# Reading Imperialistic Space: The Crystal Palace

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#### Abstract

Even though during the nineteenth century Great Britain boasted the largest empire in history, its ex-colony, the United States, and other European powers competed fiercely against it. It is at this time that the world fairs, displaying the latest industrial and scientific advances advertised and celebrated a country's leadership. The Great Exhibition of 1851 gave Britain the perfect opportunity to showcase its world supremacy, but it is the Crystal Palace, the iconic building that housed the event, which has survived in the people's imagination. This article focuses on this legendary building as a space rich for interpretation. In particular, I will explore the function of the exhibition and its building as spatial spectacle, capable of doing two things: first, of engaging with its visitors in such a way as to create sensations of awe and wonder; and second, of masking cultural and social anxieties under a veneer of spatial and discursive "transparency." As an interdisciplinary study, this article works under the premise that architectural spaces, like literature, can be read and interpreted. According to this stance, then, the Crystal Palace will be approached as a textual building or a built text that prompts interpretation.

Key words: space, architecture/literature, The Crystal Palace, world fairs

#### Resumen

A pesar de que durante el siglo diecinueve Gran Bretaña ostentaba el imperio más extenso de la historia, su excolonia Estados Unidos, al igual que otros países europeos, competía por la supremacía mundial. En esta época, las ferias internacionales tenían como objetivo mostrar los últimos avances industriales y científicos y así celebrar el liderazgo de ciertos países. La Gran Exhibición de 1851 le presentó la oportunidad perfecta a Gran Bretaña para mostrar su supremacía, pero es el edificio que se construyó para dicho evento, el Crystal Palace, más que el evento en sí, el que ha sobrevivido en la imaginación de la gente. Este artículo se enfoca en este edificio legendario como un espacio rico para la interpretación. Específicamente se explorará la función de la exhibición y del edificio como espectáculo especial, capaz de lograr dos objetivos: primero, el de seducir a sus visitantes y generar sensaciones poderosas que maravillan y en segundo lugar, el de esconder ciertas preocupaciones sociales y culturales bajo una ilusión de supuesta transparencia tanto espacial como discursiva. Como estudio interdisciplinario, este artículo trabaja bajo la premisa de que los espacios arguitectónicos, como la literatura, pueden ser leídos o interpretados. De acuerdo con esta postura, el Crystal Palace será abordado como un edificio textual o como un texto edificado.

Palabras claves: espacio, arquitectura/literatura, The Crystal Palace, ferias mundiales

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ven though Victorian Great Britain boasted the largest empire in history, its former colony, the United States, and other European powers competed fiercely against it. It is at this time that the world fairs, displaying the latest industrial and scientific advances advertised and celebrated a country's leadership. Much has been written on the birth and growth of the world fair that has become an icon of the Victorian era, the Great Exhibition of 1851, which gave Britain the perfect opportunity to showcase its world supremacy. Numerous authors have meticulously recorded information about the main players in the committees that founded it, on Prince Albert's key role, on Henry Cole as its astute publicist, and on Joseph Paxton's heroic status, as the self-made man and designer of the building for the exhibition. The main objective of this article, however, is not to retell well-known facts about the event and to present statistics on ticket sales, numbers of visitors or exhibits: rather, my focus is on the building itself -the Crystal Palace- and its identity as a space rich for interpretation. In particular, I will explore the function of the exhibition and its building as spatial spectacle, capable of doing two things: first, of engaging with its visitors in such a way as to create sensations of awe and wonder: and second, of masking cultural and social anxieties under a veneer of spatial and discursive "transparency." I argue that both of these spatial accomplishments invest the Crystal Palace with a sense of what Vidler has termed the "architectural uncanny," the notion that a particular space can transmit feelings of unease due to the resurgence of sinister elements. Thus, if one looks under the illusory and fairy-like surface of this exhibition and the building itself, one stumbles across elements that were meant to remain hidden from the Victorian public, but that inevitably surfaced then -to a certain extent- and now, through this particular analysis.

In order to prove the Crystal Palace's capacity to produce illusions and gratify sensations, I will consider its physical and symbolic aspects, including: the link of the building's design to hothouses, issues related to transparency, the significance of the use of iron in the structure, as well as the distinct feelings experienced by the visitors due to the fairy-like quality of the building, and the diffuse border between the interior and exterior. Furthermore, I will address the issue of how this edifice's capacity to generate illusions led to stirring the emotions of its viewers, inevitably leading to desire and seduction. I argue that the Crystal Palace is one of the most influential buildings of its day not only because of its innovative design but primarily because of its ability to produce intense sensations in its past visitors and contemporary critics, who are still enthralled by its fantastical and ghostly presence.

To begin our discussion about this edifice, we must first consider a basic notion –the Crystal Palace is a textual building or a built text. The Crystal Palace is what Heidegger and other phenomenologists would call a *place*, since it is a space that has a distinct character, and one that is determined and marked by people's experiences. Because of the magnitude of the event that it hosted and its influence on Victorian culture, the Crystal Palace retains a symbolic charge that survives in spectral fashion today. This symbolic site can be approached through the issue of production and perception of sensations. Despite the abundance of theorists dealing with the concept of spatial analysis, I have chosen to focus on the findings of two critics: Richard Lucae, a nineteenth-century architect and academic, who was one of the first to consider the sensations generated in vast spaces, and Michel Foucault, who, as well as writing extensively on various philosophical and social themes, delved into issues of space.

In 1869, Richard Lucae, a Berlin architect and later an important academic. delivered a lecture entitled "On the Meaning and Power of Space in Architecture"<sup>1</sup> which would mark the beginning of a modern discussion of the psychological effects of vast structures that were appearing throughout Europe. In this lecture, he described the sensations that he felt when visiting large train stations, classical buildings, and the Sydenham Crystal Palace.<sup>2</sup> One of the topics that Lucae addressed in his lecture was that of, what I would call, the architectural sublime (he does not use the term). Both Immanuel Kant and Edmund Burke and other philosophers had thoroughly discussed the concept of the sublime during the eighteenth century.<sup>3</sup> and had focused their discussion on people's responses to this feeling (whether it be in the presence of something beautiful or fearsome). However, their discussions privileged examples of the sublime in nature.<sup>4</sup> with some references to buildings, especially cathedrals, Richard Lucae employed the concept of the sublime but in order to apply it to the built environment that he visited and experienced. When walking through the Pantheon, Lucae recorded his reaction in terms of an almost mystical sublimity: "we become forced into a kind of self-communion, although the uniformity of the space has a somewhat soothing effect on our feelings [....] Here a force overcomes us, of which we know not what it wants with us" (Mallgrave 559).

Lucae's last sentence proves the difficulty of describing the complex sensations that he was feeling. It must be noted that the sublime, along with the uncanny, is in a category of terms that escapes a final definition, since these are concepts dealing with individual psychological and physical responses that are difficult to describe. Furthermore, in the religious building of St. Peter's, Lucae explored the relationship between the glance and the sensations: "Freely the glance wanders through the wide arches of the church nave, bringing itself to a point of blissful consciousness as we experience always anew the wonder of the space that opens itself here" (Mallgrave 559). Lucae's words, dealing with the complexity of the sublime of the built environment and with the role of the "glance" as he called it, are precursors to the modern discussion of spatial analysis.

