

The Problem of Reviving Old Industrial Areas:

A Case Study of the Silesian Industrial Agglomeration in Poland

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As the 19th century progressed, it became increasingly necessary to locate industrial enterprises in the coal field regions. Coal was transportable, but it was used in such large quantities that iron, steel and other industrial factories moved to the coal mines to save the cost of transportation. Thus industry has long regarded the environment as a source of raw material, but also used it as a sink for dumping unwanted by-products. The consequences may be seen in the slag heaps and chemical dumps, in the damage to forests and the polluted rivers which blighted the landscape of the historical centers of the Industrial Revolution in northwestern England, the Ruhr, and the Nord-Pas du Calais. Today the same problem confronts

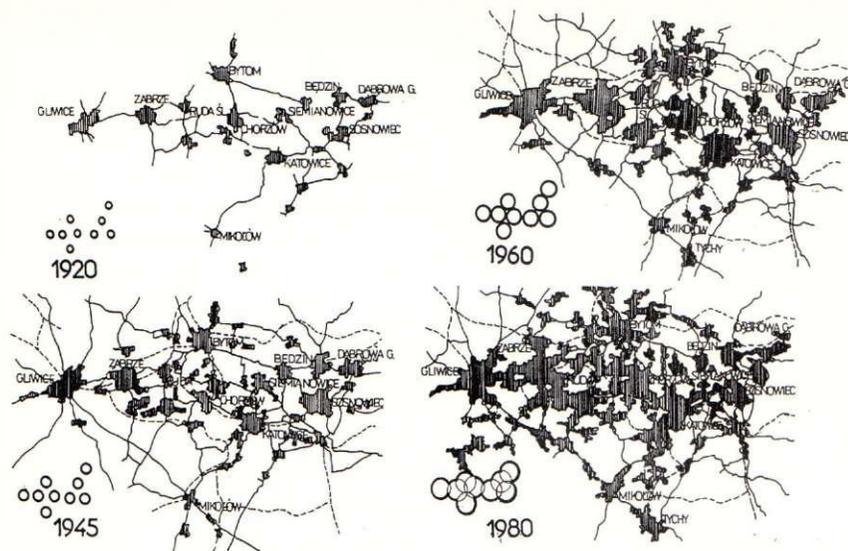
Theme: Workspace Design II

Eastern Europe, which has been dominated by heavy industry since World War Two.

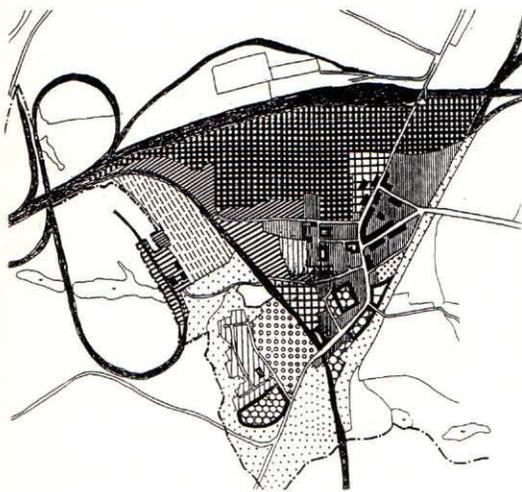
At the same time that technology and urban policies were evolving in Western Europe and setting new ground rules for the siting and planning of industrial plants, and while the historic industrial regions were undergoing intense restructuring programs, the Upper Silesian Agglomeration in Poland was still facing the negative impacts of structural adjustments. The monostructural nature of the region's economy is manifested in the dominance of heavy industry and under-investment in services. The land has been seriously damaged by industrial growth with no concern for the human and natural environment. This environmental damage clearly

has been detrimental to the quality of life in the region, making it difficult for Upper Silesia to compete with other industrial areas for new investment. The transition from centrally planned to market economy in the 1990s accentuated the differences between Poland's various regions. The former mainstays of the national economy, the Upper Silesia, Lodz (the old center of the textile industry), and Walbrzych (also a coal field region), are regarded as backward in today's market economy.

The Upper Silesian Agglomeration (also called the Upper Silesian Industrial Region) is situated in southwestern Poland and consists of sixteen cities and towns of the Katowice Voivodship. Industrial development began here at the turn of the 19th century. Today



The development of an urban area in the Upper Silesian Agglomeration.



