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 THE DEVELOPMENT DIMENSION: CONSERVATION VERSUS DEVELOPMENT,  
 OR CONSERVATION AS PART OF DEVELOPMENT  
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**“Urban conservation and market forces”**

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*Various papers illustrating the points made in this note can be found at:*

<http://alain-bertaud.com/>

**Introduction**

Market forces continuously recycle land in urban areas. This recycling is not random, but it follows a Darwinian process that readapts cities land use to ever changing economic conditions. Conservation, by contrast, consists in maintaining the physical aspect of a built environment produced by the culture and economic forces of the past. It is not surprising then that market forces appear to be the nemesis of conservation.

I would like to show that, far from being opposed to conservation, market forces make conservation possible. I strongly believe that successful conservation work can be best accomplished, first, by understanding the way market forces work, and second, by using market mechanism to finance conservation. Urban conservation is costly, and therefore only affluent cities can pay for it.

Two main principles should direct conservation strategies:

- Successful conservation will not be achieved by banning market forces from a historical preservation perimeter but by using these forces to further the goal of conservation.
- Land use regulations applied to the conservation perimeter should be closely coordinated with regulations outside the perimeter.

Let us consider first, the way market forces transform cities, and second, how market forces can come to the rescue of conservation. I will then illustrate these points with a few examples in specific cities.

**The spatial pressure of land markets: pattern of prices and population densities.**

Land markets shape the spatial structure of cities. The pattern of population densities by distance to the city center reveals one important aspect of the effect of market forces on city shape (see [Figure 1](#) ). Densities driven by market prices are highest in the city center and much lower in the periphery. This is a quasi-universal phenomenon, which is verified across cultures, climates and levels of economic development. The predictability of the density profile of cities is well documented in the theoretical and empirical literature (Mills 1972, Alonso 1964, Muth 1985, Clark 1951). It has also been demonstrated that from an economic and environmental point of view the spatial structure generated by market forces is more efficient than urban structures generated without market forces (Bertaud and Renaud 1997). The negatively sloped density gradient generated by markets reduces average trip length and therefore reduces pollution due to transport.

Understanding the spatial pattern of land prices generated by markets is important for conservation. With few exceptions, the location of historical centers coincides with the center of gravity of cities – i.e. with the area the most accessible from the rest of the city. Therefore, the pressure generated by land markets is highest precisely where conservation is needed. At the same time, high land prices and high rents in highly accessible areas may create the tax revenues required to maintain historical buildings.

The pattern of urban land prices produces other negative effects for conservation; high land prices and a high level of economic activities tend to increase local vehicular traffic. Demand for on street parking and extra traffic lanes decrease the quality of the urban environment and generate additional air pollution in historical neighborhoods.

### **The planning tools available to protect historical neighborhoods**

As we have seen, the real estate market applies the full pressure of high land price on historical neighborhoods when those are located at or near a city's center of gravity. High land prices stimulate land use changes – for instance from small shop to department stores – and for more floor space on the same land – higher number of floors and higher ground coverage. As a corollary, land use changes and higher use intensity generates more vehicular traffic.

The usual high accessibility of historical centers by road and public transport generates the high land prices observed. Urban planners should try to deflect some of the market pressure by increasing the accessibility of less sensitive areas – possibly, but not necessarily, adjacent to the historical center – while maintaining a high value added economic activities in the historical center. Market forces cannot and should not be ignored or weakened by overregulation. While regulations restricting demand for more floor space for housing and business are legitimate in historical centers to be preserved, this constraint on demand should be compensated by a more demand driven approach in neighborhoods located outside the historical preservation area. Planners should in a limited way try to alter the existing city shape in order to promote conservation in historical centers.

