Re-Consideration of the role of Mythical Thought in Design,

A study on alternatives for Scientific Design methods

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Abstract: Industrial Revolution brought about fundamental changes in the essence of design. These changes occurred through shaping Modern thought and were also a response to needs of modern world. Prominent Thoughts in Modern Design led the academics toward more concentration on Engineering and Industrial Production. This direction reduced the relation between designers and users, including also contextual factors. Consequences of this problem was resulted in anti-functional movements and also post-modern thoughts , in which directions such as emotional design, Cultural design were defined and the direction was changed toward mass production and regional production. Production in a regional way needs a better understanding of logical elements and users. One way to reach such a knowledge is through investigation of myths from different nations. This research tries to introduce a sort of specific mythical logic , in which it's essence and functions have been shaped based on contradictory dualities. It has in itself the functional manner of human mind in it's natural situation. It also has an ability to be shaped as a new trend in design theory based on personal understanding and consciousness of members of society. The aforementioned mythical thought can be used as a tool to generate more knowledge from users, or generate cultural and social features, it can also function as a tool to help the designers through social and logical elements.

Keywords :

Introduction:

Scientific order and thought began by scientific revolutions of 16th and 17th Century and it went further by doubt In Greek Philosophical Vision through Philosophical investigations of Descartes (Collin , 1983: P.18). At this time modernity was shaped and its result was Pragmatic Movements of Bauhaus, Ulm, International Style and Rationalism. Industrial Revolution and the resultant Industrial Production brought about new needs and opportunities, which resulted in changes in relation with client and also changes in interaction between products and users (Michael, 2008). Supporters of Modernism and functionalism were trying to reduce objects to Formal and Functional aspects and also tried to offer products with high quality, long duration and cheap price, which needed standardization and use of simple and geometric forms (Hauffe, 2007, P.15). The beauty of Products relied on function, simplicity, rationality, novelty, originality and unity. Considering simplicity of forms and shaping functions through artifacts was a very important step in for advanced Industries while considering social needs (Vared, 2004, P.37-39). This problem was the only value generating point for them. Avant-Garde designers never considered emotional and cultural aspects with the users; they never incorporated them in Design. Designers of Modern Era looked for products ,which could be global and could be used regardless of Regional and Geographical and could be used in every place and every time.

At the end of 1960's, anti-functional movements in modern era were shaped in the names of Radical Design , in order to confront Consumerism and was based on political and social motifs. Beliefs of Radical Design had a very important aspect on further waves of Italian Design , such as Alchimia and Memphis group (Thomas Hauffe) and in 1960's a transition of design from Modern to Post-modern was prepared based on them. Shaping this movement was occurred in continuum of the previous activities , with the aim of struggling with Pure-Functionalism of Modernism. Post-Modernism believed that contemporary emphasis on innovation and creativity, which was prominent in Modernism, is out of date. Each work of art would be meaningful only in it's cultural, historical and social context , therefore innovation without cultural and historical association would be without identity and meaning(Lucie-Smith , 2003, P.254). Through Shaping post-modernism, approaches such as design and culture , and design and environment were shaped. At this time groups such as Alchemia and Memphis were shaped that were trying to generate a strong emotional relation between users and products, moreover expressive qualities and narrative structures entered the realm of objects. At this time , designers were trying to engage emotion into daily life of people and generating characters had an important role in shaping daily interaction with artifacts. Generally speaking, post-moderns were trying to omit modernist' slogan : Form follow Function.

In post modern era, new visions and considerations came into existence : such as experience based design, Interactive Design , Emotional design and Conceptual Design. Experience based design was trying to generate new experiences for users in three levels of Aesthetics, Emotion and creating a memorable artifact in the mind of users (Lawson, 2004, P.171). Translating emotions and psychological needs of users into design features and their participation with designers, finally reached a design which was in accordance with the users view and needs, This became the main current in Interactive Design. On the other we also have Conceptual Design, here we witness a specific shape of

art, which tries to reduce physical and external aspects and motivate mental power in the work of art (Lucie-Smith , 2003, P.201).

