

It brand new  
materials, iron,  
cast, glass and

[Business](#), [Industries](#)



It wasn't decided upon to where industrial architecture would arrive upon as old factories and warehouses were left abandoned today and centuries ago it made it a way to usage and demand. Industrial spaces are point the wish list of real estate, although this trend began decades ago. the industrial revolution timeline.

the revolution of industry all started from the core of England at about 1760. This caused the changes which were radical to the civilization at every level throughout the entire world, causing heavy industry growth bringing a flood of brand new materials, iron, cast, glass and steel. Engineers along with architects, planned structures that until now are undreamed of function, form and size. in the second half of the 19th century dislocation brought about by the revolution of industry, became overwhelming. Many of the hideous new urban districts of factory and workers shocked the community, among the rich residents. For the new minds of canals, transportation, bridges, tunnels, and railroad stations, architects were focused on providing a cultural trend. It is due to that fact stated above is that what caused the industrial growth from the core of England itself and this what caused it to be the core of many of the furnishing materials and the new appending reality of architecture in industrial form. The industrial revolution transformed the way we think, work and live forever.

It was a productional increase that was brought about by the use of machines characterized by the use of sources of energy that were new. It originated in britain between the eighteenth and the 19th century. The industrial revolution caused major changes in agriculture, manufacturing, mining, transportation, technology, and our main focus, architecture. SO <https://assignbuster.com/it-brand-new-materials-iron-castglass-and/>

HOW DID THE INDUSTRIAL REVOLUTION AFFECT ARCHITECTURE? The quest for neoclassical aesthetics turned into a search for an architecture that made use of the new industrial materials. Instead of a beautifully made building with the intent to impress, buildings were developed with the possibilities granted by the new technologies and materials, especially iron and steel. In place of the aim to develop evoking buildings, the exploration was targeted towards building and designing efficient spaces that could economically and efficiently be replicated on a larger scale. With the advancement of the industrial revolution, construction and architecture became affordable.

This was especially owed to the ability to prefabricated architectural elements and building materials. Many people in the middle class were now able to afford architecturally designed homes and architecture was now able to accommodate the growing urban populations. This is quite evident in the materials and efficiency. In 1800 , the global amount of iron produced was 825, 000 tons. One century later, in 1900, with the industrial revolution in full swing, global production rose to 40 million tons, almost 50 times as much as in 1800. The drastic increase in iron and steel productions and structures build out of these materials was largely driven by the expansion of railway infrastructure in England and other parts of europe. As a side effect, more bridges were needed and the new materials allowed for larger spans to be covered.

This early ironworks bridge wa snot alike later iron bridges but was rathermore the direct translation of a stone arch bridge into one made metal. One of the best examples of architecture that came about in the industrial

revolution is the crystal palace. The crystal palace was not designed by an architect but by a gardener, Joseph Paxton.

Even though there were 245 submissions for the competition to design a building for the great exhibition of 1851, none of them met the requirements. This gave paxton the opportunity to present his idea. His design became known by the nickname ' crystal palace' and was a direct result of the possibilities granted by the technological advancements in building processes and material during the revolution of industry.

Prefabrication of the structure, assembled onsite and utilised large quantities of iron and glass- which is, in a way, similar to many modern buildings too. The exhibition was considered successful, but paxton and the crystal palace did not find much praise until the 20th century. When modernist architecture (among them le corbusier) reviewed this innovative structure and the application of manufactured parts. August 1850 saw the groundbreaking for the crystal palace. For the whole entire structure, only one based size of glass was chosen which hence determined the size of the repetitive units that made up the structure. The use of prefabricated elements and the modular design allowed a speedy build and a low overall cost. 19 hectares of Hyde park in London were covered by the structure in a little under 9 months of build time.

The central barrel-vault transept was crossed by a long flat-roof nave. The building was completed on time and opened by Queen Victoria on 1 May 1851. After the great exhibition, the crystal palace was dismantled and rebuilt in Sydenham on the outskirts of London. But the crystal palace was

not just a relocated building. When it was rebuilt in 1852 and 1854, the structure used twice the amount of glass it had used earlier and was increased in size by the addition of two barrel-vault transepts at the ends of the original nave.

The crystal palace remained an attraction until 1936 when it unfortunately burnt down in a disastrous fire. The loss was felt locally and internationally especially in the architectural community-and le corbusier was among those who lamented its destruction. Today, there no visible signs left of the crystal palace, However london could soon see the return of this landmark, since in October 2013, a chinese company announced its intention to rebuild the crystal palace. Technological advancements and building materials that came about during the revolution of the industry, as the foundation was laid for the modern architecture of the early 20th century and is the basis even of high rise and skyscraper construction of today.

With the perfection being taken further, of the prefabrication of metal and iron based materials. Our generation has been able to enjoy further improvements of efficiency and cost with relation to construction and architecture.