RESEARCH ARTICLE

The image of the Shanghai 2010 Expo the contribution of single pavilions to Shanghai's global image

Silvio Carta*

Delft University of Technology, Architecture/Public Building, Julianalaan 134, 2628BL Delft, The Netherlands

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Abstract
This article offers a retrospective of the Shanghai World Expo 2010, placing it within an historical framework and hence comparing it to the other major World Expos from 1851 on. The study analyzes various national contributions through an architectural lens with regard to their relationship with the Chinese mega-event and finds that the single images generated by each national pavilion contribute to the construction of the general picture of the 2010 Expo, resulting in an enhancement of Shanghai's international reputation on the global stage.

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1. An history of curiosity

A World Fair or Expo is an infrequently occurring celebration that typically showcases the latest or future advances in arts, culture, and technology (Goldblatt and Nelson, 2001, p. 212).

The above is a good official definition of an Expo; however, we observe in the Expo's history a gradual change away from the original intentions for which it was created to its current state as a more global event more befitting our contemporary experience. However, in order to understand this fundamental progression of the Expo's history, a step back is necessary.

The expositions found its origin in two meaningful moments in world history. On the one hand was the exposition des beaux arts (the first regular exposition was the Salon des Artistes Français of 1673 in Paris), which sprang from the habit of showing paintings and other works of art at fairs. On the other hand, during the Enlightenment the most advanced nations began to exhibit recent products of industries (in 1756 and 1761 the London Society of Arts exhibited machines and industrial products to the public). Those sorts of exhibitions were still associated with a city, a group of artists or local...
manufacturers. As the industrial revolution grew and progressively involved an ever larger number of nations and people, the structure and the spirit of the exhibitions drastically changed, until they became Universal Expositions.

The Expo's tradition starts, in fact, precisely in the middle of the nineteenth century, during which colonial nations like France, Belgium and Great-Britain were in the fullness of their Industrial Revolution phase. The world exhibitions were primarily the product of the age of industrialization. The aim of the first World Expo was to show all sorts of produce, from all nations on the planet. That purpose is the reason “the director-general of the Paris Exposition Universelle of 1867, Raymond Le Play, openly talked of the ‘encyclopédie’, a complete record of human knowledge, through all lands and all times, as being his model. These visionaries attempt to accomplish this by erecting a vast building, and inviting all nations, with their colonial possessions, to fill it with objects. Perhaps this offers us the clearest definition of what an exposition is: it is an attempt to depict the world through a vast display of produce” (Greenhalgh, 1993 p. 29).

If the intention was to create a vast exhibition stage and show the world what the various civilizations could do (or more accurately, what they had found in the various parts of the world they had been to) we should look carefully at the cultural and social conditions of those times. The Expos must be read in a synchronic way.

As Paul Greenhalgh pointed out in his account, the demand at the rise of the expos for cultural information must be related to the scarcity of museums throughout Europe. The “grand museums we now casually accept as being part of our institutional life, given a small number of exceptions, were not yet in place. And along with the absence of museums, went the absence of classification systems we now treat as natural, the absence of hoards of museum workers we now identify as an entire profession, the absence of a public who understood how to view objects in an institutionalized environment, and, most significantly, an absence of an understanding of what was not possible.”

Moreover, the sense of novelty and freshness (and even weirdness and oddity) we have now become used to finding in a museum or exhibition, was at the time associated with what were called “curiosities,” and a great deal of attention was paid to the exotic.

2. History of Expos

I wish you could have witnessed the 1st May 1851, the greatest day of our history, the most beautiful and imposing and touching spectacle ever seen [...] It was truly astonishing a fairy scene. Many cried and all felt touched and impressed with devotional feelings. It was the happiest, proudest day of my life, and I can think of nothing else. The triumph is immense, for up to the last hours, the difficulties, the opposition, and the ill-natured attempts to annoy and frighten, of a certain set of fashionables and Protectionists, were immense (Benson, 1908).

On May 3rd, 1851, with these words the young British queen Victoria described to her uncle, the King of Belgium, the opening day of the “Great Exhibition of the Works of All Nations,” held at Hyde Park in London. The Great Exhibition was the first such dramatic event of its kind up to that time.

With the passage of time such events went under several titles, including “Exposition Universelles,” “International Exhibition,” World’s Fair, or Trade Fair, depending on the host country. However, the 1851 London’s Great Exhibition is without doubt considered the first world Expo.

After the example and the success of the first Expo, other nations quickly followed the British example and this new typology of event was subsequently hosted for the first time in cities like Dublin (1853), Paris (1855), New York (1853/4), Moscow (1872), Vienna (1873), Philadelphia (1876) and so on, spreading from Europe to the United States and from Australia to Asia. Another remarkable occurrence followed the first Expos. As the exhibitors were growing in number and in the volume of objects they presented to public, the strategy of having a single building in which the entire event was organized appeared to be increasingly insufficient. After initial attempts to annex smaller buildings to the main hall, the creation of several (and different) buildings sponsored by private and governmental entities seemed to offer the most feasible solution. As Paul Greenhalgh explains, the first “fully-fledged pavilion-style exposition was the Philadelphia Centennial of 1876, followed in 1878 by Paris”.

From that point on, the one-unique-building solution was thoroughly abandoned for the more flexible pavilion-based option. This latter solution resulted in a quite successful avenue for allowing exhibitors and large manufacturers to conceive of places suitable for their needs in presenting their products. Pavilions grew in number and size, and Expo sites began to increasingly resemble small temporary cities, “bristling with fantastical edifices” (Greenhalgh, 1993 p. 29). The pavilions were connected through parks and an infrastructural system organized by the host city.

During the last part of the nineteenth century the pavilion-based Expos reached their maturity. Within the Expo terrain several kinds of activities were held, from exhibitions of products from the colonies, to art, science, agriculture, education, technological advancements and inventions and novelties of any kind. The exhibitions were surrounded by public entertainments such as concerts, live music, conferences and debates, and even sporting activities. Also significant was the passage from sector-based exhibitions for experts in a certain profession, to a larger and more celebrated mass event. The public that is, a vast array of people from every segment of the societies became visitors to the Expos. Obviously, this last aspect perceptibly changed the requirements – programmatically speaking – of this kind of event. A vast public means commercial facilities, restaurants, places to stay and to rest (covered, shady, airy or warm depending on the climatic conditions of the city). Besides such considerations, the people themselves represented an important component of such events. Greenhalgh describes a “vast cultural noise, an unending sequence of frenzied movement and colour, as the ocean of
voracious exhibitors vied for the attentions of the millions of visitors. It was a vulgar microcosm of the world that the Europeans and Americans had created” (Greenhalgh, 1993 p. 29).

Since the public and (above all) private manufacturers looked at the Expo as an important worldly occasion to sell their products—especially in advertising terms they followed a market strategy oriented toward catching people’s attention in order to be better known and remembered by visitors. The expositions then needed to have a certain extraordinary character and appearance. In order to escape from the ordinary feeling of the working and productive lives of nineteenth century cities where everything was organized based on social and political rules the exhibitors based their selling strategies on the fantastic and surreal. Their “raison d’être was in unreality” explained by Greenhalgh (1993) p. 29.