Lucae's accounts are extremely valuable when taking into account the discussion of space during the nineteenth century. The critic and philosopher Michel Foucault, on the other hand, contributes greatly to this discussion because, being distanced by time, he is able to analyze certain elements that a Victorian critic inevitably missed. The Foucaultian concept that I would like to discuss is that of heterotopias. In his lecture entitled "Different Spaces," Foucault gives a brief introduction of the history of space, from medieval times to modern times. He claims that there are two types of places: *utopias*, which are perfect or inverted versions of society that are fundamentally unreal, or *heterotopias*, which

are accomplishable utopias. I argue that the Crystal Palace may be considered a heterotopia, a built and tangible utopia of the nineteenth century. According to Foucault, such a site "begins to function fully when men are in a kind of absolute break with their traditional time" (182). At the time of the Great Exhibition of 1851. Britain and the western world in general were experiencing such a break. The Crystal Palace is a crystallized attempt to hold on to a reality which is slipping-it is a "perfect" version of a British and Victorian society which was at the pinnacle of its strength as a political and industrial power: being at the summit. however, implies being able to foresee the inevitable descent, and the Crystal Palace was a built effort to delay or completely deny this. Another characteristic which qualifies this building as a heterotopia is its affinity to the museum and the library. Foucault says that "the museum and the library are heterotopias that are characteristic of western culture in the nineteenth century" and that these places share "the idea of accumulating everything, the idea of constituting a sort of general archive, the desire to contain all times, all ages, all forms, all tastes in one place" (182).<sup>5</sup> The Great Exhibition was a display, but overall, a collection that gave rise to an amazing impulse to collect even more, whether through the newborn science of statistics, or through further exhibitions.

The last concept related to heterotopias that I would like to address is that, according to Foucault, there are two types of these sites and that they differ in their relation to the space around them: "Either the heterotopias have the role of creating a space of illusion that denounces all real space, all real emplacements within which human life is partitioned off, as being even more illusory [...] Or, on the contrary, creating a different real space as perfect, as meticulous, as well-arranged as ours is disorganized, badly arranged and muddled"(184). The Crystal Palace is a heterotopia of the second type, a real space that is portrayed as perfect. Furthermore, as a real space, this iconic building hides certain elements of Victorian society through strategies of deceit. In order to analyze the Crystal Palace as a place of illusion, one must address several of its spatial characteristics.

### Paxton's Design: From Hothouse to Crystal Palace

Sir Joseph Paxton (1803-1865), who had begun his seemingly uneventful life as gardener at Chatsworth, the Duke of Devonshire's impressive estate, had risen to being appointed Head Gardener and designer of the Duke's imposing greenhouses. His fame was such that he was commissioned to design the Crystal Palace that would be later assembled at Hyde Park. Before addressing the design of Paxton's masterpiece, one must understand how it was deeply rooted in his previous plans for hothouses. In his rise from gardener to self-taught architect, his creations would always be linked to his trial-and-error experience derived from the construction of glasshouses and to his observation and close link to nature. George Chadwick remarks about the direct relationship between Paxton's hothouses and the Crystal Palace: "the same roofing system, the same method of enclosing the sides of the building, the same conception of a framework and a covering, the same principles of roof drainage through the hollow structural columns, the same slatted floor; the only difference is one of size" (114). Furthermore, because he was first a gardener, Paxton developed a significant structural idea –a ribbed system– after observing the underside of a *Victoria regia* lily and testing its structural capacity. In the greenhouse that he built to house this lily, Paxton applied his ridge-and-furrow roof which he would later patent and utilize in the Great Exhibition building.

Apart from these structural and design elements, the Crystal Palace is also a descendant of Paxton's greenhouses in other more engaging ways. First, these structures were covered with glass to protect the plants in the inside from the elements, let sunlight in, and keep heat and humidity from escaping. Hothouses were designed for people who wanted to see these plants in a pleasant environment, regardless of the season or weather conditions, both as a hobby and as another way of entertaining and socializing. The Great Conservatory, Paxton's masterpiece of a hothouse in Chatsworth, was a symbol of status. "Great Men" such as the Duke of Devonshire would enjoy these hothouses on their own, but would also make a point of inviting important personages so that they might witness the splendor of the place, thus enhancing their privileged position in society.

Queen Victoria and her entourage visited the Great Conservatory in 1843. something which is not often discussed but which clearly mirrors the royal inauguration of the Crystal Palace in 1851. The sight must have been magnificent for the visitors, since the group rode in open carriages through the building which had been illuminated by 12.000 lamps. The Duke of Wellington declared that he had seen many wonderful things in his travels "but never did I see so many magnificent a *coup d'oeil* as that extended before me" (Chadwick 98). Like the Crystal Palace after it, this structure seemed to have a mesmerizing effect on the eve: the reflection and play of the 12,000 lamps on the glass must have been a bewitching thing to behold and must have created a "fairyland" which was later intensified in the Crystal Palace. This magical ambiance was related to a sense of evanescence, generated by the fact that this type of building was destined to have a short-life.<sup>6</sup> The notion of inevitable disappearance must have been present at least subconsciously in the minds of the beholders of both the Great Conservatory and the Crystal Palace, and it contributed to this concept of a transient fairvland.

Another characteristic of a hothouse is the issue of regulation or control. On a superficial level, temperature and humidity are regulated from within, while the elements and their potentially negative effects are kept outside. Hothouses are the creation by man of an artificial environment in order to enjoy nature in a controlled and comfortable fashion. In the Crystal Palace, an artificial environment was also created, one that locked some aspects of nature inside (trees and sparrows) while recreating a comfortable and safe environment for its visitors. The Great Conservatory, like the Great Exhibition building after it, was essentially a giant bubble; in both buildings the main objective was for visitors to *see* something which was being exhibited and to do so safely. The matter of safety, of course, implies restriction or limitation of certain aspects, and in this sense both buildings acted as shields against both natural and other types of elements. By acting as bubbles, however, these exhibition buildings could also generate a stifling environment that was produced as much by a lack of fresh air as by the attitude that had created them –a belief in the need to keep things out.

On June 27, 1851, *The Times* published an article about Paxton's petition to maintain the Great Exhibition building in Hyde Park and to modify it in order to become a winter garden. The writer of the article claims that part of the public was not interested in the permanence or modification of the building because: "the Crystal Palace is a colossal greenhouse, or 'blue house' as somebody has called it, is as much a condemnation as it is a fact." While elaborating his proposal, Paxton "has chiefly in his eve those purposes to which the gardens and conservatories of our aristocracy or of the nation have hitherto been applied." Calling the Crystal Palace a greenhouse was something of an insult for Paxton, who at this point wanted to be perceived as a serious architect, not merely a builder of greenhouses. Gardener, builder or architect, one thing stands-there always was a connection between the designer's greenhouses and the structure for the exhibition. Within both buildings people had to be protected from rain and from the cold, but also from unwanted guests. Both edifices offered the promise of a magical place without a winter, a place forever suspended in time, but one which was inevitably sheltered and even stifling.

