

Building materials that "breathe" are used to create an environmentally-friendly school campus.



Reborn from from the rubble of a massive quake

The courtyard architectural style of Guang Long Elementary School

Words and photos by Lin Po-yang
Translated by S. Ying

Fifteen years ago, an earthquake of a magnitude rarely seen in Taiwan over the past century stole the lives and homes of many Greater Taichung residents.

Guang Long Elementary School, located in the city's Taiping district, was among structures that were completely destroyed. Three years after this natural disaster, however, the school's campus was rebuilt with a new courtyard-style architecture that that encouraged more interaction with the surrounding community and bonding between the school's students and teachers and their neighbors.

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.



The corridor walkways, sheltered from rain and wind, travel under a long roof.

Today, the ringing of school bells sees elementary students happily running out of classrooms to braid rubber band bracelets in the corridors, sing under the big trees, and play on slides in the playground. These usual forms of after-school fun hide the reality of a huge natural disaster that demolished the entire school 15 years ago. Its new architecture conveys a practical and fun philosophy that breathes new life into the school grounds despite its sad past and memories of lost homes and lives.

The spirit of courtyard-style architecture

The use of courtyard-style housing was common in Taiwan 30 years ago. This traditional architectural layout offered a large common area for residents to use and engage in activities such as weddings and funerals, not to mention more basic tasks like marinating vegetables, drying nuts, feeding livestock, having meals, or simply socializing. In a nutshell, such shared courtyard spaces provided for basic needs related to food, clothing, housing and entertainment while offering privacy in adjacent bedrooms. Because more time was spent in the outdoor courtyards than indoors, interior spaces became less important, with traditional architecture favoring very large courtyards over interior spaces for rooms.

In the past, less thought was given to green-space planning, so the design for Guang Long Elementary School is unique by virtue of providing greenery for each classroom in a small courtyard-space design style, while the entire campus is encompassed within a larger courtyard space, creating the unique style of a large courtyard surrounding smaller courtyards. The courtyard layout between classrooms allows students to enjoy more outdoor greenery and learn about birds and insects while creating a natural classroom for teaching young people about nature.

The entrance to the entire campus is located in the north corner and leads from an open space to a more private entrance. This design of using a large square for the entrance opening recreates the spirit of traditional courtyard architecture.

Corridor under a enormous rooftop

Elementary students look forward to play time after school. On rainy or

Taichung Taiping District Guang Long Elementary School

4, Lane 487, GuangXing Rd, Taiping District, Taichung

Completion date: May, 2002

Architect: Wang Weijen Architecture and J.C. Yang Architect and Associates

Architecture Specialty: The campus design adopts a traditional courtyard space concept to create more green space and more additional outdoor areas for classroom instruction and students to learn about nature, displaying the architectural elements and community spirit of traditional courtyards.

Terminology

Dimensions : The ratio between the use of human space and architecture.

Structure : The materials and quality of architecture in the environment.

very sunny days, the ideal play area would be a covered outside space sheltered from the elements and well-ventilated. In the spirit of courtyard design, an extended roof allows corridor spaces to create an area for fun or academic activities, undisturbed by the weather and shielded from rainfall.

A good campus architectural design needs to satisfy the needs of the user with sound construction materials. Rather than use building materials common to traditional courtyards, the school's walls are covered in modern tiles that can "breathe", the rooftop is built with metal that provides better drainage in the rain, and the ground uses well-ventilated, porous artificial-grass tiles. All utilized materials are environmentally friendly and can withstand rainy conditions.

A historical Taiwan first: New School Campus Movement

Looking back over the past 15 years, the reconstruction of multiple sites following a national-scale natural disaster was no easy feat. At the time, Taiwan's Education Minister issued a letter to all architects in the country, stating the urgency and importance of rebuilding schools and campuses. The clear goal was to create a vision that encouraged communities and schools to cooperate via a new community model for schools.

Architects Wang Weijen and J.C. Yang joined hands to encourage community participation in the design process for Guang Long Elementary School, allowing surrounding residents to recognize that users of the school grounds included teachers, students and community members, thereby making this institution an exemplary model for other schools as part of the New School Campus Movement.

Architecture is not only a product of beauty but also requires functionality that meets practical community needs while encouraging school spirit by providing for needed services.

The design approach for Guang Long Elementary School entailed the architects engaging with the local community in discussions and then considering community needs while creating an all-encompassing new school campus. Guang Long is a good case study that offers a model for how to create a local architecture that stimulates student curiosity and learning without using overly elaborate or fancy designs. Rather, the architecture blends naturally into the community. Important elements of courtyard spaces and the way these spaces make one feel build a strong foundation for community-driven architecture. If the spirit of Guang Long Elementary school can be successfully extended beyond classrooms to the entire school campus, architects may be inspired to create and design even more courtyard-style architecture in Taiping district and throughout Taichung City. 



Students can experience different dimensions and structures within courtyard areas.