

# The effects of globalization and other recent changes in the practice of Industrial design in Quebec

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## Introduction

In the short time that is allocated to me I will illustrate how design, and particularly industrial design, has evolved in Quebec in the last ten years and how many of these changes are directly related to globalization.

Canada was, until some 450 years ago, entirely populated by aboriginal people who are of Asian descent. Europeans looking for a better trading route to China then visited my country. So, in this way, we are really a society that was born through globalization, a fusion of migrants and business travelers.

## About Quebec

Quebec is the second most populated province of Canada with approximately 7 million people or about one fifth of the Canadian population. Where as the language of Canadians is generally English, most Quebec residents are French speaking. As with most nations, Quebecers are proud of their cultural heritage, yet our ethnic and demographic composition is rapidly changing. Immigration is now the main growth factor of our population.

Today, Quebec is a modern and industrialized nation. Although its territory is large, approximately one sixth that of China, most of it is barren land, and a lot of it is under snow most of the time. The population of China is 200 times larger than that of Quebec, and although our population is small, we are generally big and tall.

As a global trading partner, we export aluminum, airplanes and flight simulators. We import petroleum, cars and trucks and airplane components. Our economy's exports represent more than half of its gross domestic product (GDP). This is even more, in proportion, than China and is a measure of the importance of trade in our economy.

Québec buys a wide array of products from China. Until recently, the leading imports from China were data processing units and magnetic readers, followed by shoes, suits, jackets, dresses and skirts, suitcases and similar items. Leading import growth in terms of value were pharmaceutical products, toys and house furnishings. Québec's main exports to China were aircrafts, wood pulp, flight simulators and valves and fittings. However, all Quebec exports to China amount to less than 5 Yuan per Chinese citizen. China is the second largest source (by country) of our imports and represents roughly 7,000 Yuan worth of Chinese products for every Quebec citizen yearly. This is a significant number and although I drive a British car, my watch, my shoes, my computer, my ipod, my eyeglasses, pens and many other products I use daily come from around here somewhere. Some were designed here and some were designed elsewhere. Chinese products are close to me and touch my compatriots and I everyday.

## About industrial design in Quebec

Quebec industrial design is rooted in the arts and crafts and has followed, to some degree, the occidental development of industrial design. Craftsmen were present in the traditional fields of furniture making, ceramics, fabrics and the like. The local culture was significantly influenced both by the proximity of the industrializing United States, the legacy of the British Empire and the cultural attachment to France. In the early part of the XXth century several decorative artists traveled to Paris to develop their trade. The art nouveau and art deco movements both

find their expression in the 1920 and 1930. These products are consumed by the cultural elite and do not, in general reflect the taste and consumption of the middle class or the financial elite. Later, in the fifties and early sixties, cubist, modernist and Scandinavian influences are observed in the work of Julien Hébert and Jacques Guillon and a handful of designers.

Parallel to this aesthetic and cultural evolution, the development of industry, and particularly mechanical inventions, lead to a more technical and functionalist approach to industrial design. In the late 1930's, an inventor by the name of J. Armand Bombardier was devoted to developing vehicles that moved over snow. One of them, he named a ski-dog, inspired by Inuit dog sleds. That became the snowmobiles we know today. From this small family company, has emerged, in great part through acquisitions, a world-class manufacturer of airplanes, trains and other transportation means. This is the Bombardier that you may be familiar with and that has some production facilities and numerous joint ventures in China.

A few international events were key moments in the development of design. The Universal exhibition held in Montreal in 1967 was a unique opportunity for exhibit designers. The exuberant manifestations that included design left its mark and the first industrial design university programs were established two years later. The 1976 Olympics was the other large public event that promoted the use of design in the acquisition of public equipments.

From the early 1980 to the late 90's industrial development was apparent and manifest through periods of transition to plastics and electronics in numerous locally produced goods. Contemporary lifestyles have also progressed and changes in the taste of consumers were determinant in the acceptance by manufacturers of the importance of design.

