DISEÑA

Disegno

JOURNAL OF DESIGN CULTURE

Aims and Scope

Disegno publishes original research papers, essays, reviews on all possible aspects of design cultures. The notion of design culture is understood by us as resolutely vague: our aim is to freely discuss the designed environment as mutually intertwined flows of sociocultural products, practices and discourses. This attitude openly ventures beyond the academic distinctions between art, design and visual culture being accordingly open to all themes with relation to sociocultural creativity and innovation. Our post-disciplinary undertaking expects intellectual contribution from all potential members of different design cultures. Besides providing a living platform for debating issues of design culture our particular aim is to consolidate and enhance the social legitimacy of design culture studies as an emerging field in the Central European academe providing criticism of fundamental biases and misleading cultural imprinting with respect to the field of design.

Contents

MODELS AND RE-ELABORATIONS IN LATE NINETEENTH CENTURY ARCHITECTURE
THE GREAT TOWER FOR LONDON COMPETITION

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ABSTRACT

This paper explores the notion of plagiarism and re-elaboration of architectural form in the late nineteenth century (when the profession of architecture emerged), and the ensuing dispute between the École des Beaux-Arts and the École Polytechnique in Paris, which established a permanent split between architects and engineers. The proposed methodology involves the analysis of the international design competition for the Great Tower for London (1890), which describes the rise and the fall of the glorious plan to build a colossal steel tower in England. Sir Edward Watkin, the promoter of the project, was a member of parliament and a powerful railway entrepreneur. His aim was to build a landmark celebrating his company in an amusement park near Wembley station, which was built to serve this park. In retrospect, it is clear that the submissions were influenced by a model (Eiffel Tower), which was to be overtaken in terms of elevation (rather than formal evolution) and other formal prototypes already cross-referenced in the history of architecture—either real (Tower of Pisa) or imaginary (Tower of Babel). Watkin's tower offers the opportunity to investigate a century-old design competition, the main archetypal forms of that period, their relation to the applicant's geographical background, and their costs and materials. From the sixty-eight proposals, the winner of the competition was a three hundred sixty-six meter copy of the Eiffel tower. This leads directly to the idea of architectural prototype: as a new cultural object, the Eiffel Tower, like Crystal Palace, was neither meant to communicate its originality nor its author's style (the creation process), but rather its ability to be a model, namely the social consequences its construction would disclose to the entire world. An intrinsic objective of this research is to revisit, through a specific case study, the innovation of architectural form in the landmark as representative of common utopia: What was the importance of originality in a late-nineteenth century design competition? In the age of European industrialization, how did architectural bureaucracy treat landmarks differently from today? Today we experience distributed creativity, fragmented answers to custom issues. Is common utopia finally dead?

PRESENTATION OF THE CASE STUDY

T. S. Eliot (1920), in his popular essay on Philip Massinger, maintains:

One of the surest tests [of the superiority or inferiority of a poet] is the way in which a poet borrows. Immature poets imitate; mature poets steal; bad poets deface what they take, and good poets make it into something better, or at least something different. The good poet welds his theft into a whole of feeling which is unique, utterly different than that from which it is torn; the bad poet throws it into something which has no cohesion. A good poet will usually borrow from authors remote in time, or alien in language, or diverse in interest. (Eliot 1920, 114)

Borrowing is a risky enterprise since the author has to use some existing matter as a point of departure, and only achieves new outputs avoiding if the original material is transformed. This paper explores the notion of the model and re-elaboration of the architectural landmark, which are generally conceived to be unique and not reproducible, during European industrialization. World expositions were, at the end of the nineteenth century, the stage where the highest level of scientific and technological development were exhibited around the world. Thus, architecture did not escape the evaluation criteria of the industrialization: the flagship building had to prove that it implemented the newest techniques and aesthetics, which would be used later in common edifices. While the notion of the original was not so strictly attached to the material as it is nowadays, it was ethically possible to reproduce and rework on previous artefacts with relative ease up until the end of the nineteenth century. Anderson-Riedel (2010) points out that the *Section of the Grauvre* at the *Institut de France*, at the beginning of the twentieth century, was the first body that distinguished imitative work (artisans) from creative work, defining "the guidelines of fine engraving as a creative art medium" (Anderson-Riedel 2010, 155). However, the authentic (original) and its representation were still physically distinguished up until the introduction of lithography; before being surpassed by photography, as the German philosopher Walter Benjamin maintains in "The Work of Art in the Age of Mechanical Reproduction" (1935), which introduces the possibility to displace reality, enabling the notion of originality in the field of visual culture (Benjamin 1969). Architecture

[1] *Here the Great Tower for London is considered an early example of plagiarism in the frame of the democratization of design competition in late nineteenth century, with the introduction of formal regulations due to the formation of professional associations (Andersson, Zettersten, and Rönn 2013).*

had a clear educational role since physical experience was the most important means of knowledge. In this regard, Benjamin argues that "Architecture has always represented the prototype of a work of art the reception of which is consummated by a collectivity in a state of distraction. The laws of its reception are most instructive" (1969, 222). In fact, replicas of the *Venus de Milo*, carved in butter, filled Crystal Palace, and a replica of the Bastille, stormed hourly by a group of actors disguised as *sans-culottes*, appeared in the 1889 Paris Expo (Sudjic 2005). Yet, architecture cannot be considered entirely in the artistic domain since it faces the construction process that implies a certain degree of standardization. For this reason, while part of the building, or even techniques, can be patented, the formal reproduction has a more questionable status, linked to the ethics and cultural prerogatives of the time. As a new cultural object, the Eiffel Tower, like Crystal Palace, was not meant to communicate its originality or its author's style (the creation process), rather its ability to be a formal prototype, namely the social consequences its construction would disclose to the entire world.

