BAUHAUS AND MING-STYLE – A COMPARATIVE STUDY TO CONTRIBUTE TO THE UNDERSTANDING OF CULTURAL IMPACT ON PRODUCT DESIGN

Wenyu WU¹ and Alex BREZING²

¹Southeast University, Nanjing, China, Department of Mechanical Engineering ²RWTH Aachen University, Germany

ABSTRACT

The importance of product design in the Chinese market has been increasing with the steady growth of the purchasing power. Increasing numbers of Chinese consumers are considering product design when deciding on a purchase. Especially imported goods, which have not been designed in or for the Chinese market, seem to benefit from that trend. In current Chinese industrial design education, the Bauhaus design philosophy and approach is introduced into the fundamental studies by most Chinese educators. Here, as in most parts of the global design community, the name of the famous German institution stands for one of the biggest influences on modern design. Bauhaus furniture meant a disruptive change in style in its time, dropping ornaments in favour of new materials and shapes. Many works of that period have become timeless classics, seemingly proving the universal claim of the educational concepts also associated with Bauhaus. However, as the functionalistic design philosophy as a principle aims at the reduction of any semantic referencing beyond the practical function, the educational approach naturally fails to support any consideration of "culture". Because of this limitation. Chinese scholars are lately turning to their own design heritage to study the impact of Chinese culture on the design of objects, ultimately aiming at a modern, specifically Chinese design identity and a methodology and educational concept to support the design process for the culturally diverse home market. This paper explores the impact of cultural differences on product design by comparing similarities and differences in chair design of the Bauhaus period to the chair design of the period of the Ming dynasty, which is comparably influential and representative for Chinese design history. In this study, practical function, production methods and aesthetic value are analyzed as well as the differing traditions of daily life, thinking and other cultural aspects. The original design intentions are uncovered and compared, allowing for the identification of implications on design methodology for global and local markets. A better understanding of the impact of cultural factors should positively contribute to industrial design education and practice, both in the Chinese and Western educational systems.

Keywords: Bauhaus, Ming-style, cultural impact, product design, design education

1 INTRODUCTION

The globalization of economy has complex implications for product design. Producing companies would in theory prefer universal design for reasons of efficiency, so any object could be sold to any consumer in the world. Such universal design would have to be free of cultural references, and this idea was indeed followed by some practitioners of functionalistic design, which has reached a peak in German design around the 1970's. Functionalism today stands for a style or an aesthetic principle among others, but at its time, its followers claimed it represented the only true approach to good design. Since the concept of product semantics has been widely accepted in design theory, it is now explainable what is obvious in practice: products need to be designed specifically for market segments in order to be successful. The reasons for success or failure of products are complex; the practical function of the product might not meet needs or suit the rituals of usage or some aspect of the appearance might have a meaning to a specific user group that is inappropriate. While aspects of the practical function can usually be observed or even expressed explicitly and therefore addressed in the design process, it is generally more difficult to discuss the aspects of product semantics in a way that

will effectively support a design process, partly because the user is not even aware of his assigning of meaning to the object. In terms of actual design work that means that intuitive judgment is most important to assess a draft with regards to its semantics, but that can only work if the assessing person has a similar cultural background as the target user, which is the case when designing and producing for the home market.

If however the target market lies in a different cultural sphere, extra measures have to be taken to avoid failure. Large companies such as producers of cars and mobile phones can afford to run design offices in foreign markets and gather specific knowledge on cultural differences in the markets and how they relate to qualities of their product. For smaller companies, generalized knowledge or even a process to systematically identify relevant cultural differences and transform them to product qualities would be desirable.

2 BACKGROUND FACTS AND MOTIVATION

It is argued that cultural beliefs and social practices create and reinforce "frames of meaning" which determine ways of relating to a product. Such cultural framings affect ways in which people use or do not use a particular product. It is culture that gives products meaning and provides the rituals within which artefacts are used and the values that are often reflected in their form and function [1]. Culture generates diversity and it is naturally revealed in all human action, including the products that people design. Moreover, it is argued that design shapes the culture and lifestyle of modern society. Observing the design of artefacts produced and consumed in a society often reveals the cultural situation and the people's lives, education, needs, wishes and fears [1].

There are discussions among product designers and educators on the systematic implementation of a specific cultural context into the process of product design as such method would be expected to have a positive effect on a product's design quality and acceptance in a specific (i. e. local) market and therefore be of interest for industry. While a universally accepted methodical approach does not yet seem to exist, product design researchers are exploring the relationship between culture and product usage and design [11], attempting to understand the impact on the product design approaches to design education. Richie Moalosi discusses an experimental design approach from a study conducted at the University of Botswana where participants were challenged to transform and encode socio-cultural factors into product design features [1]. There seems to be a general agreement among researchers in this field that the concept of considering a specific cultural context is more fruitful than attempting to generalize cultural aspects.