AREA BALANCE		
MW	High intensity habitable-service buildings	23,16
MN	Low intensity habitable buildings	7,54
U	Service	2,10
Uz	Service and greens on a building site (schools, playing grounds)	5,14
Pu	Obnoxious industry	47,10
Pn	Non-obnoxious industry	6,92
S	Active industrial dumping yards	4,74
Np	Post-industrial waste land	10,58
ZN	Green areas	31,28
ZP	Parks	1,72
ZC	Commentary	1,20
ZD	Allotment gardens	8,50
NO	Sewage treatment	1,24
RP	Agriculture	12,84
KK	Railway service	15,50
KS	Automotive service	8,80
TOTAL (in hectares)		189,34

The balance sheet of land use.

the Agglomeration Project comprises a continuous urban area of 1200 square kilometers and a total population of about 2.5 million inhabitants. The region is the largest and most densely populated urban agglomeration in Poland, with 891 inhabitants per square

kilometer compared to a national average of 116. Industry still employs about 50% of the working population. More than 25% of the land is occupied by industrial complexes for harvesting raw materials, while coal mining occupies about 28% of the land, metallur-

gical industry about 25%, and power plants about 11%. About 9% of the land in the entire region has been thoroughly decimated by industrial activity. During the last 50 years, public policy has generally been characterized by excessive exploitation of natural resources, bringing ecological disaster to the region. In the 1980s, it was considered the most polluted place on Earth.

Following 19th century land use patterns, the iron foundries and other factories were clustered around the coal mines and in close proximity to workers' housing. That amorphous arrangement, can be described as a complicated system of movements from the workplace to the settlement. This pattern of growth may be seen clearly in the existing spatial structure of the urban area, and is the source of many of the city's common features.

Theories of urban land use have traditionally emphasized the role of accessibility and transportation costs. According to these theories, industrial plants should be concentrated in cities with railway access, close to coal mines, and close to the residential areas of the urban population centers. The result is urban sprawl and corridor development along roadways, which isolates the remaining open places and ecosystems and strengthens the functional interdependency of the agglomerated cities.

The inability of areas thoroughly dominated by heavy industry - to adapt to broad, external economic changes - demonstrates the vulnerability of the monofunctional regional economy. The economic changes of the 1990s have accelerated the decline of some



The Upper Silesia landscape

large industrial areas dependent upon antiquated technology. The stagnation of production has diminished the rate of pollution, but the abandoned land is still polluted and continues to produce negative effects in the social sphere. Only a few of the great old enterprises are privatized. Most of the polluting heavy industry has no future, economically or ecologically, but has until today been the dominant source of employment. The few new investment efforts in the region, such as the Fiat plant in Nowe Tychy or the new General Motors factory planned for Gliwice, are setting new rules for production and employment.

Many of the industrial districts on the urban periphery, established in close proximity to the steel and coal complex. These districts incorporating residential areas for workers, are self-sufficient. These multifunctional communities are providing work, service, and housing. The decline of even the inefficient plants undermines the traditional social relationships and should stimulate the creation of new workplaces, new spatial restructuring and new activities in the area. The spatial and functional links between cities make the challenge of establishing new patterns of development a matter of regional as well as local concern.

Does the Upper Silesian Agglomeration have a future? It would seem that the primary opportunity for the future lies in the revitalization of the human environment, in the renovation of houses and communities, which can offer significant economies of scale and generate new jobs. The basic goal of local policymaking is to promote the quality of life and the living

standard through the institutional framework.

Results of research (Juzwa and Szady 1989; Gasidlo, Juzwa and Wenklar 1994) show that the land occupied by the great industrial complexes can be divided into two categories. The first category comprises the already developed sites, including industrial, public, and office buildings which could be considered for conversion, renovated, or remodeled. The other category comprises vacant lots, warehouses, engineering and technological structures, railway yards, etc. Many of the old coal mining buildings, especially those at the entrances to the mines, are characterized by structural instability and inadequate technical conditions. Many of them are of local historical value, and in recent years some were demolished or insensitively remodeled. All buildings situated on the margin of the city, on the urban periphery, even those of traditional value, are in decline.

Rehabilitation of the developed parts of the old industrial districts will often combine a range of processes from restoration or adaptive re-use of individual buildings to the revitalization of entire districts. Given the degree of environmental pollution, we ought to restore the soil of industrial plant sites before assigning to them a new category of land use. The process of evolution, if at all similar to that taking place in the historical industrial regions of Western Europe, will be long and enormously expensive.

The strategy for reviving the Upper Silesia is aimed at job creation, softening the effects of the economic changes, and generating alternatives to the dominant monoculture of heavy industry while promoting regional development. The main issues can be grouped into three categories: economic transformation, environmental considerations, and, of primary importance, extensive social problems.

Thus environmental management and urban development cannot be considered separately, especially in an urban agglomeration like the Upper Silesia. The transition to a new market-oriented society involves the restructuring of local economies, and despite decentralization, local affairs are still controlled to a large extent by the central government. Even today, the links between the local authority responsible for the various aspects of environmental management and ecology are not stable. The gap between formal regulation and policy implementation is obvious. There is little experience with public/private collaboration, and only a few local policies intended to guide the physical planning and new activities in declining areas.

In the condition of Poland today, it is crucially important to get a redevelopment project just to be started. A recent agreement has been made between the local and regional authorities of Upper Silesia and the national government, called the Contract for Upper Silesia. The Contract brings a wealth of new challenges for the management of the urban environment.



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