A handful of educational institutions have trained ever larger cohorts, and there has been no shortage of designers. The demand for industrial designers was first felt among design firms, but the supply of jobs within companies soon outnumbered consulting jobs. This was followed by a new wave of employment in the virtual imaging field, representing a vocational route for a new generation of image-makers especially in the area of electronic gaming. Other industrial designers began to work in public institutions, research organizations or in the promotion or management of design. A significant proportion of designers have also followed career paths that have led them to hold strategic or leadership functions in companies from a variety of sectors. Today, there are approximately 1500 industrial designers in Quebec. One fifth of design employment is within design consulting firms. Other designers work for retailers, government, research centers or are themselves manufacturers.

### **Changes brought about by globalization**

Through globalization, whole sectors of production and design have rapidly concentrated themselves in very specific areas of the world and production has been consolidated for more efficiency. This, of course, has profited consumers the world over but it has significantly impacted design jobs and their distribution on the world map. It has also changed the way people identify culturally with products, many of which had never existed 10 or 20 years ago. As more and more of what we consume is universally available and aesthetically acceptable, the origin of products means little to consumers. Price, image and trust are the contemporary criteria of choice.

### **From technical to cultural**

Thus, as our industry might have produced teakettles, television sets or tableware in the past, these industries and the design work that goes with it have been greatly reduced and nearly eliminated. In parallel to this loss, companies involved in commercial and private aviation products and flight simulators developed well. These industries, and those related to transportation, are important in our economy, yet they do not generate enormous amounts of industrial design work. Engineers and machinists are the principal trades involved in this type of manufacturing. Most of the design work entails making a platform acceptable and relevant for various markets.

We now buy most of our bicycles from China, yet bicycle manufacturers and designers still exist in Quebec. They are mostly involved in specialized cycling, catering to the high performance market. When the City of Montreal wanted to offer a public bicycle sharing system, the company that runs parking meters through the city was called in to deliver an original product. Having developed a solar powered, Internet linked management system for Montreal's parking meters, it used this expertise to develop a unique public bicycle. The modular system is well adapted to Montreal's exceptional and rigorous climate. No wiring is involved. Each two-ton bicycle station is set on the ground and has leveling means. It can be removed and stored for winter.

As the volume of work in the technical side of industrial design saturates, designers have found numerous applications for their talent in other fields. An example of this is the use of industrial design in the performing arts. Recently the Cirque du Soleil has called on industrial designers to create equipments that allow new acrobatic performances. Cirque du Soleil asked University du Quebec, to suggest ideas to their research department, headed by an industrial designer.

Design students contributed in two ways: The first was to bring new ideas of structures that permit new acrobatics. The second resulted in proposing a different aesthetic language for the circus. The Occidental circus' aesthetics is essentially Baroque, and our students intuitively redefined the circus look in a more urban and contemporary way.

Many young designers have gone to work in the development of computer games. The gaming industry grew rapidly in Montreal, in part due to favorable fiscal policies. Early builder of this industry was Daniel Langlois. His Softimage software became famous for recreating dinosaurs in Spielberg's Jurassic Park. Computer games developed in Montreal include popular titles such as Assassin's Creed, Prince of Persia and Army of 2. Numerous products that integrate Information Technologies have been developed. A flight simulator is the largest video game console you can play on.

Lately, Quebec City financed the creation of an exceptional graphic show called the " Image Mill ". This architectural projection is produced and performed, in Quebec City, by Ex Machina. Representing the largest projection ever done, it requires the use of fine technology to project a huge quantity of images and films on the grain silos of the Quebec Harbor, an oversized screen, 600 meters wide by 30 meters high. In the hands of the creators, this huge mass of concrete is in constant transformation, which gives us the strange impression of it being alive and talking to us.

Street furniture has become a sign of distinction for cities and there is a tendency to develop project-specific furniture and lighting for buildings, public spaces and urban development projects. The Quartier International furniture was created for this urban renewal project and has been critically acclaimed by many international design awards. Other notable examples abound.

Event design is also rapidly emerging as a design specialty. Designers often create complete scenography for public spaces. Festivals are a significant component of the tourist industry in Quebec. The City of Montreal recently held a competition for the design of street festival technical elements for signage, crowd control and anchorage.

In a large tourist and recreational project near Quebec City, the promoter is linking his project to the city by railway. The design of the train cars, a refitting of old railcars, was commissioned to the same designers that have worked on classic passenger trains, yet with the specific demand of creating a unique tourist experience.