By the beginning of the twentieth century the Expo was a recognized event worldwide, and, as is easy to imagine, the interests (political and economical) were manifold, varied and difficult to manage for nations and organizers. Expos at that time lacked any clear reference point on an international scale and each country abided by its own rules. Probably the awareness of that lack led nations to try to find common, shared boundaries for the definition of the Expos: rules and regulations were needed. A sort of regulation set appeared for the first time with the international convention of Berlin, signed on October 26th, 1912. This first attempt was never put into force due to the onset of the First World War. After some years, the Convention Relating to International Exhibitions was signed in Paris on the 22nd of November 1928 by 39 countries and represented the first official guidelines to nations for Expos. The agreement went into effect only in 1930 and resulted in the creation of the Bureau International des Expositions (BIE) (International Exhibitions Bureau) in Paris.

Of course, the Convention was updated during the twentieth century in 1948, 1966, 1972, 1982 and in 1988 based on new conditions. The Convention clearly explained that “The expression ‘official or officially recognized international exhibitions’ shall be deemed to include every display, whatever its designation, to which foreign countries are invited through the diplomatic channel, which is not held periodically, of which the principal object is to demonstrate the progress of different countries in one or several branches of production, and in which, as regard admission, no distinction is made in principle between buyers and visitors. The provisions of the said convention do not apply to the following: (1) exhibitions having a duration of less than three weeks, (2) scientific exhibitions organized on the occasion of the international congress, provided that their duration does not exceed the period mentioned in 1, (3) exhibitions of the fine arts, (4) exhibitions organized by one country in another country on the invitation of the latter. In the rest of the Convention and its updated versions it is clarified that an “official or officially recognized international exhibition” (our Expo) must be held in a temporary site, for a duration of not less than 6 weeks or more than 6 months and must be regarded as an “exhibition,” with demonstrations having a principal instructive purpose with the participation of more than one country. Moreover, from January 1st, 1995, the period between two recorded exhibitions was set at a minimum of 5 years (Hannover 2000, Aichi 2005, Shanghai 2010).

3. A sufficient reason

The opening debates, official presentations and official catalogues of expos contain a great deal of explanation of the good intentions behind them. Most of the time, these declarations come in the order of the importance of the public figure attached by the process. First is the address of the Prime Minister or equivalent, then the representatives of administrative divisions of the country (region, province, municipality) who supported the event, and then the organizers, the expos’ chairmen, and so on. All these figures indispensable for the implementation of the exposition must clarify their cultural generosity, in some cases even the philanthropy that has moved their actions and their intent. As the event due to its universal nature involves a multitude of diverse nations with a variety of political and geographic conditions which might be poles apart, and occasionally tensions among them, whether real or unclear – among the main reasons often to be articulated in the Expos’ presentations are undoubtedly the need for peace, collaboration and common development among nations. These are of course admirable and noteworthy motivations, but while looking at the magnitude of those events, the number of people involved and – above all – how much money is invested, it becomes less convincing that such huge national efforts are rising from philanthropic callings.

Let us approach the question from a different angle. For nations, attending such huge global events means demonstrating what their current status is from a technological, scientific, and cultural point of view in a direct way. This opportunity represents a daunting responsibility for the government in charge at that moment and the entire nation: what to show to the entire world? To use a poor metaphor, we could imagine that a nation participating in a world Expo could be something like opening the main door of its house, with all the consequences attached to doing so. Is every nation – as every private house ready to let the rest of the world come inside and have a look? Indirectly, however, the public can observe a diverse set of facts and consequently undertake further levels of reading. Observations such as how much effort a nation has put into its presence at the Expo, how much it appears to believe in it, who designed a given pavilion and why, what was inside, what was presented, may all be expected once the event’s first impressions are past. Then other sorts of questions can be raised concerning for instance in the twentieth century Expos—the large private manufacturers that actively participated, such as Ford, General Motors, Hoover, Moët et Chandon and many others. Why did they participate in the event with a certain amount of investment and why they might have changed strategies completely for another event held in a different nation or in a different period?

Paul Greenhalgh reminds us that the expositions universelles were “given their scale and opulence for political and economic motives. Especially in the 1870 to 1914 period, the hey-day of the medium, a politico-economy intensity can be found as the motive power of every site, as nationalist structures consolidated themselves and the imperial drive gained new verve at the expense of Africa and Asia. Economic and political motives manifested themselves in four ways: through industry, trade, national cohesion and empire” (Greenhalgh, 1993 p. 34).

In the passage from the nineteenth century to the twentieth, then, the big exhibitions were a powerful venue
for both economical and political purposes. An Expo could be used by a private company to present new products in a nation which could represent a completely new market, and thus the presence at the Expo could guarantee new and vast profits. An exposition at a Universal Expo could have also been used to drive the people's attention towards a certain sector of society and mitigate tensions between cultural groups or competing ethnicities within a nation, or even racial tension due to the mobility of people between the main nation and its colonies. The Expo could have provided the semblance of a certain cultural unity. In this respect Greenhalgh (1993) p. 34, remarks that "It is not surprising that the four most involved nations in expositions were Belgium, Britain, France and the United States of America".

Looking for a second time at the forewords of the organizers and the supporters of such big events as the Expositions Universelles, we see the contemporary Expos from a bit more of a distance. If economics, politics and the market are the main engines of the machine which implements the Expos, we cannot then ignore that the secondary engines also have their role. Art, architecture, local traditions, heritage, entertainment, beliefs, sports or simply a demand for jet-setter destinations are all integral parts of the Expos: these build up a public (and universal) image of the event and the nation which hosts it. They confer splendor and opulence; they are the first thing people see and admire in the exhibition; they provide the features the people are stunned by and—it seems likely the images the visitors will keep in their memories for all their lives. But it would be quite naïve to think of these as the main reasons for the Expos.

4. Famous examples from the past

Some significant buildings a remarkable heritage from past Expos are worth remembering, and they can offer more clues in terms of collocating the Shanghai Expo both in its history and our present time. As mentioned, the first great world exhibition was the one held in London in 1851. English architect Joseph Paxton conceived a 26-ac exposition space which was to attract about six million people and show novelties like the Colt revolver, the telegraph, and false teeth. What remains of the Great Exhibition building (564 m long with an interior height of 33 m) is images in reproductions hung in the houses of people in the most remote corners of the world. The Crystal Palace – as it was dubbed by Punch Magazine – became during the years afterwards a real prototype: several imitations arose in Europe and the United States in cities such as Amsterdam, New York, Dublin and Munich. The first truly international Expo reflected an apotheosis of a new world featuring a sense of profound scientific and technological change. The financial balance was definitely positive and Prince Albert used the Expo's profits in the creation of the new Albert & Victoria Museum. Five years later the Exposition Universelle des Produits de l'Industrie was held in Paris at Champ de Mars. A rectangular area (165 ac) was set aside to host a large oval building with seven concentrically arranged halls, each dedicated to a particular type of product to be presented. The building could have been experienced either along the rings so as to see a specific category as presented by various countries or moving in and out of the rings so as to see what a single nation had to offer. In 1873 it was Vienna's turn to host the world exposition. The chosen building—in the exhibition area of the city park of Prater (a former royal hunting refuge) was built in a pompous neo-Renaissance style, although with some tweaks. A quite predictable main rectangular shape was this time sectioned off by seventeen transepts, and one 914-m corridor was set symmetrically along the longitude. At the center of the rectangular floor plan a giant wrought-iron and glass dome was placed: the Rotunda, the largest structure ever built without interposed buttresses. The building was covered both outside and inside by neo-Renaissance ornamentation.