Urban planners can use only three tools to influence urban shape:

1. Land use regulations
2. Infrastructure investments
3. Taxation

Planners have to use these three tools in a consistent way to create a modern business center away, but possibly adjacent, to the historical center. Strict land use regulations restricting some type of land use and restricting heights and bulk of building within the historical center should be associated with demand driven land use regulations within the perimeter of a new modern business center, allowing high floor area ratio, high building footprint coverage and off street car parks. Municipalities should invest in new transport infrastructure to increase the new center's accessibility, to make it competitive with the historical center for some activities incompatible with preservation policy.

At the same time vehicular traffic has to be restricted in the historical center while maintaining a high accessibility by public transport to the rest of the city and particularly to the new modern business center.

Non disruptive high value added business like professional offices, bookstores, speciality shops, restaurants and café, etc have to be attracted in the historical center. Internal renovation of the housing stock should be encouraged to maintain the high quality, high value housing that would allow to generate enough taxes to be used for renovation.

To summarize, municipalities should strictly restrict land use transformations in historical neighborhoods. However, as part of the preservation strategy, municipalities should identify non-sensitive neighborhoods where land use would be demand driven so that activities that are restricted in the historical neighborhood can take place in the “market driven” neighborhoods. A conservation strategy that concentrates solely on the neighborhood to be preserved will usually fail, either by being unenforceable or by stiling the economy of the city, removing the tax base that could finance historical preservation. In other words, a municipality should not be presented with only two strategies: one which would preserve cultural heritage but prevent the creation of new jobs, while the other strategy stimulate new job creation while eroding the cultural heritage. By carefully manipulating the city spatial structure it is possible to preserve the cultural heritage in one neighborhood while stimulating economic growth in another.

### **Two case studies : Cracow and Warsaw**

The development plans and zoning regulations produced in Cracow in 1994 and in Warsaw in 1999 illustrate two different strategies to protect the valuable heritage of those cities.

In Cracow, a multilayered legislation tried to protect everything everywhere, by giving regulators judgmental discretion on individual projects across the city in order to safeguard the exceptional historical heritage of the city. The zoning contributed to perpetuate existing land use. There was no plan to let market forces play their role in selected highly accessible areas outside the historical center. In particular, areas still underdeveloped but with high accessibility along the tramway line were zoned for low-density individual housing in an effort to “keep the city green”. As a result, several years latter, the highest land prices are still found in the historical center, with no real alternate central business district (Figure 2).

By contrast, in Warsaw the structural plan prepared in 1999 identified with precision the areas that needed protection, and what precisely needed protection (buildings, streetscape, skyline, views, natural environment, etc.). Outside these protected areas the land use regulations were demand/market driven. As a result, several “modern “ central business district have emerged with the highest land prices moving to high accessibility points created by the new network of public transport (Figure 3). Meanwhile the historical district and the other protected areas have also economically developed by specializing in high end uses compatible with conservation.

This is not intended to be a criticism of Cracow and an unqualified praise for Warsaw. I have not seen an updated review of the impact of these two planning approaches as of 2005. It is possible that the regulations I criticize, and the ones I praise, have been subsequently amended. I do not want either to underestimate the success of the municipality of Cracow in maintaining and restoring with talent the historical city. I am using these 2 examples only to illustrate two different strategies, one, in my opinion,

much more effective than the other. A more detailed analysis of the development plan of the two cities is available at :

[http://alain-beraud.com/images/AB\\_Warsaw\\_Dec\\_2000.pdf](http://alain-beraud.com/images/AB_Warsaw_Dec_2000.pdf)

[http://alain-beraud.com/images/AB\\_Cracow\\_P&M\\_Edit\\_5.pdf](http://alain-beraud.com/images/AB_Cracow_P&M_Edit_5.pdf)

