GA2009 – XII Generative Art Conference – Politecnico di Milano University, Italy

Iohanna Pni



Design Research

Iohanna Pani, Department of Industrial Design, Bezalel Academy Israel

Objectology

"Objectology" is a formal study that explores the reciprocal relationship between science and design and examines the impact of computerized technologies on design in the contemporary world. The study uses techniques of generative design but chooses manipulations which express values related to the evolution and history of the products. Forms are examined within a historic, biologic, genetic and perceptual approach. The study raises questions about the past and future of the objects and thus adds a fourth dimension to three-dimensional shapes: the dimension of time. The project examines the transitions and superpositions created between forms, both between different icons in the history of a certain object, and between different objects. Furthermore, it shows that these intermediate states reveal forms which exist from a conceptual

point of view, but have not yet been expressed visually. The study focuses on the form, detached from its function, material and technology. This detachment leads to an analytic approach similar to abstraction, held in scientific researches. Studies of this type disconnect the object of research from reality in order to analyze a certain phenomenon. The use of scientific methodology in a formal study frees the designer's act of 'making', allowing him or her to create unexpected forms.

Addition, subtraction, distortion, scaling or flattening are part of the manipulations performed on different objects. These manipulations can give rise to lack of functionality. Such situations - where shape is detached from function - on the one hand enable us to examine the shape separately, while on the other hand, gives the objects a sculptural dimension.

In fact, computerized software allows designers to build threedimensional forms regardless of material and technology. This phenomenon is reflected by treating the material as a texture which can be mapped onto any form and replaced according to the will of the designer. This option both frees and detaches the designer from the limitations of the material and of the production technology.

The products of this study are forms which remain in the virtual world in which they were created; they are forms which represent the object as an abstract concept. Gray forms which are similar to the display of models in three dimensional software- raise the question of whether the software is, in itself, a new design language. I claim that the use of computerized tools in design shows not only a technological development, but also a new paradigm in design.

video at: http://www.youtube.com/watch?v=O2ty2R5qe1s *book at:* <u>http://issuu.com/iohipocket/docs/objectology</u>

Contact: Ke iohipocket@gmail.com Ge

m Generative Design, Design Research, Algorithm, Information