Different authors agree that, in the context of the dispute between history and science, the universal exhibition created a unique milieu in which to build the perfect architectural prototype (Popescu 2008). Schwartz and Przyblyski (2004) underline that the relation between visual culture and nineteenth-century society is to be found outside the conventional art circuit, in an expanded field that includes the great World's Fairs, where vast expo sites were transformed to create a spectacle of innovative objects. The visual structure of the expo is at least as interesting as the technology itself. A fundamental objective of this research is to open a path, through a specific case study, leading to the innovation of architectural form spearheaded by the landmark as common utopia, at the onset of the profession of architecture. Thereafter, the dispute between the École des Beaux-Arts and the École Polytechnique, in Paris, established a permanent split between architects and engineers.

The imitation of form was natural, since the expo building configured itself as a machine, a spectacle engine, where the unusual idea of improving or updating a copy of the original was not understood in terms of deficiency but rather as rivalry with an opponent. Therefore, I will use the word prototype, which is usually attached to industrial production, to address both technological and visual (formal) originality in architecture. The proposed methodology involves the analysis of one of the first[1] international design competitions, the *Great Tower For London* (1890). The contest was documented in some newspaper articles and publications, which will be cited later in this text. Initially, I will briefly describe the event. I will then provide a detailed analysis of the competition. This has three main advantages. Firstly, we can pay less attention to the temporal variable since the submissions offered an instantaneous panorama of the cultural

models; secondly, the criteria of evaluation offered a spectrum of the values to which architecture had to conform; and thirdly, the construction of a world's fair landmark simultaneously represented the advancements of aesthetics and technology.

The competition for the *Great Tower for London* depicts the rise and fall of the glorious plan to build a colossal steel tower in England, only one year after the Paris Expo. To make my argument, it will be instructive to take a close look at the *milieu* in which bureaucratic architectural institutions during the period of European industrialisation treated landmarks differently from today. Sir Edward Watkin, the promoter of the project, was a member of parliament and a powerful railway entrepreneur. His aim was to build a landmark celebrating his company in an amusement park nearby Wembley station, which was built to serve this park. In retrospect, it is clear that the submissions were influenced by a model (Eiffel Tower), which was to be overtaken in terms of elevation[2] (rather than formal evolution) and other prototypes already cross-referenced in the history of architecture—either real (Tower of Pisa) or imaginary (Tower of Babel).

The competition proposals were bundled with one image and a short text resuming construction and quantitative features. Since *The Getty Research Institute* has made the originals freely available, one can group, after more than a century, the main archetypal forms, their relation to the applicant's geographical background, their costs and materials. From the sixty-eight proposals, the winner of the competition was a three hundred sixty-six meter copy of the Eiffel tower [Fig. 1], roughly two hundred feet (sixty-one meters) taller than the French one. The First Prize, of five hundred Guineas, was awarded to submission number 37, thirty-seven, made by A. D. Stewart, J. M. MacLaren and W. Dunn of London. The original design was a truss tower on an octagonal base, three hundred feet (ninety-one meters) wide, and was finally reduced to four legs to reduce costs. This version did not allow for the equal distribution of weight on the field and the tower began to sink, due to poor ground surveying, after only fifty meters of the structure had been built. The construction subsided in 1892; followed by the death of its 'father' in 1901. The unsafe condition of the structure halted the initiative until 1904, when it was demolished with masses of dynamite.

ARCHITECTURAL PROTO-TYPE IN LATE NINETEENTH CENTURY SOCIETY

A few years earlier, on the other side of the ocean, a supposed case of plagiarism marks the very beginning of the history of the skyscraper. This new building type arose for different reasons and in a different social environment than the European towers, yet, like the towers, they antagonized developers because they were the tallest landmarks on the continent. The high-rise building also originated at an exposition: "the baseline from which

[2] *After the French tower had become the tallest structure in Europe, Edward Watkin said 'anything Paris can do, London can do better' (Milton 2015, 187).*

[3] *Buffington officially explained his delay was due to other ongoing projects in the eighties, but later admitted that he never intended to build the cloud-scraper and he was using it only as publicity device (Christison 1942). His patent "provided for a braced skeleton of metal with masonry veneer supported on shelves fastened to the skeleton at each story" (229).*

[4] *The period known as The Gilded Age takes its name from the title of a novel by Mark Twain and Charles Dudley Warner. Despite being a chapter of American history overshadowed by corruption and lack of political leadership, it was also a time in which momentous transformation took place, from the rapid growth of cities to the industrial progress with private investments (Twain and Warner 1873; Schlesinger 1933; Cashman 1993). For a deeper analysis of materialism in the Gilded Age see The Gilded Age in American History (De Santis 1988).*

