

## Designs of Simplicity and Reality

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## Abstract

As is well known, design is human oriented. Then, how can we realize human oriented when designing? The products are not made by way of designers' imagination; rather various design elements of the circumstance are integrated into the products so that the products are teemed with meanings. In modern society, the industrial products flood our life and various and mixed designs make us dazing. How to push modern design to move towards simplicity and reality is a question that deserves each designer's reflection. "Simplicity" refers to that a design must have explicit aim and solve the comparatively simplex problem; and the design language must be clear and express and the shape be unsophisticated. "Reality" refers to rational design concept and attitude and the maneuverability of the design.

Keywords: Industrial design, Shape, Simplicity, Reality

A traditional Chinese description of artworks is "being in possession of shape as well as bearing". This compliment means that the artwork is not only similar to the object described in shape, but also in bearing. In the shape design of modern industrial products, new shape images shall be pursued in accordance with the proper and intrinsic functions of the products. The symbolism connotation of the products shall not only reflect the intrinsic functions of the products, but also reflect the spiritual demands of the users on the products, which is the modernism connotation of "being in possession of shape as well as bearing" in industrial products.

When conducting shape design for products, initially, the designers will usually feel shriveled. The reason for it is that the designers have not gained profound comprehension on this kind of products and do not have deep understanding and feeling towards the products; to put it in other words, the designers do not have profound understanding and master of the shape languages.

The essential of shape is form. In our experience system, form that can be seen and touched is "reality form", while form that cannot be directly felt through vision and touch is "concept form".

Sullivan mentioned many times his views on function and form. He said that "forms follow functions". This sentence must have great influence on Wright who had studied under the instruction of Sullivan for many years. Wright afterwards developed this sentence and put it into "functions are the same as forms", which shows his stand of functionalism. He believed that functions and forms could not be fully separated at all in designs. In the designs of Wright, a great many basic geometry graphics were adopted, such as squareness, rotundity and triangle, etc; in general design, gridding phalanx was adopted; together with various abstract detailed disposal, so a special decorating effect was reached. A strong characteristic of the design of Wright is that he endeavored to search harmonious elements between his designs and their surrounding natural environment, and tried to harmonize his designs with the nature and reach harmoniousness. His designs are organic components of the natural environment, which few other designers of his times tried to do.

The forms of products, being the first essential in conveying information of products, can promote the essential elements, such as intrinsic quality, tissues, structures and connotation up to external representation elements, and can cause people to generate physical and psychological process through vision. The "form" being closely connected with feeling, configuration, structure, material quality, color, space and function is the material body of products. The shape of a product refers to the external shape of the product; the "bearing" refers to the external condition and manner of a product that can be felt and it can be interpreted as the expression elements of the appearance of a product. The design thoughts of designers will ultimately be presented by way of material products so that their aims of presenting their design intention can be realized; to put it in detail, the design thoughts will be represented through the visualization of originality with drawings, sketch maps, structure modals and the material products. Therefore, to certain extent, it can be said that the industrial design is a "form endowing" activity where the design exists and is being sensed as an art shape design. The industrial designers usually will take advantage of special shape languages to conduct the form designs for products and will rely on proper forms of products to convey to the outside world their thoughts and concepts.

When coming to modern design, we have to discuss the "neoplasticism" with Modrian as representative. For artists of "neoplasticism", pure abstract and strict geometric bodies arrangement provides genuine aesthetic concept for modern

technology and industrial society. Furthermore, they consider art as the pioneer of society, so pure externalism is brought into every field of life to create new, harmonious, orderly and independent nature. The strict concept on forms and their refusal against fussy decoration break the influence of traditional theories, gradually exert influence on the projects of modern design, and serve the demands of functionalism and the technology of industrial production.

Symbolism is a very remarkable art movement genre in the 19<sup>th</sup> century. This art genre influenced the "New Art" movement. For example, the works of Gustav Klimt, an important painter of Vienna "Secession", the glass household utensils of Emily Geller, French designer, both have strong symbolism features. Symbolism is shown through the application of curves of "New Art" style. In 1889, designer Walter Crane repeatedly emphasized the importance of curves and line representation. The importance and stress attached to curves makes this movement possess strong plane feature as well as evident trace of eastern art, especially the trace of Japanese Yamato-e style.

