**Holcim Awards 2014 Latin America**

**Next Generation 2nd**

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**Laguna Chapel**

Recycled timber church and community center, Zoh Laguna, Mexico

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**Main authors**

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**Project data**

*Project group* | Architecture, building and civil engineering

*Client* | Community of Zoh Laguna

*Project background* | Public commission

*Planned start* | July 2014

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**Summary and appraisal by the jury**

The project comprises the rebuilding of a church on an old lumber town on a lagoon in the province of Campeche in Mexico. Wood from the original chapel and other buildings is recycled to erect a modular structure adapted to local timber construction. Respecting the site, the new church and community center define a square for public use, including cultural and educational programs that complement religious activities. The building ensemble uses passive ventilation, rainwater for drinking and irrigation, and rainwater from the lagoon is cleansed. To explore the role of memory, both in a spiritual and material sense, at the core of the project – an investigation strongly commended by the jury – is the idea to recycle the wood of previous structures on site to build a new house of worship as well as a community center for the region. The design borrows from traditions without copying historically established forms. On the contrary, a new vocabulary is developed, one taking its cues from new methods of construction and assembly, giving due respect to the tectonic sensibility of the local culture.

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**Sustainability concept**

**Progress:** A modular timber structure is used that allows flexibility and expansion according to needs. The entire complex uses passive ventilation and all water consumption comes from rainwater. The wood used, except for the structure, is recycled from the old church and other buildings. These strategies are adapted to local wooden construction techniques and local materials, to be easily reproduced by the community in the future.

**People:** The complex provides cultural and educational infrastructure complementing the religious activities of the chapel. The building is 100% self-sustainable for water use from rainwater collected. The integration of these three key aspects (education, communion and culture) makes the building a multipurpose public space. Participation by the community in design, construction and maintenance are keys to the success of the project.

**Planet:** The long facades of both volumes are oriented perpendicular to the prevailing winds, improving cross ventilation. All classrooms are oriented to the north to receive indirect sunlight and roofs are composed of two layers that allow the wind to circulate between, cooling the edifice. The roof of the chapel is a permeable roof made of panels arranged like scales that allow natural ventilation and illumination of the inside, but protects the interior from rain. The amount of rainwater the building will collect each year is equal to the amount of water the building won’t spend money on water. The income of the family center and guest house will pay for maintenance of the building and employees’ wages.

**Prosperity:** All the material and labor is local, the cost of the project is reduced by 50% using recycled wood and donations of wood from the communal land holders, the remaining 50% will be used to pay for construction labor costs. The total cost, including the 50% saved in material, will be paid by the local government. Energy requirements for building operation are particularly low due to passive systems for ventilation and illumination. The building won’t spend money on water. The income of the cafe and guest house will pay for maintenance of the building and employees’ wages.

**Place:** The building seeks to preserve local wood construction techniques but also to reinterpret the vernacular architecture into a contemporary building whose design is the tectonic and morphological answer to the local climate conditions, economy, society and resources.

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**Further authors**

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**Image 5:** The chapel is oriented to the ventilation.

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**Image 6:** Recycling the old church.

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**Image 7:** Thanks to the indirect light from the roof panels, the interior enjoys a deep atmosphere of darkness which is arguably the best light for prayer.

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**Image 8:** Dialog with the community.

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**Image 9:** Context.

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**Image 10:** Site.