In post-modernism, Industrial products have to the right to introduce themselves as unique and un-repeatable objects. This Stands in contrast with the aim that many things which originate from Artistic value would be multiplied for comprehensive communication. Artistic Diversity and co-existence between ceramic artifact and the ceramist , or existence of Industrial Architecture in space of our homes would show the possibilities of seeking a dialogue between art and industry (Mendini, 1996, P.7). At this time, thanks to the struggle between post-modernism and International Style and also thanks to mass-production, a sort of production logic based regional features came to existence. It was in reality a sort of production , with some similarity to Modern , in which objects and New products would express concepts , beliefs and thoughts of different societies. Post-modern thought let designers that instead of designing a product for all the societies, they could have their own design based on thoughts and tendencies in the society. Post-modernism used tools such as language, signs, Rituals and objects, narrative structures and myths. So the post-modern human can move between the world of artifacts as if he has entered an endless Odysseus. Nowadays, information technology has brought about a small but endless world for us. Therefore it sounds logical that design would follow Homer-like approach and fable saying approach . (Mendini, 1996 ,P.9). Mythologies, as generative features which express the everlasting thoughts of human , express Knowledge and old thought. The manner of human logic , in its epistemological sense, express a definition of life, a set of perceptual methods and brings a sort of ability, which can canonize and apply science, and in most of time would result as a tool for knowledge toward definition of vision in non-narrative way. Most of the artifacts of the world were the result of this integration and they have relied on signs, as a descriptive method, to reflect the knowledge of the era dominating culture, traditions and artifacts, most of contemporary designers have also used semiotics in product design as a production method. This thought would have their own specific results which can be found in pre-industrial era.

Mythology:

Mythology in Old Greek Culture was an Vital Experience which was involved in daily processes of Human (Zeimaran , 2001). Greek mythologies were trying to express details of life , Gods, heros of stories, mythical creatures and origin of the world. Modern Scientists , through investigation of myths of Greek and Religious narratives, wanted to find a correct understanding on the essence of self-built myths (Hellas ,1952). Origin of Greek mythology was an attempt to explain the origin of world and it was only in the limited region of human understanding in order to help to know better the human (Klatt-Brazouski,1993).

Mythology was the symbol of life before science and icon of archeological life. Change of myths in every nation, would represent change in life, change of social structures and change in thought and knowledge. In reality , mythologies would show a fundamental change in increasing attempt of human mind. Mythologies are narratives , which originates from Nature and mind of primitive human, and it

comes from bilateral relation between these two. In other words, myth is an attempt to the relation between surrounding realities with meta-physical realities. In defining the phenomenon which human was not aware of its origin , have come to meta-physical phenomenon and this happens when human knowledge has not justified surrounding phenomena. In other words, human created myths in order to generate a peace between nature and him (Wikipedia.org, 2011).

Myths are trying to find the reason of phenomena and seek the destination about the common phenomena and reflection of long lasting beliefs of the society about fundamental problems which are un-understandable for human. Myth is not result of mere experience, and does not try to express the mere truth, but tries to fertilize truth inside itself. Human generates profit from myths in order to know better the material world and reach a better life style.

Mythical Vision narrates of other aspects of being. This realm is not in accordance with rational principles, it is in contrast with rationality and in some parts has a complete dominance on it. Mythical vision offers an immediate vision and has a hidden presence (Shayegan, 2000). Although this thought is old and originates from Pre-modern time. , but it would not become old and it would not be wiped away. Modern thought has a dual origin, this duality is the origin of enlightenment. One of the dual polarities which is very prominent in modern thought , is the relation between myths and ration, which was the classical criticism in which rationalism in Modern Era had on Christian thought.(Gadamer, 1993).