Paxton's years of experience while developing hothouses culminated in the design for the exhibition, where he successfully employed materials that he had been experimenting with for years –glass and iron. These two elements have obvious characteristics, derived from their physical properties, but a closer look at them, especially in the context of the Crystal Palace, renders them symbolic. Consisting of 293,655 panes of glass which cover an area of 900,000 square feet, the building is a monument to glass. The significance of this material is also supported by the name that the building acquired due to the bewitching appearance that has been discussed in the case of Paxton's greenhouses. The most striking quality of glass in the building and in general is its transparency.

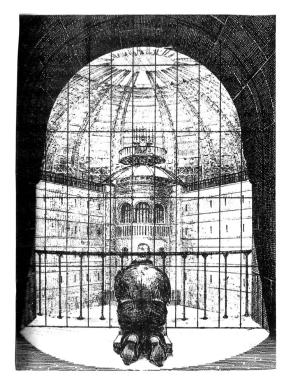
It is unavoidable to equate transparency with honesty and truth. It is inescapable, then, to associate this massive crystal structure with these ideals: "Here is a building of clarity, transparency, and no deceit" (McKean 32). While the process of construction for the Palace was taking place, a Mr. Frederick Sang wrote to *The Times*, in order to give his opinion about painting the iron parts that would be used in the building. His words touch upon this subject of transparency through the sincere use of materials. Mr. Sang insisted that the iron be painted in a pale bronze instead of any other color that would stray from the nature of the material; the ideal thing to do, of course, would be to not even paint the iron, but due to corrosion, that was out of the question. He clearly supports the concept of honesty in architecture: "I took the liberty to suggest on the principle of truth in architecture, that the metallic character of Mr. Paxton's clever handiwork should not be destroyed by covering it with any colour or colours misleading the mind with respect to the nature of the material" (4 Jan. emphasis added). Mr. Sang's comments illustrate John Ruskin's architectural position which was circulating at the time of the Great Exhibition, especially because The Seven Lamps of Architecture was published in 1849, just three years before the exhibition. In the "Lamp of Truth" within The Seven Lamps of Architecture (1849), this Victorian art critic had insisted that materials should be represented as they are and should perform the function for which they were intended (a beam should support and not merely act as ornament, for example). Ruskin divides these "architectural deceits" into three types and stresses that they should be avoided at all costs: "1st. The suggestion of a mode of structure or support, other than the true one: as in pendants of late Gothic roofs, 2nd. The painting of surfaces to represent some other material than that of which they actually consist (as in the marbling of wood), or the deceptive representation of sculptured ornament upon them, 3rd. The use of cast or machine-made ornaments of any kind" (Rosenberg 124). Mr. Sang's suggestion about the use of iron in Paxton's building is clearly based on the second premise by Ruskin, presented above. But in the Crystal Palace. the concept of transparency was not limited to a penetration of light through the glass and the "true" use of iron<sup>7</sup>: it also pointed to an attitude about veracity and clarity in general. The main message seems to be that within its clear frame, the Crystal Palace has nothing to hide: transparency is both visual and moral. This "truthful" structure gives the impression that it presents its exhibits and its visitors as they are.

Glass is a transparent substance which is both hard and brittle. This seemingly straightforward observation reveals contradictions in the nature of glass that contribute to the analysis of the Crystal Palace. It is not difficult to see how this edifice, composed mostly of glass, could be seen as a magical wonderland but one that was also fragile and destined to be short-lived. Furthermore, the fact that glass has contradictory properties enables one to question and deconstruct the issue of clarity and the role that it played in the Crystal Palace. In *Discipline* and Punish (1975), Foucault discussed how controlling "transparency" can actually be, when he discussed the effect of the panopticon and surveillance in the penitentiary system. In this building,<sup>8</sup> the unseen or internalized gaze is the main tool in the exercise of control and power. In the preface of his work on the panopticon, Bentham introduces and defines this new type of edifice and clearly states that it may house prisoners, workers, students and "madmen." In this definition, apparently dissimilar people are placed within the same category, but under the light of control and power, everyone who is institutionalized shares the need to be "corrected," controlled, and ultimately, to be seen. Foucault discusses how visibility becomes key in this apparatus of visual control:

The panoptic mechanism arranges spatial unities that make it possible to see constantly and to recognize immediately. In short, it reverses the principle of the dungeon; or rather, of its three functions –to enclose, to deprive of light and to hide– it preserves only the first and eliminates the other two. Full lighting and the eye of a supervisor capture better than darkness, which ultimately protected. Visibility is a trap. (Foucault 200)

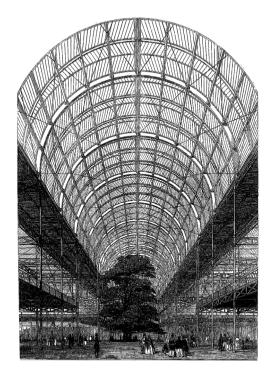
Foucault brilliantly examines how a transparent space is actually more controlling than a dark dungeon. In it, any type of inmate is supervised constantly more by suggestion than by direct action: "the inmate will constantly have before his eves the tall outline of the central tower from which he is spied upon[...] the inmate must never know whether he is being looked at any moment; but he must be sure that he may always be so" (Foucault 201). This issue can be easilv translated into the context of the Crystal Palace, a building whose most significant property was transparency. We must remember that the logical objective of the Great Exhibition was to present thousands of exhibits that numerous visitors could simply look at. The people who attended the exhibit, and not the objects themselves, became the focus of the display. What Foucault and other thinkers have suggested is that the gaze can be extremely controlling. The Crystal Palace could be seen as an ideal translucent space, but this quality soon turned blinding and the brightness turned into glare: "Utopian ideals, the purity of 'nakedness' doesn't take long to become oppressive. Life exposed under a bell-jar soon runs out of oxygen" (McKean 33). The life exposed in this structure is that of the Victorians, and it is far more challenging to consider the elements that were not meant to be exhibited than those which composed the official event.

#### Figure 1



N. Harou Romain. A prisoner in his cell, in Michel Foucault, Discipline and Punish (London: Penguin Books, 1977).

## Figure 2



Panoptic space within the Crystal Palace, in John McKean, Crystal Palace (London: Phaidon Press, 1994).

Figures 1 and 2 have been placed next to each other in order to compare the Great Exhibition building with an example of a penitentiary that employs the panoptic model. The architectural similarities are obvious, especially because both structures employ glass and iron, and an immense quantity of light floods the inside of the space. Because of this, both the visitors of the Crystal Palace and the prisoner in his cell are inside crystal envelopes devoid of dark corners, where they could potentially hide. Furthermore, in Figure 1, the prisoner is praying, and the visitors to the Crystal Palace, especially the day of the opening, were overwhelmed by religious feelings because of the nature of the ceremony, but also because of properties of the building itself. At a symbolic level, one may interpret this prisoner's kneeling as an indication of his submissive position, one in which he is facing yet not looking directly at authority, at the omnipotent tower in the middle of the complex. The suggestion is that he is at the mercy of but not entitled to the gaze, which originates from the tower.

