Semiotics in product design

In the 21st century design has become an individual language, which allows to make a choice in the world of unlimited opportunities as a universal device. People are trying to learn this language for a better interaction with products because design is everywhere. Modern society is always challenged by the choice of everyday objects. People are obsessed with innovations and trends. They demand more and more from designers.

Human desire wants to avoid life monotony therefore designers tend to apply the latesttechnologyusing various artistic devices and techniques. Also, they put some meaning into the produced artefacts, considering economic, cultural and historical aspects as well as ergonomics and ecological demands. Dealing with design is reflecting the conditions under which it came out and giving the effect on the products . 2. SEMIOTICS vs. PRODUCT SEMANTICS In order to understand how to apply all the artistic devices, designers should learn some rules, which will help them to easily see and understand the social needs. This is a special study of design from the linguistic viewpoint and it is called product semantics.

Let us say some words about semiotics. In order to understand the means ofcommunicationin design, one should examine the underlying values and concepts in design theory. When semiotics is applied on design it is essential to analyze identity, metaphors and visible comprehension of products. Contemporary semiotics have moved away from the classification of sign systems to study how meanings are made and are not only being concerned with communication but also with the construction and maintenance of reality . Studying semiotics can help to understand that information or meaning is not ' contained' in the products. And the meaning is not '

transmitted' to us – we create it ourselves according to different codes which we usually do not see at once. ' Product semantics looks at form as language-like' .

Product Semantics is a theory developed by Reinhardt Butter and Klaus Krippendorf in the 1980s and is influenced by contemporary continentalphilosophy. They chose the word semantic (meaning) to emphasize this aspect of communication nd introduced the idea of a product as a text with levels of meaning. Thus, according to this definition, product semantics is concerned with the relationship between the user and the product on one hand, and the importance that objects assume in an operational and social context on the other hand. Language of design as a system. The usage of the objects in this system. Semiotic scholars describe the distinction between dynamic and static aspects of designed products by the terms: •first usage, and second usage. Or, according to Umberto Eco, ratio difficilis (RD) and ratio facilis (RF).

First usage is just to find or invent a new piece of syntax for something, invent it on the spot and speak it or make it or interpret something in a certain way, either deliberately or spontaneously. Second usage comes after that, reusing the same sign over and over again. What makes first usage difficult (difficilis means difficult) is to get the new sign into people's memory so it can be used and understood by many. Memory is essential for language and for product semantics. It includes both personal memory and institutional memory. The personal memory resides mostly in one's brain, but perhaps also partly in other areas of the sensor-motor system. The

institutional memory resides in books, in the rules of schools and courts, and so on.

We ' read' an object as we read any text, then there comes our perception of this object. This perception is called the meaning. So, our actions are subordinated to the distinguished meanings of the objects. Design languages are the means by which designers build meaning into objects, the means by which objects express themselves and their meanings to people, and the means by which people learn to understand and use objects , and engage in experiences associated with objects'. The sign The sign is the central term in semiotics. It must have both a signifier (form) and a signified (concept). They can not be meaningless.

Let's take for an example the word ' table'. It represents the concept table. It doesn't necessarily refer to a real table, but a general concept of a table. So ' the signifier is the physical form of an object; what we see, touch and smell in the reality. The signified is the content, the meaning of the object; what we experience, think and feel when we interact with the artefact. Therefore the signifier, the form is at the centre of man's interest'. 4 Denotation and Connotation Denotation and Connotation are also two basic concepts in semiotics that are very useful.

Denotation refers to the literal, actual meaning of a sign – what the product is, i. e. a chair, a telephone, a book etc. In a world of technological and product development, recognizing what it is and how to handle it can be very difficult. This is also the domain where most product semiotics dwells. Products should be easy to use and clearly communicate their function.

Preferably, one should not need a manual to use simple product or computer programs.

A person should be able to recognize and use a simple product like a parking post without problems . Connotation is how you do a product, the choice of words or media. For instance, a chair. The denotation is similar, they are both chairs and they are used to sit on, they are both made by a designer and have become design icons, so to say, of their time. But the connotation is absolutely different. One chair is made from natural material, birch wood and woven raw textile, the other one is made from concrete and steel. In the first case, a designer uses organic forms, the object seems to follow the body of the user, it supports and provides a comfortable seat, whereas the other chair is made from two flat blocks of concrete and a very simple geometric shape of the steel frame forming the arm handle.

