



The Crystal Palace

Great Exhibition of 1851 | London, England

FEATURING

A review of the architecture of the Crystal Palace based on Joseph Paxton & other influences as well as a thorough analysis of its influence on society.

*PLANNING & DESIGNING
THE BUILDING*

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*CREATIVE CURATION
PROJECT*

The Crystal Palace

INTRODUCTION

The Crystal Palace was built in the 1850s for the Great Exhibition of 1851, designed by the gardener and architect Joseph Paxton (Merin, 2013). It is most notable for being built with iron and glass, possessing greenhouse-like features (Jackson, n/a). This review will discuss more about how this extravagant building came to be and the individuals who joined to create the ultimate sensation of the Victorian age. Let us learn more about how architecture and technology advanced Victorian society, changing the view of culture and creativity.

The Crystal
Palace



Reference:
<https://www.historyextra.com/period/modern/the-crystal-palace-was-constructed-of-iron-and-glass-so-how-and-why-did-it-burn-down/>

WHY THE CRYSTAL PALACE? WHAT WAS THE INSPIRATION?

An engineer and "Scotsman" named John Scott Russell was inspired to launch the Great Exhibition of 1851 after hearing of the Paris Exhibition of 1849 (Dugan, 2005, para. 1). This event was set to "showcase the latest technologies and innovations from around the world" (Merin, 2013, para. 2).

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WHY THE CRYSTAL PALACE? WHAT WAS THE INSPIRATION? (CONT.)

Visitors from all over the world were to come to this exhibition and be mesmerized by the amazing artistry and handiwork of many innovative individuals. As a result, there were high expectations for the building as much as the exhibition. Furthermore, the exhibition had "political backing," in which Prince Albert shed light upon the idea that, "products of all quarters of the globe are placed at our [Britain] disposal, and we [Britain] have only to choose which is the best and cheapest for our purposes" (Jones, 2020, p. 73). He asserts that as a potential world power, they should have more access to the most high-tech and advanced "products" of the world. Britain not only aimed to hold an exhibition for the purpose of amusement, but as a demonstration of power and wealth. Britain of the Victorian age strived to become a global force in the ever-changing, diverse world.

JOSEPH PAXTON: A REVOLUTIONARY IDEA

Soon after, a meeting took place in January of 1850 to discuss the design for the Great Exhibition of 1851 (Merin, 2013). Word was out that the design committee was looking for designers and architects to take on the hefty role of designing the space (Dugan, 2005). Finalizing a design for this building was not an easy task. In the span of three weeks, there were about 245 submissions, none of which were chosen (Dugan, 2005). How was the committee going to find a design just in time for the opening? What design would be well-fitting for the grandiose occasion?

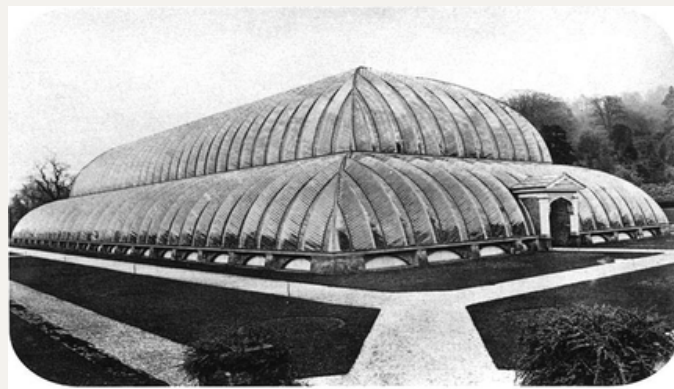
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JOSEPH PAXTON: A REVOLUTIONARY IDEA

Although none of the designs submitted were chosen, a man named Joseph Paxton proposed his idea of the building, which incorporated a greenhouse's structures. Paxton's idea was highly praised. Out of all the submissions, Paxton's stood out with a fresh, new approach (Merin, 2013). His idea was to create a structure made of iron and glass that would resemble a greenhouse (Merin, 2013). Paxton got his inspiration from a previous project that dealt with growing the Victoria Amazonica, which was a plant, part of the waterlily family originally grown in the Amazon (Pollard, 2019).

Having experience of growing this plant (which was originally grown in a warm, humid environment), he became knowledgeable in the features of greenhouses as well as building them (Pollard, 2019). His prior experience helped him submit a proposal that was reflective of it.