The situation of the visitors of the Crystal Palace was clearly not as extreme as that of the prisoner who is portrayed; however, surveillance is more effective when discreet. Upstairs galleries that went around the building actually did provide people with a chance to observe those who walked underneath, but even without these spaces, transparency in itself created a sensation of permanent scrutiny, of being seen but not being able to identify the source of the gaze. There was no central tower within the Crystal Palace, but its unprecedented transparency created a permanent state of surveillance; furthermore, we must remember the meaning of panoptic: "all-seeing (fig.) comprehensive, covering every aspect of a subject, all-encompassing" (O.E.D.). Both the prison and the Crystal Palace are panoptic buildings, the former because of its central tower and the latter because of its vastness and clarity, which allowed an all-encompassing view of the space. Furthermore, as Figure 3 will later prove, the people within the Crystal Palace came to be regarded as the most interesting and observed exhibits. This surveillance continues to this day, when modern critics still observe, as under a magnifying glass, and as if they were still alive, the visitors who once walked within this great building.

#### Iron: Supporting the Illusion

If glass was responsible for creating an enchanting yet fragile fairyland, iron was responsible for supporting such an illusion. Like glass, iron has certain physical properties which in turn generate more symbolic qualities. Its physical strength easily suggests Britain's own power, both as an industrial and an imperialist giant. Because of its unprecedented importance in construction, iron also symbolized the literal growth of cities and the more idealistic values of improvement and "progress." Last, but not least, iron was associated with the railroad, and once again, with connotations of growth, communication, expansion and imperial "unity" that went along with it.<sup>9</sup> On a larger scale, the use of iron represented an innovative and efficient type of construction, but as a symbol, this mineral may be deconstructed in order to reveal elements of Victorian culture which were not meant to rise into view.

Astounding figures illustrate the importance of the use of iron in the entire structure.<sup>10</sup> This edifice was an amazing feat and a new type of construction (one based on efficiency, the use of new materials, economy, and organization) was what really supported the accomplishment which came together as the Crystal Palace. Nevertheless, the role of iron and the revolutionary process of building in general brought about dire consequences. These negative issues, of course, were not included in any of the public speeches promoting the event. Neither the Industrial Revolution nor this building could have occurred without the raw materials that emerged from the mines. The Black country in the midlands of England was abundant in iron ore, limestone, coal, and sand and it was "the greatest iron providing area in the world at the time" (Tropp 84).<sup>11</sup> While the Great Exhibition was taking place, according to the Census of 1851, "over a quarter of a million men and boys labored in constant danger" (Tropp 84) in the mines in the Black Country and other parts of England, Wales and Scotland.

One could argue that some of the attendants of the exhibition were unaware of this harsh contrast, of the splendid vision of the Crystal Palace on the one hand, and the Hades of the mines where men, women and children toiled and died in order to produce the very stuff that supported the illusion behind the Great Exhibition. However, this argument is most unlikely, since both upper class visitors who owned some of these mines as well as members of the other classes were aware of the existence of the mines and of some of the conditions within them. How aware people were and what they chose to do with this knowledge is a complex matter deserving another study. Still, one could argue that the Crystal Palace had the power to enthrall and to mesmerize its visitors and, ultimately, to make them forget, at least temporarily.

Without dwelling on the topic of the mines and the origin of the raw materials that constructed the Crystal Palace, it is still possible to consider the cost of building such a place; the process behind its building went incredibly smoothly, apart from a "minor" event, a strike in which glaziers were asking for a raise from four to five shillings per week: "This [the strike] was swiftly and effectively dealt with for Messrs Fox and Henderson could afford neither delay nor blackmail. The ringleaders were dismissed and the rest given the chance to go back to work at the old agreed rate" (Beaver 24). The Crystal Palace is a monument of matters "swiftly and effectively dealt with," of the British Empire's ability to "afford neither delay nor blackmail" from the classes that supported the Industrial Revolution and its imperialistic position in the world. In the same way in which the iron structure supported the illusion known as the Crystal Palace, large quantities of the mineral, along with the human cost behind mining these, supported the Industrial Revolution.

### The Fairy Palace

Neil Parkyn lists the Crystal Palace as one of the world's great public buildings and highlights its singularity by affirming that "it was instantly regarded as an icon of modernity, and many of its achievements remain unequalled to this day" (134). Not only has this building earned its place in the annals of world architecture, it had a significant and palpable effect on its contemporaries. The importance of the Crystal Palace cannot be attributed solely to the effective use of glass and iron or to innovative construction. Its success was based on its ability to trigger certain sensations in the people who beheld it and to generate a particular, almost mystical ambiance. One of the most powerful effects that was created was the "fairy quality" of the building. The most famous remarks that highlight this are those made by Queen Victoria in her journal entries. Before the opening, the Queen records in her journal in February 18, 1851: "The sight of the Crystal Palace was incredibly glorious, really like a fairyland [...] From the top galleries the effect is quite wonderful. The sun shining in through the transept gave a fairy-like appearance" (Gibbs-Smith 17). On the same day of the inauguration, the queen remarks: "A little rain fell, just as we started; but before we neared the Crystal Palace, the sun shone and gleamed upon the gigantic edifice," (Hibbert 84) pointing to an almost divine effect that pervaded the scene. Furthermore, in a letter dated 3rd May of 1851 to her uncle, the King of Belgium, the queen writes about her enthusiasm during the inauguration: "I wish vou

*could* have witnessed the *1st May* 1851, the *greatest* day in our history, the *most beautiful* and *imposing* and *touching* spectacle ever seen [...] Truly it was astonishing, a fairy scene [...] *You* will be astounded at this great work when you see it!—the beauty of the building and the vastness of it all" (Benson 384).

Other visitors to the exhibition coincided with Queen Victoria and her reaction to the palace. The German critic Lothar Bucher remarked about the atmosphere that was generated within the edifice: "To say that the spectacle is incomparable and fairy-like is the soberest understatement. It is like the fragment of a midsummer night's dream seen in the clear light of day" (atd. in McKean 29). Words like "fairy," "magical" and "dream" pervade the commentaries of the day about the edifice, all pointing to the ability of the Crystal Palace to fascinate and enthrall both its Victorian visitors as well as the recent critics who are still drawn to it. But these terms also point to the illusory and evanescent quality of the building and of the Great Exhibition itself. Like anything belonging to the magical. Paxton's glass buildings were never meant to stand forever. This knowledge, that from its conception, the building was meant to have a short life, was responsible for generating this feeling of evanescence that almost all of the visitors seemed to have felt when stepping into the fairyland of the Great Exhibition. Gottfried Semper, a famous German architect (who collaborated in the design of part of the exhibit) discusses how evanescence seems to be a characteristic of a new architecture: "In our lively and active time perhaps what matters is to express the transitory needs that we feel, to express beautiful reality in a fleeting way, and to create works for themselves, for the living, instead of what the future may set for them" (Mallgrave 556). The Crystal Palace, harbinger of a "lively and active time," of a modern era, could not be anything but ephemeral.