Here we can easily recognize an everyday object functions that we use for sitting. A sitting area, a back and a handle are actual signs that point us of the object's function (see Figures 1, 2). To conclude, communication can be performed with products, and the combination of various single products results in a communication mix that can be regarded as a construct of meaning (connotation), and which can be understood (denoted) by different social groups. Metaphors The use of metaphors in design is fundamental. Whether in products, graphics, film or media metaphors are a key element. In semiotic term, a metaphor is something that explains the unknown in well-known terms. The objects around us constantly change appearance.

Most of them do not look like they used to ten years ago, for instance. There are a lot of people who can not adjust themselves to new technologies and innovations as the products became less recognizable because of shape or function. In product semiotics the sign most readily identifiable with the object in question is called the characteristic sign. Uri Friedlander's approach involved an extensive use of what he called " metaphors" and defined in relation to three bases of comparison: -the historical metaphor, which reminds us of earlier objects, -the technical metaphor, which contains elements fromscience and technology, and -the natural metaphor, in which shapes, movements, and incidents from nature appear. Now the users and their physical and psychological characteristics are determining form. The relationships between people can be described spatially to the extent that they are mediated by objects. The method is called " semantic transfer".

It develops creative exercises that transform words into shapes and interpret them from the perspective of a certain period. Can people see something new? The answer is that they cannot. There must be something familiar in the new. ' Either we have dealt with something similar in the past and transfer old knowledge to the new object, or we obtain instruction. In these cases, the information we need is in the head' . The solution is to make an analogy to something well known. We can use a metaphor that helps to create understanding of the function; it gives a recognition of the product.

Therefore design exists in the interaction between tradition and transcendence. 4. SYMBOLS AND CONTEXTS ' A product must not only function satisfactory but must embody smbolic qualities appropriate to its intended user group andenvironmentwhich express something more than

overt functionality'. But do the users really ' see' the functions of the objects that they consume? How is the practical function of a product shown? It is always quite difficult even for designers to analyze and interpret the functions of objects. Nevertheless, the decisions are often more ideological than functionalistic. Functionalism itself is regarded as a way of overcoming style: ' supposedly value-free design is considered significant for massculture, or even as a revolutionary milestone in the social history of architecture and design' . If to look at the market research, the choice of a particular shop to go expresses a traditional social feature: age, gender, education, profession, and income.

That is why, product consumption and people's lifestyles take on a new role. The social differences become more evident. On the contrary, Andy Ruddock defines consumption as a ' meaningful appropriation of goods and services' . He suggests incorporating audience research into everyday life and he questions himself whether we can make a whole way of life researchable. ' Consumption, therefore, also yields new class societies, formed and simultaneously differentiated by social behavior, sports, vacation habits, and fashionable restaurants. From this perspective, consumption also constitutes a broad field for the study of design' . So contexts, that a future object will be used in, are determined by the consumer himself.

Contexts are closely connected with consumer's everyday life and habits; with the human history, with the evolution. They develop and change with the course of time. That is why a designer should be very well aware of current tendencies, demands and combine these elements with design ideas. 5. CONCLUSIONOne cannot study a language by studying the syntactical

elements and their meaning one by one because language is not static, it is dynamic as it constantly changes and evolves. The same principle works in product semantics. For daily usage it is very useful to know specific objects and how to use them.

And for designers the dynamic view is essential and more interesting. Talking about innovations and new interfaces in design, the user must keep in mind that there is always a hidden connection with the familiar things. Once any property of the new object is accepted by consumers, it will be easily recognized in different contexts further on. Therefore, it is very important to draw analogies between new and old products, and in this case a metaphor is the key tool for a user to approve the function of the new object. To avoid repetitions of any kind in designing a new object, one should carefully examine the contexts the object is going to be used in, its potential target group; particular signs and meanings it produces. All in all, the advantage of studying product semantics as a separate knowledge field lies in that it will give rise to learning new, semantic, tools in industrial design. By doing so we will be better equipped to design the products and information technology of the future.

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