

Designing and building a children's bamboo & hemp playground.

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Abstract

Part of the final year of the curriculum of the building engineer at the Avans University Tilburg, AB&I, department of architecture, is a course named "Building with Bamboo". Within this course students can earn 2x 3 E.C. over a period 2x 10 days. From September 2015 up to January 2016 the subject of the course involved the designing and building of a children's playground made out of bamboo and hemp. The playground is situated on the inner courtyard of a primary school in Antwerp, Belgium, with children between 6 and 12 years of age. This particular school attracts a high number of children who do not speak Dutch, the native language. In order to help establish faster a better communication with these children, they were invited to come up with ideas for their new playground. Our building engineer students transformed these ideas into 6 proposal which were on display at the primary school. One design was chosen by the children and their parents. Prior to the execution of the playground our students prepared IKEA-like manuals in order to involve the children of the primary school with the construction of their bamboo playground as much as possible. Parts of the playground were prefabricated and a mock-up was made with the help of the children. Eventually the playground, a 3-dimensional labyrinth made out of bamboo and hemp, measuring 5x5x5m, was erected in 4 days by 40 students. Protection against decay due to sun and moisture exposure were implemented. Special care was given to the foundation of the bamboo poles and lashing techniques used to connect the bamboo pole structure. A maintenance manual was given to the teachers of the primary school. A follow up to study the decay of bamboo and hemp expose to a West-European climate is planned.

Keywords

education – social integration – bamboo – hemp - building techniques

References

"Introducing bamboo in the education of the building engineer. So cool!" (STEENPUT, 2014)

<http://www.scientific.net/Search/Search?SortBy=0&searchString=steenput>

"Introducing bamboo into the education of the building engineer. So cool! - Part 2 -" (STEENPUT, 2015)

<http://www.worldbamboo.net/wbcx/Sessions/Theme%20Product%20Design%20Technology/Steenput,%20Gie.pdf>