

claims are justifiable or not. Based on our findings, we believe that local spatial policies will be devised 'spontaneously' and that they will not necessarily correspond to national interests. The general trend, coined 'New localism' (Strassoldo 1994), will only strengthen the phenomenon.

The itemised sets of factors is not a definite list, since other factors also cause inconsistency and redundancy of spatial policies and actually prevent the implementation of legal and legitimate strategies or directions of physical changes. The text is an attempt at presenting numerous and varied effects, which inevitably cause lesser or greater diversions thus frustrating the efforts of planners. Nevertheless, we have to be aware of the fact that even the most consistent spatial policy, in the process of structuring, deviates from the desired model. In reality this means that it is worthwhile to retreat from ideal-typical images and accept incrementalist kneading and molding.

English sources promote the phrase 'muddling through' (Dror, 1967) ... *into the planned or desired direction*, which can be a very tiresome enterprise. However, because of the ever-growing multitude of factors, which influence the structuring of spatial policies, there are already no other feasible possibilities. In the future the number of possibilities will be even smaller.

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## **The City # Cyberspace: New Dimensions of Urbanity, as Contrast to the Information Highway or its Continuation**

### **1. Introduction**

Urbanism doesn't exist; it is merely an ideology in Marx's sense of experiencing the world. But architecture really exists, like Coca Cola – a term soaked in ideology. It is a real product, a false satisfaction for a false necessity. Urbanism is comparable to economic programming of Coca Cola – a truly spectacular ideology. Modern capitalism which has had influence on the reduction of social living, on the spectacle, is incapable of anything other than showing the spectacle of our own alienation. Its dreams of urbanity are its masterpiece.<sup>1</sup>

We are living in the period of the post-industrial, information society. New technologies, a new information culture and systems of telecommunication enable an individual way of living. The agricultural system which generated traditional patterns of utilisation and settling has disintegrated long ago. New elements creeping into the settlement structure are often already the predominant motive and have in reality established a new, individual complex system. We cannot evaluate the new condition, nor master it within the traditional value systems.

In the article we wish to draw attention to occurrences in space, which are a consequence of dynamic currents' uninterrupted activity in the process of a constant evolution, that direct us to understand cities and space in time, which is a temporary component. Simultaneously as thoughts are being written down, space is changing too.

### **2. About the Beginning ...**

The steam-engine was the most important invention in the last century that had a revolutionary influence on transport possibilities and increased the movement of masses in speed, distance and extent ... quick development and drive had grown from the desire of connecting cities... industry; mass building and railway.<sup>2</sup>

The first major changes in the structures of cities occurred in the second half of the 19th century with the industrial revolution. The development of new urban functions (new means of production and transport, new materials) were provoked by the pressure of the ever increasing number of immigrants into cities. Population accumulated, but the existing structure was not capable of bearing the pressure of the great mass. The once stable structures of medieval and baroque cities began to disintegrate.

Technical progress and innovations enabled mass production. Individual work was substituted by serial production. The expansion of new professional activities and bureaucracy brought on the emergence of a new social society, which was formed around two vital values: capitalism, as a direct consequence of quick progress, and socialism, as a progressive expression of a new social and economic awareness.

Social changes which began with the new conditions of living began to be reflected in the physical structures of cities. The urban envelope was spreading more and more rapidly with the new districts which began spilling over the open space. They were organised on an orthogonal grid, owing to an ever increasing exploitation of space. Construction was poor, lacking basic hygienic quarters, according to the principle "roof over head". The emergence and meaning of the described changes depended on the development of industrialisation of society. The processes were first noticed in Great Britain in 1801 following a population census. The figures clearly exposed a quantitative development of the industrialised society.<sup>3</sup> As a consequence, aspirations for understanding cities and improving the existing conditions emerged. Numerous associations were established, the first being The Royal Commission for Health and Housing in Great Britain, whose task was to improve health and hygienic conditions in cities.

These initiatives followed the ideas of theoreticians and utopians, Owen and Fourier, on the organic nature of small industrial forms of settlements: open space for an ideal new society in harmony with the environment. In this atmosphere, an important role was played by E. Howard. His concept of a "Garden City of Tomorrow" was based on a systematic emigration of population to smaller cities erected in a pleasant natural environment. These were to substitute the existing industrial cities. The garden city is based on a concept that stems from a figurative scheme of concentric circles of individual categories of activities in which there is a social division of work and space – a hierarchy that prevents city growth, but basically from negating the existing structure of cities.