## Figures

### COMPARATIVE POPULATION DENSITIES IN THE BUILT-UP AREAS OF SELECTED METROPOLITAN AREAS

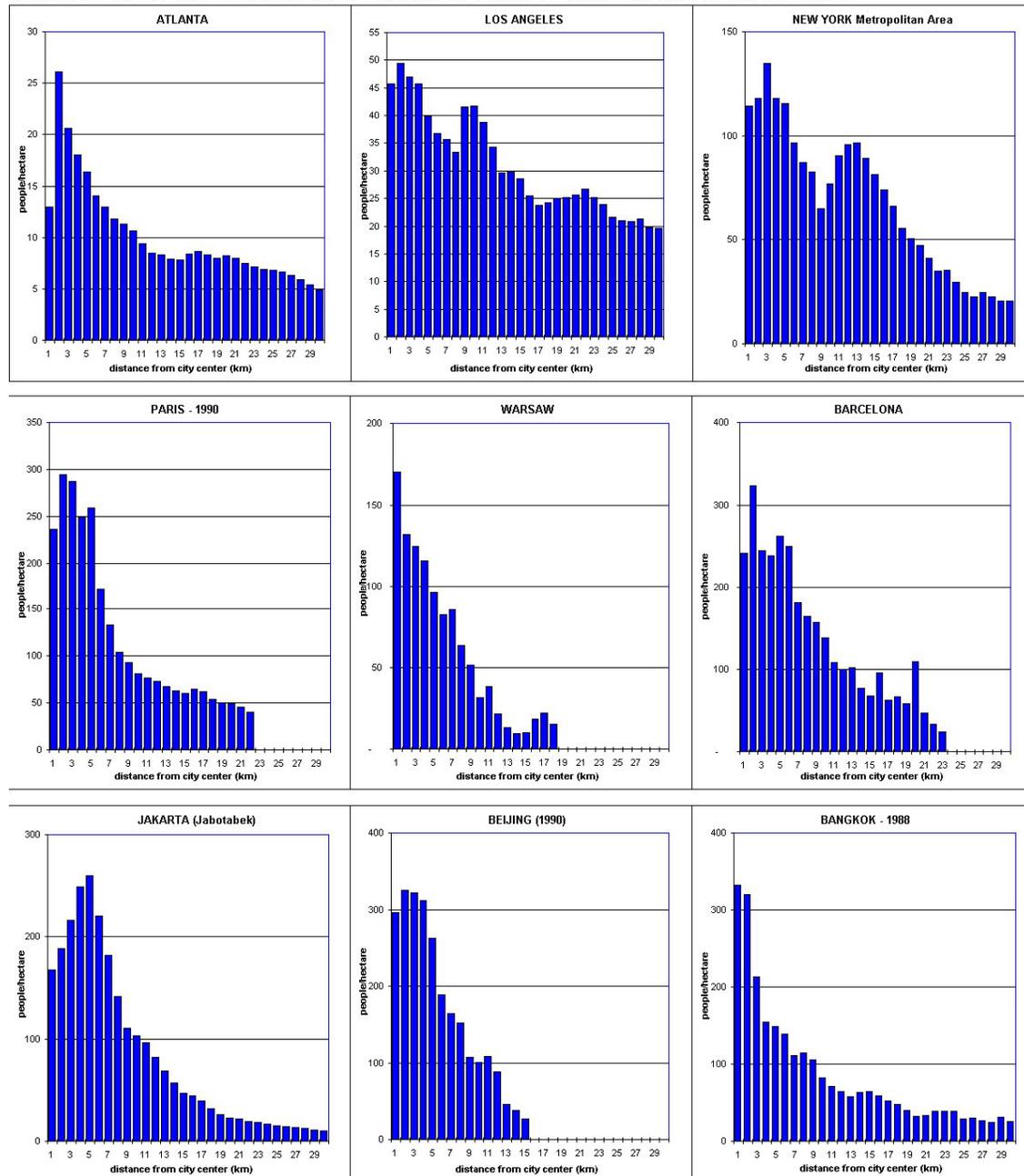


