As China and Chinese designers have an increasing impact on the global design community, inevitably, many American designers will work with China one way or another. A good understanding of Chinese design and design education becomes very important for designers and industries outside of China in order to interact with China appropriately and effectively. Recently, many studies on Chinese design and design education have been published within and outside of China. Unfortunately many of these studies published in China are not written in English, and are not available to American designers and vice versa. This creates an idea-exchange gap and prevents us from understanding Chinese design with a more holistic view. Bridging this gap and looking for ways to better understand Chinese design are important areas for us to explore.

In this paper, I am going to start with a brief overview of Chinese design and design education. Then, I will share my observations and understandings of Chinese design based on my own educational and professional experience from China and the US. Finally, I will explore ways for Americans to communicate with Chinese designers more effectively.

Overview

Needless to say, Chinese design is beginning to have strong impact on the global design community. Chinese designers are becoming more active in finding their roles in different industries globally. Since many products are now manufactured in China, more and more international companies including Microsoft, Motorola, and General Motors have begun to set up new development and design centers in China, which allow Chinese designers to be part of their product-development teams. These new design centers can help companies smoothen their manufacturing processes; they can finish up development projects that started in Europe or the US; they can also start new design projects when products are aimed at Chinese markets. While international companies set up their design centers in China, some Chinese contract manufacturers are also hiring designers and offer free design work to international companies in order to get jobs.

Today, more and more Chinese companies begin to understand the power of design for sustaining their businesses. Some of them are moving from OEMs to ODM/OBM/OSM companies. Reverse engineering is no longer the only way they develop products. Instead, companies will create their own brands and own their own intellectual property. They are active in searching designers to join their product-development teams. Haier Group Co., a Chinese household appliances company established an industrial design department in 1994, and has become a leader in the industry globally. The leading Chinese IT company, Lenovo Group Limited, just opened a new updated design center in Beijing early this year. The company was known as Legend Group Limited, the English translation of their original Chinese name. They changed their name based on international regulations on trademarks, and this has allowed them to compete in the global market.

Based on the growing need for designers from local and global companies, hundreds of design schools have appeared in China within the last five years. Industrial design has quickly become one of the top-ten majors among hundreds of registered majors by the National High Education Committee. Ten years ago, there were fewer than 20 industrial design programs nationwide. Presently, China has 219 industrial design programs and 339 art design programs. Based on Chinese National High Education Committee’s clarification, industrial design programs are usually housed in engineering schools. Students for these
programs often have engineering and science backgrounds (students choose their direction of study before they enter college). Besides industrial design programs, there are 339 art design programs, which include areas of graphic design, multimedia design, communication and information design, interior design, and fashion design. Industrial design divisions are also sometimes included within art schools, as well as being housed in engineering schools. These colleges usually accept students with liberal arts backgrounds. For both the industrial design programs and the industrial design division within art design programs, industrial design is practiced by most of the schools as an art of form giving. The enrollment in these industrial design and art design programs ranges from several hundred to over a thousand students, and they collectively produce over 10,000 industrial design graduates each year.

The exploded Chinese design education fulfills the design need for the Chinese market. It creates superior products rather than just providing cheap commodities. However, behind the prosperity of Chinese design education are the hastily planned program structures and immature curriculums. In China, the growing design market has become a primary driver for setting up a lot of new design schools. The growing need for design, the fact that China is becoming the manufacturing center for the world, the changing economic model and the quickly growing economy are all evidence that schools should offer industrial design as a major, and the sooner the better. For a variety of reasons such as lack of time, money, and human resources, many new design programs have not had the chance to study the newest educational practices and design theories from around the world or even within China before they began their programs. Art schools in China can usually charge much higher tuition than engineering schools. This has made some design schools change their direction from engineering-oriented industrial design to art-oriented design almost overnight. Although schools have the right to choose and change their directions, changing a program direction should not be as simple as changing a freshman studio project. Since industrial design is considered an art of form-giving, the primary goal for many design schools is to help students develop artistic sensibility that allows them to design attractive forms. The modern Western aesthetics and Bauhaus approach of teaching are held in great esteem by Chinese designers. Design curriculum is built around themes of artistic training, visual representation, materials, manufacturing processes, and design studies. However, there is no coherent structure and philosophy to link these themes together, since many design schools are still very new to developing consistent design thinking. Compared to art-oriented design programs, engineering-oriented industrial design programs have a stronger emphasis on mathematics, physics, materials, and manufacturing processes. Higher college entrance scores are required for students who enter industrial design programs. This difference is set up based on the capabilities of students with different backgrounds, but not based on different kinds of design.