Industrial design is no doubt immense and intensive, but there is no need to purposely pretend to be abstruse and mysterious. The author believes that the principle of industrial design lies in simplicity and reality. The said "simplicity" refers to that a design must have explicit aim and solve the comparatively simplex problem; and the design language must be clear and express and the shape be unsophisticated. The said "reality" refers to rational design concept and attitude and the maneuverability of the design.

Designing is not a process being "assuming as a matter of course". Rigorous logicality is a simple but effective design thought. Design is a precise activity and is a comprehensive and systematic project. Regretfully, many people just extract a branch from this system and misinterpret the whole design system project as "design only means to draw a shape". This unilateral understanding intangibly fosters the random of designing and some will consider that designing is very easy or that designing is just a "assuming as a matter of course" production of a shape. They neglect that in this system, multi-disciplinary knowledge covering marketing, psychology, engineering, material science, methodology and design methods is an integrative unity and thus, they exclude the logic relevancy of design.

Each tache in industrial design is worked out through rigorous logicality. Taches are closely connected with each other in order. When running into "assuming as a matter of course" area, the design has fundamentally lost its direction; the design will not have rigorous design procedure, not place its aim at the market, and not have suitable techniques for production. Without logic procedure, it is impossible to scientifically analyze problems, even it cannot be figured out that which tache in the design has gone wrong, and the adjustment and modification of the design will have nowhere to start. Those who assume that to "draw shapes" is a short cut are actually doing repeated and meaningless work. They think they will obtain a "good" form which is actually of no realistic value at all.

Joseph Elbers had once put forward such a question to his students, "why should we use four legs when three legs are enough to keep stable". Substantially, this question indicates a direction to adjust thoughts for us. "Four legs" are not always needed for sustaining, but "four legs" are needed in some sustaining, and there exists logic relevancy between "three legs" and "four legs". The stability of sustaining does not depend on the number of legs; the choice of number of legs shall be based on the specific positioning of a design rather than on the need of shapes. After simplifying the problem, you will have more choices and your thoughts will be broadened. Design is sometimes so magical. Therefore, although a lot of problems have to be considered when designing, logic can help you to judge and pick and reject rationally. To pursue rigorousness is not to complicate designs subjectively; rather it aims at making design thoughts more simple and effective under the guide of logicality.

William Wagenfield pointed out in his book *A Discussion on the Works of Golden Workshop* that, ".....functions generate forms, which is an explicit requirement on the design of forms and functions. To simplify the shapes to the simplest essentials, sphere, cylinder, cube and cone; the simplicity provides a necessary comparison". The superiority of "simplicity" lies in that the functions are stressed, the language meanings of operation and maneuverability are explicit, the visual effect is outstanding, and the touch feeling is comfortable. The Imac computer of "Apple" company executes the design concept being "focusing on individual rather than big and dispersed groups (focus user groups)". The computer is designed with transparent shell. No connecting lines can be seen from the outside. Many people call this type of computers "blue eggs" for their simple shapes, but still you can feel the sophisticated design in each detailed design. This shows that simple forms do not mean the immobility of forms or visual baldness and that simple forms do not mean the neglect of design requirements.

The aesthetic feeling of shapes and forms are connected with functions and are represented by aesthetics and engineering aesthetics principles. Each line and block has its own language meaning. Any redundant lines, blocks or inappropriate decoration is useless and will bring along excessive design and unfavorable result. The simplicity of design shall be guided by design concepts. Large scale and industrialized production determines that the wholeness and module of shape designs are easier to realize production values. The rapid rhythm of modern life makes people more widely to accept the simple aesthetics towards objects. The modernism design concepts of Mies Vander Rohe "less is more" and the designs of postwar internationalism style are of simple forms, oppose decoration, and stress functions. From methodology, their design directions are more systematic and of high rationality. The "no decoration design style", popular in the 1920s, takes simplicity as aesthetic standard and is also suitable for batch production. The "no decoration