During the Exposition Universelle de Paris of 1878 several new technological novelties were presented. The ice machine, the lift and the telephone are just a few examples, but the main attraction was electric lighting. The exposition site was divided by the Champ de Mars (as in the past) at the suggestion of Viollet-le-Duc, and on the opposite bank of the Seine, le Trocadéro. The 346- by 705-m building was called the Palais de l'Industrie. Its shape easily recalls the previous expo building in Philadelphia from two years before. Unlike that structure, though, the French one was built with a basement level both for dealing with the uneven surface of the Champ de Mars and to allow an ingenious system of ventilation pipes inside. Quite remarkable for its daring structure was the Galerie de Machines, conceived by the engineer Henri de Dion.

The year 1889 marks the birth of one of the most significant landmarks of all Expo history. La Dame de Fer - as it was named - was conceived as a gigantic folly (300 m high) at the center of the park outside of the several national pavilions of the main exposition building. Originally seen as something monstrous and unsightly by architects, painters and beaux-arts experts, the Tour Eiffel was a shocking element in its early days. The Eiffel tower was a puddled-iron structure on which somebody forgot to place walls, roofs and even a big dome. If the Tour Eiffel started its existence being judged as simply inappropriate by the majority of Parisians, it is superfluous to note how much the consideration of it has changed over time. With its 300-m height the tallest piece of construction in the world at the time it became the symbol of the Universal Exhibition and a spectacular manifestation of French superiority in calculations concerning iron structures, tensile strengths, industrial production and technological development.

For the 1929 Expo in Barcelona, visitors encountered a confused jumble of styles. Catalan modernism (of which AntoniGaudi was one of the most prominent representatives), art deco from Paris, and other forces were driving the aesthetic expectations in the visitors. People were also interested in the overall metropolitan feeling of the site and its monumental buildings. Meanwhile the Weimar Republic was exhibiting for the first time since the First World War, and chose an architect who could reflect its democratic ideals but also the industrial potential of the nation. However, Mies van der Rohe's pavilion was misunderstood, if not virtually ignored, by the public. It took a quarter of century before the people - attracted by opulence and monumentality - had the proper interpretative tools to recognize the importance of Mies's Barcelona Pavilion.

If Mies demonstrated the potential of a full-on use of industrial processes in architecture, the 1933 Chicago Expo...
brought the people directly to the future. At least, to the future they could imagine at the time. Among several interesting pieces of architecture (Albert Kahn’s huge General Motors building, the House of Tomorrow by Keck and Keck, and The Italian Pavilion by Adalberto Libera) the Skyride emerged. Two gigantic towers (spanning 564 m and each 191 m tall) brought streamlined “rocket cars” (carrying 36 passengers each) back and forth 66 m over the lagoon. Visitors could experience a previously unseen view of the exposition site and of the entire city. The exposition’s name was indicative: A Century of Progress.

“The World of Tomorrow,” the 1939-40 New York world exposition, was significant, starting with the novelties it presented: air conditioning, nylon stockings, color film and television. Around a conservatively modern main theme provided by the fair’s design board (the body responsible for design regulations) in which big blank surfaces were considered something normal on the one hand, and a certain futuristic taste typical of the United States of the 30s, some interventions emerged. Besides Lucio Costa, Oscar Niemeyer and Paul Lester Weiner’s Brazilian pavilion, General Motors’s Futurama pavilion by Albert Kahn (the most popular exhibit in the fair), and the Swedish pavilion by Sven Markelius, one project is renowned worldwide: the Finnish pavilion by Alvar Aalto.

Similar to the Tour Eiffel strategy, for the 1958 Brussels world exposition another huge folly appeared. Designed by André Waterkeyn from a graphic scheme based on a body-centered cubic crystal structure this 100-m tall spectacle was called The Atomium. Its structure recalls a unit cell of an iron crystal magnified 165 billion times. On the verge of the sixties, the organizers of the Brussels Expo had thought of the metal molecular structure as an appropriate symbol for the forthcoming era and saw it as well as a symbol of peace in the midst of the Cold War. The lower spheres, in fact, housed scientific exhibitions of the peaceful use of atomic energy in the USSR, USA, Germany, Italy and Belgium. As did the majority of the universal exhibitions, the 1958 expo lasted 6 months, but the Atomium is still in place and has become a sort of symbol for contemporary Belgium architecture (and hosts a panoramic restaurant, now a tourist attraction). For this fair Le Corbusier designed the “hyperbolic paraboloid” for the Philips company pavilion. The color television was presented for the first time in the American pavilion.

For the Seattle exposition of 1962 the Space Needle was realized. This 182-m observation tower was an attraction for the fair and subsequently became a symbol for the city of Seattle. At the 1964 New York World’s fair the U.S. Steel Company sponsored the construction of the Unisphere: a twelve-story, stainless steel framework depicting the Earth with the continents in relief. The Japan World Exhibition, held in Osaka in 1970, was a quite important expo. The differences between Western and Eastern cultures emerged in the pavilions. A new movement became apparent, largely inspired by Japanese architects, and characterized by the metabolic principle. Remarkable examples - among many others were the Symbol Zone - a giant space-frame structure designed by Kenzo Tange, the Swiss pavilion by Willi Walter, and the Gas pavilion by Ohbayashi-Gumi. At the Osaka expo, architects made use of the event as an opportunity for experimentation, as a study, for which the more mundane, everyday projects offer little scope.

Twenty-two years after Osaka, in 1992, Seville held the world Expo. The chosen site was La Cartuja, an artificial island built to protect the city from the flooding of the Guadalquivir River. A fundamental aspect of this Expo was the task given to the architects to restore the relationship between the site and the historic city center, which was cut off from the river by an obsolete rail yard. For the first time the Expo event was “used” in order to give new life to an abandoned area of the city, a use which brings the event into a more territorial scale. The Expo became less a fantastic scene inside a fence, and came closer to a good opportunity to develop the host city. After the Expo, the plan was to transform the Expo site into Cartuja ‘93, a research and development park designed to turn Seville into a hub of commercial and intellectual activity for the western part of Mediterranean area. However, the post-Expo plan seemed after some years to be a great failure, and the Expo site appeared to be abandoned.

Remarkable at the Hannover 2000 Expo is the MVRDV’s Dutch pavilion, in which a series of landscapes have been simulated and re-produced in 5 stories. The pavilion has been here used for critical purposes by the architects, in order to highlight their views of current Dutch national landscape conditions, offering readings from the past (lower levels) to the future (windmills that produce energy on the top floor). The pavilion is not used in this case merely to amaze visitors but as a means of reflection and as a starting point for further debate on history, and on the present and future of the use of the territory.

One general remark concerning all the Expos should be made: the role played by architects in the 1851 expo and during the nineteenth century in general was merely marginal. They were put to use merely as decorators while the main protagonists were the engineers. This division of duties is quite clear in the case of the Crystal Palace or the Galeries de Machines. For instance the architects of the Tour Eiffel were Joseph Bouvard, Jean-Camille Formigé, and Charles Louis Ferdinand Dutert, but the tower is still referred to by the name of its chief engineer, Gustav Eiffel. During the twentieth century the architect progressively took a more significant place in the exhibitions and this rise has something to do, undoubtedly, with the evolution of the global society over the years.

