Theses

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The interpretation of design as an evolutionary process within the matrix of "material-structure-form-function"

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Thesis 1.

During the last century architects and designers came up with all logically possible versions of the relationship between form and function. This might mean that for the design profession the great question of the 20th century has been sufficiently answered. During this time our concept of form and function has been a subject of constant change. The analysis has shown that depending on the given social and cultural circumstances the relationship between form and function, all these relationships are feasible.

Today this question rises within *the material-structure-form-function-environment-time-change* context.

At the beginning of the 21th century a view of design as an evolutionary process attempts to interpret this phenomena by providing a design methodology for the times to come. In accordance of this evolution-theory design embraces an endless number of possible solutions of which only a few gain acceptance by the selection of the various cultures and environments.

Thesis 2.

The history of design is the history of *the emancipation of form*. In some cases the design of the form precedes the design process itself. This is the moment when pure form is born, standing for itself, before meaning and function is added to it.

The introduced design strategies value form and function equally. By stepping back from the territory of applied form, the designer recognises and exploits the inner laws, hidden potentials embedded in pure form. This requires a specific design behaviour, when both the essential nature of material and form and the subtle manipulation of the beholder is thoroughly considered. The realised functional form may always be open for both functionality and spirituality.

The hidden essence of form, which was hitherto recognised only in fine arts, becomes to be a dominant factor in function-giving. Function-giving is basically meaning-giving. Form gains meaning for us once it is named: this is a house, this is a hammer, or this is a pebble-shape telephone. The designer grows an ability to appreciate tradition through a study the application and meaning of various forms in various contexts. In the meanwhile, he or she maintains a constant relationship with the actual surrounding world, informing it with his or her findings.

Thesis 3.

If we interpret the history of architecture and design according to fractal theory, the crucial point of *fractal theory for design* is the recognition of regularity within our designed objects, environment and their interrelationships.

The fractal model is an applicable and useful theoretical framework for the analysis of complex multidimensional forms and their characteristics, and an effective mean for altering, interacting with them. Very impressingly it is describable visually, geometrically and mathematically, while rises theoretical, philosophical, esthetical, and professional questions at the same time. This view elevates our way of thinking and positions it to a wider scope of perspective, providing us a new means to deliberate us from our conditioned antropomorphic and zoomorphic dimensions.

Thesis 4.

The design archetype is the original, ancient form of our architectural forms and design objects. Each object carries its origin due to evolution. The process observed by Jung is recognisable within our built environment and created objects when we analyse resembling objects coming from cultures that never communicated or aparted in the very distant past. It is more likely that the cause is not to be found in the collective subconscious, but in the similarity of the relationship between man and its environment. We have to distinguish the archetype of a functional object and *the arche form*, which is essentially independent from its relationship with function. This is a form that can divide itself from its carrier during cultural evolution and may survive as an independent form or become a functional object. The form of archetype is functional form, while *arche* form is a structural form that has independent structural characteristics.

The *arche* form can be originated from the form of functional objects or according to the form-giving nature of matter or the structural composition of two or more formal elements.

Thesis 5.

The object can be interpreted as a product of the interaction of "cultural genes". Thus creating a gene, or using Richard Dawkins' term of "meme" map may become a part of design methodology. The archetype of the analysed object is the starting point, and by studying its history, its technical, esthetical and cultural values unfold themselves. By mapping the shifts of forms, materials, the born mutation, the function-crossbreeds, we create the "family-tree", or more precisely *the "object tree" of the object*. When sketching the outlines of the origins, we get to the inner laws, essential logic of the object. From this we may predict the future evolution, moreover we are able to analyse the forthcoming versions' environmental impact as well. It becomes evident how the objects are capable of influencing the evolutionary processes.

Thesis 6.

Besides the presence of "accelerators" in the ever accelerating product design and development processes, as a counteraction the appearance of "slowers" can be observed, with alternative philosophy, design methodology and marketing strategy. The history of objects are fundamentally influenced by the culture within they exist, they are heavily dependent on the cultural habits that keep them alive. At the same time design can determine and alter cultural trends.

The "slowers", which by definition fulfil the criteria of eco-design, transcend the boundaries of traditional design. During the design process we have the possibility to consciously consider, infuse and optimise "accelerators" and "slowers" into our object.