### 3. About Development ...

The future city could be everywhere or nowhere. This city will be very different from the previous one, the old city, or whichever contemporary city, so that we will not recognise the phenomenon of this city as a whole.<sup>4</sup>

The biggest changes occurred in the periphery; the new periphery became a "periphery of voids". It appears as a broken line, a space which is difficult to cross. However, outside the city is a dispersed city that also represents the remains of a periphery. What is "outside"; is it still reasonable to set "borders" and to imagine "doors" to the city?<sup>5</sup>

Numerous models dealing with preservation of urbanity in cities appeared in the second half on the 19th century. In the background were always problems and changes that were occurring in the framework of the civitas. The city was crossing its boundaries. The traditional city could no longer satisfy the functional, social and economic needs. All models began taking shape under the so called pressure of dispersion – the pressure of problems of growing cities, which were the consequence of population growth and migrations. That is why in their first phases they stemmed directly from criticism of the social and economic situation in industrial cities. Later the importance of the idea of modernity shifted to tectonics and aesthetics. However, the targets of these models remained the same, they only differed in the means and methods to achieve them. That is why we can also differentiate them by the composition principle. All were founded on simple structures, yet on three different basis: centric, linear and grid.

Among the most important representatives of planned centric towns were E. Howard with garden cities (1898), E. Gloeden with satellite cities (1923) and W. Christaller with the theory and scientific experiment of planning an ideal system of cities (1933).

Among the representatives that believed in linear cities were Soria y Mata (1882), Miljutin with the model of the industrial city (1930) and Hilbersheimer (1933). Above all it was Hilbersheim's contribution that strongly influenced the idea of decentralisation of cities. He divided urban units into new structures that create cities in a new way, along transport arteries. He treated decentralisation as an already existing trend which we can also influence by planning. The limited city would be substituted by an infinite, unlimited one, thereby creating a tight link between the city and the countryside. The distance between two cities would be determined by the size of agricultural lands necessary for the survival of man. That would have direct influence on the dispersion of the city.<sup>6</sup>

Grid systems were the bases of Le Courbusier's models of *Une ville contemporaine* (1922) and *La ville Radieuse* (1933), as well as F. L. Wright's *Broadacre City* (1932-58).

At the beginning of this century, the most radical project was the Soviet one from the 1920s. It transferred the radial-centric model of cities to a linear urban structure that spread over the whole territory of the Soviet Union so as to follow the pattern of high-power electric lines. New technology and possibility of preserving energy at large distances was to point to the dispersion of industry, as well as to a form of decentralisation. That was the Soviet de-urbanised city of M. Okhitovitch and M. Ginzburg. These ideas were also included in I. Leonidov's project for the industrial city of Magnitogorsk.

The idea of a city that would redistribute concentration at the level of a regional agricultural grid was developed by F. L. Wright in his *Broadacre City*:... where every man was to grow his own food on an acre of land, which reserved at his birth, would be placed at his disposal as soon as he was of age ...<sup>7</sup> The city is growing in every direction and is unlimited. The basic element of composition is the grid in which different structures intertwine. The built space smoothly intertwines with green areas. The physical centre no longer exists. The only centres of the cities are single-households of detached residences... each household would now be free to create its own city ...<sup>8</sup> Wright included contemporary technologies and transport in his vision of the new city, a new way of experiencing time and space. He indicated changes in the hierarchy of residence – individuality and replanning of cities by loosing traditional forms and space: ...the future city will be everywhere and nowhere ...<sup>9</sup>

In the 60s many new alternative visions of the city appeared: the idea of the Archizoom group with the No-Stop City Residential Parking project; by planning/designing an endless repeating landscape, which is not just an utopia, but endless numbers of them, as many as there are people: not just one culture for all, but one for each individual. Another idea is Superstudio's model of alternate living: "Microevent/Microenvironment". The structure of the city would be replaced by a grid within the nature proper, as a metaphor for energy and information networks. This continuously serviced area would become an area for a permanent nomadic state. Then there is the "structure/happening" project of the Archigram group that would return the dynamic metropolitan trends to local communities.

In the 70s modern cities were strongly criticised as being superficially built only for the form itself, where man is, in spite of everything said, only a "filling" of the built structures. Theoreticians such as K. Lynch and C. Alexander dealt with the form of cities as a possibility of ensuring a more balanced development by respecting/taking into account the existing physical structures.