[5] *In Ground plan of the model town for the happy colony. To be established in New Zealand by the workmen of Great Britain, collected at the Library of Congress of Washington, Prints and Photographs Division, Robert Pemberton describes his utopia: "the first circle, and area of fifty acres, contains the four Colleges, with Conservatories, Workshops, Swimming Baths and Riding Schools adjoining. Also the Educational Circles, such as the Terrestrial and Celestial Maps, laid down on the ground, the Groves embodying History, and the Muses, and Mythology, the Botanic and*

to measure the history and the development of the skyscraper is the Centennial Exposition in Philadelphia in 1876" (Starrett 1928, 13). William Le Baron Jenney was commissioned to design the Chicago office of the *Home Insurance Company* in 1883 and used, for the first time, steel beams for the higher floors, building "the first of all skyscrapers" (27). However, the architect Leroy Sunderland Buffington from Minneapolis started proceedings against Jenney, since back in 1880 Buffington had sketched multi-storied steel structures of twenty, thirty, fifty, and even one hundred floors. He named his dream buildings "cloud-scrapers" and made engineering calculations of the steel columns when only wrought-iron floor beams were used for building purpose (28). Buffington designed and detailed a building to be "constructed of any desired eight" (Christison 1942, 230). In that period, the city of Minneapolis was considered "capable of physical expansion to an unlimited degree" (220). Nonetheless, Buffington only patented his construction system in 1888. He delayed the application for his patent[3], but the fact that he realized his design first largely defeats any legal prosecution for patent infringement. In the largely materialistic American society of the Gilded Age, a factual circumstance easily overcame intellectual property, even if it is now generally acknowledged that Buffington first conceived this building method.[4] Christison reports the words of the 1882 *Joint Annual Report* of the Minneapolis Chamber of Commerce and Board of Trade, depicting the optimism in unlimited growth in the building industry: "The extraordinary increase in its [Minneapolis'] population; the rapid advance in the value of its realty; the number and value of new buildings erected [...], are facts which, unsupported by the solid array of absolutely reliable statistics . . . might well challenge the credulity of those not personally familiar with the phenomenal growth and progress of Minneapolis" (219-220).

In the second half of the nineteenth century, known as the late Victorian Age, Britain celebrated its belief in the inevitability of human progress in Joseph Paxton's glass cathedral, Crystal Palace, at the Great Exhibition of 1851 (Bunce 1994, 19). The castiron and plate-glass structure built in Hyde Park, London, was dismantled and rebuilt in a different and enlarged form on Penge Common in 1854, where it stood until its destruction by fire in 1936. Crystal Palace served as a formal prototype for the Garden Palace at the Sydney International Exhibition in 1879, designed by colonial architect James Barnet. They even shared the same fate since the latter was also destroyed by fire three years after its completion (Scholliers and Teughels 2015, 294). The power of the prototypal idea, Eiffel Tower being no exception, lies in the clash between the innovative technological advancement (plate glass, steel beams) and the new philosophical sensibility of the society. In fact, four Crystal Palaces were used in Robert Pemberton's utopian city *The Happy Colony*[5], at the very center of its concentric design of 1854, functioning as educational buildings. Here the architecture acquires a symbolic meaning, supporting Pemberton's educational system which aspires toward spiritual transformation. It is an architectural metaphor for his society based on "beauty, value, and holiness of labor" (Morrison 2015,

140-153). The previously mentioned architectural prototype was adopted differently in the same place with "upgraded" dimensions, in another place with the same function, and finally, multiplied in the theoretical speculation of an abstract environment. The same logic could be applied to the Eiffel Tower and its relationship to the Great Tower for London.

ORIGINALITY IN LATE NINETEENTH CENTURY

Despite the failure of Watkin's plan, his company became the precursor to the Metropolitan line of the present-day London Underground system. Wembley Park station serves thousands of visitors as a popular recreational venue, and Wembley Stadium resides exactly where the tower was meant to be. The multiplication of landmarks, even groups of them, is only a late consequence of the need to overcome the previous one as a programmatic attitude. While the landmark is concerned with power, the duration of its form is drastically diminished. The paradox is that ours is the period in which form, being preserved beyond visual obsolescence, can be recovered most rapidly with philological ease[6]. Watkin actually invited Eiffel to design his iron lattice tower, as a contemporary commercial company would do for any *starchitect* signing an iconic architectural project. He declined the invitation, since French people would have probably seen this as a standing on the rival's side,[7] leading the entrepreneur to plagiarize the icon and surpass it in terms of quantity.

It would have been even taller than Renzo Piano's "The Shard", the one thousand sixteen feet (three hundred ten meter) skyscraper completed in March 2012 that is the tallest mixed-use structure in Western Europe. A three-story skycourt on the thirty-firstfloor separates working and living spaces, offering an iconic view of London (Pomeroy 2013, 112), allowing the population first-hand experience of the inside of the icon.

An insight into the late nineteenth century notion of originality could be expounded through a singular thinker in the German intellectual landscape who offered his view on the metropolis as a newly built environment. Georg Simmel observed the contradictory nature of man's rush to individuality, as the main goal of life, and his early-modern phenomenological approach better explains the entanglement of corporeal experience in visual practices (Schwartz and Przyblyski 2004). In his paper "The Metropolis and Mental Life ", published in 1903, he maintains, "Nietzsche may have seen the relentless struggle of the individual as the prerequisite for his full development, while socialism found the same thing in the suppression of all competition—but in each of these the same fundamental motive was at work, namely the resistance of the individual to being levelled, swallowed up in the social-technological mechanism" (Simmel 1971, 324). The subject became central in philosophical thinking when the metropolis, given the rules of life in the new built environment, unveiled a deep problem in the possibility of maintaining personal independence. The German author established a general theory of fashion[8], the field of aesthetics in which the two opposite forces, one thriving for imitation (or replica) and

Horticultural Gardens, and the Geometrical forms etc. and the Miniature farm in the center. The second circle contains the Manufactories, and Public workshops. All the ground enclosed by the houses are orchards. The Arboretum and Horticultural gardens occupy the fourth circle. The outer circle is the Park, three miles in circumference. The public buildings are colored in [crimson] Lake, the churches in dark red, and the Dwelling houses in grey.'

