

## **Pulped Furniture**

### **The reapplication of an old technology with an echo-material**

Dr. Hany M. El.Said,

Industrial Design Dept., Faculty of Applied Arts – Helwan University, Egypt.

Dr. Maha Ibrahim,

Interior Design and Furniture Dept., Faculty of Applied Arts – Helwan University, Egypt.

#### **Abstract**

The World Commission on Environment and Development (1987) defines sustainability as “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. And according to the International Institute for Environment and Development (IIED) 1996, the average worldwide annual paper consumption is 48 KG per person.

Regarding that process of recycling paper, that is counted as one of the best methods to save nature. It seems that it does not reflect the right mean of the definition of sustainability. Because of operations such paper bleaching, or pigments removing with chlorine gas or Dioxin, Those elements which cause environmental pollution, and go within human food chain to affect all the eco-system.

Here emerges the importance for pulp paper technology as perfect solution for this problem. That is because the amount of used water within the process of recycling paper with pulp technology is fewer than the process of recycling paper regular ways. Plus using no chemicals such as chlorine gas or Dioxin, which really save nature from extensive hazards. Based on such information, there is a crucial need for designer`s creativity to apply pulped paper technology in various type of products. Mentioning the new compositions of paper with glass, polymers ...etc, that could start a new generation of products attract consumers, and overcome the negative image of green products, with functional, esthetical features.

#### **Keywords**

Pulped Furniture, Echo-Material, recycled paper, sustainability, functionality.

#### **8. References**

1. Burall P. - *Product development and environment* - Aldershot: design council - London, 1996
2. Carlo Vezzoli, Ezio Manzini - *Design for Environmental Sustainability* - Springer, London, 2008
3. Lars Hvam, Niels Henrik Mortensen, Jesper Riis - *Product Customization*, Springer, Denmark, 2008
4. Mackenzie D. - *Green Design: Design for environment* - L. King, London, 1991
5. Creusen MEH, Schoormans JPL. - The different roles of product appearance in consumer choice - *Journal of product innovation management*. 2005; 22(1):63-81.
6. Emily Howe, *The Re-invention of Molded Pulp*, Rochester Institute of Technology. 2012
7. Fletcher KT, Goggin PA. - The Dominant stances on Ecodesign: A critique - *Design Issues*. 2001; 17(3):15-25.
8. Kviseth K, Gulden T. - Attractive sustainability - Akershus Univ. College, Dept. of product design. In press 2006.
9. Manzini E. - Design, Environment and Social Quality: From "Existenzminimum" to "Quality Maximum" - *Design Issues*. 1994; 10(1):37-43.
10. Rolf Oward, *The Future of the Pulp Industry is Sweet as Sugar*, pulp innovations, Oct. 2010.
11. Stegall N. - *Designing for sustainability: A Philosophy for Ecologically Intentional Design* -

- Design Issues. 2006; 22(2):56-63.
12. Stevels A. - Green Marketing of Consumer Electronics - Delft Univ. of Technology, Dept. of Industrial Design Engineering. 2000
  13. Stevels A. - Five ways to be green and profitable - The Journal of Sustainable Product Design. 2001; 1(2):143-4.
  14. Yanagisawa H, Masuda F, Suzuki K, Suzuki M, editors - analysis on the potential of Eco-materials, from the "design" perspective - Environmentally conscious design and inverse manufacturing, 3<sup>rd</sup> international Symposium on; 2003.
  15. International Institute for Environment and Development (IIED) Discussion Paper (IIED, London, September 1996)