

The Impact and Value In the design and production of architectural sculpture elements from bio-wood

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ABSTRACT

As to the wide scientific development in all fields in the twentieth century, a technologies and materials used more efficiency and less expensive with more better physical and mechanical properties, such as GRC, GRG and GRP. And other materials based on mold casting to produce architectural sculpture elements.

Due to the fine properties of the bio-wood product (WPC), which can add different values to the architectural sculpture units that produced from the bio-wood, it was necessary to discuss this thesis through this research to clarify the importance of the bio-wood in general as a modern alternative and environmentally friendly with multiple benefits than natural wood, here comes the importance of replacing the bio-wood instead of the natural wood, in case of the need to produce an architectural sculpture units of wood and under specific considerations, which will achieve a better impact on all aspects related to the applications of architectural sculpture in general.

So the research problem appeared in:

- The need of the architectural sculpture field to solutions of design and alternatives more susceptible to the various damage factors.
 - Bio-wood does not contribute to the development of the architectural sculpture field.
- The Lack of contributing of the bio-wood in the architectural sculpture field.

The research aims to:

- To reach the considerations when applying innovative solutions in the architectural sculpture field.
- Create design system of bio-wood material for architectural sculpture elements.

The importance of research is:

- Utilizing the unique properties of the bio-wood in architectural sculpture elements.

The research assumes:

- It is possible to reach the design and production considerations of the architectural sculpture elements by studying the bio-wood properties.

Research limits:

- Develop a system for the profile design of bio-wood as a modern alternative to the architectural sculpture elements.

Hypothesis of research:

- The research follows the experimental and analytical method.

Keywords: Bio-wood – Architectural Sculpture - Design