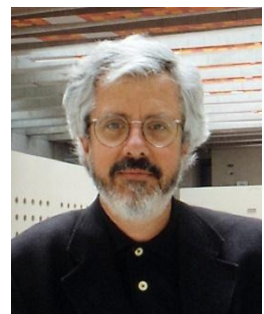


The Tradition of Wood in Chile

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“Minga” is one of the most beautiful and surprising traditions of Chiloe, an archipelago off the south coast of Chile. It is the move of a house, sometimes of a church, from its original place to another in a collective task that involves the whole community. When in land, the house is moved with the assistance of a yoke of oxen; once in the sea, it is moved by boats.



Figure 1: Chiloe.

The paradigm of architecture as a situated and permanent art that's fixed to a determined place is overthrown, here, by this amazing custom. It is in this tradition where we find the virtues of wood: its lightness, its flexibility, and its resistance. Minga is only possible thanks to a unique material: Wood.

Chiloe has been the place where wood has reached its glory in Chile. Churches are proof of that; some of them, built in the XVII century, were born thanks to the Jesuit mission and to the presence of German carpenter brothers whose skill enriched the local tradition.

The definition of these volumes and the classic tower that distinguish them made real lighthouses out of these edifications for the sailors and the heart of the community.

These churches are characterized for their volumetric definition and a plant of a central nave joined by two side ones. The central nave generally has a continuous vault that hangs from the ceiling structure.

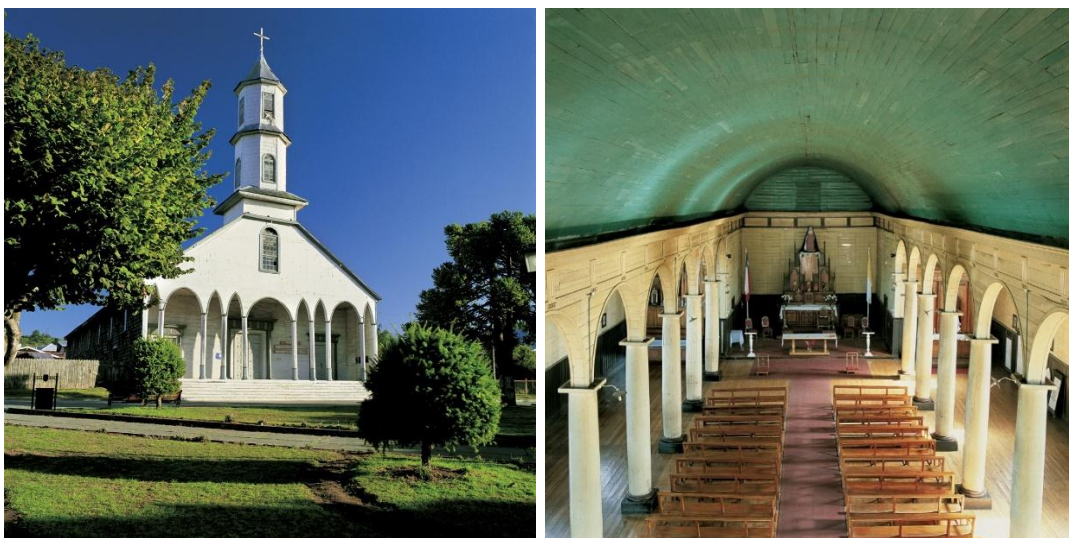


Figure 2-3: Church in Dalcahue.

The two waters ceiling is extended beyond the interior in order to create an exterior open porch towards a wide space that acts as an urban square.

A tower of two or three stretches is erected over the tympanum that crowns the porch. The stretches diminish their section in search of more slenderness.

The church of Achao is one of the most remarkable churches in Chiloe. It was built in the XVII century, and it accounts for the intervention of learned builders who not only mastered carpentry but who were also skilled in the art of proportions.

Another example is the church of Vilupulli, among many others of the XIX century. The church of Cochamó in continental Chiloe, way ahead in the XX century, is an overwhelming volume that take us to the farming sheds that accompany the landscape from time to time.

I reckon it's interesting to show another important example taking into consideration what it means in the framework of cultural transference: the church of Castro.

It is an early XIX century building, local interpretation of the Italian architect Eduardo Provasoli's drawing. The original project considered the use of concrete and its later plaster that mimicked the stone of European churches.

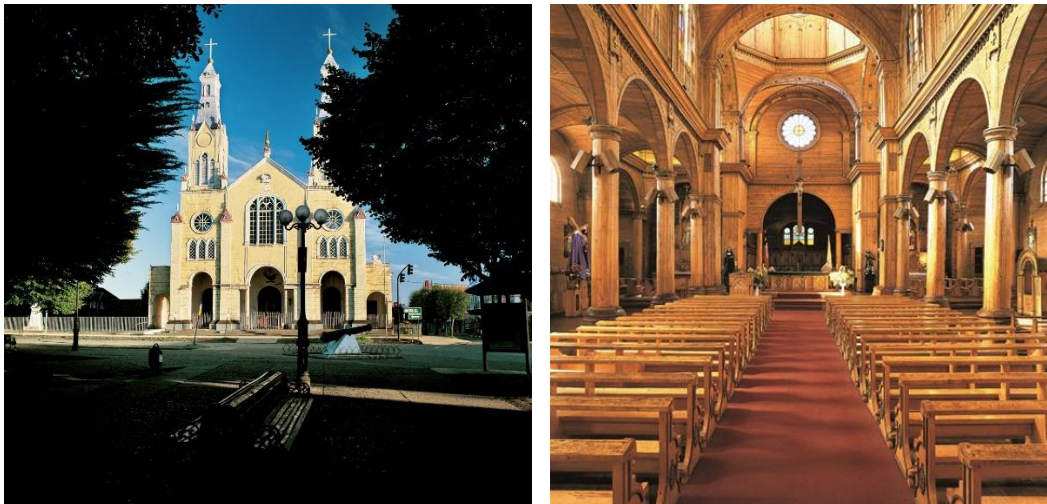


Figure 4 - 5: Church in Castro.