In recent years, Chinese researchers have also started to contribute to this field, discussing how Chinese culture can and should be considered in Chinese design education and the possible implications on the practice of product design in China [8]. Some studies include comparisons of western and eastern culture and design from a Chinese perspective, but the fact that most of these sources are only available in Chinese prevents an international exchange, the uncovering of misinterpretations of facts from design history and ultimately, the utilization of these illustrative studies for western design education. The main motivation of this paper is to contribute to an international exchange of ideas of design researchers and educators by allowing an insight into the Chinese view on the topic of the impact of local culture on product design and discussions in the Chinese design education community.

Industrial Design as a discipline and as a study field in China has not existed until 1983, when the Ministry of Education defined an industrial design curriculum, established at first as a model major for general colleges. The original name of the major was "Product Forming", and it was available for students of arts. In 1998, within a revision on a national scale aimed at a harmonization with international programs, the name of the major was changed to "Industrial design" and it was introduced in engineering and art education schools. The original focus on the form of products shifted to the research of interrelations of man, product and environment [15].

It can be assumed that the need for Design expertise in the Chinese industry was an important driver for the developments in the educational sector; imported goods, although not designed specifically for the Chinese market, met a growing demand while domestic goods were not yet designed appropriately to be accepted on a globalized market. Bauhaus was chosen as a role model for the educational system in the 1980's and 1990's, which seems coherent, as the situation at that time was comparable to some degree: At the time of the founding of the well-known German educational institution, Germany's

exported goods were not recognized for good quality and a design with a distinguishable identity, and the need for a new profession to address this state was being discussed in the community. Even if Bauhaus is recognized by the general public mostly for the design of some well-known products, it is the educational strategy and the blend of arts, crafts, theoretical concepts and the focus on industrial production that proved to be most influential on modern design education in western institutions [2]. At the time of the introduction of the Bauhaus concepts in the Chinese programs, the reception in the design community was generally positive; the ideas from another cultural background meant a broadening of the horizon. However, when the concepts arrived in the domestic markets in the shape of products, reactions were mixed. It became apparent that the ideas that were fascinating for the scholars did not satisfy the general public in China, and designers and theorists, realizing that the functionalistic approach from a different cultural background lacked any cultural reference to the Chinese home market, turned towards the Chinese cultural heritage to identify clues towards a modern Chinese philosophy and identity. The era of the Ming-dynasty proved to offer an appropriate study subject [6, 7, 9, 10, 13], because it embodies values of Chinese tradition that are relevant for today's society on the one hand, but it shares aesthetic similarities with the well-known works of the Bauhausera.

3 DISCUSSION ON BAUHAUS AND MING-STYLE

3.1 Cultural Context

The Ming Dynasty was the ruling dynasty of China from 1368 to 1644, following the collapse of the Mongol-led Yuan Dynasty. The Ming, described by some as "one of the greatest eras of orderly government and social stability in human history" [3].

Confucianism greatly influenced Ming-style design. The core of Confucianism is humanism, the belief that human beings are teachable, improvable and perfectible through personal and communal endeavour especially including self-cultivation and self-creation [5, 6]. Confucianism focuses on the cultivation of virtue and maintenance of ethics. A simple way to appreciate Confucian thought is to consider it as being based on varying levels of honesty, and a simple way to understand Confucian thought is to examine the world by using the logic of humanity. In practice, the primary foundation and function of Confucianism is as an ethical philosophy to be practiced by all the members of a society. Taoism is a second philosophical tradition which is relevant for today's Chinese culture, if less so than in the Ming-era, when it profoundly influenced Ming-style design. It discusses matters of connotation and reality, which allows for interesting cross references with discussions on object semantics, aesthetics, symbolic meanings and practical functions. The Ming authority benefitted from both the Confucian and Taoist traditions.

The arts and crafts of the Ming-era have high regard and influence, not only in China, and not only since an interest re-awoke as a result of discussions on a Chinese design identity and heritage. Ming-style furniture is well-known for good materials, fine craftsmanship and beautiful design. There are several reasons for the crafts in the Ming Dynasty to make such achievements: firstly, the crafts of the Ming-era inherited from a tradition of furniture manufacturing from the Song Dynasty. Secondly, the society in the Ming Dynasty was quite stable, so a flourishing economy and growing towns and cities posed a higher demand of furniture and higher requirements to the level of craftwork. Meanwhile, with the abolishment of the ban on maritime trade, large amounts of rosewood, chicken-wing wood, iron wood, scented wood and other solid woods were imported from aboard, allowing for more durable and valuable designs than in previous dynasties [12].

