

## House of bamboo

Maitreyee Handique

Colombian architect Simon Velez is propagating the use of bamboo in modern buildings.



To construct a 46-metre long pedestrian bridge in Bogota last year, Colombian architect Simon Velez used over 3,000 bamboo poles and covered it with clay tiles, handcrafted by local workers.

Sometime ago, the Bogota-based architect also constructed a performing stage for Christopher Blackwell, founder of Island Records and owner of Bob Marley's song rights, in the sea coast of Ochorios in Jamaica.

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The place, a memorial to Marley, was built to provide a new platform to upcoming reggae musicians. But for Velez, it IS an effort to lend "prestige" to bamboo in regions where it is abundantly available.

"My aim has been to prove that bamboo is a high-tech material and has great engineering potential for big roof structures and bridges," he says.

Velez was in India recently to attend the World Bamboo Congress in Delhi. In all probability, he may return soon to collaborate with the Delhi-based architect Pradeep Sachdeva to build a bamboo bridge at the capital's Garden of Five Senses.

From bagging contracts for building a \$1,000 a night eco-lodges in Brazil to assisting construction of a 100-room eco hotel in China's Guanzhou province, Velez's workload makes it seem that bamboo is the new buzzword in building.

However, on the contrary, the architect feels that the importance of bamboo over concrete has been eroding with time.

"In Colombia, it is every poor man's dream to build a concrete house; they buy cement instead of food and end up in debt. It takes two generations to build a house and yet they want to live only in a concrete house," he observes.

He firmly believes that in poor countries obsessed with concrete and steel, it is critical to restore bamboo's importance.

Bamboo, Velez points out, is strong and can last for 300 years if used properly and protected from moisture. Besides, its cost



works out to be three times cheaper than concrete. It also gives employment to skilled workers.

Clearly, with complex arrangement of bamboo poles and joineries strengthened with cement and iron vault, Velez is attempting to speak a new language in affordable architecture.

"But it has to start with the rich and the moneyed first," says Velez who has built several bamboo mansions in his country. "It's only the rich who can set an example and it's criminal to experiment with the poor," he adds.

On the outskirts of Bogota, Velez has made 50 bamboo-roofed condominiums for a plush golf course.

But right beside the course boundary, he secured a contract to complete a 100-house complex for the poor, also with his trademark bamboo roofing from the local Guadua variety of bamboo. And after receiving a positive response to the Bogota bridge, he's got similar projects in the Colombian towns of Medellin and Cali going.

"I'm not a fundamentalist and am not against steel per se. But most of the steel, even steel bridges, that are imported from North America are prefabricated and they can be fitted in two days by three workers. Apart from it being expensive, the bridges I build employ 46 skilled workers so most of the money spent on



the bridge went to the workers," he says.

Localise the food economy

But it hasn't been easy to propagate the idea of bamboo roofing technology. While Velez visits American universities with slide shows of his work, it's tougher to get projects.

And sometimes Velez says he renders his designing services free to expose the practical application of bamboo as he did for a government environment building in Pareira, a town of 600,000 people in Colombia.

"Bamboo is а strong material. While its strength equivalent to is it weighs steel many times less. We need to propagate that we don't need mass industrialisation but we need to keep people poor occupied and use their skills," says Velez.