The local constructors decided to reinterpret the project in wood, which was the most familiar technology for them. Being loyal to an old building tradition, and accounting for, by the way, the virtuosity with which the most delicate details were built. Native wood of larch, cypress, ulmo, and coihue trees. The exterior was covered with galvanized metal sheets.

The neoclassic strength prevailed as a formal dogma beyond the constructive techniques. A series of political, social, and economic events that define a good share of what we are today as nation took place during the second half of the XIX century. Three of them are the most outstanding in the physiognomy of some of our cities and in their architecture.

I'm talking about the German colonization in the south of Chile—which didn't stop until the first years of the XX century; the other two are the nitrate rush in the north, and the port boom of Valparaiso when Cape Horn was the mandatory pass for vessels coming from the Atlantic Ocean to the northern Pacific zone.



Figure 6: House in Puerto Varas.

By the end of the XIX century, the German colonization showed the first architecture-related achievements of such difficult undertakings. The settlers made efforts to keep their identity, which is reflected in the construction of an architecture that is directly linked to the German tradition. This architecture has greatly determined the image of cities like Osorno, Valdivia, Puerto Octay or Puerto Varas, among others.

On the other hand, the nitrate peak that took place during the second half of the XIX century, which was fostered by English and American capitals, turned Iquique into a thriving city.

A new architecture, with Anglosaxon origins, is imposed over the city. The Georgian English, reinterpreted in the United States, prevails in the northern Chilean port, exhibiting the abundance that sprang forth from the nitrate.



Figure 7: Paseo Baquedano - Iquique.

The oregon pine, from California, is the builder material. "Balloon frame" is used as a constructive system, a method that grows rapidly thanks to its efficacy, rationality, and economy.

The interesting thing about these examples in Iquique is that the original model is transformed in Chile in order to comply with the warm desert climate. Big, shadow-casting eaves or balconies over the façade are originated here.

Valparaiso saw the benefits of the mandatory port traffic through Cape Horn of vessels coming from the Atlantic to the North Pacific as of mid XIX century. This privileged condition attracted a cosmopolitan population mainly composed of English, American, German, French, and Italian people.

A splendid city is built during this prosperity period, all according to the immigrant standards. Victorian style houses were built in oregon pine wood, just like the ones in the north hemisphere, using the balloon frame system covering the external structure with fluted zinc sheets, where standardized doors and windows also come from abroad and are part of the catalogues and illustrated construction manuals.

However, in the XX century Chile, and particularly in modern times, concrete was the vehicle used to express the new proposed architectural shapes. There are very few interesting examples of wood constructions during this period.

The person who has now given value to wood architecture in Chile is Jose Cruz Ovalle, an architect who works from a poetic rationalism, illuminating the tradition to turn it always into something new.

But let me take you back to the beauty churches of Chiloé.

The structure of these churches—formed by pieces of wood—generally of native woods, and whose fixation system was ensembles and wood dowels, was the model that inspired our Pavilion of Chile in the 2015 Expo Milan.

Nonetheless, the European tradition considered to cover the structure, concealing the beauty of the structural dimension with a layer of wooden boards or alerce tiles that completely surround the façade.

The Eastern tradition of wood construction considers, different from the European tradition, to make the structure visible. This custom has profoundly influenced our work: structure and architecture have always formed one unit.

Laminated timber has been chosen as the material to build and to characterize the Pavilion. This material, apart from its sensorial and tectonic value, is a renewable resource, and it is treasured in the environmental chain. Besides, laminated timber is an industrialized material that provides a homogenous and an appropriate technical control. Chilean wood prestige is asserted in the growing afforestation rates, which differ with the planetary deforestation process.



Figure 8: Pavilion of Chile – Expo Milan.

We have brought to Italy radiate pine wood that has been produced in the south of Chile but that has not been industrialized. The beams have been built in Italy in cooperation with Habitat Legno.

Formally, the Chilean pavilion has been outlined as a bridge made of laminated pine wood whose wooden, reticulated structure is trusted with the expression and formal synthesis. It is a regular volume that is supported by 6 steel pillars, each with 3 arms. This allows us to liberate the noble floor by creating both a visual transparency and the free stroll of the visitors. This strategy establishes a close relationship between the urban space and the pavilion space, narrowing and fusing the line that has been drawn between the private and the public.



Figure 9: Pavilion of Chile – Expo Milan.

The wooden, reticulated structure appears from distance as a totality (monumental scale), while the fragment appears in the closeness (quartering of the wood) that relates us to the body and bestows the pavilion a human scale, making a resistance strategy out of the tectonic and handcrafted when opposed to the seduction of the vain spectacle.

The Pavilion's interior has been developed as a neutral space easily adaptable to the programmatic demands that will reach high relevance after the Expo, considering the likely recycling of the building.



Figure 10: Pavilion of Chile – Expo Milan.