## The Deconstruction of Interior/Exterior

Apart from being perceived as a fairyland, the Crystal Palace had another major effect on people's sensations –it challenged their visual perception of what was inside and what was outside, and this brought significant implications. In Jean Baudrillard's *Seduction* (1979), illusion is described as the main tool of seduction. Baudrillard talks of seduction as a spell and as artifice, and he illustrates the concept through the *trompe l'oeil*, a device of deception originating in painting; the term literally means to trick the eye (French, *tromper*, to deceive+ *le*, the + *oeil*, eye). Furthermore, since one of the meanings for illusion is: "4.a. sensuous perception of an external object" (O.E.D.), one may safely say that it is automatically linked to both the senses and to the pleasure derived from them. Moreover, since illusion promises pleasure, it is fundamentally linked to the process of seduction. I argue that Paxton's building allures by tricking the eye and the senses, by presenting enchanting illusions, based on its "fairy" quality already discussed, and on its blurring of boundaries between its interior and the external world. Upon witnessing the Crystal Palace, Richard Lucae said:

We are separated from nature but yet we are scarcely conscious of it; the barrier that separates us from the landscape is scarcely perceptible. If we reflect on it, it is as if one has poured air, as it were, like a liquid; thus, here we have the sensation that the free air has kept its solid shape after the form in which it had been poured was again taken away. We find ourselves, so to speak, in a piece of sculpted atmosphere. (Mallgrave 560)

This poetic description proves how powerful the effect was of this crystal envelope on an audience who was simply not accustomed to spaces that challenged the fusion between the exterior and interior. Furthermore, Lucae stresses the feeling of being in the presence of sculpted air –the border between what is natural and what is art/artifice/artificial has also been crossed. Another source from the times confirms this unusual sensation; in the *Art Journal Catalogue* of the event, Mrs. Merrifield claims: "the effect of the interior of the building resembles that of the open air. It is perhaps the only building in the world in which atmosphere is perceptible" (ii). The nineteenth-century audience was not used to witnessing or experiencing buildings mostly composed of glass, such as the ones that would later arrive with the onset of a new kind of architecture; the Crystal Palace was innovative in its play of the interior and exterior, generating unexpected and powerful sensations in its viewers.

This difficulty to determine what was internal or external was disorienting in general, and it was combatted in part by painting the structure in different colors (refer to Footnote 7) as a way of guiding the eye and giving some form to the building. Disorientation led to experiencing something so grand that its true meaning could not be put into words, only felt and experienced. After the inauguration, an article in *The Times* struggled to describe what was perceived by the palace's first visitors but concluded: "It was felt more than what was seen, or what had been intended" (2 May 1851). The same newspaper published an article one day after the closing of the place, and once again, words failed: "Words cannot do it justice, and fail utterly to convey the mystery and the grandeur thus embodied to the eve" (13 Oct. 1851). The last phrase "embodied to the eve." presents a complex possibility –whatever is being described materializes or acquires a "body" through sight, not words. The surroundings can only be absorbed and measured through the senses (in this case sight), but they cannot be fully explained by conventional oral or written means. This is congruent with the concept of the sublime, which continually escapes a concrete definition, since it is meant to be felt and experienced and not grasped through words.

## The Masking of Anxieties through Discourse and Space

The interior/exterior topos is extremely useful when analyzing the Crystal Palace as an architectural landmark, and as a herald of what was to come in modern art in general. However, it is equally valuable to discuss this issue when considering the edifice as a text that houses particular discourses. The Crystal Palace presents the blurring between the interior and the exterior, but it also presents the image of the bell-jar, of the bubble. This fairyland, according to McKean, is "protecting within its glazed bubble, as if allergic to the mid-19th century industrial world outside -but protecting against what?" (4). The last question is precisely what the rest of this chapter will attempt to answer. Official discourse and topics such as peace and unified nation will be considered and questioned under the light of the prevailing fears that are also present at a subterranean level within that discourse. I will argue that the interior of this building housed official discourse but that it also attempted to keep out fears and anxieties that were clearly present but that would not fit nicely or properly into the exhibition: free trade was disguised by religious imagery, a feeling of British superiority was hidden under the promise of international solidarity, and Victorian society was presented as one big happy family, thus hiding obvious class distinctions and divisions. However, the great irony behind this, of course, is that this effort to stuff a seemingly transparent and honest space with things that were desirable also shed unwanted light on the fears and anxieties that were meant to stay outside of the exhibition. The Crystal Palace and its transparency actually functioned as a magnifying glass, allowing unsightly things to be seen in detail instead of not being seen at all. This, of course, points to what Vidler has called the "architectural uncanny," a space where repressed issues eventually float up to the surface and rear their ugly heads.

The visitors on the morning of the first of May of 1851 seemed to share a reaction of being in the presence of something mystical. Religious feelings abound in the remarks of those present that day. The queen herself recorded: "The glimpse through the iron gates of the Transept, [...] gave a sensation I shall never forget, and I felt much moved..." (Hibbert 84). *The Times* coincided with Queen Victoria in describing the event as a religious one: "There was yesterday witnessed a sight the like of which has never happened before and which in the nature of things can never be repeated [....] Above them rose a glittering arch far more lofty and spacious than the vaults of even our noblest cathedrals [...] some were most reminded of that day when all ages and climes shall be gathered round the throne of their Maker" (2 May 1851). The Great Exhibition was perceived as a sublime, religious event and the Crystal Palace was easily equated to a church. Both the ruler of the empire and great part of the world –Queen Victoria– as well as the supreme ruler –God– were present in the accounts of the inauguration.

The feelings of religious fervor and devotion felt at the opening of the event were generated to a great extent by the Crystal Palace itself: "The building itself was described in terms of church architecture –the nave, the aisle, and the transept" (Beaver 42). Furthermore, the proceedings contributed to the religious character; the event included the Queen taking her place on the dais, a great organ playing the National Anthem, Prince Albert speaking, and the Archbishop of Canterbury saying a prayer answered by a Hallelujah chorus. At the end, a procession took place, headed by the Royal Family. The inauguration was acted out and perceived as a religious act, a fact that was due to the proceedings, but mostly to the building itself: "Essentially it was a glass cathedral rather than a Crystal Palace" (Hobhouse 36).

A glance at the floor plan proves the striking resemblance of the Crystal Palace to a church, including the figure of the cross that is central in the design. As with any other great religious edifice, this glass cathedral managed to generate feelings of the sublime in the people who entered it. An awe-stricken public would tend to be more receptive to the official discourse (or any being offered at the time), claiming ideals of peace and fraternity, for instance. In other words, this public would be more likely to focus on what was on exhibition and to ignore that which was hidden underneath. Perhaps the main element which was carefully "hidden" or disguised under the facade of the Crystal Cathedral was that of free trade.<sup>12</sup> Prince Albert, as the most visible promoter of the Great Exhibition of 1851, was an avid supporter of free trade, a fact which was often attacked by the opposition. In a speech at the Lord Mayor's Banquet in London on the 11<sup>th</sup> of October 1849, meant to rally support for the exhibition, Prince Albert was very clear about his belief in free trade: "the products of all quarters of the globe are placed at our disposal, and we have only to choose what is the cheapest and best for our purposes, and the powers of production are entrusted to the stimulus of competition and capital (The Illustrated London News). The promotion of this economic model, then, was a clear objective even before the Roval Commission was formed.

