

In order to stress the museum's theme, construction work utilized non-traditional architectural concepts and transparent materials as building components.



*Earthquakes have the ability to cause tremors across the land with overwhelming, larger-than-life rhythms that can leave us with an immense sense of shock, awe and grief.*

*Kuang-Fu Junior High and Elementary School, located in Taichung's Wufeng district, was shattered by the 921 Earthquake in 1999, leaving behind a shocking physical record of this natural disaster's horrendous impact. No plans were made to rebuild the school and, instead, a new life and mission were given to the site by architects who built around the ruins to create educational facilities to teach visitors about earthquakes. Architects used these damaged school grounds to take one back to the time of the disaster, not only for the purpose of earthquake education but also to remind us of how tiny we are when compared to the forces of nature, underlining the importance of respecting our environment.*

# An architectural record of lasting importance: Remembering a tragedy

921 Earthquake Museum of Taiwan

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## Writer Profile

### Lin Bo-yang



Lin Po-yang was born in Yilan. He studied architecture in Taichung as an undergraduate and worked as a professional architect for years before he began lecturing on architecture in the same city. He is a passionate architect and designer who explores every possibility with relentless effort. Paying special attention to the public-ownership nature of architecture and arguing against individual ownership over it, he hopes to create good public spaces and elevate the quality of residents' real living and aesthetics.

Lin was nominated for the ADA Awards for Emerging Architect in 2014, and is now in charge of Fieldvevo Design. He's also a part-time lecturer at the National Taiwan University of Science and Technology's Department of Architecture.

Early on the morning of Sept. 21, 1999, at 1:47 a.m. when many residents were fast asleep, the earth began shaking and trembling. Everywhere, homes collapsed into devastation and many were injured or killed in what was the strongest-magnitude quake in a century. This left people wanting to preserve the memory of victims as well as build a museum to educate the public about quakes and how to prepare for them.

In the aftermath, Kuang-Fu Junior High and Elementary School, located in Taichung's Wufeng district at a fault line dislocation zone, was selected as an ideal site for a museum within the disaster area.

The 921 Earthquake Museum of Taiwan was established at this unique location and architects began design work in 2001 with the completed facility officially opening on Sept. 21, 2004. The museum's special architectural design earned it global recognition in 2004 and 2006 via the Far Eastern Architectural Design Award, Taiwan Architecture Award, and World Architecture's Chinese Architectural Award.

Awards were given to this museum on the basis of its unique historical background, architectural design and construction workmanship. How was it transformed from a ruined school campus into a museum, from an old building to a public educational facility?

## A museum at an actual disaster site

The 921 Earthquake Museum of Taiwan is built on the original grounds of the school, where the quake caused its buildings to collapse and its running track to protrude from the earth. Architects have maintained the site's exact post-quake condition without any reconstruction in order to preserve a record of the actual 921 disaster damage.

In Latin, "in situ" means to be somewhere on site in person or locally in position, making it a good description of this museum's environment. Anthropologists are experts at keeping archaeological records, and most museums displaying artifacts use spaces to preserve history related to the artifact, creating a legacy that is frozen in time.



Designs depict a time-travel tunnel.



Building materials are used to redefine a traditional structure by applying a new skin and architectural design.

### 921 Earthquake Museum of Taiwan

46, ZhongZheng Rd, Wufeng District, Taichung City  
Opened in September, 2004

**Architect:** Wang Weijen Architecture and J.C. Yang Architect and Associates  
**Architecture Specialty:** Designed according to the landscape without traditional structural concepts, use of the earthquake fault line dislocation at the Kuang-Fu Junior High School campus as a natural backdrop to the disaster site to create an exhibit scene for the 921 Earthquake.

Museums have the roles of serving the public, educating society and growing with time to preserve important historical records. The 921 Earthquake Museum of Taiwan fulfills these purposes, maintaining the actual disaster site as a way of teaching the community in a non-traditional way. Instead of being divided into display areas or topics, it tells a story by holding together the pieces of what remains from the Kuang-Fu school, maintaining a crucial city landmark.

### Time travel design

Architect Qiu, responsible for landscaping, preserved the school plaza as an outdoor space and created a triangular design with shed coverings to create the visual effect of duplicate lines and repeating triangles, providing a natural illusion via illuminating lights and subtle references to the possible fault-line dislocation where the earthquake had its biggest impact.

The area where the running track sticks out of the ground became a long corridor space with one side used as a display wall and the other side showing a clear historical record of the 921 Earthquake with a natural display that changes with the light and arouses visitors' emotions through a realistic architectural design that preserves the true impact of the quake. The tracks link back to the outside corridor and the varying shadow effects caused by the way the lights strike these areas also lead visitors through their emotions as they journey through the museum.

The architect overthrows the traditional concept of a museum for displaying items and storing valuables, and instead creates an innovative approach that uses sheds to lead people through an outdoor disaster site, learning about the earthquake while appreciating the facility's architectural design.

As part of its mission to preserve the fault dislocation zone, the museum uses large windows and the neutral colors of cement walls exposed by the powerful quake to create a natural roof and corridor; with acrylic used as support materials

### Terminology

**Tectonics:** Use of materials to create an artistic design for building construction models in relation to the materials' characteristics.

**Organic:** Emphasizing the relationship between the architecture and its surroundings; an organic architecture often has an outdoor design connected to the natural environment that is different from a square structure or building construction.

**Skin:** Surface of architectural space that does not affect the primary structure and describes the media between the building's exterior and interior space.

to strengthen the structure so that visitors can see the fallen ceiling, walls or floors of the original classrooms in a collapsed state. The acrylic-framed scene of the destroyed classroom is a main theme for one of the museum's education centers.

### Building with transparent materials

Architect Qiu used steel and steel cables and concrete boards as main components for a tectonic architecture that requires sturdy materials while creating a temporary-feeling appearance. Moreover, the architects had to build on the spot to create the required free-flowing setting versus a traditional design. Thus, the construction process was definitely a challenging project at the time, using technology from a decade ago to assemble this truly rare architectural design.

In order to emphasize the museum's main theme, different transparent materials were used to highlight the broken cement and steel structure, creating an organic

architecture for displaying museum exhibits with the dual purpose of conveying important knowledge about earthquakes and portraying the immense forces of this natural disaster.

The 921 Earthquake Museum of Taiwan shatters all traditional concepts regarding a museum structure by using the original landscape as a design to portray an earthquake scene, using the sun as natural lighting and creating a stage that exhibits the forces of nature with transparent building materials. This gives a fresh skin to the architecture so that visitors can experience time travel by simply walking between the corridors that connect the inside to the outside.

Fifteen years after the 921 Earthquake, this museum continues to preserve a historical record of the disaster, allowing visitors to vividly imagine the impact of such forces. Visit Wufeng when you are in Taichung for an extraordinary experience that brings natural science and architecture together. 🌿



Large, over-sized windows and neutral concrete tones allow visitors to view the dislocation of the earthquake fault.