

Huaxiang Christian Centre, Fuzhou, China

Located next to a historic church, the Huaxiang Christian Centre has showcased supposedly outdated materials, traditional techniques and handcraft to create a stunning building at the heart of the local community.

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Main façade (east): three entrance portals at night.

When Fuzhou's Huaxiang Church was built in 1938, its steeple was the only vertical structure emerging from an ocean of traditional Ming-style residences. Since that time, its congregation has witnessed a radical transformation, not only in the city of Fuzhou itself but also in society in general: from decades of urban deterioration to an unprecedented era of prosperity and development; from the complete suppression of religious activity during the Cultural Revolution to a miraculous tenfold growth of the number of Christians in the years since. Today, the little building finds itself at the bottom of a veritable maze of shopping malls and office blocks. In dire need of additional space, the congregation decided to build a supporting community centre land adjacent to the historic building.

Programme

The challenges imposed on the project were indeed extraordinary. First, the client's functional and spatial requirements conflicted with the height and area restrictions imposed by the heritage authority on this small plot of land. Second, the challenging nature of the

site – surrounded by obstacles on all sides – determined that only upper levels would be visible from the public street nearby. Third, the immediate juxtaposition of the new building to its historic counterpart, in the midst of a disparate set of buildings – high and low, modern and traditional, Eastern and Western – demanded a clear approach to the relationship between the old and new architecture.

Design and shape

From an aesthetic point of view, the design convinced client and authorities alike, as it harmonises such imbalances by adopting the role of an urban mediator. Subtly folding its horizontal contours and modulating its vertical development in a continuous up-and-down movement, the volume is visually scaled down into fragments, allowing this structure – seven times larger than the original – to relate in proportion and silhouette to the tiny church at its side. The fragments decrease in height the closer they are to the historic building, showcasing its bell tower and evoking the impression of an organically



Above: left to right: A piece of the historic church's granite; the newly sourced granite gravel; the tumbled pebbles; the pebbles applied to the adhesive fabric; the fabric after mortar application.

grown skyline. The resulting building shape corresponds to a complex volume in which the outer surface performs a constant and unpredictable three-dimensional movement.

Economic considerations

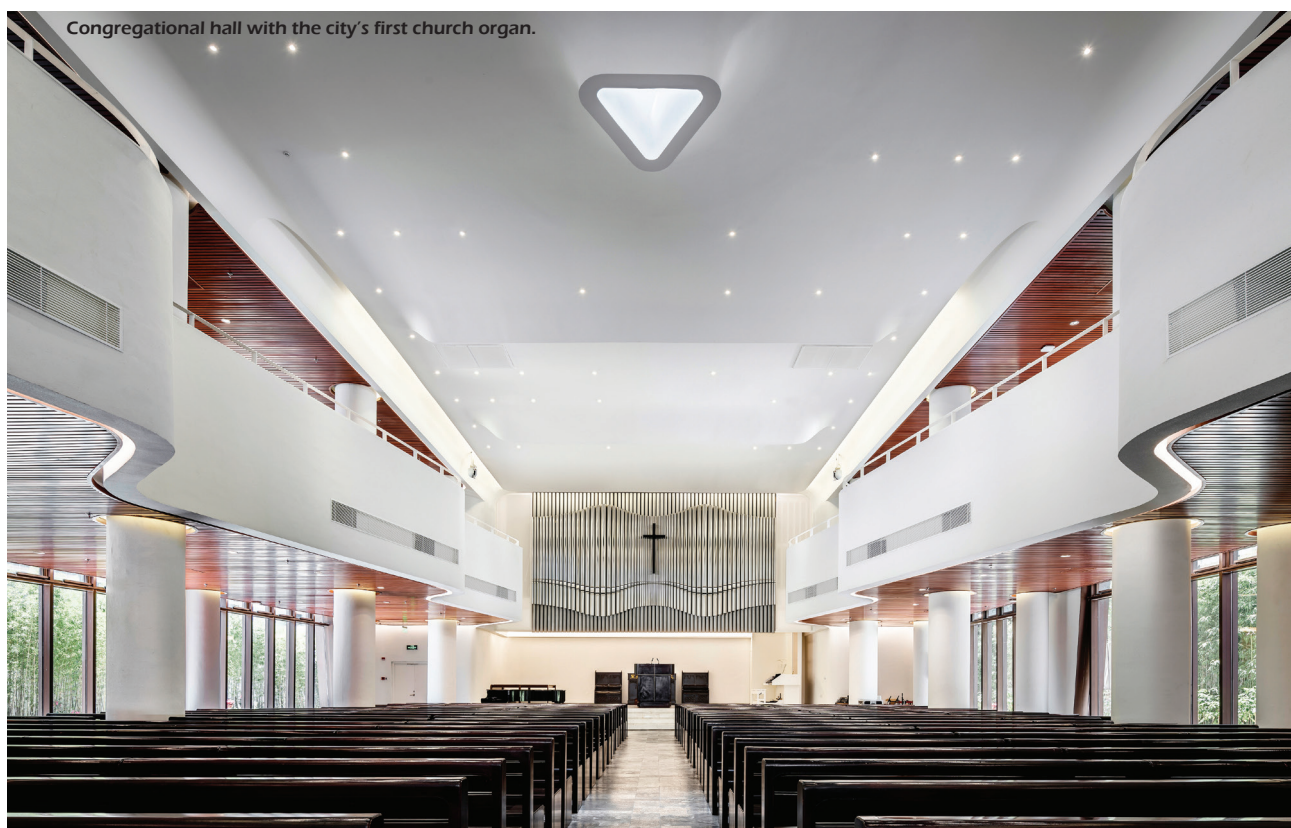
From the outset it was clear that this ambitious geometry had to be reconciled with a set of pragmatic restrictions, such as the community's limited budget, the request for a long-lasting and low-maintenance façade solution, as well as extreme governmental pressure to complete planning and construction within a year of approval (to coincide with completion of a new subway station in front of the church and thus relieve the tourist area from any further construction activity). The use of complex prefabricated elements or costly materials could therefore be ruled out.