Scientific thought tries to grind the problems into their most little origins, so that it could generate an acceptable solution for each of them (Straus, 1980). However in mythological thought, there is no clear border between whole and particular, in reality whole is a part of particular and particular is also a representative of whole. In reality, in mythical thought, there is a current, which is in contrast to the main current in scientific thought. , this way of thought tries to find the origin of phenomena based on whole. In reality those phenomena would be decomposed into particulars , so that the essence of whole projected on the system would be understood. In our way of understanding from works of art, a similar effect would happen, which is named as reversal. Based on this phenomenon, the way human perceives works of art is based on that in the beginning , the whole would be understood in the beginning and based on that particulars would be interpreted and understood (Straus ,1908).

Mythologists have used myths, based on two elements of synchronic and diachronic issues. However, those theories which investigate myths from the realm of culture and religion and consider that as a tool to understand Essential Being, a guide for human life or a tool to solve the scientific phenomenon through Myth of Creativity. These kind of theories lack a logical system and those philosophers who have studied myths from biological, Psychological and based on function of mentality, they have not considered a tangible logic for the myth. These philosophers believe that the best way to understand the truth behind myths is to investigate the human mind. There also exist people who have studied myths from structural viewpoint and would offer a sort of logic and rules for it. Claude Levi-Straus is one of them. Mythical logic belonging to Straus would try to generate a compromise between terms and opposite concepts which are not in agreement with each other and would enlarge process of replacement so much that original contrast would disappear. He believes that in order to understand the

meaning of myths, internal and deep structures should be clarified. According to Straus, myth is nothing but narrations of human mind. This is an emphasis on connection between mind and language, according to Straus social element is dominant to personal element. In general we can say that , myth is the language of un-conscious that should be expressed in order to be understood (Wiseman,1977)

The main function of myth, from viewpoint of Straus, is a logical expression of contradictory structures and presentation of a appropriate model so that it could conquer the contradictions. Myths use two methods of debate and analogy in order to conquering contradictions. Contradictions in myth would be borderless , like other phenomenon. These contradictions are result of struggling in humans , to be a human or not. Such problem generates struggles between human and nature , in other words, this is an expression of passage from nature to culture . The clash between contradictions would be in reality a plan for description of the world (Robert A. Segal , 2004).

The main hypothesis of Levi-Straus about myths is that they come to existence through procedure of change of one myth to another. According to Straus, nature of myths is that they are always in the process of changing from one myth to another and none of them have the final meaning. The procedure of change of one myth to another is not a linear process. Myths are shaped in related groups that carry part of the procedure of change. However, each myth is consisted of set of themes which is a sort of transformation from other themes of other myths. The general picture of picture of multidimensional pictures with axis of change and transition, it is an endless network of stories . The method of Straus in mythology is to divide fable like narratives into its particles, so that their framework would be found and detained how much this frame could be connected to other frames in other myths. He divides the linear passage of stories and shows how much a myth is consisted of different relations that could be synchronically considered as a structure. The general theme of all myths is transition from nature to culture. Transition from Culture to nature is the transition from raw and primitive to cooked and mature, which is narrated through mysteries and codes. Myth is a network that could be defined just by it's structure. This network discovers meaning for the person , of course not the meaning of myth , but also the meaning of the rest of the world, or the considerations of the other part of the world, society, history , all of which are in the margins of consciousness, this includes also all the questions that exist for them. The meaning is not in Myth , but myth and all the considerations that myths create are structures in which we understand the other world , based on them (Wiseman,1997). In continuum of investigation of myths, Straus divides the myths into their littlest units, and reaches synchronic and diachronic groups. Synchronic groups offer narratives which define a general concept and diachronic show phenomena which happens in a specific time. Based on this division , relation between units of myth can be generated , narrative-parts which have the main role in generating the chain of myths would be discovered. As a result, the main structure , which is extracted out of dual contradiction , would be discovered. These contradictions show the concept of culture and nature , that have been shaped , thanks to different social and cultural aspects.Logic in the myth is universal and would not change based on cultural and regional aspects,only output would change based on essence of input. This structuralist view of Straus for myth has generated a sort of action and reactions between input and output of myths, which could generate new methods and new theories in Design. Logic of Myths has had some general function like design theories. The only difference is in between input and output.