Figure 1: Comparative density profile in cities in the USA, Europe and Asia

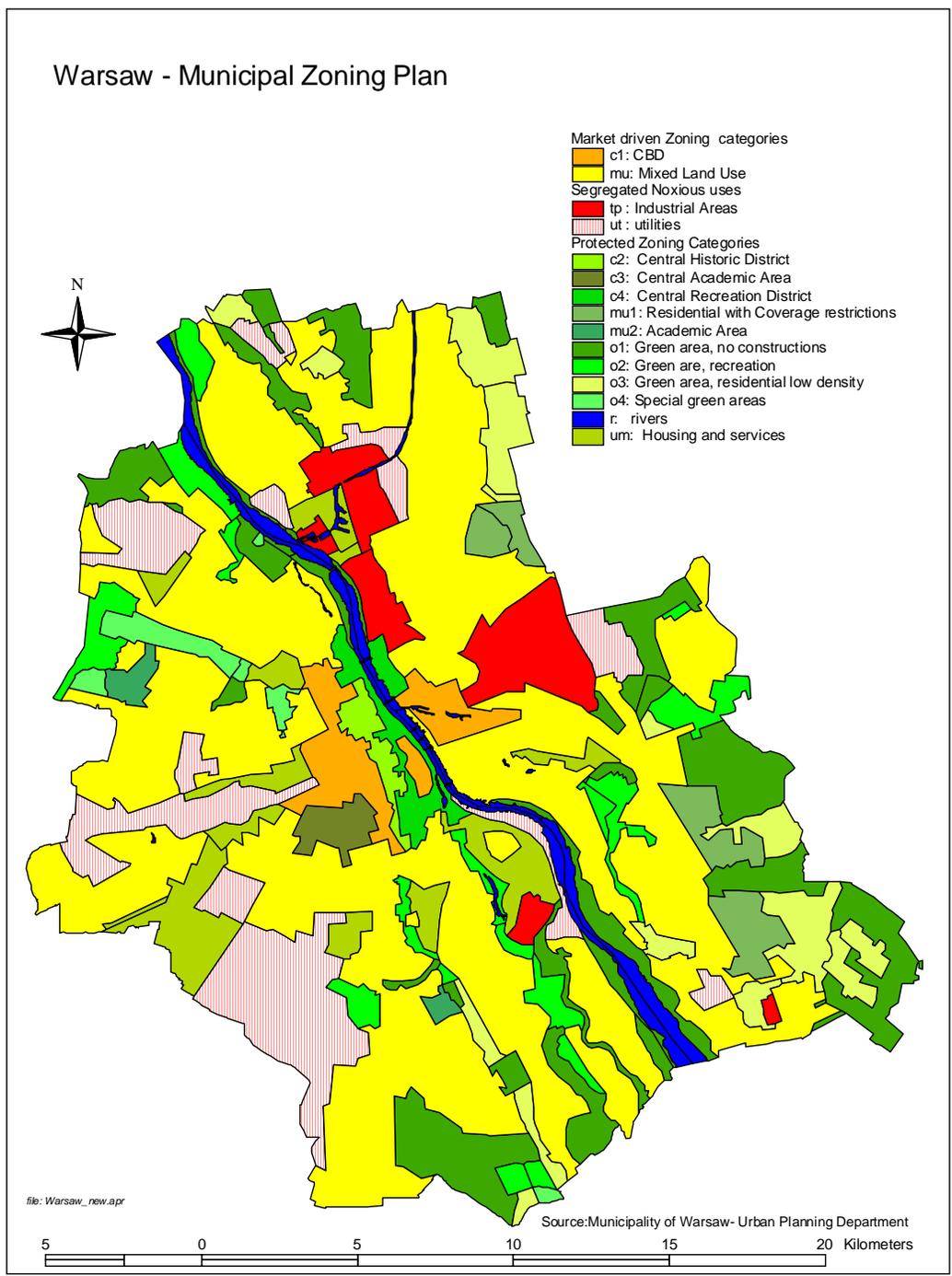


Figure 2: Warsaw Zoning Plan (1999)