Unprepared faculty teams and a lack of resources are also problems confronted by Chinese design schools. For many schools, a lack of faculty is a serious problem. Often times, young graduates join a faculty team without working experience in either an educational or a professional environment. Good hardware such as studio spaces, facilities, computer software, and even student dorms are also very important to ensure the implementation of good ideas and plans. Unfortunately, the boom of Chinese design education and the overall national strategy of popularizing high-level education created a huge conflict between a large student population and a lack of resources. A lot of new design schools do not have enough studio space, libraries, and Internet connections. This year for the first time, the Chinese National High Education Committee has issued a warning yellow card to a university in Beijing for not being able to provide adequate resources needed for qualified education. Although, the yellow card is issued to the university as a whole, I am sure that the individual departments, including the design department, are also affected by this lack of resources.

Observations and Understandings

It won’t be very hard for Westerners to learn about Chinese design, but understanding it well takes time and effort. Chinese new design (in contrast with traditional Chinese art and crafts) has been introduced to the West primarily by Westerners who are interested in it. People learn about Chinese design by working with Chinese design schools, talking with individual Chinese designers, and participating in design conferences.
Up until today, studies of Chinese design are mainly observations and studies from Western perspectives. That is not to say that these studies are not important. In fact, studies of Chinese design with Western perspectives are, perhaps, more effective for introducing Chinese design to Western people. Two years ago, the First China-USA Joint Conference on Design Education organized by China Industrial Design Association and the IDSA, held at Beijing University of Aeronautics and Astronautics was a very successful conference that brought many designers and design educators from China and America together to exchange ideas. It also promoted a lot of new exchanges between schools.

Here, I am going to share some of my own observations and understandings of Chinese design. I hope that they provide some new ideas of Chinese design and inspire your study of it. I had studied and practiced mechanical engineering and architecture in China. After I came to the US, I studied graphic design and painting at West Virginia University. Then, I studied interaction design at Carnegie Mellon University, and continued my doctoral study there with a focus on product development. From 1999 onward, I began to travel back and forth between the US and China, and visited many Chinese design schools. While introducing what I have learned from America to them, I learned about Chinese design education. In the past two years, I have also visited China several times with Professor Craig Vogel, participating conferences and organizing workshops. From those trips to China, we developed new relationships with Chinese design schools and professionals and learned a great deal about Chinese design.

The first thing I would like to say is that Chinese design is not what you initially see or hear. At a talk, a Chinese professor introduced a well-known Chinese design school to the faculty and graduate students of an American design school. Many American professors were fascinated by the parallels they found between two schools. It seemed that both schools had similar curriculum structure, shared similar research topics, and used similar design process. By listening to the talk, it might be true. As it turned out, however, they are very different programs. The Chinese professor had very good English to deliver what had been written or what he had to say, and, of course, Americans professors had no trouble understanding the talk. What created a distorted image of the Chinese design school was the translation of the original Chinese documents. It is not because that the Chinese professor did not know how to translate, but a good translation is never enough without further interpretation. For example, to translate the name of a course is not like translating a generic noun. A design drawing class in American is a fundamental design class that teaches basic visual communication skills. Students learn how to represent product forms, visualize ideas, and tell stories by using pencils, charcoal, crayon, color pencils, and sometimes mixed media to make marks on paper or other forms of surfaces. While in China, drawing skills are taught in two classes, sumiao and su-xie. It is very much traditional Renaissance artistic training. In the classes, students make realistic drawings based on Roman statues, still lifes, posted figures, and architectural forms. They even learn how to sharpen their pencils. This way of teaching drawing is also reflected on their entrance exams. Students without solid traditional drawing skills have very little opportunity to be enrolled in a design program. In this paper I am not interested in making judgments about these two approaches for teaching drawing. It is a very good example to show how seemingly identical things can be very different, and we need to know the real meanings behind each term before we compare. Another instance is that interior design in China is often called environment design. Some people also use the term environmental design. Obviously, that is not the environmental design you usually talk about in the US and Europe. To avoid such misunderstandings, my suggestion is that we do not take things for granted and just rely on what we know or practice in the West. More detailed questions should be asked, more examples of work should be sought out, and we should try to understand the design process from these differing perspectives.

