

## **AdobeUSA 2007**

**THEME – New projects: architecture, adobe art and design**

### **HYBRID EARTH AND BAMBOO – A DESIGN CHALLENGE**

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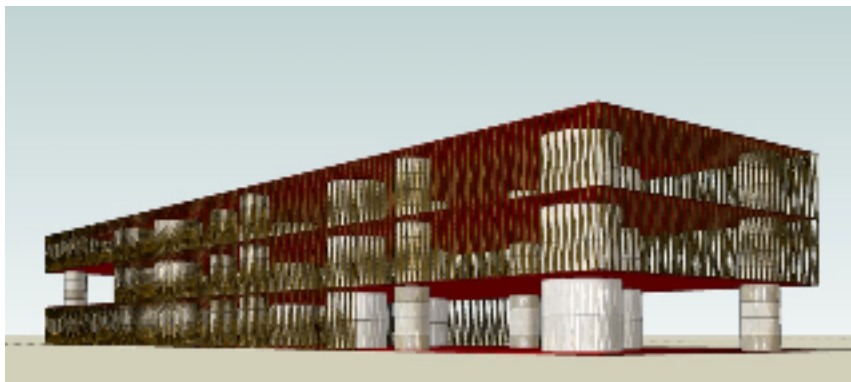
#### **ABSTRACT**

This paper will describe the design process of an hybrid earth and bamboo structure, currently being developed by Plano B Arquitectura and students from the Civil Engineer department of Aveiro University coordinated by Professors Anibal Costa and Humberto Varum.

The project is to be submitted to a design competition that aims to develop new “designs for bamboo buildings, raise awareness of the use of certified structural bamboo for building code approved structures, and introduce architects, designers and builders to working with bamboo as a structural material” [1].

The project will develop a solution for a public building using bamboo and earth as structural materials. Preliminary design solution has led to the conclusion that, given the size of the proposed building (100x80 meters with 3 stories high), and the stresses it is subjected to, it would be convenient to have earth contributing with its compressive strength to the overall behaviour of the structure.

Design will focus on the global structural solution but also in the aesthetic qualities of the building. The design phase is to be completed by January 15, 2007.



Preliminar structural design

#### **REFERENCES**

[1] [www.bamboocompetition.com](http://www.bamboocompetition.com)