Shajing Village Hall Rejuvenation – Shenzhen, Guangdong, China

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The rejuvenation of Shajing Village Hall in 2020 was led by ARCity Office. Remains of an industrial building, the Gangtou Diesel Power Plant, were transformed and given a new purpose as a center for the community. The plant was built in the 1980s and abandoned soon after, once the city became covered by the national grid. “Like an old tree sprouting new shoots,” the old the new were woven together to create a public space that would meet the community’s need for a new ancestral hall and further inspire the urban regeneration movement happening in China.[1]

Due to age and disrepair, the ruins were not sound, but with the project’s focus on sustainability, preservation of materials was Its foundations, beams, columns, and brick wall structures were able to be recycled once reinforced with additional concrete and old steel trusses were partially reused and refurbished while everything else was demolished.[2] The east and west brick walls were completely removed, replaced with custom-made perforated black aluminum modules that imitate the original brick pattern and transmit light.[3] To enhance the blending of old and new and the sense of craftsmanship, select concrete beams and columns were chiseled, creating artificial ruin in certain places.

Engineers installed mechanical systems within the main hall to be exposed, reducing construction costs, facilitating easier access, and adding to the openness of the environment. Two courtyard gardens flank this hall, one housing a structural system of steel columns and beams, a required addition that balances steel trusses of the hall’s roof. Stones and bricks were preserved from the demolition ruin of the original structure to create gabion walls that add to this garden’s landscape.

Considering the subtropical climate, the building was surrounded by a set of pools to improve enjoyability in the heat while counteracting the perceived heaviness of the factory exterior. Another consideration of the climate is seen in the gaps created within the building volume. Balconies, viewing windows, outdoor terraces, and wrap-around corridors create a passive temperature regulation system by introducing natural ventilation, reducing energy consumption and carbon emission by reducing air conditioning use.[4] Other interesting components of the space include the preserved concrete crane beams, the factory’s kept square window openings, and the remaining round holes in the walls that had been used as power plant ventilation ducts, all of which point to the building’s history and add an element of randomness to the hall while acting functionally.[5]

An interesting problem faced by architects and engineers of this project was that the Power Plant was an informally constructed building, with no drawing files or accurate mapping information attached to it. This led to the continuous revision of design throughout the construction process, in a cycle of fewer than six months, and a strategy of a partial patchwork of additions and subtractions was adopted.[6] To preserve the ruins as well as possible, all new materials, including steel elements and glass curtain wall additions, were inserted into or wrapped around the original concrete structure, leading to a difficult construction process.

Sources for this paper:

[1] https://www.archdaily.com/974458/rejuvenation-of-power-plant-arcity-office

[2] Ibid

[3] https://www.gooood.cn/shajing-village-hall-arcity-office.htm

[4] Ibid

[5] Ibid

[6] Ibid