[6] *Consider the visionary architecture of Etienne-Louis Boullée and Eugène Emmanuel Viollet-le Duc that influenced twentieth century architectural theory facing the issue of iconic building.*

[7] *Gilles Milton (2015) reports* "*Watkin even approached Gustav Eiffel and asked if he would care to submit an entry. Eiffel politely declined. 'If I,' he said, 'after erecting my tower on French soil, were to erect one in England, they would not think me so good a Frenchman as I hope I am'*" (187-188).

[8] *The quoted text is taken from the reprinted article of The American Journal of Sociology originally published in 1904 on International Quarterly.*

the other for differentiation (or change), coexist. Fashion "is the imitation of a given example and satisfies the demand for social adaptation; it leads the individual upon the road which all travel; it furnishes a general condition, which resolves the conduct of every individual into a mere example. At the same time it satisfies in no less degree the need of differentiation, the tendency towards dissimilarity, the desire for change and contrast" (Simmel 1957, 543). Piedmont-Palladino (2007) observes that the issue of the architectural copy intensified in the twentieth century when the scale of the projects increased to that of skyscrapers and infrastructures, involving the necessity to share a complex design with a team of professionals.

It is important to specify that architectural plagiarism, as has been highlighted in this text, is very different from that relating to paintings and sculpture. The latter involves the act of deceiving the audience, using the same canvas, paint mixture, and technique as the author (artistic forgery), or the theft of another's work presented as one's own (artistic plagiarism). Forgery has to be perfect, plagiarism can be modified at will; forgery produces a fake, plagiarism involves copyright and intellectual property (Dutton 1998). The ethical implications are different since "the historical damage of plagiarism", according to Dutton, "is normally minimal because the plagiarist is stealing contemporary work for his own designs, to help his own reputation" (338). Society's positive reception of plagiarism is linked to the role aesthetic empiricism plays in a certain interval of time in a definite geographical context. This is especially true in late nineteenth century Europe, where fledgling nation-states required symbols for constructing national identities, even updating or reconstructing the architectural heritage within historical revivals. From 1852, the French architect Eugène Emmanuel Viollet-le-Duc restored the walls of Carcassonne in medieval style; in 1856 Elias Rogent, director of the *Escuela Provincial de Arquitectura de Barcelona*, supervised the work of rebuilding the Monastery of Santa Maria de Ripoll as the symbol of Catalan identity; in 1902 the bell tower of Piazza San Marco in Venice was reconstructed after its collapse, compensating for the trauma of the loss of the symbol of Venice. While these buildings replaced the original, others where reproduced elsewhere, such as the 1895 American replica of the Parthenon realized in Nashville, Tennessee. Formerly built out of wood and plaster as an ephemeral landmark of the 1897 *Centennial Exposition*, its iconic effect on the visitors led to a concrete reconstruction of the replica (Martínez 2010).

THE RISE AND FALL OF COMMON UTOPIA

The odd dream of 14,659-ton steel tower was valued at £352,222 (Lynde 1890, 83). "The plan being octagonal, the greatest stability with economy is obtained. An octagon affords a nearly equal resistance to bending in all directions. This plan admits of equally favorable views from all sides, and gives a sufficient variety of light and shade on its faces" (83), it is the *incipit* of the concise explanation of the tower's features, barring the fiasco that will eventually come from the ground rather than the wind. "The style

adopted is of oriental character", claims, "four lifts are provided up to the first stage, and two staircases situated in the legs of the tower. The principal stage is two hundred feet above the ground, and contains a large central hall, of octagonal form, 20,000 square feet area, and sixty feet high. Around the platform is a balcony. A hotel with ninety bedrooms is provided." This is the only "functional" part of the tower. "A covered hall 10,000 square feet area is on the second stage; three lifts are provided from the first stage upwards, with other accommodation, such as restaurants." The description ends with: "It is intended to be lighted by Electricity" (83). This description applies to the French tower too.

In the preface to the catalogue of the competition, Frederick Lynde (1890, 3-7) refers directly to the Eiffel Tower as the "most remarkable feature of the French exhibition of 1889" (3). He says that the striking form of the landmark is the "result of mathematical considerations upon the condition of [the] wind's intensity." Namely, the purest representation of forces opposed to those of natural elements. What follows predicts exactly the shortcoming: "the total weight of the Tower is distributed over a large area, which reduces the pressure per square foot upon the foundations" (3). On the fourth page an interesting treat is found. A drawing gathers the western architectural icons, such as Notre Dame, Saint Peter's, the Washington Obelisk, together on an abstract plane which compares their height [Fig. 2]. This clear-headed analytical reasoning incredibly prefigures the notorious 2006 collage by *OMA* called *Dubai Renaissance.*[9] Both are cut-and-paste collages of the iconic buildings of their time without contextual references, grouped together to be compared in terms of their formal eloquence.