Despite contradictory meanings that the building seemed to house, one might consider the possibility that the Crystal Palace functioned *both* as a glass cathedral and as one that embraced commerce and industry. The Crystal Palace was meant to promote industry and progress, but the element of free trade was hidden under euphemisms and mostly under a very convincing façade of religiosity. This gave its visitors a sense that the British empire had been granted a divine blessing to pursue its goals, including mundane economic ones.

The glass cathedral projected unto the Crystal Palace managed to hide the free trade cathedral, but there were other elements that were covered up by official discourse. The Great Exhibition of 1851 was promoted as an international event, a "peaceful" competition that would take the place of war. Once again, Prince Albert's speech at the Lord Mayor's Banquet (1849) sheds light on this situation:

we are living at a period of most wonderful transition which tends rapidly to the accomplishment of that great end to which indeed, all history points -the realization of the unity of mankind [....] The distances which separated the different nations and parts of the globe are gradually vanishing before the achievements of modern invention. (*The Illustrated London News* Oct. 11 1849) The Prince Regent would forever be, in the eyes of some, a foreigner, and this idea of international unity would obviously benefit him. In short, the exhibition was a chance to create a healthy competition that would displace the need for war. In official discourse, the Crystal Palace was an edifice where peace and tolerance for other nations reigned; the palace was said to embrace exhibits and people from all nations and to recognize their unique contribution.

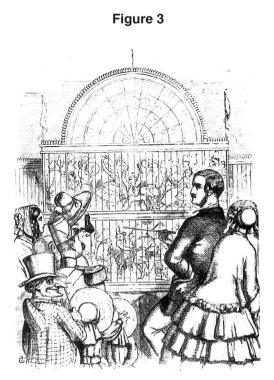
This idealistic desire to stage an international festival is overshadowed by international tensions that infiltrated the Crystal Palace. There was a nationalistic sentiment that transcended the good will behind projects such as the Great Exhibition, a fact vehemently expressed by one of the men most bitterly against the event –Colonel Sibthorp, MP for Lincoln. On the 4th of February, the Speech from the Throne discussed issues of manufacture and trade, and in the ensuing debate, Colonel Sibthorp clearly expressed his dislike of anything foreign (inevitably including the Prince Consort):

that fraud upon the public called a 'Glass House'... that accursed building, erected to encourage the foreigner at the expense of the already grievously-distressed artisan. Would to God –I have often wished it– that a heavy hailstorm or a visitation of lightning would put a stop to the further progress of that work. Your property, your wives and families will be at the mercy of pickpockets and whoremongers from every part of the earth. (qtd. in Beaver 28)

It is interesting that the Colonel blames the building itself —not the event for all that is pernicious. "The foreigner" in this quotation could obviously refer as much to foreign countries involved in the scheme of free trade as to the ultimate foreigner at the head of the Great Exhibition —Prince Albert himself. Despite his choleric remarks about the event, the day of the opening was imminent, and upon seeing the presence of the foreigners that he feared and hated in London, the irate Colonel remarked:

That miserable Crystal Palace [...] that wretched place where every species of fraud and immorality will be practised. Let them [the Commissioners] beware of man-traps and spring guns. They will have their food robbed –they will have piebald generation, half black and half white; but I can assure them that my arm will be raised to prevent such a violation. They might look for assassinations for being stabbed in the dark. (qtd. in Beaver 35)

The adjective "piebald" of course, provides us with a great opportunity to discuss the Colonel's views about foreigners. Because the word is applied to a horse that has irregular blotches of black and white, one might safely claim that Colonel Sibthorp considered foreigners to be less than human. Furthermore, the word describes a mix of black and white, which in a sense is more revolting to the Colonel (than merely black), since the "white" has been polluted by the "black." Furthermore, he is equating foreigners with "fraud," a negative economic consequence, "immorality," an offense against values, and "assassinations," the ultimate threat against life, and in this case, the British way of life.



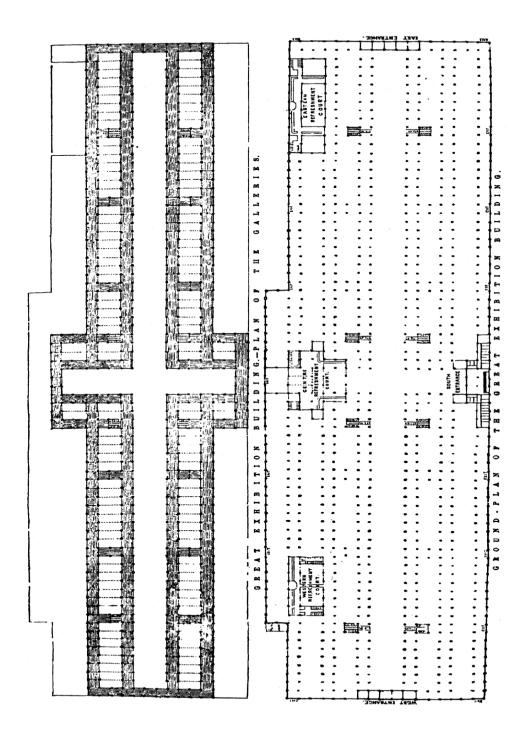
THE HAPPY FAMILY IN HYDE PARK.

Observing the foreign "others," in Punch (19 July 1851).

Some could argue that Colonel Sibthorp's views on foreigners are rather extreme, and that they do not fairly represent the view of the majority at the time. Still, there are other sources which confirm that there were tensions in the relationship between Britain and foreign nations. The magazine *Punch* printed a cartoon entitled "The Happy Family in Hyde Park," where Prince Albert and his "family" (other "white" people) are looking at a celebration inside the Crystal Palace, where an American Indian, a Chinese individual and a person wearing a turban seem to be on exhibit: "They are alien 'others,' on display as in a museum case or a circus cage, engaged in a bizarre and perhaps primitive dance. The British and Europeans, looking in, are separated from, and literally defined by, those they are looking in, separated from, and literally defined by, those they are looking at" (Auerbach 159).