However the main specifics of such a logic, which defines a general structure of mythical narratives, would generate the ability to enter theories of design, so that it would help designers to analyze better social features and extraction of design features based on dualities.

Mythology and Design

Design , in its essence , is a human activity in order to shape and build environment , this would be done based on patterns which do not exist in nature , in order to afford human needs and give meaning to their life(Heskett, 2002). The main discussion in Design Process is the way in which form is generated, which is a result of interaction between designers and their world , Design process is indeed a set of activities and practices which has been shaped in time and evolution of each process would be a step forward to pre-defined aims. In reality design process is aimed to reach a solution for design problem (Michael, 2008).

In describing the design process, there are two important visions: design theory and design methodology. Each one of them has a specific viewpoint and is differentiate-able in Design Process. The main important point in this discussion is how design is and how it could be. According to Cross, in order to reach the difference that what design is, and how it could be , we need to find the difference between Design Theory (how design is) and design methodology (how it could be . In order to describe these aspects we need a theoretical framework , this framework is actually theory of design. Design needs a strong theory in itself so that there could be an order between different elements of design , it would be also needed to differentiate between different methods. The strong theoretical concepts would improve productivity and would generate a wider view and clearer one toward problems and design solutions. Design theory is indeed a functional theory , which means that it mostly include orders or tools that describe how to work. The main design theory is indeed the beginning point is the point where design is motivated , through definition of styles (Poelman, 2008).

Every manner of function and definable in design process could be considered as method for design. Design methods are ways, technique , tool or other instruments that would help designers reach new and creative solutions. (Cross, 2000)

The main approach of design methods are especially in affecting the decisions and designers tendency in design processes Every method has its own procedure and is a process which has these conditions, having them would introduce it as method (Poelman , 2008)

- It should define a clear aim in Design
- Procedures and order of phases should be clear
- It should have application in different situations and should be usable
- Every one should be able to use it
- It should have an order and discipline and it should be clear what is the first step and when it finishes

Strategy refers to plot, program and sort of activities that would be shaped in order to reach a specific goal(Heuser 2010). Design strategy is a set of activities which are being conducted by designers or decision managers' team, so that activities would be led in order to generate steps toward final design.(Jone, 1992) Design theory is in reality a sort of rationality which can control the design process .Design theory is also affective in changing internal features in to external ones and they also shape the final solutions. Design theories are a sort of logic that which has the potential of activity and reaction, the same as logic of myth in this research. So that it explains the beliefs and consciousness of people in order to define better and understand-ability from receivers of them , in the shape of narratives.

Dominant Theories for new methods of design have divided them into two groups of innovative methods and logical or systematic methods. There are several methods which their goal was to motivate and stimulate creative thinking. Creative Methods of design, would be improved based on diversity of ideas, and it functions through removal of logical constraints, which ban idea generation and creativity, it also functions through improving domain of search and the environment in which idea generation functions (Cross, 2005).

Most of attention in design methods is about logical design methods. However, logical methods and creative ones in design are completely similar to each other and both methods try to reach a systematic process in design, improving the quality of decisions about design problems and helping the designers and design groups in order to manage activities .Moreover they tend to help group works and also helping designers to reach a specific agreement point for idea generation and activity, so that they would not stop in specific parts of idea generation (Cross, 2000)

Some parts of Creative methods have been aimed to make a mental spark to reach creative solutions, new ones and also stimulating mental creativity of designers based on mind and unconscious thought of designers. Other group of creative methods, have been aimed at to reach solutions by injecting a specific idea current, mental territory or a very strong stimulation to designers' mind. The main specific specialization of this method is clarity of domain or final features to offer the solutions. In general we can say that , when the idea exists in the mind of designers , designers would develop their own specifications based on the developing the idea and they go on generating solutions through integrating specifications with their required function.