Today we experience distributed creativity, fragmented answers to custom issues. Is common utopia finally dead? Rather than dwelling on contextual features, the postmodern operator (architect or writer), is a *bricoleur* who concentrates his efforts on dealing with connections between parts, which are copies or rather, re-elaborations. While art and architectural education is traditionally based on copying (Piedmont-Palladino 2007), the postmodern operator wants to keep the influence of his masters at bay while moving through multiple references. It is all about references. The more the master-pupil relationship is an outdated form of education today, the more a diffuse creativity takes its place[10]. A cloud of personal visions and projects condenses brief and intense artistic experiences.

Postproduction enters the field of contemporary art and uses the same tools as the audio-visual sector: new artistic devices are based on "sampling"and "alteration". On the whole, the use of the English prefix post- ("after") reveals the urge to re-elaborate consolidated bodies of work and question postulates. The competition is a post-Eiffel critical analysis of the idea of the urban landmark: the impulse to be spectacular, and to also be Europe's symbol, completely overrides the functionality of the structure. Uselessness is no sin at all. Lynde (1890) emphasizes that, "it is not too much to anticipate that, in the course of a short time, every

[9] *See the project by OMA for Design Properties in Dubai. The description says, "The ambition of this project is to end the current phase of architectural idolatry—the age of the icon—where obsession with individual genius far exceeds commitment to the collective effort that is needed to construct the city."*

[10] *Let us consider "private copy" a consolidated educational method in university faculties: the teacher asks his students to elaborate certain assignments so specifically defined that the multiplicity of sources is very narrow. In this case the final product will be similar to the master's (Dutton 1998).*

[11] *Michel Foucault was a twentieth-century French philosopher who based his research on the forms of social control by institutions. In relation to disciplinary society, "Foucault analyzed and defined the mechanisms of discipline, which he called dispositifs – by which he meant a heterogeneous apparatus consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, and philosophical, moral and philanthropic propositions, all of which were involved in maintaining the exercise of power within a society" (Fontana-Giusti 2013, 83).*

[12] *Han is a South Korean thinker born in 1959. The present essay proposes his theories for two reasons: Han moved from Seoul to Berlin, where, on the one hand, he integrated into the German philosophical tradition mentioned in the present text, while on the other hand he developed the (violent) late-modern relationship between man and society, moving between social philosophers such as Walter Benjamin, Gilles Deleuze, Michel Foucault, and Martin Heidegger. The key notions are present in his famous essay Fatigue Society (Han 2010) and further developed in other works such as Transparency Society (Han 2012b) and Agony of the Eros (Han 2012a).*

important country will possess its tall Tower"(5). Thus, the competition is based on figures and facts: weight, height, cost, and materials. The performance of the construction is limited to its ablity to stand freely on the ground. It is not surprising that Dickens, in *Hard Times*, had the English bourgeoisie use the word "fact" as the means for dispensing with dialectic dispute (Dickens 1854). This urban climate is subsequently analyzed by Simmel (1971) in the aforementioned paper on the metropolis: "The calculating exactness of practical life which has resulted from a money economy corresponds to the ideal of natural science, namely that of transforming the world into an arithmetical problem and of fixing every one of its parts in a mathematical formula"(327).

THE IDEA OF RE-PRODUCTION: THE WEST AND THE EAST

The process that leads from the architectural prototype to its reproductions has different meanings in western and eastern cultures. Since European twenty-first century society is no longer the "disciplinary" one described by the French philosopher Michel Foucault,[11] Byung-Chul Han's view[12] could disclose the actual mechanism of production: ours is a "performance society" (*Leistungsgesellshaft*), and it clusters "individuals of performance" rather than "individuals of obedience". One is self-employed in the process of production, being a victim and an oppressor at the same time, focusing more on what one can do rather than what one cannot. The positive attitude of the subject, in conditions of self-compulsion, Han says, is far more productive for his society and eventually leading to more frequent psychological burnouts. The West and the East have different attitudes toward production and the idea of creation. *Shanzai*, to use Han's Chinese neologism that is best translated as "fake", is the deconstructive method by which the authority of uniqueness appears nonsensical as the category of the counterfeit. As Roland Düker noted in a July 2011 *Literaturen* article about Han's work, "the West, one could conclude, cultivates a museum-like commemoration of dead origins, the East exists at the center of a living tradition that is cyclically repeated." The holy *Ise Shrine* in Shintoist Japan is an example: "every year millions of religious pilgrims visit it in the belief that the sacred building is one thousand three hundredyears old. In actual fact, the temple complex is completely renewed every twenty years. Not only is the building carried off and built from scratch but all the treasures inside it are removed and replaced, whatever can be burned is burnt and any metal is buried in the earth."There is no difference between the original and the copy, the new *Ise* is built next to the old one, and the ritual creates the double of the monument before its demolition. Therefore, while the physical quality of the monument proves authenticity in the West, the reconstruction in the East shows that bequeathing centuries-old craftsmanship techniques to the next generation is an integral part of architectural heritage (Gavinelli 1997; Venegas and Mileto 2003). Authorship in architecture, which is itself problematic since the designer and builder are not the same operator, arises from the relationship between culture and its past. Theo-

ries about scientific intervention in architectural heritage and the refusal of replicas appeared, in Europe, as a reaction to the arbitrary restorations of monuments in the late-nineteenth century (Martínez 2010). In fact, Watkin could think of duplicating and upgrading an existing landmark, built elsewhere, without loosening efficacy of the icon compared to its formal prototype. I have advanced Simmel's position, and opposed it to the organicist view of Comte and Durkheim, because of its anticipating conception of society as a network of interactions between individuals whose selective perception gives form to contents. His perception of the centrality of information technology, in creating a bond of trust toward industrial nineteenth-century capitalism, surprisingly conforms to Foucault's thinking about technologies of knowledge (Kucich 1994, 19-21). And a tower erected with private investment, and of which Londoners would have been proud, was part of the bond.