## **Shorter runs**

One obvious consequence of the changes in the type of products designed in Quebec is that they imply shorter runs. As the products showing high sales volumes and offering little price protection are no longer the focus of most manufacturers, designers address niche markets that entail shorter production runs. Many electronic products that have very specific functions, meters of all sorts, analysis apparatus or highly specialized work equipment are developed and often imply runs of a few hundred units. These products are designed by local designers, either in-house or through design consultancies and fabricated with recent prototyping technologies. The specific technologies and know-how that permit an efficient development of short run products is typical of Quebec industrial design.

Lately the furniture industry, which was relatively large, mostly due to exports into the US market, has been affected both by competing imports from Asian countries and the surge in the value of the Canadian dollar. Although smaller manufacturers can continue to cater to specific markets, larger ones sometime find the business climate unbearable. In this situation, smaller players emerge and design work in these new companies rises.

In the field of household goods, the market space between mass production and luxury items is a tiny one. The luxury market, for many types of goods is almost inexistent in Quebec. These productions are thus small and often can be close to the traditional crafts.

Because healthcare is deeply culturally rooted, the development and marketing of new medical equipment is solidly anchored in a corporate, legal and political human network. Many industrial designers have worked in this field. Here again, flexibility and know-how to manufacture short runs are useful characteristics of industrial designers.

In the earlier example of the Cirque du Soleil, any production of a new circus accessory will generate runs of less than ten units, yet the prototyping, testing and modifications of the product will be as time consuming, for industrial designers, as any large run product.

## **Ascent of Designers-producers**

A good number of designers have published, produced, or distributed their own creations at one time or another in their careers. Some of these designers have gone on to establish their own manufacturing companies. These companies cover the broad spectrum from craft production to mass production, from local manufacturing to offshore production, from regional distribution to global marketing. I call these entrepreneurs “designer-producers”—designers, because design is their field of training, and producers in the sense of economic agents who participate in the risk and ensure the financing of their companies, much like film producers.

Today’s manufacturing sector in Québec suffers the simultaneous effects of a rising dollar and increased global competition. While the manufacturing sector has peaked, and our economy's growth is mainly in the service sector, universities and colleges are producing cohorts nearing 150 graduates.<sup>1</sup> This is five times more than thirty years ago. Workforce supply in design is high, and many young designers who wish to express their ideas opt for self-publishing.

Designer-producers are young men and women who generally hold a university degree in design and often come from entrepreneurial families. They are creators who perceive and portray themselves as such. They wish to determine the nature and scope of their work and bring to life the products they have created with passion. One could say that their lack of interest and skills in business is a handicap for creating a company. However, their ability to develop distinctive products, to conduct projects, their creative approach, and their interest in the arts are

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<sup>1</sup> Cohorts from Université de Montréal, UQAM, Concordia University, and CEGEPs de Ste-Foy, Dawson, and du Vieux-Montréal.

distinct advantages. In fact, they possess all the characteristics of entrepreneurs: nonconformist to a degree, competitive, and highly determined.

With their partners, designers create relatively durable companies that generate economic and cultural wealth. Such companies are heavily concentrated in the areas of decorative objects and furniture, and create original products that stand up against international competition and contribute to our collective wealth, whether cultural or economic. In Québec, these companies generate more direct jobs than all design consulting firms put together. Despite this remarkable track record, the practice of designer-producer has been all but obscured by design history and education. Designer-owned companies vary in size and represent different levels of risk. They constitute attainable and achievable projects.

## **Conclusion**

Change is what creates opportunities. Let us not forget that the diminishing proportion of manufacturing in the economy is mostly due to increased efficiency and productivity and the relative growth of services. The work of industrial designers will continue to evolve and adapt to a service based economy.

Whether as in house designers, as consultants, or as designer-producers, designers could benefit from a more refined and developed ability to recognize business opportunities and the social changes that underlie them. The professional image of designers greatly reflects upon their university training. If this training continues to support and promote an antiquated, incomplete, and borrowed image of a profession that itself is in constant evolution, this will only lessen the opportunities available to graduates.

It is therefore important for the training of designers to be more relevant and to better prepare them for the contemporary challenges of economic competition. Insofar as we have shown that designers are an economically viable creative force, there is ample reason for including notions of entrepreneurship and business in the training of new designers.