Chatsworth Greenhouse designed by Paxton



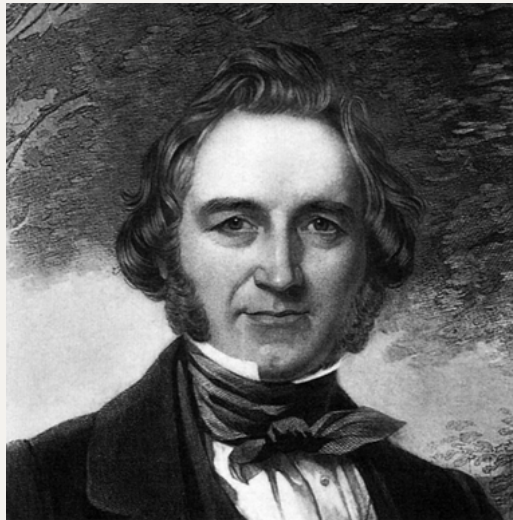
Reference:
<https://victorianweb.org/art/architecture/iron/21b.html>

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JOSEPH PAXTON: A REVOLUTIONARY IDEA (CONT.)

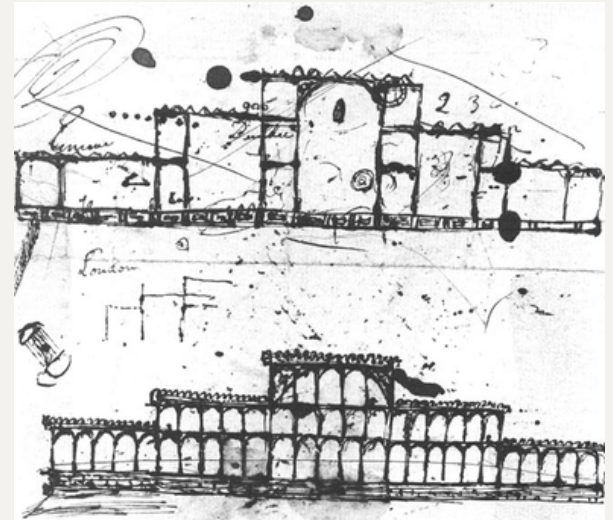
In specificity, the building was designed with a "ridge-and-furrow" roof design along with materials of "glass sheets," "prefabricated iron and laminated wood" (Merin, 2013, para. 3). The structure itself was influenced by the greenhouse and the Victoria Amazonica plant that Paxton had experience with.

Portrait of Joseph Paxton



Reference: https://commons.wikimedia.org/wiki/File:Joseph_Paxton.png

Paxton's sketch of the building



Reference: <https://victorianweb.org/history/1851/8.html>

JOSEPH PAXTON: A REVOLUTIONARY IDEA (CONT.)

With approximately eight months left of construction, Paxton's "low-cost proposal" was finished by the end of five months. (Merin, 2013, para. 6). However, the design in itself was controversial.

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JOSEPH PAXTON: A REVOLUTIONARY IDEA (CONT.)

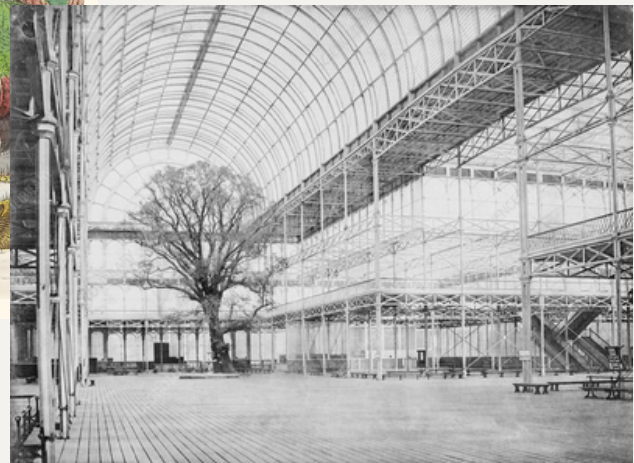
The design and construction of the building was quite challenging to satisfy both the "accommodating artefacts" that would be exhibited in the building and the visitors (Schoenefeldt, 2011, p. 233). One main concern was the temperature of the building, given, "the hot and humid conditions inside greenhouses" (Schoenefeldt, 2011, p. 233).

Walter Hood Fitch's painting of
a Victoria Amazonica



Reference: <https://www.kew.org/read-and-watch/victoria-amazonica-inspiring-a-nation>

