

Product Design Education in China

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Introduction

Design education activities throughout mainland China have increased significantly in the past two years. Evidence of this lies in the rise of educational programs, international collaborations, new curricula, overhaul of the secondary school systems, and the building and renovation of new and existing design schools. This flurry of activity is driven by the Chinese government's new focus on innovation and design as a gateway to developing a financially secure society. The results on this focus are tangible and tantalizing, with huge new campuses built throughout mainland China, monies being steered to support national corporations that will grow several international brands within the next ten years, and the quality of student designs increasing at a rapid pace.

To understand design education in China, you must understand what the Chinese region consists of as of 2006. Today's China comprises the mainland, Hong Kong, and Taiwan. While Hong Kong and Macau are Special Administrative Regions (SARs), Taiwan remains a separate entity due to its government. I have grouped Taiwan with China due to the shared culture, heritage, and economic interdependency.

Mainland China today has a total population of 1.3 billion people. Taiwan has 22.8 million people and Hong Kong has 6.9 million people. The design schools in mainland China today number approximately 230. There are four design schools in universities and institutes in Hong Kong. Taiwan has approximately 15 design schools. The Chinese government has indicated that mainland China will have 400 product design departments throughout China in the near future. The United States has approximately 53, and the quality of many of those 53 is marginal. The contrast in the numbers combined with the fact that the world's consumer product manufacturing resides in the Pearl River Delta and a major initiative to make the Yangtze River Delta the R&D center is significant in relation to China becoming the designer for the world's products. But let's take a closer look at what is really happening in relation to design in China.

Overview: Business in Today's China

The corporations in mainland China are owned primarily by the Chinese government. The corporations have party secretaries at different levels within the corporation who report back to the government on activities and decisions being made within the corporations. While the bureaucracy within these corporations and the links to the

government are cumbersome, these corporations are backed by the people's money, allowing them to take greater risk by not having to satisfy investors, and have large numbers of workers concentrating on a particular problem. In addition, it is important to understand that local government officials in China act as brokers for production and exchange between multiple companies in their region, thereby creating a cooperative environment (Chengze and Grossman, 2001). Local government officials act as the equivalent of a board of directors and sometimes more directly as the chief executive officers for enterprises within their administrative purview (Oi, 1995).

However, these corporations are not yet as innovative as many corporations in the United States and Europe. The Chinese corporations are now following the path of Japan and Korea by inviting consultants in to help with the company's innovation and development of a design culture. This is happening in several large corporations such as Haier and Lenovo. Any innovation that occurs in the Chinese corporations must move through the levels of bureaucracy and approval by the local government officials. In addition, the Chinese government is fighting corruption throughout the local businesses and governments. These levels of approval, corruption, and the insecurities built into the approvals process, has hindered the creative freedom of product innovation, but these issues will be addressed in the near future.

Eighty percent of Hong Kong's businesses are family owned. Many of these family-owned businesses are small and medium enterprises (SMEs) and are somewhat risk averse because they support an extended family. Also, the top-down business culture in Hong Kong discourages workers from offering their own, and particularly differing, points of view on how to improve the business. Many Hong Kong manufacturers moved their businesses to the Pearl River Delta Guangdong region in the 1990s and are now competing with each other and with the mainland government-owned companies as well. The Hong Kong and Taiwan businesses also suffer from rampant copying of products on the mainland and they work to protect their intellectual property just like other businesses around the world. Business plans in Hong Kong now include a section on prevention of product and brand copying on the mainland. Strategies range from dividing the product parts among factories and assembling elsewhere to applying the logo and company identifying parts at the later stages.

The Hong Kong businessmen who own the SMEs are trying to understand the path from original equipment manufacturing (OEM) to original design manufacturing (ODM) to original brand manufacturing (OBM). In the past year, the numbers of global brands such as Oxo Goodgrips and others have been purchased by Hong Kong manufacturers, with many speculating that "it just takes too long to grow a global brand." This may lead us to the original bought brand (OBB).