MODELS AND RE-ELABORATIONS: TABLE OF THE COMPETITION PROTOTYPES

Given the entire proposal framework, seven categories have been identified. If the aim is to find the *essence* of the idea of landmark, and this being the case, in a certain geographical and chronological interval, the operation of setting up the pattern of sixty-eight designs is convenient. Here *essence*, in Aristotle's sense,[13] is the sum of the minimally necessary attributes of a thing, as distinct from the others that are accidental. Now, if a sensible thing is the unfolded potential of a Form, a "theory of change" represents a reliable cognitive tool. In other words, it is convenient to use a nineteenth century analytical device, when new privileges were accorded to observation, and evolutionism revealed the continuous network of species (Foucault 2002). In the new system of knowledge, things were analyzed in terms of their internal temporal development and not as a spatial series (Fontana-Giusti 2013, 31). Moreover, the internal development of architecture should have been seen as the modification process of the grammar of a prototype: "The same can be said for the inverse system of the prototype and the terminal species. [...] The project of a complex being towards which nature makes its way from the starting-point of simple elements which it gradually combines and arranges" (Foucault 2002, 168). The proposed table[14] is the following [Fig. 3]:

Eiffel Tower (the most relevant category and the one including the winner; average–max.–min. height 1,367–2,007–1,198 feet; weight 13,698–32,000–6,000 tons; cost £409,029–£1,300,000–£40,957).
A spear with a differently marked curvatures. It has at least four radial supports, and cross bracing. The load-bearing scheme determines the aesthetic outcome: static balance shapes the tower and identifies a precise hierarchy by means of the thickness of the structural elements. The spear has one or more observatory decks.

[13] *See the first chapter about the relationship between architectural typology and history of architecture in Las variaciones de la identidad: Ensayo sobre el tipo en arquitectura by Carlos Martí Arís (1993).*

[14] *Please note that every design has been categorized on a probabilistic base, the map of knowledge is drawn by homology of visible characters. Given the framework of the analyzed features, and considering the infinite number of possible frameworks, it is the most suitable according to the author and open to question. Foucault (2002) demonstrated how a "theory of signs analyzing representation", namely the "arrangement of identities and differences into ordered tables" (79) constitutes a taxinomia. The latter establishes "the table of visible differences; [...] treats of signs in their spatial simultaneity, as a syntax; [...] taxinomia functions as an ontology confronted by an apophantics; confronted by genesis, it functions as a semiology confronted by history. It defines, then, the general law of beings, and at the same time the conditions under which it is possible to know them" (82).*

Bell Tower (the cheaper category; average–max.–min. height 1,261–1,400–1,200 feet; weight 20,956–32,000–7,890 tons; cost £245,222–£372,266–£130,000).
Based on a square or circular plan, straight or slightly tapering to the top. The structure is mostly massive barring some levels open to view. Given the form of the plan, it cannot reach remarkable heights without enlarging the base perimeter. The construction recalls European bell towers that historically served as principal urban landmarks.

Tower of Babel (the most expensive category; average–max.–min. height 1,585–2,296–1,200 feet; weight 76,895–312,550–9250 tons; cost £1,109,027–£3,159,500–£313,789).
Despite the tower being solely imaginary, its image is commonly rooted. The main feature is the vertical massive bulk, placed in the center of the construction. An infinite *promenade* runs round the edge connecting each level. The bulk, which can be tapered or straight, has a human-sized basement. The idea of a continuous *promenade* signifies the act of rising to be shared and made visible.

Castle (the least relevant category; average–max.–min. height 1,266–1,355–1,200 feet; weight 17,150–26,500–7800 tons; cost £948,575–£1,687,900–£209,250).
The structure displays groups of pinnacles and needles, massive walls and small openings. It gathers figurative references to defensive structures, like towered corners. The simple symmetry is a common rule of the composition, and the sole tool in designing the facade.

Gothic cathedral (the only non-civic building reference; average–max.–min. height 1,523–2,000–1,296 feet; weight 48,775–142,207–19,470 tons; cost £454,157–£674,592–£120,000).
An imposing structure referring to the image of the magnificent gothic cathedral. It displays a portal, flying buttresses, and light elements resembling a clerestory. The structure has pointed arches and pinnacles intended to arouse a sense of verticality. Sometimes a steel rose window is implemented.

Tent (gathers the lighter structures; average–max.–min.height 1,215–1,274–1,070 feet; weight 10,512–16,000–6278 tons; cost £291,970–£537,800–£107,000).
The construction refers to the figure of a temporary structure, truncated, cone shaped, and hosting collective events on the inside. It is the result of a geometrical rotation of a curvature around a vertical axis generating huge roofing. The figure, mostly based on a circle, has a uniform envelope evoking textile patterns.