Façade structure

Bearing in mind such constraints, the decision was made to realise the expressive design by relying exclusively on a set

of conventional on-site techniques which any contractor would be familiar with and able to execute without additional cost.

In the first phase of construction, the internal structure was completed, comprising a conventional skeleton of columns, beams and slabs. Subsequently, the façade structure was added. This consists of a concrete framework that connects to the front sides of the protruding floor slabs and outlines the contours of the building volume as well as the edges of the undulating window openings. This method, which can be described essentially as an in-situ concrete curtain wall, also allowed for the realisation of a critical detail at the lower turning points of the window openings, where the façade appears to barely touch the ground while being structurally cantilevered above the adjacent landfill. In a last step, the voids of the framework were filled with aerated concrete blocks resting upon the protruding floor slabs, and the entire surface – blocks and in-situ concrete – was finished with cement plaster.



Congregational hall with the city's first church organ.



Finish

Trying to find a finishing material that would complement the historical granite church, as well as effortlessly follow the façade's dynamic movements without gaps and sealants disrupting the continuity of the surface, the design proposed a pebble render that used to be widely employed across China. Today, it still finds broad application in Taiwan and is often preferred to curtain wall systems or simple paint finishes, due to its resistance to pollution and its durability, even in the event of earthquakes.

At the beginning of this process, an appropriate gravel – corresponding in colour tone to the weathered brown of the historic granite – was sourced from across China. The aggregate was then tumbled, a process which would make the material smooth to the touch and intensify its colour property to a bright red. Similar to mosaic tiles, the pebbles were then factory-applied onto standard adhesive meshes and delivered to site. The meshes were then pressed onto the façade in a prepared mortar bed. Finally, a second layer of mortar was applied onto the pebble meshes and subsequently washed off with a wet sponge, thus exposing the pebbles until reaching the



Top left: Peace in the eye of the storm – upper amphitheatre (south-east direction). Top right: First phase of construction with the inner concrete framework being cast. Above: Façade framework filled with aerated concrete blocks. Below: Lower amphitheatre – a space for open-air worship and gatherings.



Architecture and Design

desired result. Rather than using ordinary Portland cement, an epoxy resin mortar was used in order to guarantee the façade's water impermeability and avoid lime leaching.

Impact

The resulting façade is a visual counterpoint to the gloss and shine of the curtain walls encircling it. In a religious sense, this infinitude of pebbles translates into matter the dual nature of the word 'church', which refers not only to the building itself but also to the sum of all individual Christians. On a human level, it gives the community centre a haptic quality – warm and comforting to the human hand and always provoking a smile on the faces of adults and children who touch the façade. Aesthetically, it showcases the beauty that one can find in supposedly outdated materials, traditional techniques and handcraft, and proves that in an environment of extremes, sometimes simplicity works best. The organisation of the building corresponds to the client's needs by providing a range of

multifunctional spaces. As a central piece of this strategy, the rooftop areas are conceived as publicly accessible open-air amphitheatres, allowing the community to hold outdoor assemblies or enjoy being elevated from the worries of the world below. Seen from the neighbouring buildings, however, the Christian centre constitutes a dramatic stage of urban proportions, upon which the community demonstrates its faith and shares its joy with the city. The new community centre therefore embodies a change in the congregation's self-perception and in their mission as Chinese Christians – from a repressed minority that hid in seclusion, to a community that now wants to be visible, open its heart to the world, reach out and invite people to join.

Only a few months after completion, the community centre had already become a popular hangout for the young and serves as a viewing platform from which locals and tourists can enjoy an unobstructed view over the city's historic district. ■

Organic height development from old to new.