The work pace in Hong Kong can make major cities such as New York appear sluggish by comparison. The breakneck speed at which products are conceived, designed, and produced leaves little time for design research or reflection on the quality of the products. Hong Kong businesses are under threat from the mainland as well with competitive pricing and the sources of mainland government backing for certain industries. Whereas

product and consumer research is considered a vital part of the product design process by most U.S. and European companies, it is currently perceived by many Hong Kong and Chinese industries as nothing more than an extraneous cost. Thus, the concept of product and consumer research is difficult to introduce to Hong Kong companies that are typically receiving only 10 to 25% profit for their products. But the Chinese government is just doing what the U.S. government did in the 1950s and 1960s with tax breaks and other sources of funding to areas such as engineering in order to grow expertise throughout the country.

Taiwan business is now moving from its competitive obsession with Japan, the U.S., and Korea to developing its own strengths. Interviews with Taiwanese government officials revealed that the government is now looking beyond its borders to bring in more experts to help develop their own strengths in relation to their own heritage and markets, and not to solely compete without a long-term plan. The corporations in Taiwan are set up much like they are in the U.S., with shareholders and more freedom of movement for innovation, even though the results have been limited to electronics products.

Overview: Design Education in Today's China

China needs thousands of product designers to fuel the push for global brands, to help their manufacturers design their own products, and to educate new generations of designers. The Cultural Revolution in the 1960s and 1970s in mainland China left much of the country in tatters in relation to art, design, and other creative and cultural activities. China must once again build its creative talent and support cultural expression. This is an issue for the Chinese government because they remain conservative in their allowance for self-expression and some forms of personal communication.

The young designers educated in today's China will meet with a host of issues when working in the corporate positions that are open to them. They will meet with the same resistance to designers that occurs in other parts of the world, where management does not want to spend time on design or design research, or does not want to manufacture something in a particular way, or simply does not like the designs presented. The benefits these young designers will have, however, is that their country is embracing design and innovation and the government will create job opportunities by supporting the corporations engaged in design and brand building.

The size of building developments for innovation and design education is massive. One area of Guangzhou now has a "university island" where 10 universities were built within the timeframe of 19 months, complete with major roadways and landscaping. The Guangzhou Academy of Fine Arts will educate 4000 students by September 2006. The spacious new design building is adjacent to a new art museum and exhibition hall and a new art and design library. Hanzhou, Kunming, Changsha, Shenzhen, Wuxi, and many other cities have upgraded or newly built design education facilities. Immense industrial parks dedicated to innovation and design lie on the outskirts of the cities. The governments from each province are working to attract new design firms to their new

industrial parks, and are working to incubate newly formed design firms with the attraction of lowered rents.

A 2005 *Business Week* article (Rocks 2005) outlines the current design education situation in China:

“...Since Hunan University opened China's first school of design in Changsha 23 years ago, the discipline has taken off. Beijing's Tsinghua University is opening a new 60,000-square-meter design building, and in Guangzhou the Academy of Fine Arts just moved to a new eight-story facility with enough space for 3,000 industrial design students—five times its current capacity. Today, China has some 400 schools offering design classes that together graduate some 10,000 industrial designers annually, up from just 1,500 or so five years ago. ‘Design schools are popping up like bamboo shoots,’ marvels Yan Yang, chairman of Tsinghua's industrial design department...”

Hong Kong's government has invested 250 million Hong Kong dollars (approx U.S. \$32 million) to instigate design research and outreach activities in the region. Three of the major universities are building new design buildings on their campus, but most significant, the Hong Kong government is arranging for a curriculum change in the secondary schools. Design and technology will become a significant stream of coursework for the secondary schools and they are planning on training 400 design teachers before the new curriculum starts in 2008.

The Taiwan government each year holds a major exhibition of the student design work in Taipei. The industries are invited to review the student work and many students find work right from the exhibition floor. This exhibition is growing in size and reputation each year and now brings many international firms into the exhibition who are scouting for young designers.