Without considering the different ways each course is taught, it seems that Chinese and American design schools have similar requirements for students. There are required and selective design and nondereign courses. The nondereign courses are offered by the universities. If we take a closer look at the overall structures of Chinese universities, we will again find that Chinese and American design schools have very different requirements. Many Chinese universities were usually started as area-specific institutes with former Soviet Union models. Some of them just became comprehensive universities by setting up new areas of studies or by merging different schools. For instance, Shenyang Architecture and Civil
Engineering Institute just became Shenyang Architecture University last year. And, the design school of Qinghua University was an independent art institute called Chinese Central Academy of Art and Design. Most of Chinese universities do not have well-developed credit systems. Even though the classes that students take will be calculated as credits, students do not have a lot of choices to decide when to take which classes. In the very fixed Chinese universities structures, often credits cannot be transferred between universities or even between departments within a school. In some schools, electives are treated as less important classes everyone has to take rather than courses that students can choose from. At the Integrated Product Development (IPD) workshop offered by Professor Craig Vogel in China this past summer, all the Chinese design teachers understood his theories very well, but they felt that it will be difficult to implement these theories in Chinese universities in near future because the rigid structures do not allow them to do so. The IPD course taught at Carnegie Mellon University, in which students from design, engineering, and business schools take the same course together, will not be easily set up in China.

We also need to realize that in the early stages of Chinese design and design education, China will try to import cutting-edge ideas from the West before they have time to chew them. Almost every Chinese designer talks about the very newest ideas, but only few of them really understand those ideas. This is why American designers find it very hard to exchange ideas with some Chinese designers even when they share the same topics. Human-centered design, experience design, sustainability design, and humanistic design are some of the hot topics you often hear Chinese designers talk about. It is true that not every American designer has the same kind understanding of these concepts either. The subtle difference is that Chinese and Americans designers often have different ways of developing their understandings on a same issue. Many Americans would allow a natural, unforced, emerging development of understanding overtime. Usually they don’t talk about those ideas openly unless they feel very comfortable about it or unless they are raising questions in a learning environment. On the other hand, I have seen Chinese designers take very new ideas without digesting them and put them into new books they wrote. A late start of Chinese design education means there are a lot of things for them to catch up on. Sometimes Chinese designers can spend time really studying new theories; other times, they have to just take it in, and digest it later. This is very much like the development of the new Chinese market economy. It is a huge developing country with huge population, very unbalanced development of different areas, deep traditional beliefs, less than 20 years’ experience of market economy, and a socialist political system; and also it has to compete with developed Western economic powers. There should be no rush; we should assist China in finding its own pace and pattern for the development of its economy, design, and design education.

Intellectual property as a concept is known by every Chinese designer, but not every one of them practices intellectual property law. It continues to be a very frustrating matter for many Western companies and designers. They keep requesting the Chinese government implement stricter rules to protect intellectual property and to find ways to enforce the protection. Besides working with lawyers and dealing with Chinese government, there are two things that people from the West need to understand before they can develop a mutual understanding of this issue with Chinese and, therefore, effectively deal with the issue. At first, learning from masters and copying masterpieces are traditional Chinese ways of learning, and it still is. Copying masterpieces is very natural to many Chinese designers. Students are sometimes encouraged to copy masterpieces, and the process of copying becomes a way to digest master ideas and theories. Secondly, in the professional world, to apply for a design patent in China costs no more than $100. A utility patent may cost several hundred dollars. More importantly, intellectual property has not yet become a tool for Chinese to protect innovation and to sustain their businesses. Owning intellectual property often refers to higher intellectual and academic status. Overly used intellectual property protection could sometimes be considered as very ruthless from a traditional Chinese moral perspective. Today, more people in China use intellectual property as a tool to climb the social ladder rather than to protect innovation or to eliminate business competition. In order for Americans to protect their innovations, they must help Chinese change their perception of intellectual property, rather than just complain about what has happened.

