

## **Glass Facades in South America – Transferred technologies**

**Guillermo (Bill) Marshall**

Estudio Marshall & Asociados – Argentina - Spain  
estudiommarshall.com

### **Key words:**

1 = Southamerica 2 = glass facades 3 = transferred Technologies 4 = Opprotunities and threats

### **Abstract**

The glass facades market in South America has greatly evolved in the last fifteen years especially in countries like Argentina, Brazil and Chile,

Following the industry trends at a global level, regional architecture tries to catch up with the latest developments in Europe and USA.

Driving forces are:

- ✓ Improved economic situation in the region.
- ✓ Sustained growth of the global economy.
- ✓ New urban developments in major cities.
- ✓ And why not, a significant lack of infrastructure and housing that fires a tremendous demand of real estate infrastructure (roads, houses, bridges, power plants, office buildings, hospitals, etc.).

This paper analyzes the past, present and future of glass Facades market, describes opportunities and threats, and problems encountered in importing technologies and materials.

A major role is given to environmental and cultural issues as remarkable factors that influence current and future trends, investments and expectations.

The role of standards and regulations affecting the Glass facades and its current situation is briefly described.

Some of the outstanding latest, current and future projects will be shown as well as some industry figures.



**Fig 1 SouthAmerica**

### **Introduction – Overall scenario**

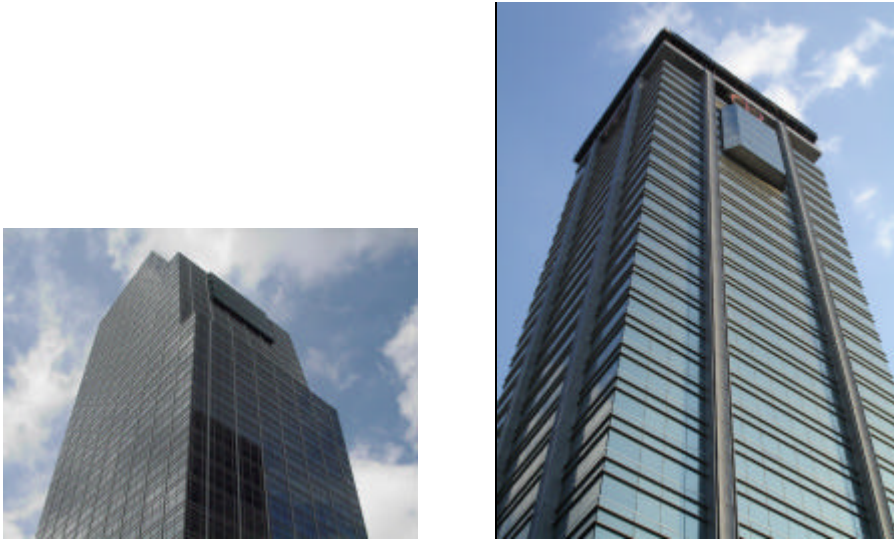
More than 30 years of experience working in the SouthAmerica façade market give us an uncommon position to envision and summarize the problems of transfer of technology from developed countries to emerging ones, especially in Latin America.

Since the 90's, construction industry in South America has been growing at a steady pace.

Stable global and regional political and economic conditions helped emerging countries to attract local and foreign investors.

Relative low prices of land, labour and material, encouraged individual and companies to invest in commercial and residential buildings.

All these factors together with some others like abundant available natural resources but significant lack of infrastructure and housing, relative low barriers to enter and quit the market, etc. fired a tremendous demand of housing, office buildings and infrastructure projects.



**Fig 2 – 3** Typical office buildings in Buenos Aires from the 90's

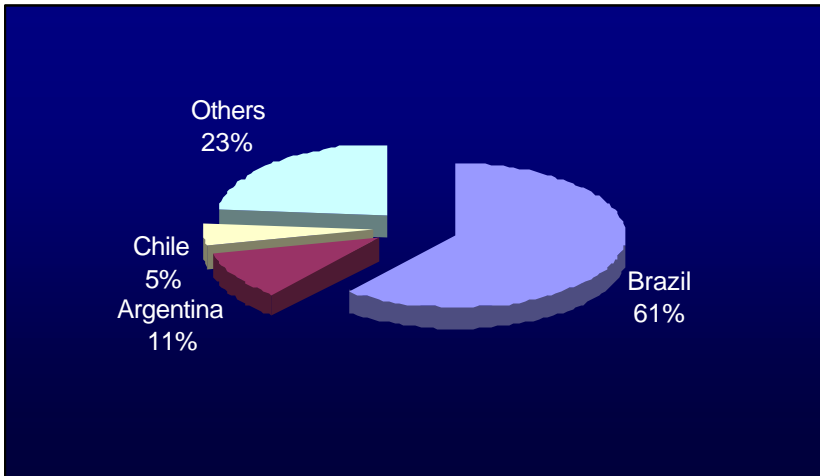


**Fig 4 – 5** Typical apartment buildings in Buenos Aires from the 90's

An array of new urban developments and renovated areas appeared in most of the major cities of the region

With Brazil, Argentina and Chile leading the way, the rest of Southamerican countries experienced in this period a market growth like never before.