What became known as the style of Bauhaus could be seen as a representative of the International or Modern Style of the early 20th century. The output of Bauhaus was immensely influenced by the individual teachers and even students at the institution, and with the changes in personnel and leadership, the "Bauhaus style" changed until it was closed in 1933 as a result of the rise of the national socialist regime in Germany. The earlier influences include the reform movements in Europe such as "Arts and Crafts", "Jugendstil" and "Art Nouveau". These movements emerged out of discontent with social conditions that effected from industrialization, and their representatives turned to design ideas derived from natural forms, traditional arts and crafts and corresponding business layouts, denying the existence and need for industrial production. In England, the "Arts and Crafts" movement started as a search for aesthetic design and decoration and a reaction against the styles that

were developed by machine-production. Arts and Crafts objects were simple in form, without superfluous decoration, and how they were constructed was often still visible. They tended to emphasize the qualities of the materials used.

As the general attitude towards the reality of industrial production changed, so did the main influences on Bauhaus. Together with a growing appreciation of techniques for industrial production, new radical ideas from the constructivist movement in arts resulted in the design style that would later become associated with Bauhaus, see Fig. 1. For example, representatives of the "De Stijl" movement from the Netherlands advocated pure abstraction and universality by a reduction to the essentials of form and colour [15]. For the design of objects of practical use this meant "functionalism"; following the ideal of "form following function" as the only acceptable approach to design. Modern materials such as steel, glass or concrete were to be used directly and honestly, without imitations of crafts and unnecessary ornaments.

3.2 Values and Methods

Bauhaus was established specially for the education and cultivation of new design talents; the individual and his or her ideas were stressed. Consequently, the creators of the works can be easily named. Bauhaus chairs, for example, are mostly associated with only a handful of individuals, (Marcel Breuer, Josef Hartwig, Hin Bredendieck, Mies van der Rohe) although projects were often worked on by a small group of people. Although Bauhaus always remained a place were "handcrafts" could be learned and perfected, the design of actual objects was aiming at the conditions of industrial production – modern materials and simple, geometric forms that were believed to support industrial processes. Aesthetics and semantic references must only follow the product's function and the restrictions of the industrial production process; ornaments must be avoided.



Figure 1. Rietveld's "De Stijl" Red Blue chair (1917, left), Marcel Breuer's early attempt (1923), obviously influenced by the Red Blue Chair and his influential Wassily chair (1926)

The underlying values of Ming-style seem to contradict Bauhaus almost perfectly. First, for obvious reasons, Ming is all about cultural crafts. The individuality of the designer is unimportant; there are no records of the names of the creators of the works. The Ming style is said to be defined by Chinese literati and implemented by craftsman, so the style is a collective creation conducted by authority, resulting from the multiple Chinese ideologies. The design purpose is to harmonize life. Ming style makes full use of the natural characteristics of the hard wood; furniture is characterized by the simple design, precise structure, proper decoration, which constitutes its natural and lingering charm with elegance and profundity [7]. The biggest difference to Bauhaus design is the fact that the design deliberately includes symbolic meanings that go beyond the context of "sitting comfortably" and the production process, as can be demonstrated by the example of the typical Ming armchair, Figure 2: Its simple but elegant features include open hole carvings at the back of the chair which are in three distinct parts. The top is carved a *ruvi*, a curved decorative scepter that symbolizes power or good fortune [9]. Furthermore, abstract figures are curved in the back of the chair and handrail, which are called *metaphors* and represent specific meanings. The armrest with its curved ends is supposed to resemble an official hat to symbolize honour. Discussions on Ming style stress that the art of shaping lines, straight lines and curves, and the meanings of their directions, is a fundamental of Chinese art

[13]. To respect the Chinese traditional culture, the crafts workers were to produce the furniture with methods named *implicity* and *leaking* while putting an emphasis on *connection* and *complementation*.



Figure 2. Ming-style chair (left) and Hans Wegner's Chinese Chair

The Ming style was largely ignored by the Chinese design community when the Bauhaus educational concepts were taken over into the educational system in the 1980's and later. However, it is interesting to note that Ming-style furniture did make some impact on European design in the Bauhaus era. After being inspired from Chinese furniture in the 1930s, the Danish Hans J. Wegner created his Chinese Chair in 1943, which is still in production today [10], Fig. 2.

