

National Design Centre

SCDA Architects

Religious conversion: Once a Catholic school, a set of buildings from different decades of the 20th century has been transformed into a modern design hub.



The newest of the four buildings comprising the NDC occupies the east end of the site and dates from the 1940s.

Photo © Aaron Pocock

agency for developing the design sector, and provides tenant space to a variety of private design firms, a prototyping lab, and a design store. An auditorium, a library, a roof deck, a central atrium, galleries, and meeting rooms are available to the tenants for events, making the NDC a hub for the design community.

Chan made his biggest moves inside the 1940s corner building, where he covered an outdoor courtyard with a folded skylight to create a central atrium, and removed parts of old floor slabs to make room for a set of metal-mesh-clad boxes that serve as galleries and meeting rooms. The aluminum-veiled volumes, clustered together on the east side of the building, overlook the new atrium and provide a modern counterpoint to the plaster detailing on the balconies wrapping around the four-story-high space. Originally, Chan wanted to turn the building's east facade into a mostly transparent curtain wall to reveal the gallery boxes floating inside. But preservation officials said he must retain the existing horizontal windows, even though Chan argued that they weren't original. Behind the 1920s and '30s buildings, on the west side of the site, he transformed a passageway into an outdoor courtyard with a reflecting pool and movable tables and chairs.

"My strategy was to be respectful of the old buildings, but introduce a pair of new spaces," says Chan, referring to the atrium and the rear courtyard. In the process, he created a dialogue between eras, in which an architecture of separate rooms and articulated parts gives way to flowing spaces and a unifying palette of materials and colors. On Middle Road, for example, the individual form of each building in the NDC ensemble is apparent, but a uniform coat of white plaster pulls them together as one composition.

Inside, Chan emphasized the communal nature of the atrium, designing 8-foot-wide pivoting doors that can open perimeter areas—such as the prototyping lab, the design store, and the ground-floor gallery—to the central space. He created upholstered furniture that can be pushed together to form sofas or pulled apart for individual seating, so the atrium can act as a lounge for those who work in the building or for visitors.

Treating the atrium as one open space required some ingenious solutions to technical problems. To connect corridors on the upper levels to the atrium, Chan treated them as internal balconies and installed hidden shutters that can be deployed in case of fire. He worked with engineers at Web Structures to design a cable-

By Clifford A. Pearson

Change comes from within. Such advice applies not just to people but to buildings, especially those of a certain age and protected by heritage designation. With this in mind, Soo Chan, principal of the Singapore-based firm SCDA Architects worked from the inside out on the transformation of a Catholic school into Singapore's National Design Centre (NDC).

While mostly restoring the exteriors of the four buildings that make up the former Saint Anthony Convent school, Chan added and subtracted key spaces on the inside. The buildings—three of which date from the 1920s and '30s and the fourth from the '40s—represent a range of styles from British Colonial to Moderne. They sit in the Bras Basah/ Bugis part of town, a few blocks from the historic Raffles Hotel and across the street from Ken Yeang's National Library. Three of the structures line up along busy Middle Road and are connected inside, while the fourth sits behind them on quieter Queen Street, separated by just a driveway. The NDC serves as the home of the DesignSingapore Council, the national



Three of the four buildings comprising the 85,000-square-foot NDC face Middle Road with the oldest on the right and the newest on the far left. Photo © Aaron Pocock

Size: 85,000 square feet

Construction Cost: \$19 million

Completion Date: March 2014

Architect

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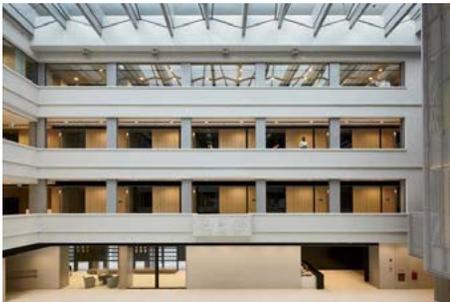
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tensioned skylight that is unobtrusive, and, with its folded design, sheds rainwater efficiently. Chan used a similar geometry for the new metal-mesh ceiling in the second-floor auditorium, which occupies the space formerly used as a chapel. A graduate of Washington University in St. Louis, Chan says he was inspired by the folded-plate roof of Fumihiko Maki's Steinberg Hall (1960) there. By retaining the ecclesiastical detailing of the old chapel, with its bas-relief saints, Chan created an intriguing tension with the auditorium's contemporary secularism.

Throughout the project, SCDA complemented existing surfaces and detailing, now painted white, with metal mesh and pale wood. The new materials catch daylight and add warmth to the interiors. Shared spaces dominate the first and second floors, while the third floor has studios for design tenants; the fourth is mostly offices for the DesignSingapore Council. SCDA started work on the Design Centre in 2011, and the project opened in March 2014.



Adding a skylight above a central courtyard makes an outdoor space an indoor one. *Photo © Aaron Pocock*

Changes to the exteriors were subtle but important. The architects replaced old tiles with new ones on some roofs, repaired crumbling plaster, and installed new low-E glass in windows. To better connect the inside to pedestrian activity on Middle Road, they added a few new windows on the ground floor. A big challenge was designing a new entrance for the complex without disturbing the 5-foot-wide colonnade wrapping around its street-side facades. In the end, they chamfered one corner and inserted an angled Cor-ten wall announcing the NDC. It's a simple but dramatic move that exemplifies Chan's approach to design.



SCDA balanced heavy and light materials throughout the project, for example adding a folded metal-mesh ceiling to the muscular space that had once been the school's chapel and now serves as the auditorium. *Photo © Aaron Pocock*