5. Shanghai 2010: Better city, better life

The framing of Expos, and of such mega-events as World Fairs and major sporting or cultural events, as urban strategies for constructing and improving the image of a local city has been extensively studied in academic circles (Getz, 1991; Roche, 2000). Jing and Rong (2010) analyzed the strategic relationship between a major event and city branding, describing the process of creation of a new city brand through the recognition among people (both local and foreign) of a new identity superimposed onto a previous one. Those authors consider the new appearance of the city to be a market product, advertised widely through the construction of rich, keen imagery designed to confer upon the city a feeling of internationality and exclusivity. According to the authors, Shanghai’s branding goal was to position the city amongst the “international metropolises”, such as

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London, Paris and New York. Recent studies have demonstrated how cities have successfully used mega-events as marketing tools by building a new city image before a global audience (Law, 1993; Robertson and Guerrier, 1998; Waitt, 2003). In particular, Ying Deng (2013) conceptualizes the Expo as a mega-event flagship (MEF). Deng explains that the MEF is a strategic tool policymakers use to foster and establish city branding, as well as “an event-based mechanism to accelerate the process of urban renewal” (Deng, 2013, 108). However, the author distinguishes two types of strategic goals for the Shanghai Expo - immediate and short-term – with the former provided by architecture and what he characterizes as “a spectacular shell”, and the latter long-run goal achieved through enhanced urban renewal, marked by greater integration into the whole of Shanghai’s territory and society (Deng and Poon, 2011, 2012). In his analysis of the Chinese Pavilion, Deng provides a clear example of this mechanism, describing how the project succeeded in having its quality endure beyond the Expo to play an active role in ongoing urban renewal.

In order to investigate the real contribution of the “spectacular shells” to the Expo’s long-term goal of enhancing Shanghai’s global reputation, the single pavilions are here analyzed in terms of their form, materials and spatial composition. That analysis will unpack the image each pavilion presents to the public and an appraisal of the meaningseach attempts to convey. The pavilions are presented in eight groups based on the type of image presented.

5.1. Bugs, animals and other icons

One effective way to produce a public image is to erect an iconic building. The effects of such architecture on the public and the way its perceptual mechanisms operate to allow the building to be widely recognized as iconic have frequently been the subject of study. Among the first to tackle the question of building iconography in the 70’s were Robert Venturi and Denise Scott Brown. In their book Learning from Las Vegas they coined the notion of the “Duck” and the “Decorated Shed” as the two predominant ways architecture could become iconographic. The former classification identifies a building “where the architectural systems of space, structure, and program are submerged and distorted by an overall symbolic form” (Venturi et al., 1977, 87), while the latter concerns architectures “where systems of space and structure are directly at the service of program, and ornament is applied independently of them” (Venturi et al., 1977, 87). Charles Jencks has recently distinguished iconic buildings as either “iconic icons” or “enigmatic signifiers” (Jencks, 2005). The former identifies “a bizarre reduced image” and – similarly to an iconic sign – conveys a “similitude between visual images” (Jencks, 2005, 28), while the latter encompasses those projects resulting from an “absence of strong belief in any metanarrative, ideology, or religion [that] has characterized postmodern culture for several decades and is a strong motivation for the iconic building to become an enigma” (Jencks, 2005, 195). Hence, according to Jencks, the creation of iconicity in architecture lies in the production of an “enigmatic signifier”. The main characteristics of such a building are ambivalence and ambiguity, yet with a certain degree of familiarity in order that viewers may recognize a known form or object. Jencks elaborated this notion by relating it to what was theorized by Umberto Eco in the early 60’s as the “Open Work”, arguing that a building, in order to become iconic, needs to bear a certain resemblance to other objects or a series of them. Yet the resemblance must be vague enough to trigger the observer’s own interpretations. In the activation of the process of searching for possible meanings based on resemblances, the observer “completes” the image of the building by conferring upon it what Jencks calls a “cosmic reference” (Jencks, 2005, 209).

Furthermore, Jencks relates the evocative power of iconic buildings to belief and worship. To a certain extent, iconic buildings seem to have replaced monuments and historical places of worship. Iconic buildings are “fitted to be worshipped” (Jencks, 2005, 196, 203), by becoming symbols of power and success in the city.

A group of Expo 2010 pavilions (Fig. 1) fall under Jenck’s categorization of iconic buildings, evincing a range of levels of sophistication, from the most direct reference to a known form (iconic icons), to the most ambiguous shape (enigmatic signifier). The bottom line of iconic icons is arguably represented by the Macau pavilion, China. Similar to the architectural trend which finds its origins in the 30’s in the US with such projects as the Big Duck (Suffolk County, New York, 1931); Goodwin’s Randy’s Donuts, Inglewood, California (1953); or the KFC restaurant, Atlanta, Georgia (1963), along with more contemporary examples such as the Longaberger Company, Newark, Ohio, United States (1997), the Macau pavilion, China presents itself as a large building that renders an unmistakable visual reference. Its external shape makes it a clear example of Venturi and Scott Brown’s Duck type. The pavilion is in fact in the shape of a rabbit on wheels, its head and tail comprised of colored balloons which move up and down to attract visitors. A similar observation applies to the “Exchange of Ideas,” the Romanian pavilion, which consists of a giant green apple with another hemisphere annexed which, metaphorically speaking, represents a slice. The space thus created within the pavilion consists of various platforms with a continuous landscape made of green, a water strip, ramps, stairs and walkways, and a stage (in the main apple) from which it is possible to see the outside. The Shanghai heat obliged the organizers of the pavilion to cover the distance between the apple and its slice with a large tent to protect visitors from the sun. A leaf atop the apple completed the scenography.

For an elaborated version of this notion, see Chapter I “Judging the Icon” in Jencks, C. (2005). The Iconic Building, p. 21.

For an extensive analysis of the Macau pavilion, China and a possible city image it may convey, see Chin-EeOng and Hilary d’Cros, Projecting Post-colonial Conditions at Shanghai Expo 2010, China: Floppy Ears, Lofty Dreams and Macao’s Immutable Mobiles, Urban Studies, October 2012 vol. 49 no. 13 2937-2953 Sage. Doi: 10.1177/0042098012452459.

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Less subtly shaped but making a more evident reference to local culture is the Saudi Arabian pavilion: a hemisphere supported by columns with palm trees and a tent on top. Visitors experience the feeling of “living in a tent” and sample some of the Arabian landscape’s main features. The pavilion finds a position between being a univocally recognizable image and a referential image via elements (architectural and non-architectural), such as palm trees and the tent, that refer to the local landscape. The characteristic (or referential) elements disappear in the Israel pavilion, which consists of two irregular shapes with a large base progressively shrinking towards the top. The two volumes - one in crystal and the other in concrete clad with bricks - lie one on the other in a smooth composition. The United Arab Emirates preferred instead to work with inspired-by-nature shapes. Their pavilion, designed by Foster & Partners, is a system of shells with differentiated curvatures and a lowered middle. The faux-old stainless steel cladding is darkly shiny, and the undulating roof seems inspired by surfaces shaped by the wind. Elements of references employed symbolically are absent here, and the overall shape of the building subtly suggests a reference (to dunes), but no references are clearly emergent.

