

The Architecture of Workplace

This second sequential issue of the *Nordic Journal of Architectural Research* focuses on workplace design issues from a broader and more integrated perspective, examining the contexts from which they emerge and the factors and conditions by which design schemes either function or fail. The articles selected for this issue deal with workplace transformation, upgrading, gentrification, location strategies, and the historical influences of industrial facilities on their operating environments in urban settings.

The history of the architecture of workplace is as old as the history of work itself. However, workplace design as an academic discipline, a systematic knowledge process in art and science, as well as a branch in the architectural and planning profession, is rooted in the West with the Industrial Revolution's massive production and the eventual separation of the workplace from the home.

It was not until the early nineteenth century that significant changes in the means of production forced factory leaders to involve architects in the design of production plants, offices, and other workplaces. In the early stages of the development of industrial building design, the materials and design concepts used in industry did not differ radically from those of other buildings. Early in the Industrial Revolution, the integrated patterns of traditional cities remained untouched and the home and the workplace were not conceived as two irreconcilable spaces.

But by the mid-nineteenth century the rise to power of industrialists as an established social class and the rapid application of new strategies for labor management and production organization in major workplaces were producing a gradual differentiation between residential and industrial buildings in terms of form, style and construction materials.

The new formal language was established by architects' designs for mechanized factories, craftsman workshops, and other workplaces intended specifically for production activities. In these buildings, tradi-

tional materials were superseded by new ones, wood and brick replaced by glass and iron. The changes gave the new buildings a distinct character that came to be labeled as “industrial architecture”. The powerful industrialists sought to use the emerging new forms of industrial architecture to express a new power structure, a new era of prosperity, and to symbolize a new economic and social hierarchy in which things are rationally organized and under control. In the new formal language, interiors, facades, chimneys, and entrances were designed to give a feeling of power and progress.

As the industrial era moved into the corporate phase of capital accumulation, larger workplaces which could accommodate more workers were required, and the large-scale production of motor vehicles caused the sudden growth of cities and towns. These developments inspired a new movement in industrial architecture: functionalism became the dominant ideology for aesthetic, functional, structural, and strategic considerations in the design of new industrial buildings. Even the localization of industrial activity in the city reflected the urban design ideals of functionalist philosophy.

In many industrialized countries, the existing legal instruments were changed and new legislation was passed to give the central and municipal governments greater power to expropriate urban land, to regulate the construction of new industrial buildings, and to control and actively plan urban development schemes. In each city, urban properties were expropriated and rural land bought up to create areas reserved exclusively for industrial use. Urban authorities, influenced by the new urban ideology, pursued a “functional” land use policy that divided the city into separated and compartmentalized zones, each for a particular type of activity.

Thus in industrial cities, new monofunctional industrial zones were reserved for production and related activities. Competition gradually forced the older industrial workplaces in city centers out to the peripheral industrial zones, their urban sites replaced with new activities. Particularly following the Second World War, industrial plants and their related offices gave up and moved beyond the city boundaries. This process culminated in the 1960s through the popularization of the automobile as a key element of the modern lifestyle. Many workplaces moved even further out from the city center to locations near the juncture of orbital highways. The typical industrial buildings of the ‘60s were reinforced concrete structures clad in facades of galvanized sheet metal.

Since the 1960s, a growing need for a more systematized science of industrial building has emerged in many industrialized countries. By the late ‘60s and the early ‘70s many educational and research institutions in Europe and North America were involved in workplace design and industrial architecture. In Sweden, departments for industrial building design were established in the schools of architecture in Stockholm

and Gothenburg with curricula for undergraduate, graduate and post-graduate levels. Later, several other centers for education and research as well as funding agencies for workplace research and industrial building design were established in Sweden.

Today, in conjunction with broader social, technological and economic developments, the architecture of work is stepping out from the institutions for architectural education and research and breaking down its traditional framework. As in many other areas of research, industrial building design is facing questions too complex to be adequately addressed and solved by a single discipline. Fruitful research is now possible only through a well-established network, with close collaboration between different sciences, academic disciplines, and practitioners.

This special issue on the theme of "The Architecture of Workplace" is part of an ongoing effort to develop industrial architectural research into a multidisciplinary subject and to establish the design of the workplace as a multifaceted task.

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Magnus Rönn, Reza Kazemian

Workspace Design II