Montage (includes the 2nd prize; average–max.–min.1,328–1, 500–1,200 feet; weight 13,057–29,891–3256 tons; cost £331,702–£500,000–£155,080).
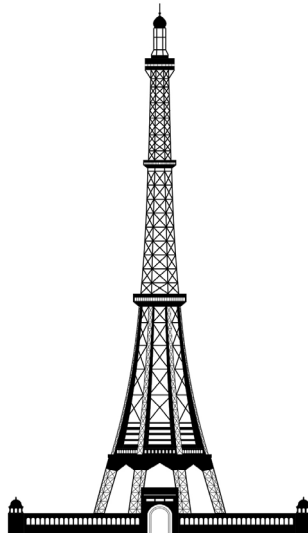
It is the outcome of a process in which parts of different styles have been welded together. Often, the massive one is used as a basement, while the higher part is lighter. Although many construction materials have been used, the outcome is completely unpredictable. The only feature they have in common is the possibility to be left out of the categories within the same collage process.

The proposals were mainly from England, but also USA, Scotland, Wales, Italy, Austria, Australia, France and Turkey. The total height ranges from 1,070 feet (326 meters) to 2,296 feet (700 meters) and an average measure of 1,200 feet (366 meters). The weight and the cost varied significantly, the first ranging from 3,256 tons to 142,207 tons and the second between £40,957 and £3,159,500.

If any of these types had failed to persuade the population of the convenience to build an observatory tower, the board would have played the therapeutic card: "Doctors in Paris have already discovered the benefits to be derived by patients suffering from pneumonia and throat affections, and many under their advice have availed themselves of the 'pure air cure' on the Eiffel Tower with very beneficial results, thus the Tower may be utilized in the interests of suffering humanity" (Lynde 1890, 7).

LIST OF FIGURES

Design No. 37
The First Prize of 500 Guineas was awarded to this design
A. D. STEWART, M.Inst.C.E.
2,Queen Square Place, W.;
J. M. MACLAREN and W. DUNN, A.R.I.B.A.
21, King William Street, Strand, W.C.

PARTICULARS.
Height: 1200 feet.
Base: Octagonal, 300 feet diameter.
Weight: 14659 tons.
Material: Steel.
Cost: £352222.
CHIEF FEATURES CLAIMED.
The plan being octagonal, the greatest stability with economy is obtained. An octagon affords a nearly equal resistance to bending in all directions. This plan admits of equally favourable views from all sides, and gives a sufficient variety of light and shade on its faces. The style adopted is of Oriental character. Four Lifts are provided up to the first stage, and 2 staircases situated in the legs of the Tower. The principal stage is 200 feet above the ground, and contains a large Central Hall, of octagonal form, 20,000 square feet area, and 60 feet high. Around the platform is a balcony. An Hotel with 90 bedrooms is provided. The walling is formed of 3 thicknesses of plaster on wire netting fixed to iron studding forming 2 distinct air spaces. The Floors to be of concrete and steel. A Covered Hall 10,000 square feet area is on the second stage ; 3 lifts are provided from the first stage upwards, with other accommodation, such as Restaurants, &c, &c.
It is intended to be lighted by Electricity.

THE EIFFEL TOWER.

Fig.2. Illustration of the most important landmarks of the time compared by height and form. In Lynde, Frederick C. 1890. Descriptive illustrated catalogue of the sixty-eight competitive designs for the Great Tower for London. London: Industries, 4.

Height in feet.

1. THE VENDÔME COLUMN, PARIS   147
2. NOTRE DAME, PARIS   ... 217
3. COLUMN OF JULY, PARIS 154
4. SAINT PETER'S, ROME   ... 433
5. WASHINGTON OBELISK ... 554

6. GREAT PYRAMID OF EGYPT 479
7. ROUEN CATHEDRAL   ... 492
8. STRASBURG CATHEDRAL 467
9. INVALIDES AT PARIS   ... 345
10. ARC DE TRIOMPHE, PARIS 160
11. COLOGNE CATHEDRAL ... 521
12. PANTHEON AT PARIS   ... 279

Fig.3. The map of knowledge gathers the formal prototypes of the sixt-eight designs participating to the competition for theGreat Tower for London.
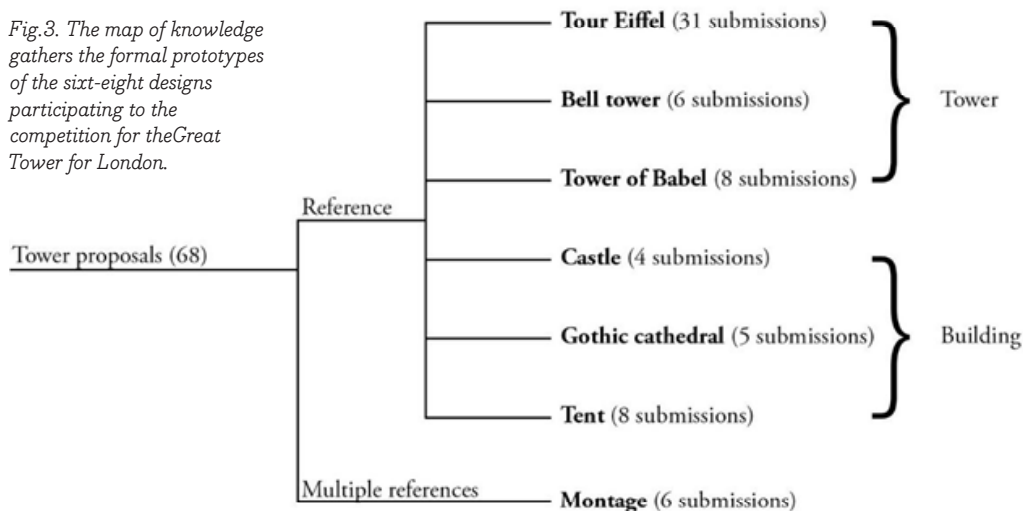
REFERENCES

Anderson-Riedel, Susanne. 2010. *Creativity and reproduction: Nineteenth century engraving and the Academy*. Newcastle: Cambridge Scholars Publishing.

