

What impact has technology had on architecture

[Technology](#)



**ASSIGN
BUSTER**

Mainly notes, needs a little work but Ideas are all there and has great opening - What impact has technology had on architecture of the 20th century? Throughout the nineteenth century, architecture refused to have anything to do with industry; It had been concerned solely with monumental projects glorifying the state and giant civic structures expressing the pride of its people. This however, all changed with the dawn of the twentieth century. Industrial production became an Integral part of modern society and a new relationship was forged between man and machine.

From the nineteen hundreds on, architecture was viewed in this new light. Modernism and the optimistic belief that architecture could change the future of society through a synthesis of science and technology was the result. It reflected a new ideal for humanity - one that linked man to a new rational culture in tune with mechanization and efficiency. Technology directly affected architecture by facilitating the creation of new materials with which to build. These new materials freed the architect from engineering limitations of the past and allowed for new rational signs based on a building's function.

But most importantly, these designs were given form by a new optimistic ideal - that rational design would make for a rational society. Technology transformed architecture into a tool for social and cultural reform. The industrial revolution gave three new materials to the architect of the 20th century: reinforced concrete, steel and glass. The new materials were inexpensive, mass produced and flexible to use. These affected American cities profoundly by allowing greater density through higher buildings.

Imagine the typical office floor late as we know it: open space with a few columns.

You couldn't go as high or have such long spans between columns with timber frame. Chicago is a great example of the kind of boom that occurred with this kind of new building technology. One need only to look to the Carson Peppier Scott Building built by Louis H. Sullivan in 1906 to understand the effect that new materials had on architecture of that era (fig. #1). With its wide spans, large horizontal windows and non load-bearing walls, the building has a much lighter and more open feeling than that of its predecessors. The Carson

Peppier Scott building's elevation is expressive of the Chicago Steel frame style made possible by industry. Another example of how new materials affected architecture is the Apartments at 25 bis Rue Franklin in Paris designed by August Ferret (fig. #2). He used reinforced concrete for the skeleton of this building, which is visible on its exterior, and which gives it an overall impression of lightness. This also allowed Ferret to open up his floor plan in ways that were previously restricted in wood. Structure became expedient, quick to build and flexible to use.

Along with Otis's electric elevator, these materials - as a direct result of technology - gave birth to the sky scraper and changed the face of architecture forever. Major new buildings projects churches. But more fundamental was the recognition that a new free architecture was necessary because of the emergence of new building types for which there was no

provenance in the history of styles. There were a vast programmer of building types - schools, collages, libraries and above all offices.

Idealization of industry: > -elimination of ornament > -reduction of form to function (same as elimination of ornament, but including function also as how space is used) > -expression of 'essentials' I. E. Structure, skin, floriated (see > CORBA's Domino house diagram) > -new kind of ethic in architecture - truth, honesty - to the point often of > puritanical fanaticism > -importance of light - almost as if it could cleanse (could make claim > about a purge of the post-grungy workshop industrial world of 19th > century, turning to ordered rationality of production) Lots of white > cleanable surfaces, MPH on air and ventilation also. E Core again > Villa Savoy: Raised off the ground (no dirt), white walls, open spaces, fluid circulation (curved ramp), roof garden, ribbon windows > -ideal of universality in architecture: modern materials coming from > industry produced a standardization that was envisage to be applicable in > any climate and culture. Corporations naturally picked up on a universal > architectural culture (see "the International Style" by Johnson) > anecdote I heard from a visiting architect > who once had a beer with Mimes van der Roe.

Asked Mimes "What materials > would you use to build in Africa?" "... "Glass and Steel".... "What materials > would you use for a project in Finland?" "... Glass and Steel" " "But > how would you account for the differences in climate".... "Proportion" > (This is totally hilarious to architects or anyone who knows Mimes well) > Role of the car: > -look at Flyweight's Broad Acre

City schemes- Utopian stuff about the role > of the car in the American landscape.

His utopia of the sass's is > frighteningly close to what has actually happened to suburban" cities" > like Phoenix > -suburbs > -post-modern architecture emphasis of the legible image of the > architecture- simplified enough for a building to be read at a glance from > behind the wheel of a car. See Robert Future's 'Learning From Alas Vegas' > a fun little book full of great insides that unfortunately spawned every > piece of tacky post modern architecture ever made.

See Michael Graves > Portland Building for a dumb box with decoration aimed at communicating > mere image to the post modern eye dulled by the assault of T. V. And used > to the speed of a car reflects the need to find something fundamental in architecture, something so real that from it a new style could be rationally developed. Buildings designed with a view to aesthetic appeal. I'd concentrate on modernism since its the single most important thing to append to architecture like, ever.