The primary and secondary educational systems in China require copious amounts of memorization. It is very different from the educational experience of the West. The students in China are told not to ask questions but to listen and learn. Examinations are the key determinants of whether a student can go on to do a particular area of study or attend a school of their choice and competition is severe. At the Hong Kong Polytechnic University, approximately 110 design students out of 3,000 applicants are accepted to study each year (Heskett, 2003). Product design employment for Hong Kong Polytechnic University graduates is now at 100%.

While the primary and secondary education is very different from the West, the design students eventually learn to be innovative and intelligent in their designs. The students in the large cities did not have the advantage of playing in backyards or garages and driveways where things were built, taken apart, or redesigned. This is a unique part of the Western childhood experience that may account for the American's love of innovation, which is the key to U.S. success in design.

Listed below are some of the major institutions that house design schools or departments. A select number of products are shown to indicate the current levels of work done in these schools on the mainland, Hong Kong, and Taiwan.

Selected Schools with Product Design on Mainland China

Beijing Film Academy
Beijing Institute of Clothing Technology
Beijing Institute of Technology
Beijing Normal University
Beijing Polytechnical University
Beijing University of Aeronautics & Astronautics (BUAA)
Beijing University of Post & Telecommunications
Beijing University of Technology
Central Academy of Arts & Crafts
Central Academy of Fine Arts
Central South University
Chinese University of Hong Kong
Chongqing University
Chu Hai College of Higher Education
Communication University of China
Fudan University School of Microelectronics
Guangzhou Academy of Fine Arts College of Design
Harbin Institute of Technology
Harvard Business School–Asia Pacific Research Centre
Hong Kong Academy for Performing Arts
Institute of Modern Industrial Design, Zhejiang University
Peking University
Raffles C.U. International College
Raffles Design Institute
Raffles–BICT International College
Raffles–Changzhou International College
School of Arts Design
Shantou University
Shunde Polytechnic
South China University of Technology
Sun Yat-sen University
Tsinghua University
Zhanjiang Ocean University

Selected Schools with Product Design Education in Hong Kong

Caritas Bianchi College of Careers
The Hong Kong Polytechnic University
Institute of Vocational Education

Selected Schools with Product Design Education in Taiwan

Chang Gung University
Chaoyan University of Technology, Department of Industrial Design
Cheng Kung University
Fortune Institute of Technology, Department of Product Design
Fu-Hsin Trade and Arts School

Ling Tung University
Ming Chuan University Design School
National Taipei University of Technology, Industrial Design
National Taiwan Normal University, Graduate Institute of Design
National Yunlin University of Science & Technology
Shih-Chien University
Tunghai University, Industrial Design Department

Implications for the U.S. and Europe

While China is clearly positioning itself for design and innovation in the future, the U.S. and Europe and other parts of the world must do the same. European designers and companies have decided to focus on what they do best: exquisite luxury goods with small production runs and smaller numbers of precious handcrafted items. Europe will fuel its economy through the design of more expensive products because they cannot compete with the large-scale mass production of products coming from China.

The U.S., however, finds itself in a design identity crisis. The lack of support from government, businesses, foundations, and educational institutions has left the American design industry without much support. The U.S. designers must find a way to stress, and capitalize, on their uniqueness. Their uniqueness lies in their upbringing, their activities, their lifestyle, and their ability to never give up. These are the keys to the new U.S. design.

Conclusion

While the world is in a design crisis, China is making plans to become the innovators in the world and to supply home-designed global brands to the rest of the world. The educational system in China is heavily supported by the government and the university graduates are immediately employed by Asian businesses.

The United States and Europe will need to address their niches and plan well. The products we use are intimately tied to our culture and lifestyle. It is in the United States' best interest to support design education to help support the businesses in the U.S. to produce homegrown products. If we lose this expertise in design in the United States, we stand the chance of losing the chance to design products for the U.S. culture and support its economic growth.

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Notes: The Asian Design Education Database will be available on the Hong Kong Polytechnic School of Design Web site in fall 2006. This database includes design schools in Asia, including Australia and India.