Interior view of the Ridge-
and-Furrow ceiling



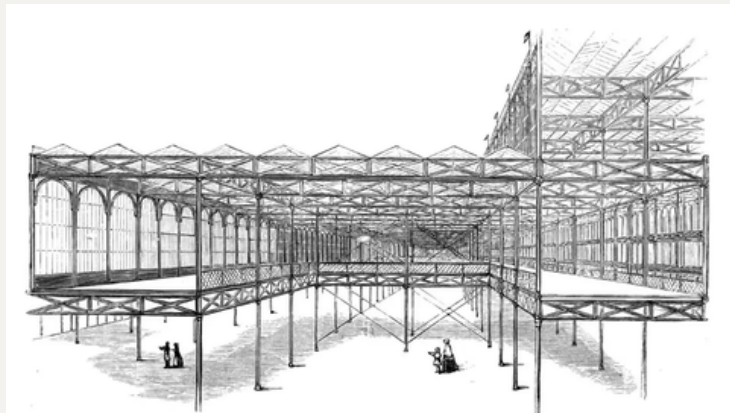
Reference:
<https://www.sciencephoto.com/media/1095553/view/crystal-palace-after-the-great-exhibition-of-1851>

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JOSEPH PAXTON: A REVOLUTIONARY IDEA (CONT.)

Although Paxton defended his plan by emphasizing the use of, "shading devices, provision for evaporative cooling and natural ventilation" as well as confidence from his previous success with the waterlilies (Schoenefeldt, 2011, p. 233). According to the records regarding temperature and ventilation, many reported that conditions were hot, as it was held during the summer, having to "cool themselves" down with different methods (Schoenefeldt, 2011, p. 241). Disparately, others argued that compared to other places like, "lecture halls" and "picture galleries," conditions were much nicer and bearable (Schoenefeldt, 2011, p. 243). These obstacles were later overcome and the building succeeded in becoming a well-fitting space to hold such an exhibition. His prominent ideas challenged the common methodologies for building structures which will be discussed later on.

A drawing of the
Crystal Palace



Reference: <https://www.domusweb.it/en/buildings/crystal-palace.html>

The Crystal Palace

THE REACTION

The day Queen Victoria visited the Great Exhibition, she described the visitors to be "awestruck with astonishment at the brilliant scene, radiant with life and colour..." ("Opening," 2017, para. 1). As one might imagine, many were amazed by such an extravagant event that displayed a lot of sights to see. Queen Victoria notes her visit, that "it was and is a day to live for ever" ("Opening," 2017, para. 2). She, along with the other visitors, was greatly impressed by the event.

Queen Victoria's
visit to the
Crystal Palace



Reference:
<https://www.historyextra.com/period/victorian/queen-victoria-prince-albert-great-exhibition-famous-crystal-palace-london/>

AFTERMATH: IMPACT ON THE VICTORIAN AGE OF SENSATION & ARCHITECTURE

Because the Crystal Palace was created for the purpose of the Great Exhibition, it was "disassembled" soon after (Merin, 2013, para. 7). Later on, the Crystal Palace was rebuilt in Sydenham Hill, London, but was tragically burnt down "in a fire in 1936" (Merin, 2013, para. 7).

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**AFTERMATH:
IMPACT ON THE VICTORIAN AGE OF SENSATION
& ARCHITECTURE**

Outcome of the
fire
(1936)



Reference: <https://www.london-fire.gov.uk/museum/london-fire-brigade-history-and-stories/fires-and-incidents-that-changed-history/the-crystal-palace-fire/>

**AFTERMATH:
IMPACT ON THE VICTORIAN AGE OF SENSATION
& ARCHITECTURE (CONT.)**

Although it is unvisitable now and only remains through images and memory, it has created a lasting impact on architecture and the modernity of the Victorian age. The Crystal Palace was a turning point that was described as a, "a breach with contemporaneous architectural styles - such as Gothic and Neo-classical and building materials such as stone" (Jones, 2020, p. 73) The building styles and materials of the time were traditional compared to the "out-of-the-ordinariness of glass" used for the structure (Jones, 2020, p. 74).

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***AFTERMATH:
IMPACT ON THE VICTORIAN AGE OF SENSATION
& ARCHITECTURE (CONT.)***

The building of the Crystal Palace sparked a unique and modern perspective on architecture. Most of the buildings were constructed with stone, but the Crystal Palace attempted to use unique materials and designs. The construction of the Crystal Palace was completed "under 200 days," "in comparison to the decades-long design and build of heavy stone buildings such as the Palace of Westminster" (Jones, 2020, p. 74). The swift process in construction suggested more modernized methods of infrastructure. These advancements brought forth changes to conventional ideas of architecture, providing a sensational perspective to the modern Victorian age.

CONCLUSION: WHAT'S THE TAKEAWAY?

With the start of Russell's inspiration of the Paris Exhibition, which led to the Great Exhibition of 1851, the building of the Crystal Palace was accomplished. His idea marked a notable period in the history of architecture. This also highlighted Britain's efforts to validate their dominance. Paxton's creative approach brought attention and enthusiasm to such a sensational time in history. From the proposal to the building up until the construction, everything made a lasting imprint on Victorian society and modernized Victorian architecture.

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