The blob of the Japanese pavilion presents an overwhelming shape whose aim appears to be to impress visitors with its ambiguity of forms. The overall pavilion does not directly resemble a widely shared visual image (such as a rabbit), but by the use of proportions, colors and materials, it generates a new image which remains open to interpretation. The main shape is interrupted by cones and holes which intersect the external shell. However, the complexity of the shape means one must exercise multiple processes of resemblance in order to create an overall picture. Some parts of the pavilion may refer to a certain visual image which is then immediately negated by the cladding or the colors. Moreover, the stiffness of the main volume suggested by the paneling finds a contradiction in the smooth inward bumps on the upper section, which provide natural light within.

The contradiction or negation between shapes and a possible visual image generates ambiguity and thus public attention. The constriction of the unclear yet alluring image reaches its peak with the Finnish pavilion. The building presents the large, simple shape of a vase emptied at its center to become a container of a “country in microcosm, presenting both Finland and its society to the world” (finlandatexpo2010.fi, 2010). Called “Kiru,” the Giant’s Kettle, the pavilion works as a sculptural element “aimed at creating visions of such themes as freedom, creativity, and innovation” (finlandatexpo2010.fi, 2010). The pavilion presents characteristics that are so formal and material that they appear to be out of scale and place. The perfection of the uniformity and continuity of the cladding, along with the simple shape of the building, confer upon it a sort of surreal appearance, which ultimately distances visitors.

## 5.2. Building upon local traditions

Other nations chose to create pavilions which express certain of their unique aspects at first sight, offering a clearly recognizable image from the country to emphasize cultural and technological progress and to strike visitors with a unique identity without resorting to other means. In other words, these nations hoped to capture attention by presenting what the nation is capable of doing and designing, emphasizing certain flagship sectors of production. This aim may be pursued through materials, as in the Norwegian pavilion, with its traditional wooden architecture. The fifteen prefab wooden trees constituting the main structural supports of the pavilion are a demonstration of a national product and at the same time an explanation of how the nation hopes to create a sustainable future in a “Norway Powered by Nature” (the title of the pavilion itself). Norway-based architects Helen & Hard conceived the tree structures as a set of “autonomous or combinatory” elements. They designed the pavilion with a thought for its next phase, after the six-month Expo. At that point, “each of the trees in the exhibition can be easily dismantled and relocated,” explain the architects (hha.no, 2010). The possible new uses of the structural timber trees are easily imaginable: a “shaded park installation, playground or social meeting place” (hha.no, 2010).

Other pavilions, such as the Indian or the Pakistani, directly denote some original characteristics of each nation. Here, enormous and very old cultures are represented in patterns, materials and colors. The Pakistani pavilion, for instance, starts from the belief that “no amount of modern development can be a substitute for the lessons derived from experiences gained by the collective wisdom accumulated over thousands of years” (thepeopleofpakistan.wordpress.com, 2010). Another way to deal with local characteristics is embodied in the Dutch pavilion. The architect, John Körmeling, answered the primary challenge of the Expo by taking the position that a Better City, Better Life, has its “origins in a good street”. That idea is the main reason Körmeling designed a “street” - actually entitled Happy Street - with various types of city buildings: “a house, a shop, a factory, an office, a farm, a petrol station, a sport field, a garage,” (happystreet.nl, 2010) all bases for the architects of a “the condition for a social life.” The Dutch pavilion is thus a long curved pathway crossing various buildings conceived of as urban episodes. These buildings are in the shape of typical Dutch houses and public buildings. Behind the shapes of the pavilion lies a shared Dutch way of seeing the city: efficient and steering clear of complications. The architect describes his Happy Street pavilion as a “walkable roller coaster with buildings hanging on it like apples on a tree” and as an “open pavilion with no door. The interior is outside” (happystreet.nl, 2010).

Another example of a nation advancing a public image based on a common idea emerges in Iceland's contribution.
The Icelandic pavilion by PlúsArkitektar is in fact an ice cube with icy images and panoramas in its interior. Apart from the direct reference to ice, the pavilion embodies a contradiction with its surroundings: “The atmosphere inside the pavilion will be cooled down and dehumidified below common practice to create a cool and tranquil little iceland at the heart of the World Expo” (worldexpo2010shanghai.blogspot.nl, 2010), explain the architects. Entering the ice cube from a stiflingly hot and humid atmosphere such as Shanghai’s, the public derives a quick overview of Iceland. The visitors “get the feeling that they are approaching a cool refreshing sanctuary within the hot and humid city of Shanghai” (worldexpo2010shanghai.blogspot.nl, 2010), claim the architects. Building upon the idea of presenting a public image grounded in what might generally be expected by a typical visitor, the Chinese pavilion offers a perspective on local tradition. The building is a system of pure red beams crossing one another. The beams increase their span as they mount to the top to enclose a sort of conical internal space. “Standing in the central location of the Expo site at 63 m tall, triple the height of any other pavilion, the structure certainly will become a fine exhibit for Shanghai to present to the world ahead of the Expo opening,” explains the official release. The main structure of the China Pavilion, “The Crown of the East,” presents a remarkable roof consisting of traditional dougong (wooden brackets fixed layer upon layer between the top of a column and a crossbeam), a structure “which has a history dating back more than 2000 years”.

Another tactic for building a pavilion’s image has to do with the exploration of traditional techniques. In the case of the Spanish pavilion, materials and shapes have been used as leverage to establish a possible bridge between Spanish and Chinese cultures. The architect Benedetta Tagliabue, inexplaining the shape of the Spanish pavilion, evokes the important goal to “recover the extraordinary craft of wickerwork in order to bring it back to life and to reinvent it as a new construction technique” (mirallesi tagliabue.com, 2010). Moreover a certain cooperative strategy is implied: “A series of Chinese characters can be appreciated superimposed with the façade,” explains the architect. Those characteristics “speak of the friendship between China and Spain” and refer to two symbolic elements of nature: the sun and the moon. The architect “has subsumed these elements to a poetic reading of the relationship between Spain and China, announcing good omens for the future that wind collects and carries around the country.”

5.3. Investing in the evocative power of solid geometry

In opposition to the use of irregular and complex shapes, images can also exploit the evocative power of pure geometric solids. In principle, large and rather simple shapes are evoked in order to be immediately understood and recognized by the public. One notable trend is a variation among pavilions that results from altering the same pure shapes into an increasingly subdivided elaboration of the original geometry. The pure volumes are first created as starting point to ensure immediate recognition of the geometrical principle (still visible after a few main modifications), and are then increasingly made more intricate and detailed. In the extreme case the original geometric shape is no longer recognizable. In order to pursue complexity to the “volumes assemblés dans la lumière” (Le Corbusier) an array of details, brakes, holes or complex facade systems are generally added.

