Sustainable development of industrial city: The Case of Western countries

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Abstract: The article discusses urban design's concern; problems of decay linked to deindustrialization in industrial cities. Searching key aspects associated to an urban model that would let industrial cities revitalize.

Keywords: Sustainable development, urban planning, Industrial city, new quality.

There are mounting international interest in research and policy associated with revitalizing industrial cities. These cities for decades had been the motors of national economic development owing to their strong industrial base, now confronted by considerable socioeconomic and environmental problems in the wake of the sudden obsolescence of these former strengths.

Industrial-cities ; are urban structures tied to economic growth and production patterns [1]. Until the 1970s, settlements displayed exclusively residential districts arranged around a centre(s) mixing all other land uses. But housing; industries and transport building installations were located in special zones at the urban outskirts. The second great shift happened in the 1980s. Post-modern discourse in architecture, urban design and planning were strongly criticized land use zoning as one of the damaging planning conditions of the Modern city – a condition mostly responsible for underused public open spaces and unpopular urban environments. Following this, urban areas that developed – and mainly redeveloped through reconstruction, renewal or regeneration processes were returned to the land-use mix, particularly

mixing housing with commercial, office, cultural and leisure spaces. These new mixed-use developments are characterized as ‘‘themselves a product of the industry’s restructuring’’[2].

In industrial cities, decay is the consequence of lack of adaptation of old spatial structures to new modes of production. The city’s historic values, its memory layers and centuryies' of civilization were replaced by the optimum urban model for mass production. When the economic paradigm changed, cities designed for centralized industrial labor began their decline[1].

Following economic collapse, most of them are now confronted with serious problems such as high unemployment and vast ecological damage[3]. The mentality problem was remarked in studies about the old industrial areas, "in regions where industry played an important role, many people cannot imagine other paths of development” [4]. In middle of a vicious circle of decline in industrial output, and loss of image and self esteem among the population. This, in turn, has led to a considerable exodus of primarily the highly qualified and young sections of the population, a group which are essential for the development of new economic structures ‘from within’. Global economic changes caused that those areas attract only limited external corporate interest. As a result, local and regional public bodies are financially over-whelmed by the maintenance costs of massive infrastructural legacies, including dealing with derelict factories and the associated clean-up costs of contaminated sites, together with the growing indirect costs of social disintegration and a lack of economic perspectives. It is important to note that problems of decay are not only related to the built environment but to the whole territory that surrounds the city as long as it is understood, for example an important element like labor processes has a territorial component. It is also inherent to the production process since raw materials and places for their transformation rarely share the same place. In consequence, problems generated by the transformations of working processes and changing shifts cause regional crises and affect the whole spatial system [1].Dramatic changes in the political-administrative system and society in countries which have industrial cities were a necessity after the falling of

GDP. The slump in the relative importance of industrial production continued. Industrial employment dropped further as a direct consequence of the required increase in labor productivity[3].

There are certain techniques that can be employed successfully to face urban decay:1. Regional Plan. It comprehends the whole territory suffering from deindustrialization; it sets the foundations for the revitalization programs and constitutes the framework for smaller projects, plans and studies.2. Projects related to a certain aspect of the regeneration process that are comprised in the regional plan. Usually, they are linked to four subjects:_Transportation Plans. Not understood as infrastructure improvement programs, but as the structure of the new polycentric urban model. It connects regional centralities and the intended regeneration plans and projects on isolated and degenerated neighborhoods or abandoned industrial areas. Usually, they comprise the amelioration and reuse of abandoned networks (railroad, rivers…) and their incorporation to the public transport system. This decision lies both on the attempt of developing a less unsustainable urban model and to the understanding that access to services and working places by public transport will enhance social cohesion. 3. Industrial Culture and Working Memory Recuperation Programs Linked to the restoration and reuse of major elements of industrial heritage. Usually, most significant industrial sites and buildings are recuperated for tourism, cultural uses and recreational areas but, in most cases, renovation is tied to new community services and parks. 6. Regional Economic Revitalization Plans. They try to create a new regional economic base as diversified as possible, associating new working places to the renovation of old industrial sites.5. Housing Development Plans . They comprise two kinds of projects: redevelopment projects for working-class or deteriorated industrial neighborhoods (through the restoration of working-class housing schemes linked to industrial sites, the revitalization of traditional districts or the redevelopment of degenerated social housing neighborhoods) and new mixed – use district projects planned on former industrial sites, integrating a great amount of services and recreational areas for the residents as a way enhance new population to stay in the region[1].

To sum up, it seems possible to conclude that industrial city decay is a reversible process. Apparent cities' unfitness to adapt to new circumstances or paradigms can be reverted and urban planning is the basic instrument to cope with decline. It is essential that urban planning assumes decline as a stage on the urban evolution process, instead of trying to hide it or ignore it.It is necessary that we change the traditional way of perceiving. In this complex context, urban planning and urban action are the fundamental tools to guarantee a long – term and sustainable urban success. Some of the industrial cities and regions have already made considerable progress in modernizing and restructuring their economic and social circumstances. Favorable combination of access to transport facilities, levels of resources, national awareness or interest shown by foreign developers, frequently add up to conditions conducive to tackling structural change towards a sustainable economic development. Examples are capital city regions, e.g. Warsaw, Prague and Bratislava, Le Creusot – Montceau-les-Mines in France, Ruhr mining industry region in Germany, Turin Italy and Chicago in USA. In brief, industrial cities revitalization has to do with redefining or reinventing the futures which these cities apparently lack. Regeneration is linked to a new urban model that would end the crisis. An urban model that comprise city and territory as a whole. An urban model which let destroyed cities become complex urban regions.

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