In contrast with Design methods, there are also other logical methods in design , which the dominant logic on them would help to reach an acceptable solution for different design solutions, based on different forms or different mental currents dominating them. Some sort of logical methods would generate their input from users and target groups and affective elements of them would generate a solution, while there are also some other kinds of methods which would have a sort of systematic logic and a particular view is on them. These groups of methods would go forward through changing the design problem definition into smaller elements of different patterns of communication between them and would generate an appropriate pattern between features. Regarding the theories and logics of thought which have been aimed at design, there exists a specific form of logic which directs design as an activity between internal and external features and would affect the inputs, process and final outputs. This logic works the same as mythical logic. Designers can reach a general concept of a

specific Social system, which has been concentrated through different ways through design. Based on different feedbacks of a social view and based on contrasts and dualities of contradictory concepts and also through expansion and investigation of activities in generating an independent whole, they could reach the design features. Different contradictions are in reality expression of a society or a social concept in the form of a narrative.

Discussion:

Human being, in every timeline have been involved into two kinds of thought : One is the thought which is dominant in society and would change based on social and thought changes and revolutions, while other kind of thought exists in the nature of human being and has been a sort of vision, rather than a form of thought; we know this second kind of knowledge as mythical vision or collective consciousness. The main point is that , while history goes forward , those thoughts which were built in that specific time would exist only in that specific time and would be replaced by new thoughts based on social and historical changes. But Mythical thought would be timeless and would exist in different timelines with human and in his nature. Structure and the manner of functioning of it would be because it is a part of true essence of human being and would not change. This vision is not old and would not be lost, but will continue to exist along with other thoughts or schools. The only change it could have is to exist behind other thoughts or temporary visions , however the essence and its function would not change.

Myths and mythical narratives are output of a mental and social system of thought, which expresses the way human being understands society. These outputs have been changed into mythical features. Such a logical current would be known as Universal Logic of Mythologies. Its functional domain is general , the only difference is between their outputs , which is the result of difference between cultures and nations. It's general function would be also based on fellowship of meanings of methods in order to generate a whole. There are similar process in the domain of systematic theories in design.

Another point which legitimates the existence of mythical thought as a theory in modern world, are the discussions about difference between New science and old Knowledge, this is one of the hot topics between post-modern philosophers. Some of them claim that a sort of new knowledge has come out of old knowledge and new science. Some other thinkers, such as Umberto Eco and many eastern philosophers, consider this thought as hidden, strong and changeless in the nature of human being and have discovered some traces of this movement which has been reached through a adaptation between modern and traditional thought. Jung have considered this logic as a part of personal and collective un-consciousness .Claude Levi-Strauss have also considered this as similar logic with human thought, which has been changed as a something different.

In the realm of Industrial Design , we have witnessed thoughts of Alessandro Mendini about the necessity to revitalize of traditional thought and a sort of rituals around objects and revitalizing the essence of object in modern civilization. Most of the tactics of User Centered design in this time try to answer the questions based on logical manner and post-Cartesian logic and engage just emotional in the design. It seems while dominance of scientific production in the early years of Industrial Design was a

result of modern thought and logic, it would be changed nowadays based on collapse of mass production system and re-introduction of artistic skill and crafts.

Mythical Knowledge can legitimate and use science and in most of the times, science is a tool in the hands of this knowledge in order to generate vision in non-narrative formats. Most of the world's products are result of this integration and based on signs such as manner of expression would reflect common knowledge in cultures and traditions in their own artifacts, many contemporary designers have applied semiotics in their design process. However there is not still a process which would use mythical logic as a dominant theory in design. Myths have a systematic structure, in which their function works as some theories of design , the same as logic in QFD methods, Kansei , User Centered design and also some systematic methods. In Mythical system, input would come from different domains of society and would be transformed so that mythical outputs in the shape of narratives and can be better understood by people. In other words, a sort of collective vision would be changed to a understandable and tangible output for the people. Mythical Outputs are offered in order to reduce distance between human visions and reach a common thought or way of thinking and action.