Australia’s pavilion offers the most “pure” geometry, consisting of a massive shape obtained via an extruded cloud silhouette rendered in brownish metal panels. From the pedestrian level the result resembles a set of huge cylinders connected by suspended tubular passages to a reticular structure. A similar formative principle applies to the Canadian pavilion, which clearly originates from a solid parallelepiped to which a few modifications have been applied. The final shape results from the movement inwards and outwards in space of both the edges and the vertexes, resulting in an irregular volume that still carries the characteristics of the mother solid. Several pavilions reflect this idea, including Italy’s, and it is in the latter that the complexifying of the original volume into subparts starts to surface. The main shape consists of massive cement panels—a clad volume whose geometrical perfection is interrupted by local cuts and cracks, with the insertion of various materials and voids. A similar approach can be observed in the Swedish pavilion, in which a massive main shape is divided into four cubic volumes with outside walls portraying a city-like grid. “The four sections of the pavilion are connected at an intersection, which symbolizes the harmonious interaction between city and countryside”, explain the architects. The subcomponents that are simply engraved or slightly emphasized in the Italian pavilion increasingly acquire autonomy from the originating volume in other pavilions. In the Luxembourg pavilion, for instance, one part - in this case the 15-m-high towering blended structure - emerges from the rest of the volume, becoming a landmark within the pavilion. A step forward in the process of detachment of the subpart from the original volume is provided by the German pavilion. Conceived as a system of “walk-through sculpture and a built symbol for balance”, in that project “cantilevered, polygonal forms and projecting building elements form spaces and landscapes that interlace with the interior, forming an exciting alteration between inside and outside spaces,” explain the architects, Schmidhuber & Partners. The sections of the main volume move apart, creating significant openings amongst them. The resulting proportion of voids and solids confers upon the pavilion an uneven appearance, contributing to the creation of its peculiar overall image.

The ultimate step in this gradient of dissolution (Fig. 2) is represented by the South Korea pavilion. It consists of a large, clear shape which travels along the plot, creating various kinds of in-between (enclosed) spaces through punctual volumetric subtractions. The essence of the original volume disintegrates, still carrying vague traces of the prime shape on the one hand, and on the other evoking a completely new image, independent from the previous shaping steps. Just as the building is placed near the Japanese, Saudi Arabian and Chinese pavilions, Korea “has been permeable to imported cultures and global influences, whose progressive mix defines contemporary Korean society” (massstudies.com, 2010), explain Mass Studies architects. Moreover, “using ‘convergence’ as the main theme, the Korea Pavilion is an amalgamation of ‘sign’ (symbol) and
which differs significantly from the original volume.

5.4. The sophisticated image

Still more possible leverage for building a public image hinges on the notion of beauty. Some pavilions have in common the search for a similar aesthetic value. Recent studies (Hekkert and Leder, 2008) have demonstrated that in the design of products such as mobile phones or computers, preferences or taste judgments obey certain rules or principles based on aesthetics, amongst other factors. It is also arguable that a common pattern of design aesthetics may work for a global audience. Within this perspective of the possibility of a global taste in design, several pavilions seem to attempt to build a largely shared image. Like jewels, some buildings generate attention for their brilliance, their deep, smart complexity, or their deep, smart simplicity.

The UK’s pavilion is undoubtedly in this group. As with the Korean pavilion, the British one seems to evince a belief in the significance and importance of signs (seeds) in contemporary society. The project is conceived as “an enclosure that throws out from all faces a mass of long, radiating cilia, each ending with a tiny light source” (bdonline.co.uk, 2010). The final effect is at the same time curious, subtle and elegant. The prickly element of the pavilion that everyone notices at first sight is actually only a part of an underground space which houses all the secondary functions, such as the café, lounge, offices and so on, organized along a pathway. The main volume or “The Seed Cathedral” is a box 15 m high and 10 m tall, whose boundaries are intersected by 60,000 identical rods of clear acrylic, 7.5 m long. The rods extend both inward and outward with respect to the main envelope of the box. On the inside they create a curvaceous undulating surface, while on the outside the rods form a solid shape whose contours are undefined. Along those same lines, the program of Mexico’s pavilion is placed underground, with a series of multi-colored umbrellas creating a pleasant surface for visitors to inhabit. The pavilion has a double slope: The roof of the partially underground section is a sort of counter-slope canted against the top line of the umbrella system. While in the UK’s pavilion the slickness of the design is a result of the material chosen for the rods and their overall configuration in the open space, in Mexico’s the simplicity of the chromatic values (high white posts in contrast to the green lawn and the reddish tones of the umbrellas) plays a crucial role.

The conception of a building as a beautiful object per se can also be realized through a solid shape whose aesthetic characteristics rely not on the use of sophisticated materials or construction techniques, but on the elegance of the object itself. Another way of achieving slickness of design is embodied in the Austrian pavilion. Conceived as a shelter for visitors and partially open in some areas, the pavilion plays with a contrast between white and glossy red claddings and dynamic shapes. The outer surface is modeled around an internal spatiality, and the overall image is partially achieved through the visual effects the geometry creates. The rims of the surface are sharpened and rounded with a small curvature in order to acquire an effect of edges that are sharp, yet smoothly finished. The gentle curvature of the upper edges is obtained via a combination of obtuse and acute angles. The passage between the two types of angles is dramatic, lending a certain dynamic to the overall shape. A similar dynamism may be observed in the Egyptian pavilion designed by Zaha Hadid. It consists of a box with rounded corners and featuring a differentiation of materials, from a clean and pure light grey surface to highly reflective black patterns running side to side. The entrances are indicated by shapes based on inviting arches. The cladding of the main envelope reflects natural light, producing an irregular sheen which emphasizes the pavilion’s curved, smooth forms. The materials, reflections and main envelope contribute to this building’s slick image.

5.5. Skins

A public image can be managed by developing the skin of the pavilion, in part to evoke national manufacturing expertise. In fact, some nations already have reputations as mothersland of remarkable architects (and producers) with very high levels of façade and surfaces technology. Architects in such a context are able to conceive facades that behave as the skins of buildings and confer upon them an external appearance which can change with variations in light or other contextual factors. Some pavilions thus demonstrate their architecturally advanced skins to bolster the national image. France, for example, addresses its pavilion to Chinese visitors, building its concept around “the city of the senses – taste, smell, touch, hearing and sight – senses shared by Western and Chinese
sensibilities.” Conceived as a “prototype for tomorrow’s metropolis” and thought of as “a synthesis between nature, technical innovation and the pleasures of city living”, the French pavilion offers a series of experiences that differ based on their materials, exhibitions and internal scenographies. The tessellated structure of the outer shell of the pavilion is detached outwards from the core of the building and creates a visual depth in the image of the overall structure. Natural light can pass through the outer and inner facades, creating a complex play of shades, while at night the artificial light from inside transforms the visual perception of the building, providing an utterly different reading. Complex and multiple readings thus emerge of the same images in the same pavilion.