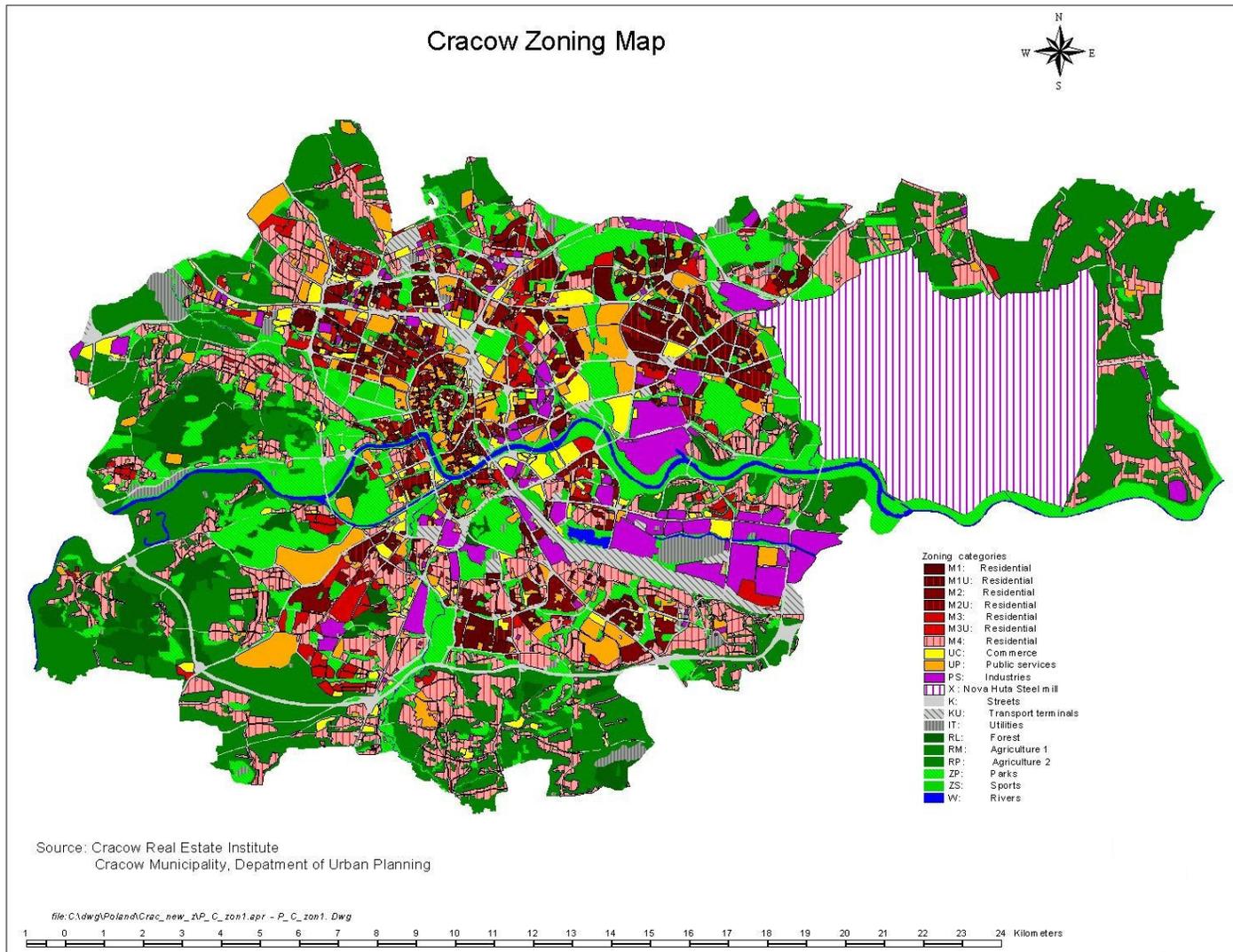


Figure 3: Cracow Zoning Map (1994)

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