Logic of Mythologies have been consisted of a Logical structure which resembles some systematic methods of design, in which they have an activity and metabolism between inputs and outputs , and also it has an effect on inputs in order to generate outputs . Mythical features act like procedures of design methods in order to reach creative ideas, however this sort of creativity is much more nearer to the mentality of human being

Discussed logic would act like systematic methods of design and their current is based on internal features. The difference is that input elements in Mythical system is consisted of cultural features, and the other difference is in the type of external features , which are in the shape of narrative formats. Designers can use them in their idea making process to generate new design concepts. In order to reach the total form of myths, designers should investigate the external features and find the contradictory dualities in them.

This logic has the ability to change into a specific design theory, conceptual design based on social aspects and also beliefs of people which would be resulted from their internal vision. The main point, which is important to mention is its change-ability that would generate a whole out of contradictory concepts, in which their narratives and output could be visible. This logic has also the ability to extract concepts from daily life of human beings and their collective un-conscious and offer it to the designers in the form of contradictory dualities or specifications from cultural, emotional or religious contexts.

The first and the most important part of design process, is exploration and investigation of problem definition or design problem. In this part, logic and theory of this phase of research would act like methods named as boards, images, mind mapping and even more systematic methods in which the main goal of their activity is based on human elements and features. It is the same as Kansei Engineering ,QFD and further methods.

In idea generation method, methods such as Kansei Engineering and QFD could be used In order to let generated feature approach each other and also in order to reach final ideas for different functions. In order to reach new and creative ideas, we can use process in Analogical methods , Limited expansion of Ideas and also morphological charts.

In the end, we need to notice that in process of investigation of myths and use of their logic, as it was mentioned before. Expression of myth as kind of mental logic , is not a pre-modern thought, but it is an expression which is in accordance with modern thought. The aim is not return to pre-modern and pre-industrial era, but the aim is to know the mental logic which are without unsystematic thought , and is also consisted of a complicated thought process which tries to differentiate and unify our knowledge from the Being.

References:

- A.Segal, Robert. (2004) Myth: A Very Short Introduction, OXFORD UNIVERSITY PRESS.
- Boris, Wiseman, (1997), levi-strauss for beginners, Richard Appignanesi
- Colin, Ronan (1983): The Cambridge illustrated Encyclopedia of science ; London: Cambridge University press
- Christopher J.Jones.(1992) Design methods. Van Nostardan Reinhold New York.
- Cross, Nigel. (2000) ENGINEERING DESIGN METHOD, JHON WILEY & SONS.
- Erlhoff, M, & Mrshall,Eds. (2008): Design Dictionary, Birkhäuser Verlag AG.
- Gadamer, Hans-Georg, Hermeneutik, Ästhetik. (1993) Praktische Philosophie, Heidelberg: Universitätsverlag C. Winter.
- Hauffe, Thomas (1996) : Design *Crash course series,* Barron's.
- Hellas, (1952)Article: Greek Mythology, Encyclopaedia The Helios.
- Heuser, Beatrice. (2010) The Evolution of Strategy, CAMBRIDGE UNIVERSITY PRESS.
- Heskett, John (2002): Toothpicks and logos: design in everyday life, Oxford University Press
- Klatt J. Mary, Brazouski Antoinette. (1994) Preface" Children's Books on Ancient Greek and Roman Mythology
- Lawson, Bryan (2005): How designers think. New York : Architectural Press
- Lucie-Smith, Edward (2001) : movements in Art since 1945 ; London, Thames and Hudson Publishers.
- Mendini , Alessandro , Design as a Odyssey , The international design year book , Laurence king Pub. co. England,1996.
- Shayegan, Dariush (2002) : Mental Idols and Eternal Memories (In Persian) . Tehran : Amir Kabir University
- Wim, P & David, K. (2008) Design process, IOS Press under the imprint Delft University Press.
- Zeimaran, Mohammad (2001) : Transition from Mythical World to Philosophy (In Persian) ; Tehran, Hermess Publishers.
- Wared,Glen (2003):Teach yourself Post-Modernism. New York : McGraw-hill.