The Shanghai Corporate Pavilion also presents an external skin that changes colors and lighting as the hours pass. As the architects explain, the pavilion’s interior spaces, “shaped as a series of free, flowing forms, [are not only] enclosed by walls of the static kind but also a dense, cubic volume of infrastructural network, including LED lights and a mist-making system, which are capable of changing the appearance of the building from one moment to another as programmed through a computer” (areachina.com, 2010). The richness of the materials and lighting constituting the outer facade results in the pavilion’s de-materialization. The visual contradiction between the main cubic volume and its blurred boundaries constitutes the building’s image. Conceived as an “evocative, recognizable and memorable cultural ideogram,” the Polish pavilion’s external surface is inspired by a traditional folk-art paper cut-out and is intended to directly stimulate visitors: “An exposition piece of architecture will only be attractive insofar as it can offer perceptual sensations attainable only through direct, unmediated exposure to out-of-the-ordinary, singular stimuli, insofar as it can provide a quality of experience born out of the chemistry of inter-sensory stimulation.” (wwaa.pl, 2010) The goal of this pavilion is to offer a wise answer to the “abundance of visual experience, with the pictorial language of communication reigning supreme, with the almost unconstrained and instant accessibility of iconographic material” (wwaa.pl, 2010).

The elaboration of the building’s outer surface is also traceable in the Serbian contribution: a regular box-shaped pavilion with an external skin made of vari-colored elements that trace a static pattern. Where the Serbian pavilion offers a public image of solid patterns in both its colors and geometrical elements, Switzerland opts for a more sophisticated and elaborated skin. Dedicated to the exposition of energy production: Each element in the façade contains an energy generator, a storage medium and an electrical load in the form of an LED. The energy produced is “rendered visible as white flashes, which are triggered to react to the pavilion’s changing surroundings, such as the sunshine and flashes from visitors’ cameras.” The main goal of the Swiss pavilion is to show visitors this process of energy production via a renewable energy resource and make them “aware of its existence,” but to do so on an emotional level. Visually speaking, one notes the intention to create perceptual depth between the external façade and the core of the building within. However, unlike the French pavilion, the skin of the Swiss building presents a vertical gradient of transparency controlled by the concentration of discs in the facade. The various levels of transparency obtained by the use of the fine grain of a modular elements confers an overall complexity to the pavilion, triggering the visitor’s perception of details.

5.6. The visual image of sustainability

Ideas for a sustainable urban environment may be visualized via a strong image. The Danish pavilion’s aim was not to present any technological or moral solutions for achieving a “better life”. Instead, it sought to provide a clear picture of what the “better life” might be. The Danish pavilion presented a parallel dimension in which people move by bike and swim in city rivers—two rather modest actions as simple as they are increasingly impossible in industrialized cities. The significance of the pavilion lies in its experience and the image it conveys, rather than in its content. This image emerges primarily via a spiral shape connecting a swimming pool on the ground level to the rooftop as a continuous bike lane. The pavilion provides an array of scenarios of quality urban life upon which visitors are invited to reflect. The idea of sustainability as it relates to the aesthetic appreciation of visitors in the Expo 2010 has been explored by Zhe et al. (2011), who argued that the China Pavilion epitomizes the successful combination of aesthetic arts and the eco-culture of architecture. The architectural features of the pavilion and the construction techniques it employs, they pointed out, “endowed the architecture with a sense of historic mission and responsibility” (Zhe et al., 2011).

5.7. The backdrop

The groups of pavilions here analyzed contribute differently to the creation of a sequence of images to which Expo visitors are exposed. While the majority of the pavilions seek to evoke a clear image, the visual intentions of others and their results are more problematic. Nevertheless, the contribution of this last group to the overall image of the Expo as MEF is crucial. In fact, while not directly generating highly recognizable images, as a whole they constitute the background for the other pavilions. In the visual construction of the Expo picture, the background role is twofold. On the one hand it provides a neutral perceptive surface which allows the visitor to focus on other pavilions, and on the other hand it densifies the grain of the presences within the Expo, avoiding any “empty gaps”. The title of the Turkish pavilion, “The Cradle of Civilization” is a substantial clue in understanding Turkey’s aim for the Expo. Considered one of the first human settlements ever, the “Catalhoyuk” (the original Turkish name), was a center of advanced culture in the Neolithic period. Since the entire pavilion is dedicated to national and territorial ancient history, the overall image that the building offers is that of a net-shaped outside skin with holes revealing an internal beige box. The materials
employed, the detailing of the facade and the large-scale pattern of holes keep the building from acquiring as sophisticated an image as those of the UK or France. Nor does the project offer ambiguity or ambivalence, as did Romania’s. In terms of its proportions, it could fall into the geometry leverage category (5.3), but the rough finish of the outer shell reveals no modification of the primary volume.

Hungary’s pavilion is conceived around the “Gömböc,” a mathematical model which “has a close ideological relation with Yin Yang, both symbolizing the pursuit for harmony and balance. This is what Hungarians wish to realize in urban development as well,” explain the architects. Although the pavilion creates a peculiar inner spatiality by means of the wooden parts hanging from the ceiling at varying heights, the overall image of the building seems not to fit into any of the categories proposed here. A similar argument can be applied to the Germany+China House. In an attempt to create a “symbiosis of natural and high-tech materials” the Germany+China House pavilion tries to find a meeting point between China and Germany through the use of a selected material: bamboo. “As a construction material, bamboo is especially environmentally friendly and efficient in the use of resources.” In keeping with the slogan “Germany and China - Moving Ahead Together”, bamboo - a material with a rich tradition as a construction material in China - was reportedly selected for this building as a challenge. The pavilion is intended to demonstrate that the material is “mobile and recyclable, traditional and high-tech and futuristic and multifunctional.” Bamboo also possesses “a unique charm”, says the designer and installation artist, Markus Heinsdorff.

The Monaco pavilion seems to focus on Monaco’s geography, with the façade recalling the sun and the sea of the Principality. In addition to bringing an overview of Monaco to Shanghai through exhibitions illustrating the nation’s characteristics or typical houses and streets, the pavilion’s main visual component is its façade, which emulates the effect of rays of light reflected from water, in the manner of waves close to the sea in the sunshine. This idea is rendered via a series of horizontal lagged bands which wrap the pavilion’s cubic volume. However, the materialization of the bands avoids a bluntly recognizable visual image as in the case of Macau, China or the more subtle approach of the South Korea or UK pavilion, in which a required process of the signification of symbolic values is embedded in the facade. Malaysia, by contrast, presents a tent-based structure with four orthogonal directions, of which the upper part emulates a typical fabric. The 3000 m² pavilion is inspired by a traditional Malaysian hut, though on a huge scale. The image projected by this pavilion thus represents the extreme case of a visual reference to a cultural element of the represented nation.

6. Renewal through the whole picture

Recent studies have demonstrated that the Expo as mega-event has proved a successful marketing strategy for the entire city of Shanghai, involving improvements at the territorial and urban scales (Roche, 2000; Wu et al., 2007) and at the touristic and social levels, and has increased community participation in the city’s renewal (Lamberti et al., 2011; Richards and Wilson, 2004; Zeng, 2010). KeXue et al. (2012) offered concrete proof of this success while analyzing how the new image of the city has emerged, mainly by increasing international media attention: after the opening of the Shanghai Expo, international non-Chinese mainstream media coverage of Shanghai increased significantly. The authors also related this quantitative increase to a change in the quality of the city image. The comparison of data before and after the 2010 Expo demonstrated that the subject of the international reports on Shanghai changed from politics and law, resident life, art and culture and the macro economy, to business, infrastructure, urban construction, science, and the natural environment, in addition to increasing coverage of the previous categories. As consequence, the international mainstream media raised its positive evaluation of Shanghai’s city image. However, from an architectural perspective few studies have connected individual pavilions to the general picture the overall event generated, and more specifically few have addressed the quality of the image these architectures convey.