forms" exhibition held by Germany Industry Alliance in Stuttgart in 1924 is an example for it. Up to now, when the industrial production feature is more distinct, which is that the market needs to produce products more quickly to meet demands and batch industrialized production is needed, simplicity principle becomes systematic design methodology in design theories. The design thought "to pursue more with less" advocated by Joseph Albers is accepted by more and more people. That to pursue simplified shapes and forms has become the main trend in modern design. Design concept is at the same pace with times, shapes and forms should be harmonized with the problems to be solved, so the simplification of shapes and forms are realized and recognized.

The simplification of shapes and forms does not mean a simple application of simple elements (for example geometric bodies), while it ascertains shapes and forms according to the need of solve "the target problems". What should be avoided is that at the very beginning, a "simple" shape is drawn or the wrong understanding that the simplification of shapes and forms will be realized by just choosing to use "simple" elements. The representative of simple design style Ditel Rums believed that simple style was only the result of solving systematic problems and was not style for style sake. As the initiator and prolocutor of new functionalism, he explained that, " the aesthetic requirements of industrial products shall be simple, delicate, sincere, balanced and implicative", from which we can see that the said "simple" shapes and forms do not refer to design style because the shapes and forms are just presentative images and there are many ways to realize simplified shapes. From the designs of Scandinavian, it can be seen that through the near perfect man-and-machine effect design and the application of the special features of materials, the simplification of shapes and forms is best explained. Joseph Albers taught his students to design through "the economical use of materials" so as to form simplicity as well as "different hiberarchy in vision and structure". This opinion on the relationship between materials and shapes is the prime in "no decoration" design and for the pursuit of simplicity and delicacy.

The "reality" of design is shown in the rational design concept. Rationality is the capacity to acknowledge and understand; it dose not view things as single and isolated; rather, it views things from general as a whole; and it comprehends each matter from this systematic, comprehensive, and orderly principle.

The rational design concept is a must for market positioning. The market prohibits random of form. There is no pure emotional design because design concepts are formed on the basis of designers' objective understanding of the material world. To understand, we need to analyze, choose and reject, which needs rationality. The market exists objectively; the products designed are the forms of the "substances"; to just do researches on "substances" and not on the objective world is just putting the cart before the horse. The author believes that a design without rational thoughts is only a design of bad taste. The author's understanding of the "rationality" of industrial design is rigorous market investigation and research, systematic science analysis, reasonable function arrangement, precise components configuration, logic shape details and simple appearance vision.

Gropius said, "to try to design produces of simplicity and reality lies in the consistency of rules. It aims at the populace. The products of Bauhaus are not modern; the appearances of his products are the results of art harmony, which is realized through thinking and processing process of the technology, economy and appearance shaping that people do not notice." When referring to architecture art, he said, "the appearances of architecture art must constantly set off under the premise of times spirit, society and technology and follow rational development, are not generated by the so said modern architects who pursue new things and the fantastic oddity in exaction of innovation."

Eugon Weis, German designer, wrote in 1972 in his works *Stenmetzart und Stainmetzgeist*, "Our art style is no longer that immense but unromantic singleness and rigidity as of the Greek style; rather, it is the greatness and eminence that can inspire people; it is not horizontal, but vertical; not 'not tall and upright', but curved; not symmetrical, but balanced; not beautiful, but rich in expressions. If a word is needed to describe the afore mentioned alluring title, that will be exhibition." It is organic, dramatic, and constantly growing style and is totally opposite to the rigescent Greek style; it discards horizontal style and resumes the road leading to the climax of vertical style.

What common people see is the forms of the produces, while what the designers see is the products' humanism care towards the society; what common people see is a certain part of a product, while what the designers see is the whole system of the product; what common people see is the detailed design, while what the designers see is the whole operation; what common people see is the specific products, while what the designers see is the whole market. "Simplicity and reality" shall be the principle for industrial design.

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