4 CONCLUSION AND OUTLOOK

In design research, one of the most important challenges is to understand how cultural norms and values can be integrated in product design. The primary objective is to develop an understanding of users' values and behaviours that can be translated into viable, powerful visual design, information architecture and design ideas [4].

The current development of modern Chinese design philosophy is based on two major influences. First, the Bauhaus educational concepts, introduced into the rather young design syllabus in China, are accepted by most designers and educators, and contributed meaningful teaching concepts and methods for the design process. Ironically, Bauhaus in China led to a turning to its own rich cultural heritage to find clues as to how to adapt the Bauhaus concepts to support a design process that will result in objects that are accepted as Chinese and for the Chinese market. The studies of ancient Ming-style, its objects and its cultural background, are also extremely fruitful for Western design research, because the rather well-documented study object is so different from what has been available to western design research that new insights are expected from comparative studies.

Even if the two traditions or schools seem too different to be compared, a discussion on Bauhaus and Ming-style is relevant for an improving understanding of impact of culture on the design process and the designed objects. This specific confrontation of two eras more than 400 years and half a world apart, one pre-industrial and one of the modern age, proves that similar aesthetic value can result out of completely opposite concepts of design. This example can be very illustrating to demonstrate that aesthetics are only one aspect of design, and it requires a closer look to identify the cultural impact.

When discussing design examples for a full understanding of culture's impact on design it must also considered who is analysing the facts and the objects, because each person's background will make him see and understand differently. Therefore, design research will have to be based on intercultural collaboration and exchange to make progress in that field. The conditions for this seem to better now than ever before. The comparative studies have now been introduced in a course at RWTH Aachen with promising results.

REFERENCES

- [1] Moalosi, Richie, Popovic, Vesna & Hickling-Hudson, Anne. Culture-orientated product design. International Journal of Technology and Design Education, 2010, 175-190.
- [2] Whitford, Frank. Bauhaus. Thames and Hudson (London), 1984.
- [3] Ming Dynasty. Wikipedia. http://en.wikipedia.org/wiki/Ming_Dynasty.
- [4] William B.Gudykunst, Ruth M. Guzley. Mitchell. R.Hammer. Designing Intercultural training.
- [5] Zhang Xue-Zhong: A Study of Innovation and Capacity: A Model of Bauhaus Art Education, Journal of Northwest Normal University (Social Sciences) Vol. 46 No.6, 2009.11, Page142-144.
- [6] MA Yajuan, YANG Shoukun, YU Xiaohui Design, Rooted in Culture, Taking Ming-Style Furniture for Example to Analyze the Influence of Chinese Traditional Culture in Furniture Design, Art and Design, 2010.10, P210-211.
- [7] M-C Chuang, K-A Shiau, A study of style recognition and the operation of products in which Ming-style chairs are used as examples, ENVIRONMENT AND PLANNING B, 1998, volume 25, pages 837-848.
- [8] Zhang, Xiao-ping; Qu, Shuag-wei: Talk over traditional culture and product design. Paper published in Chinese in: Journal of Shanxi University of Science & Technology, Vol. 29, Feb. 2011
- [9] Wang Cailian , Liang Jianian, Discussion on Ming-style FurnitureModeling and Its Inspiration on Industrial Design, PACKAGING ENGINEERING, Vol. 30 No. 6 2009. 06, Page 113-115.
- [10] TienLi Chena, WeiTing Liaob, PeiFen Hong: VISUAL IMAGE ANALYSIS IN FORM OF CHINESE MING DYNASTY ARMCHAIR, INTERNATIONAL CONFERENCE ON KANSEI ENGINEERING AND EMOTION RESEARCH 2010, 2010.3.
- [11] Pia Honold, Culture and Context: An Empirical Study for the Development of a Framework for the Elicitation of Cultural Influence in Product Usage. INTERNATIONAL JOURNAL OF HUMAN–COMPUTER INTERACTION, 12(3&4). 2000. Page327-345.
- [12] Ming Dynasty Style Furniture, http://kaleidoscope.cultural-china.com/en/12Kaleidoscope65.html.
- [13] Yang Haiou, Ye Xi, Discussion on Comment on the Dynamic Potential Aesthetic of Chinese Style Furniture. Chine paper in: Journal of Furniture and interior design, 2010.7 Page 40-41.
- [14] De Stijl, http://en.wikipedia.org/wiki/De_Stijl.
- [15] Bai Yingyu, A study on the developing tendency of industrial design education with national Characteristic Based on the theory of Bauhaus. Industrial Design & Conceptual Design, CAID & CD 2009. IEEE 10th International Conference on.2009.Page 236 – 239.