When working with Chinese students, American professors often find it very hard for Chinese students to focus on a problem. It is not that these Chinese students are unable to solve the problem, but that they
usually have a different way of approaching the same problems. I have noticed that American students usually solve a problem by adding concrete pieces of understanding until they reach their conclusion (Fig. 1). They focus attention at each stage of conclusion development. When Chinese solve a problem, they tend to start with a fuzzy and complex whole that has a less focused direction or even several directions at the same time. The final solution emerges as the scope of the problem gets clearer and more concrete (Fig. 2). This Chinese way of problem solving roots back to traditional Confucianism and Taoism. Both Confucianism and Taoism believe that a harmonious whole is the ultimate goal of things. Everything should remain as a whole, even at different stages of its development. If you don’t understand Chinese students’ strength of synthesis complex ideas, you might misjudge their problem-solving abilities and assign them inappropriate roles in a team. This not only happens in classrooms, it can also be seen at workplaces. It hinders effective communication between American and Chinese team members. To overcome the differences, we should not try to change the Chinese way of working, but find a way to balance their skills and utilize their strengths. For example, at their first year in the US many Chinese students are not comfortable with brainstorming, and they hesitate to speak ideas out loud without thinking ahead. But, their ability to synthesize ideas can be very helpful in finding patterns among ideas that come out of brainstorming exercises.

Misunderstandings between Chinese and Americans can also happen when Chinese give indirect answers to questions. Chinese will often give an indirect answer as an alternative to a direct answer in order to avoid oversimplification of an issue. Once, a Korean student was asked: “I know you had interviewed a mail manager of a company. Does he know how to use discount mail services?” (Korean and Chinese have very similar way of answering questions) She said: “The person who actually does the mailing job was not there that day.” She was then asked again: “Does the person you interviewed know how to use discount mail services?” She replied with emphasis: “The manager I interviewed does not, but they have another person who does know.” The Korean student was trying to giving a whole picture of the circumstance. She believed that additional information is needed to ensure the correctness and wholeness of the answer, but she was perceived as avoiding the issue.

Having Chinese students study in the US is a good way to encourage the exchange of ideas. However, Americans need to understand the problems the Chinese face and help them deal with their difficulties so that everyone can work together effectively. Here is a list of things Chinese students have to overcome to effectively learn and work in America:

- Culture shock: For most Chinese students, it will be their first time visiting a foreign country. The very different cultural background, political and economic system, and Chinese personality traits create a difficult set of circumstances for Chinese students to overcome.
- Language: No matter how good the TOFEL and GRE scores of Chinese students are, they will not be able to exchange ideas freely, and their speed of reading will never be the same as American students.
- Different teaching methods: Compared to China, America has a very different way of teaching. In Chinese classrooms, it is usually a lecture format in which the professor conveys information to the students. Free discussion is not part of the Chinese classroom culture. American professors need to find ways of encouraging Chinese students who come from a one-way classroom lecture environment to be active in American classrooms.
- Working in teams: Teamwork is rare in Chinese design education. Since most of Chinese schools use the 100-mark system, teachers do not know how to score each student’s effort and contribution precisely within a team. Students feel much more comfortable working alone.
- Different ways of approaching problems: As discussed before, Chinese prefer holistic methods of approaching problems. They are not used to very direct and simple conversations and instead prefer to synthesize ideas before they talk to a group. Unfortunately, by the time they are ready to speak, the conversation has already moved on. Even if they do join conversations, their synthesized comments are often considered as random, indirect, or unrelated, and will be ignored.
- It is much more difficult for Chinese to ask questions in front of a group: Chinese ask questions when they don’t know, and they will wait until they fail to find answers by themselves. They usually do not ask questions to clarify things or to look for different perspectives. They tend to believe there are right and wrong answers, but not perspectives.
- Questioning authority: In Chinese culture, authorities are respected and never questioned. Whatever master says, we have to listen; even you do not agree with your masters, you can at least pretend that you are listening, but do not argue with them.
- Personality: Being shy prevents many Chinese students from expressing their feelings and being active in groups. They do not feel comfortable joining American groups; they are usually unable to join conversations with slang and references to local cultures.
Communicating with Chinese Designers

Exchanges between Western and Chinese designers is still new, and there are no developed effective methods for Westerners to communicate with Chinese. It is not my goal or within my ability to provide any promising set of methods, but I will point out a few things that are important for communicating with Chinese designers. I hope that my observations discussed up front could also inspire you in searching for your own ways to work with Chinese.