This and other *Punch* cartoons prove that this anti-foreign undercurrent, manifest in any culture in different ways, was definitely present around and inside the Crystal Palace. *The Times* also offered articles about the exhibition and





Floor plan of the Crystal Palace from Corporation of London Library in George Chadwick, *The Works of Sir Joseph Paxton* (London: The Architectural Press, 1961).

the Crystal Palace pointing to nationalistic sentiments. For example, an article defending the participation of foreign jurors in the exhibit is at the same time a blatant promotion of English superiority; the piece tells how English and foreign fire-engines entered a contest: "In discharging a column of water perpendicularly, the fire-engine from Canada appeared to have a decided advantage, but when the pipes were held horizontally, its superiority over English competitors was not sustained" (21 June 1851). Canada is worthy since it belongs to the empire. but the motherland is still superior. Various articles discussing the participation of other countries in the exhibition suggest that their presence was required not to present what they had to offer but to highlight English superiority, whether it is in industry, science or art. Charles Dickens, a defender of foreign presence in the exhibition, stated in *Dickens' Household Words*, reprinted in *The Times*: "Our foreign visitors have neither burnt our houses nor endeavored to overturn our Government, nor run away with our daughters. They have behaved themselves peaceably and good-naturedly, and have borne with our little peculiarities amiably. Moreover, they have paid for what they have had, like honest men" (15 Oct. 1851). Dickens's words reflect not only his solidarity and goodwill, but the characteristics of the sentiment against "the others" at the time of the Great Exhibition. Political and economic fears which were clearly felt by Colonel Sibthorp were shared to an extent by some of his less extreme contemporaries.

A close look at the floor plan of the building (Fig. 4) and the allotment of space to the different nations within it might prove very valuable. The information about the location of the countries' exhibits, which was gathered from various written documents, reflects notions of imperialism and superiority but also of anxiety about the potential downfall. As discussed previously, the building resembles a church simply by looking at its floor design, along with a north to south axis being called a transept and a west to east axis referred to as the nave. The northern entrance is called the Queen's Entrance, and this is where the Royal Family's dais was placed for the inauguration ceremony. The placement of the Queen (and her entrance) in the north may be perceived as a symbolic decision, suggesting England's northern location in the map of the world and its superior status as an empire, in charge of giving a north to its territories. The transept splits the building into two distinct sections –on the west are the British and colonial exhibits and on the east lie the rest of the countries. British exhibits outnumber those representing its territories and its colonies are placed right next to the motherland. On a superficial level their location is logical, since they are part of the empire, but at a deeper level they also seem to be guarding the borders between Britain and the rest of the world. After crossing the transept and continuing downwards towards the eastern entrance, one encounters Asian and other European nations. Curiously, the United States is placed at the bottom (next to the eastern entrance), as far away as possible from the British section of the building. At the time of the exhibit, the United States was a rising industrial and economic power in the horizon; its placement in this location might reflect Britain's anxieties about the young nation's competitive rise as a world power. Furthermore, since the United States was an ex-colony

which earned its independence by force, its placement "at the bottom" of the floor plan could be viewed as a strong reminder that it was no longer "welcome" in the mother nation's family. The countries that are between the empire's exhibits on the west and those of the United States on the extreme east serve as a buffer to any threats that the new rising nation might represent to Britain. Within the Crystal Palace, this division of space for the exhibits of different countries supports the idea that, despite an effort to publicize the activity as an international and friendly venture, an undercurrent of tension between the British empire and other nations existed at the time of the Great Exhibition. The Crystal Palace, devoid of shadows and dark places, could not hide these nationalistic sentiments which took the form of articles, cartoons and floor plans.

We have discussed how the religious appearance of the Crystal Palace sought to hide the free trade "cathedral," and how anti-foreign sentiments surfaced in the Great Exhibition, despite the efforts to conceal them behind an international exterior. An issue that will be considered next is how the ideal of a classless "family" attending the exhibit could not be farther away from the truth. According to John Tallis, an author of popular guides of the exhibit, "all social distinctions were for the moment merged in the general feeling of pride and admiration at the wondrous result of science and labour exhibited in the Palace of Glass. Never before in England had there been so free and general a mixture of classes as under that roof" (qtd. in Auerbach 128). Despite this utopian desire to erase boundaries, the issue of class remained; the hierarchies of Victorian society were highlighted both by a fear of mobs and by strategies of separation of classes within the event.

There was a real fear of mobs in the London of 1851, stemming from events related to the Chartist Movement in England,<sup>13</sup> and numerous other demonstrations by workers who demanded an improvement of their conditions. Outside of the Crystal Palace, this fear crystallized in the form of soldiers who could appease the masses, in case of any outbreak: "the capital was garrisoned with soldiers to deal with possible disturbances. A company of artillery was stationed in the Tower, while five cavalry regiments [...] and seven battalions of infantry protected the Park itself. In addition 6000 extra police were on duty in London" (Beaver 35). Feelings of dread translated into the interior of the Crystal Palace; *The Times* "cautioned that 'when the masses take possession of the interior it will be well nigh impossible to see anything,' and suggested that those readers with a spare five shillings who wished to see the interior should attend before 'King Mob enters" (Auerbach 128). The word "masses" suggests a large quantity of people, but one which is amorphous, mindless, unpredictable and dangerous; these "masses," of course, were the working classes, and they were feared for the reasons mentioned above.

The Crystal Palace clearly translated the class divisions of society into the spaces within the exhibit. The matter of the ticket prices was perhaps the best indication that there was an attempt to keep different classes apart from each other. The first three weeks the price was of 5 shillings, the thought being that the upper classes would be able to see the exhibit before the working classes did, thus avoiding any "mobs" from getting in their way or, in the worst of cases,

before they destroyed the exhibit. After the first three weeks, the tickets became accessible on some days, but the classes usually attended the exhibit only with members of their own group due to these price differences. However, after the initial month, there was a significant mingling of classes within the Crystal Palace; it is while looking at the different groups in the close presence of "the others" that one may analyze people's preconceptions about class and society.

Several cartoons in *Punch* magazine attest to this reinforcement of differences; in the one below, entitled "The Pound and the Shilling," the Duke of Wellington and some upper-class-looking ladies face a family who is dressed in the manner of the working-class. The two groups face each other and are at close proximity. A better look at the picture, however, reveals certain prejudices in the way that the two groups were perceived. On the left stand the workers, and the characters on this side are portrayed differently than those on the right. A working man is standing in a somewhat defiant manner, resting his right hand on his hip and the other on the arm of an equally challenging man. The square angle of his elbow, his hat and even his features give him a sense of rigidity. Behind these two protagonists, there is a curious figure in the back who resembles a clown, and off on the other side there is a woman holding a baby; her features are nowhere as defined as those of the upper-class ladies on the right, but she seems to have a scornful look on her face. The children also present a contrast;



Figure 5

THE POUND AND THE SHILLING. "Whoever Thought of Meeting You Here?":

An unlikely meeting, in Punch (14 June 1851)

on the left is a little boy with a dirty face and ragged clothes and he seems to be offering flowers to a miniature lady of a girl. The boy's face displays awe, bordering on a lack of intelligence. Above the children, on the right side of the equation. is the Duke of Wellington, standing like a heroic statue, and holding the arms of a couple of ladies. The two ladies are much more defined as individuals and "ladies" than the working-class woman: the former have eves and they are looking peacefully and patiently at the group of the left, while the woman on the left is entirely devoid of eves or a gaze. There is also another upper-class lady leaning on the lady in the front, curiously looking at the people on the left but also guarding herself against them. The message seems to be that the Crystal Palace did give the different classes the chance to converge under the same roof. Still, when these classes came into close contact, this only brought about the differences between them instead of effacing them. The two distinct groups of the cartoon are curious of each other, but they are portrayed differently: the ones on the left are caricaturesque or defiant, whereas the ones on the right are well-defined, benevolent and heroic. The statuesque rendering of the Duke of Wellington in the middle serves as an impenetrable barrier between both sides; standing with one foot in front of the other, he is protecting and blocking his "side." The text that accompanies the cartoon, "Whoever Thought of Meeting You Here?" is posing a question. which automatically gives the situation an ironic tone. Both groups are clearly aware of their differences and of the unrealistic notion of "meeting" or coming into close contact with each other in a situation outside this event. The Crystal Palace acted as a meeting place for the classes, but instead of erasing boundaries, the event highlighted them, and instead of eliminating differences, it displayed them. inevitably creating feelings of unease, which are portrayed in the discussed texts.