Andersson, Jonas E., Gerd Bloxham Zettersten, and Magnus Rönn, eds. 2013. *Architectural competitions. Histories and practice*. Fjällbacka: The Royal Institute of Technology and RIO Kulturkooperativ.

Arís, Carlos Martí. 1993. *Las variaciones de la identidad: ensayo sobre el tipo en arquitectura*. Barcelona: Ediciones del Serbal.

Benjamin, Walter. 1969. "The Work of Art in the Age of Mechanical Reproduction."
In *Illuminations*, edited by Hannah Arendt, 218-222. New York: Schocken Books.

Bunce, Michael. 1994. *The Countryside Ideal: Anglo-American Images of Landscape*.
New York: Routledge.

Cashman, Sean Dennis. 1993. *America in the Gilded Age* . New York: New York University Press.

Christison, Muriel B. 1942. "LeRoy S. Buffington and the Minneapolis Boom of the 1880s."
Minnesota History 23 (3): 219-232.

De Santis, Vincent P. 1988. "The Gilded Age in American History."
Hayes Historical Journal 7 (2): 38-57.

Dickens, Charles. 1854. *Hard Times: For These Times*. London: Bradbury & Evans.

Dutton, Denis. 1998. "Forgery and Plagiarism." In *Encyclopedia of applied ethics*,
edited by Ruth F. Chadwick, 331-338. San Diego: Academic Press.

Eliot, Thomas Stearns. 1920. *The Sacred Wood: Essays on Poetry and Criticism*.
London: Methuen & Co. Ltd.

Fontana-Giusti, Gordana. 2013. *Foucault for Architects*. New York: Routledge.

Foucault, Michel. 2002. *The Order of Things: An Archaeology of the Human Sciences*.
Translated by Tavistock. London-New York: Routledge.

Gavinelli, Corrado. 1997. "Come si dice restauro in Giappone? Conservazone e restauro degli interventi di restauro in Giappone." *Recupero e conservazione* (15): 14-17.

Han, Byung-Chul. 2010. *Müdigkeitsgesellschaft*. Berlin: Matthes& Seitz.

Han, Byung-Chul. 2012a. *Agonie des Eros*. Berlin: Matthes& Seitz.

Han, Byung-Chul. 2012b. *Transparenzgesellschaft*. Berlin: Matthes& Seitz.

Kucich, John. 1994. *The Power of Lies: Transgression in Victorian Fiction*.
New York: Cornell University Press.

Lynde, Frederick C. 1890. *Descriptive Illustrated Catalogue of the Sixty-eight Competitive Designs for the Great Tower for London*. London: Industries.

Martínez, Ascensión Hernández. 2010. *La clonazione architettonica*.
Translated by Cristina Becattelli. Milano: Jaca Book.

Milton, Giles. 2015. *Fascinating Footnotes from History*. London: John Murray.

Morrison, Tessa. 2015. *Unbuilt Utopian Cities 1460 to 1900: Reconstructing their Architecture and Political Philosophy*. Burlington, VT: Ashgate.

Piedmont-Palladino, Susan. 2007. *Tools of the Imagination: Drawing Tools and Technologies from the Eighteenth Century to the Present*. New York: Princeton Architectural Press.

Pomeroy, Jason. 2013. *The Skycourt and Skygarden: Greening the Urban Habitat*: Taylor & Francis.

Popescu, Carmen. 2008. "Linking notions: a reconstructed identity of identity and architecture." In *Architecture and Identity*, edited by Peter Herrle and Erik Wegerhoff, 289-298. Berlin: LIT Verlag.

Schlesinger, Arthur Meier. 1933. *The Rise of the City, 1878-1898, Urban Life And Urban Landscape Series*. Columbus: Ohio State University Press.

Scholliers, Peter, and NellekeTeughels, eds. 2015. *A Taste of Progress: Food at International and World Exhibitions in the Nineteenth and Twentieth Centuries*. Burlington, VT: Ashgate.

Schwartz, Vanessa R., and Jeannene M. Przyblyski. 2004. *The Nineteenth-century visual culture reader*. New York: Routledge.

Simmel, Georg. 1957. "Fashion." *American Journal of Sociology* 62 (6): 541-558.

Simmel, Georg. 1971. "The Metropolis and Mental Life." In *On individuality and social forms: selected writings*, edited by Donald N. Levine, 324-339. Chicago: University of Chicago Press.

Starrett, William Aiken. 1928. *Skyscrapers, and the Men who build them*. New York: Charles Scribner's Sons.

Sudjic, Deyan. 2005. *The Edifice Complex: How the Rich and Powerful Shape the World*. New York: Penguin Press.

Twain, Mark, and Charles Dudley Warner. 1873. *The Gilded Age: A Tale of To-day*. New ed. ed. Hartford: American Publishing Company.

Venegas, Fernando, and Camilla Mileto. 2003. "El espacio, el silencio y la sugestión del pasado. El santuario de Ise en Japón." *Loggia, Arquitectura & Restauración* (14-15): 14-41. doi: http://dx.doi.org/10.4995/loggia.2003.3555.