular past, and project its trajectory towards the possibility of future transformation.
Architecture 5
The historization of past events should not only be manifested as the physical integrity of artifacts but rather shape and be shaped by the present and future of a place.
Section Drawing - Big House
Process Model - Housing Cluster
Thesis Board - Final Defense
Bibliography


Field investigation on the performance of building structures during the 12 May 2008 Wenchuan earthquake in China