I have examined the Crystal Palace as a body of glass and iron that can be read. The building that housed the 1851 exhibition is much more than a harbinger of modern times. The fascination that it created in its nineteenth-century spectators and in contemporary critics is largely due to it being a space and to its power of illusion and its ability to generate sensations. As an illusory and seductive space, the Crystal Palace is a public place that is said to be transparent, open, and honest. Thus, in the Great Exhibition building: "Glass walls and ceilings would, of course, never suit a place where dark secrets need be kept, but were perfect for an exhibition such the one housed in the Crystal Palace[...] This was a building without a basement, with no dark corners, with no past" (Tropp 55), Tropp, of course, is ironic in his last remark, since he also believes this structure was a mirage which could be deconstructed. Nineteenth-century guests of the Great Exhibition of 1851 were easily convinced by the notion that things would remain the same, that Britain would keep reigning politically and industrially, and that its project as a nation was a clear, honest one. Nevertheless, the Crystal Palace -the monument to transparency- ironically and ultimately hides, and functions as a mirage that effaces the nasty truths of imperialism and of a rigid, class-conscious society.

One of the most famous anecdotes about the Crystal Palace has to do with the imprisonment of sparrows that had flown into the trees and which were eventually enclosed within the structure. They were trapped once the roof panes were placed, and this presented a great problem to the opening of the exhibit. since *The Times* had jokingly mentioned that the sparrows' physiological activities would undoubtedly have a direct effect on Queen Victoria and her standing beneath them. Poison failed to kill them, and they had to be removed, but, obviously, they couldn't be shot because of the glass. The Duke of Wellington was called by the Queen in view of this emergency, and with the tranquility that characterized him, the Duke recommended: "Try sparrow-hawks, Ma'am" (Beaver 28). This image of sparrows infiltrating the space that they were meant to stay out of may be used to understand how the Crystal Palace was not as crystalclear as it appeared to be. The sparrows, natural beings, threatened to reveal just how artificial (thus, based on artifice) the Crystal Palace was. The sparrows, despite being alive, functioned as ghosts, as reminders of a reality that lived and breathed outside the crystal illusion. These phantoms with a will of their own could not be controlled and exhibited as inert objects in a display that celebrated the wonders of empire. Only one solution was possible -the sparrows had to go.

# Notes

- 1. From "Uber die Bedeutung und Macht des Raumes in der Baukunst" [On the meaning and power of space in architecture] (1869), trans. Harry Francis Mallgrave in Mall-grave's *Architectural Theory* Vol. 1 (Oxford:Blackwell Publishing,2006).
- 2. The original Crystal Palace was disassembled and transported to Sydenham Hill in 1851. These buildings share obvious similarities in the sensations that they generated but they also differ, especially in their dimensions; the building at Sydenham Hill was significantly larger than the original structure.
- 3. Edmund Burke published A Philosophical Inquiry into the Origin of Our Ideas of the Sublime and Beautiful (1757), where he discussed the possibility that intense emotion, ugliness and fear are capable, as is beauty, of generating feelings of the sublime. Immanuel Kant's Observations on the Feeling of the Beautiful and Sublime (1764) further defined the concept by listing different kinds of sublimity.
- 4. German painter Caspar David Friedrich (1774-1840) and British artist J.M.W. Turner (1775-1851) illustrated the concept of the sublime in Nature, which was discussed by Burke, Kant and other philosophers. Their paintings depict awe-inspiring landscapes, and in the case of Friedrich, individuals who are in the midst of these overwhelming surroundings.
- Thomas Richard's work *The Imperial Archive: Knowledge and the Fantasy of Empire* (London:Verso,1993) gives a detailed account of the Victorian obsession of recording and archival activity as a means of maintaining a slipping grip over Britain's territories.
- 6. The Great Conservatory was torn down in 1920 and the Crystal Palace was disassembled in 1851 and later moved (and modified) to a site in Sydenham Hill, where it also did not last long, since it burned down in 1936.
- 7. The iron structure was in fact painted in various colors: blue, yellow, red, and white. These colors were chosen not to hide the materials, but rather to differentiate and separate space. Interestingly enough, the colors did not seem to distract its observers

or to hide the iron, since the building was always referred to as an iron and glass construction.

- 8. The panopticon was a type of building modelled by British philosopher Jeremy Bentham in 1787. It consisted of a ring of cells around a central tower where a person in control could see but not be seen by those within the cells. It emerged from the disciplinary society, which, according to Foucault, followed one of torture and punishment.
- According to the anthology *England in Literature* (Illinois: Scott Foresman & Co., 1985), "In 1848 English production of iron equaled that of the rest of the world combined. Much of this iron went into the spreading system of railroads. England opened the first stretch of commercial track in 1830. By 1839 there were 1,200 miles, and by 1850, 7000 miles" (438).
- The 19 acres of area which enclosed 33 million cubic feet of space were composed of 205 miles of Paxton's patented sash-bars, 3300 iron columns, 2150 girders, and 34 miles of pipes.
- 11. In 1842, the Commission for Inquiry into the Employment and Condition of Children in Mines and Manufactures (1842) described the horrific condition of men, women and children (some as young as four) who would work and die in these underground laby-rinths. The report was full of harsh testimonies: "Typical was the testimony of Margaret Leveston, six years old, a coal bearer in the East of Scotland, who makes 10 to 14 rakes [extensive journeys] a day; carries full 56 lbs. of coal." Members of the House of Commons where it was read wept and passed the bill to improve some of the conditions, but the House of Lords objected to the bill "as an interference with the free labor market" which was one of the main driving forces behind the Great Exhibition of 1851 (Tropp 84).
- 12. In his book, *The Great Exhibition of 1851: A Nation on Display* (New Haven: Yale University Press, 1999), Jeffrey Auerbach claims that "the Great Exhibition itself was a force of the creation of the Liberal Party, by disseminating liberal ideas both in its structure and organization and in its actual content" (31). Furthermore, Liberalism could be roughly defined as promoting: "individualism, competition, free enterprise and *free trade*, education, and parliamentary reform" (31 emphasis added).
- 13. Chartism was a political, social reform movement (1838-1848) in England. It acquired its name because of the *People's Charter* of 1838 which demanded, among other things, the universal suffrage for all men over 21 and the right to a secret ballot.

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