Part 5 of this article has broken down the various national contributions and their peculiar formal and aesthetic values. This analysis of the single pavilions is summarized in Table 1.

The projects in the first group (iconic pavilions) geared the overall picture towards an enigmatic complexity of forms and meanings, treating buildings as objects to be observed and interpreted. The second group (local tradition) leveraged inherited national features and shared images (e.g., landscapes, fabric patterns, common shared imagery), and aimed to project the overall image of the Expo back in time to a preexisting collective imagery, with the idea of exploiting what already exists that distinguishes each nation. Hence, the overall image of the Expo becomes a sum of diverse tradition-related contributions. While the first group relies on a certain degree of complexity which the visitor is unable to understand at first glance, thus engaging in an interpretational process, the third group (solid geometry), simplifies the image. The use of basic solid volumes (cubes, parallelepipeds) - albeit with their

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<td>Enigmatic images based on complexity and ambiguity</td>
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boundaries and shells further articulated - drives the overall image of the Expo toward immediate recognition. The fourth group (sophisticated images) proposes a refined image through selected materials, forms and techniques. The image of the Expo here proposed is that of a slick object, combining the ideal of technological perfection with the attributes of dryness, distance from visitors and effectiveness. The fifth group partially exploits the sophisticated imagery of the fourth, although via different architectural elements (in this case skins, envelopes and facades). In clear contrast with most of the partial images promoted by the other groups, the sixth category (visual image of sustainability) alone proposes a human image based on physical experience, rather than on a sophistication and interpretation that imply critical distance. The pavilions of this group intend to physically and visually engage visitors with the content and ideas behind the Expo, so that they might experience them directly.

If one infers the overall picture to be a combination of the partial contributions of the individual pavilions, the resulting image is complex, sophisticated and technology-driven, both functionally and aesthetically. In fact, with the exception of groups 2 and 6 - which rely on low-tech techniques, tradition, or the physical experience of ideas to represent their various nations - the pavilions cumulatively present an image of the Expo as significantly advanced, technologically cutting-edge and so sophisticated as to be almost untouchable.

7. Discussion

Expos have always reflected the society of a certain era. During the imperial and colonial periods the most powerful nations displayed the novelties coming from the colonies, from elephant tusks to actual Senegalese persons, displayed in a copy of a village. Similarly, during the industrial revolution, technological progresses were the main protagonists. The same happened throughout the entire history of the Expo, from the interval between the two world wars to the period of reconstruction starting from the Marshall Plan and so on to 2010. However, apart from the main interest and goals of the host nations in demonstrating their power and various achievements, or even pursuing the other purposes mentioned above, always there has been an element that resisted the passage of time. Sometimes it was a building, like the Crystal Palace (destroyed but still existing in our memories and history books as a remarkable example) or a park and city area, such as the area of the Trocadéro in Paris, or even a folly, such as the Tour Eiffel or the Atomium. In the most fortunate cases, architects made pavilions that serve as guides and references for generations of designers. Other pavilions have become a quite clear manifesto of the architecture of their time. By contrast, the pavilions of the Shanghai Expo took a substantially different direction characterized by a holistic reading.

This study has demonstrated that an analysis of individual national pavilions may yield misleading conclusions with regard to the image each conveys. In some cases the architectural concept is weakly explained and does not serve the purpose of bolstering Shanghai’s international reputation. The Italian pavilion is meant to be “the start of the Chinese game pick-up-sticks, also known in Italy as the Shanghai Game, where a number of sticks are thrown in a random pile” (expo-magazine.com). Spain offered wicker as a material symbolic of future collaboration with China. Luxembourg translated its name into Chinese and came up with “lusenbao”, meaning “forest and fortress,” which ostensibly became the inspiration for their pavilion. Mexico thought of the kite as a “union between Mexican and Chinese cultures” and aligned its pavilion in that direction. The remarkable shape of the Egyptian pavilion - except for its main sign in white on a black background on the façade - provides no reference to Egyptian culture, tradition or technological achievement. Some critics (Glancey, 2010) have characterized UK’s pavilion as an “alluring nothing” as compared to British pavilions of the past (especially history’s first).

The real contribution of architecture to the 2010 Expo emerges in the perspective of the overall picture Shanghai eventually succeeded in bringing to the world’s attention. As Xue et al., 2012 showed, the Expo enhanced the city’s international reputation on the global stage. Moreover, formal analysis of the pavilions produces an overall image of technology, sophistication and cold perfection. Associating this picture with the main theme of the Expo, “Better City Better Life”, makes clear the light in which this theme was approached by the architecture and architects of the Expo. Facing the challenge of materializing concepts and proposals for a “better life” which starts from a “better city”, the pavilions respond with forms, spaces and materials which eventually result in a slick technological image that is positive and hopeful with regard to Shanghai’s attempts at urban renewal.

This interpretation of the overall picture of the Expo is supported by Madden (2012), who has argued that contrary to the common approach at world fairs of pursuing national promotion along with displays of contemporary technology, the Shanghai Expo “was perhaps unique in the extent to which it linked the themes of urbanization and planetary existence with the promotion of a supposedly benign urban techno-utopia”. Moreover, Madden added that the final picture conveyed of the “better life” hinges on the idea that “technology and density will carry humanity forward to a harmonious future, to a world that will be interconnected even as it will continue to be structured by walls and barriers. It suggested that the horizon of politics lies in the development of progressively smarter solutions by an alliance of business, science, and authoritarian state and city governments” (Madden, 2012, p. 13). The “better city” is hence considered a goal to be achieved through the rigorous implementation of systematic approaches. Houdart (2012) depicted this intention in her analysis of the “Urban Best Practice Area” (UBPA), characterizing World Expo 2010s idea of rethinking the future city as a central problem. As such, future cities demand a scientific approach via analysis of effective urban practices and policies. In this regard, Houdart pointed to the UBPA exhibition in the Expo 2010 of the “simulated city”, in which in-vitro portions of public and private spaces around the world are physically simulated through scaled mock-ups. The quality of hope and trust in a technology-driven future embodied in the final global image of the Expo 2010 and other mega-events has been described by Astrid Nordin in association with Baudrillard’s simulacra. She argued that the Expo 2010...
“was constructed as a simulacrum of the world in ways that mix dreams with truth claims (and the claims that the dreams are indeed the true dreams of humanity and that these dreams will come true)” (Nordin, 2012).

In conclusion, this study suggests one should regard the individual architectural contributions to the Expo (the pavilions) not as projects per se in terms of any correspondence between the architecture and the content or the national idea the architecture may represent, but as indivisible parts of a whole. Unlike past Expos, in which pavilions competed to display the latest discoveries or achievements of various nations, the pavilions of the 2010 Expo all contribute to the creation of a general picture of the contemporary and future Shanghai, now able to establish itself on the global stage as an advanced, sophisticated and productive reality. The technological display which has historically characterized Expos worldwide has definitively shifted from the scale of single nations and cultures to the city level, with the city portrayed as a global entity. Considered individually, the pavilions offer no sense per se of the global scale and are emptied of peculiarities in deference to construction of a global image. To this extent, the pavilions, taken individually, are indeed a simulacrum of the human technological dream.

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