Some recent studies about the window market in South America show that more than 75% of the market is shared by these three countries:



**Fig 6** Windows Market

In this scenario, architects and companies have been trying to catch up with the latest European and American techniques and technologies they missed during the years of recession and military governments in the area.

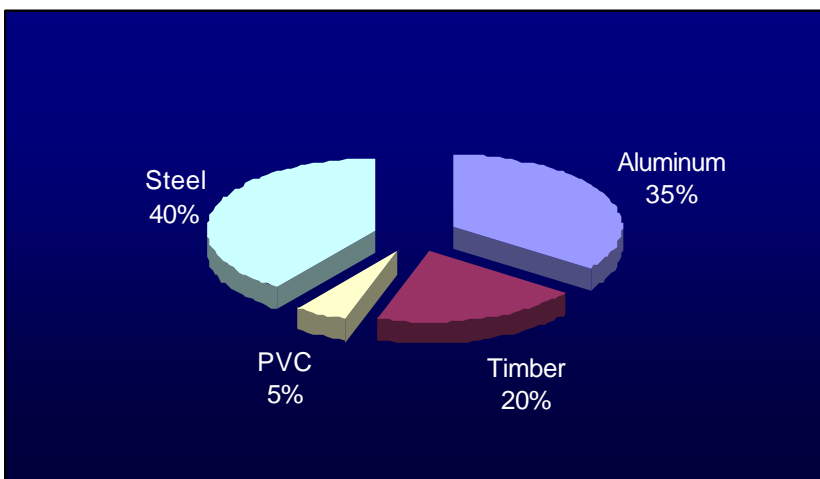
Major European and American architects and their projects were (and still are) a source of inspiration for local projects.

Cultural and historic links between Europe and Southamerica helped to fuel this exchange of art, architecture and goods.

Although not too large, most foreign companies see in Southamerica market an interesting and relatively easy challenge to achieve comparing with the other emerging regions of the world. They started to market, sell and install their products in local projects.

Non mature markets are attractive to develop new businesses.

To give an idea of the development of the market from the technical point of view, the following chart shows the share of the major window materials in the area:



**Fig 7** Materials share

### Transferring technology – Past and present

This flow of materials and techniques to these markets proved to be not an easy task. Obviously America has a long tradition of using materials and techniques coming from the Old world. During the early times all American colonies received from Europe most of the “sensible” building materials (furniture, tiles, windows, hardware, insulation, glass, etc.) During the second half of XIX Century and first half of XX Century, entire buildings were imported knocked down and assembled in cities in South America. Good examples of this are major railway stations.



**Fig 8** Retiro Railway Station – Buenos Aires 1915

In the last fifteen years, a few companies from Europe and USA have been increasing their efforts to position their products in the area.

Of course, building products most of the time are Value added products (not commodities) and need some kind of technical support and/or modifications to adapt to local conditions.

Cultural and environmental conditions greatly affect the transfer.

In our office we see all the time excellent products wrongly applied or installed with disastrous consequences.

They say: “There are not good or bad materials, but good or wrong applications.”

### **Future: Opportunities and threats**

Increasing demand of real estate products, infrastructure and communications together with a poor technological development constitute an opportunity for marketing products in the area.

Many local companies are searching for foreign companies to partner and upgrade their services.

There are many interesting opportunities to do business in the area.

Internet and freight industry had shortened the distances.

Tax laws are relatively “light”.

Lack of adaptation of the products to local demands, local traditional building methods, typical lead times, unskilled labor, and local environmental conditions, place major threats to any attempt to sell technology and or materials in any part of the world.

Careful attention should be paid to the “interphase” between these products and local architecture.

For some products, in some areas, regulations are scarce or not existing. Thus “regulation requirements” most of the time do not exist as a marketing tool.

To give an example, in the last ten years, in most of the countries of the area, I witnessed, the major efforts the industry has been doing in order to support the issue of a non existing Safety glazing regulation.

Certification programs are not a common issue in the area, and on the other hand, little or no attention is paid to European and or American certificates.

In most of the countries glass facades standards are very poor or not existing.

Environmental caring standards and regulations (CO2 emissions, etc.) have just started to appear, but it will take a long time till they become mandatory.

A European product that has embedded a large amount of time and money spent in R+D and testing, will face a lot of problems to market in Southamerica if its price is not competitive with very simple and leaky windows or facades. And on top of that if it is not properly installed it will malfunction thus loosing its qualities and showing unwanted defects.



**Fig 9** An example of a high quality european window with major leaking problems due to poor shop and field workmanship and a lack of comprehension from the supplier.

### **Conclusions**

There is a lot to do. Thousands of projects are about to come. (Apartments, office buildings, airports, hospitals, schools, etc.) They are needed to cover the large housing and infrastructure demand.

Southamerica needs major improvements in industry standards and at the same time in technological advancements and good quality products.

Companies and professionals committed to enter into these markets need to carefully understand major issues like “translation” of their products and technologies into a market with a lot of similarities, but on the other hand with quite a different scenario.

Demands are different (remember: quality is not what you think, but what the client expects), standards and regulations are different if not existing, and technical conditions are quite different from their original countries (building techniques and times, labor skills, equipment, etc.)

Major adjustments and time and money investments need to be done in order to successfully transfer the technology. If not, it will only be a “one time only experience” .