Finding ways to decode complexity and ambiguity of Chinese communication is very important to ensuring effective communication with Chinese. As discussed before, Chinese often use indirect and ambiguous communication. The indirectness of Chinese communication could be the result of being polite, providing complex background information before making a point, leaving space for interpretation, ambiguity of Chinese language, or maybe a combination of these factors. To decode the ambiguity, you have to be patient; you have to trust their ability to solve problems; you have to believe that there are points for you to excavate; and you have to ask as many questions as possible to understand the relevance of the background information they provide, and help them articulate their points. Sometime ago, I was asked by the United States Postal Service to give suggestions for the Chinese translation of the Domestic Mail Manual. One of my original comments was that inches and pounds don’t make sense to Chinese because Chinese are not accustomed to the English measurement system. Their response to the comment was: “Yes, you are right, but what exactly is your point.” In the final report, I changed my recommendation to “give the conversion formulas for English and metric measurements at the bottom of the Tips and Tools for Measuring and Postage Rates pages.” To me, bringing up the issue of measurement was enough, and they could find ways to address the issue. To me, telling them what to do is questioning their ability to solve the problem, and it would very impolite for me to do so.

Fig. 3 shows how Chinese react to an issue differently from Americans. The Chinese way of reacting to an issue is holistic because they make comments while providing background information and reasons. It is indirect because it does not have a focused point. The fuzzy edge and surrounding space of the unfocused point allow different interpretations, and make a safe comment. On the other hand, Americans often make precise and concrete points.

A good translation with appropriate interpretation is very important for exchanging ideas with Chinese designers and educators. Since most of Western design theories are originally aimed at Western solving problems, a good translation without interpretation will not be enough for them have the same impact and understood value in China as they do in the West. At the IPD workshops, Craig and I gave in China, I found that it was easy to discuss some of the concepts theoretically, but it was very hard for Chinese to understand them with context. The four phases of the iNPD process defined by Craig Vogel and set up by Jonathan Cagan establishes a clear structure for the fuzzy front end of product development, and the theory has been successfully tested in the US. It was not hard for us to introduce those theories to Chinese designers, but they really had a hard time fully understanding the value of these theories. Companies in China are very young, and a lot of them are OEM companies. Research and development is usually not part of company structures yet, and these companies do not hire designers. Of course, many of them haven’t experienced the problem of the fuzzy front end. The idea of marketing is still new in China, and the oldest MBA program in China is probably less than 10 years old. Collaboration between marketing, engineering, and design hasn’t become an issue yet for Chinese companies. In these cases, do not expect Chinese
designers and companies fully understand Western-based theories. Close collaboration with Chinese to find ways to appropriately adjust these theories for many different Chinese circumstances is essential.

To interpret Western theories for Chinese audience, ideally, you need to work with a Chinese contact who already knows the theories well and who is fluent in English. They can be Chinese students who study with you or your Chinese colleagues. If you do not have such connections, you need at least discuss your ideas and theories in advance with the person who is going to be your translator. I know it requires a lot of extra effort from you and the person you work with. Still, it is worth it to do so, because I have seen wonderful ideas poorly translated with no interpretation. Another thing to remember is not just to work only with people who speak good English. Most Chinese designers, designer teachers, and students do not speak fluent English. If you limit your conversation to people who speak excellent English, you could lose a lot input. Sometimes, it could even create unexpected tension between your Chinese colleagues, and you would probably be unaware of the tension since many Chinese would not address such a sensitive issue out of deference for their guests.

Conclusion

Some of you may find that this paper shows a pessimistic view of Chinese design and design education. It is not my intention at all to deny the many successes Chinese designers have realized. My goal is to provide a different view of Chinese design that many Western designers won’t see from their warm welcoming visits to China. I hope this can give you some new ideas about Chinese design, inspire you to ask more questions for your next visit to China, and help you work more effectively with Chinese designers.

I would like to conclude this paper with a wish that American and Chinese designers will work together to build even stronger Chinese design and design education. China does not just need exported ideas and products; China needs new ideas that are aimed at its own problems and the ability to create better products that are appropriate for Chinese people. I believe that design can make a difference and that it can build a better China and a healthier world.