The idea that the city is no longer a location and a centric, nodal, structure was increasingly gaining ground. Being in the city is no longer conditioned by living on the urban road, but by mode of conduct, expression, dress and access to information. The man-individual is the centre of happening.

### 4. Today...

Similarity with the urban evolution: the city is a dynamic complex organism that changes in time, through evolution that does not listen to linear laws. The structure that organises and plans the city stems from processes of auto-organisation that are occurring at the level of designing form.<sup>10</sup>

Our model continues to show some of the characteristics of the evolution of a complex system, especially the difficulties of managing development that is determined by manifold elements in interaction. It is absolutely clear that the complexity of systems does not allow us to think about linear coincidence or a simple system.<sup>11</sup>

The present is the time of the post-industrial information society that is continuously changing. It is marked by decentralisation and changes in hierarchy (in the sense of breaking



down of structure) in all spatial structures. The problems of the past, hygiene and standard of living, are controllable, if they are not yet fully under control, however, there remains the problem of control of space. With the changing of society and the strengthening of new values and value systems new guidelines have appeared: over saturation with numerous consumer goods, overburdened environment and new dimensions of moving in space and time. The aesthetics of today are based on virtual reality, a reality which does not exist and is its own purpose.

A new model of the social, economic, cultural and physical environment is being shaped. The environment appears to be a dispersed, fragmented and disconnected system, where disorder is not prevalent, but an order of a different, more complex form. Now we can no longer lean on the idea that the dynamic currents in *urbs* may be equalised with the currents and forces of *civitas*. In this sense the central role is played by the variable – time, which is simultaneously also momentary.

In this framework a new dimension of urban space, that is not directed towards the centre, towards physical space, is being established. A new image that is no longer compact but articulated and discontinued is being formed. The contrast between the city and the countryside no longer exists, the two are connected. The countryside is the new urban periphery. A non homogeneous and discontinued grid of old and new patterns are intersecting in the countryside, changing its role, structure and form. This is a new urban phenomenology whose grids should be sought in the crisis of the former models that were unable to interpret the contemporary structure because of their limited perception and linear simplicity.

Simple patterns and structures are those forms that are defined by minimum data. In the case of environment, i.e. planning models we are talking about three elementary forms: the circle (centrality), the line (linearity), and the grid, being the superstructure of the previous patterns in a multitude of different combinations. These are simple models, easily understood and manageable. An individual cannot influence them, because he would willingly be tearing down the scheme. These patterns are used as the basis for future planned structures.

Today we have to accept the fact that there is an interaction of different forms that are being expressed in complex systems. They seem to be representing a chaotic state that is contrary to generalised and simple patterns and cannot be simplified. It is a union of intertwining structures that are acting in accordance with their individual dynamic currents. Each layer has its own forces that cross with other layers. In the process of intertwining we should enable passage that is both smooth and without conflicts in the transition of structure from one form to the other. We may speak about unplanned structures that are the result of movement of social forces for which certain laws apply. Toyo Ito<sup>12</sup> defines the city as a stratified system of forces of energy, information, real objects and living beings. He is interested in turbulence and modifications that are made by new elements in flux/exchange of forces. Concepts of self-organisation have been established as the basic principles of being that represent the key to creative potentials of nature. They have been applied in numerous fields: evolutionary biology, neurology, information sciences... in all of them we find models that are not simple, that confirm the system of the unplanned pattern.

## 5. In Slovenia ...

In the previous period there was too much RIGIDITY of the institutionalised system that blocked individual initiative even when this was not necessary. At the same time there was also too much FLEXIBILITY owing to political coquetry with the working class which meant inconsistency in realising already adapted decisions. In this sense we may talk about an upside down world: rigidity in policies and planning and flexibility in realisation of plans.<sup>13</sup>

The curiosity of the "cultural phenomenon" linked to the way of living as well as to the model of urbanisation in Slovenia is: "to build one's own house".<sup>14</sup>

Management of the physical environment is always totalitarian, meaning that its aim is to cover the entirety of social spatial processes. In principle there was no difference between the "East" and the "West", quite the contrary, the regulative network in the "West" was much denser.<sup>15</sup> This fact points to the evolution in changing patterns, structures of settlements, which have, owing to inner forces, spread all over the world in one form or another. The variety of these forms is conditioned by the hierarchy of the previous model, the previous density of settlements and their shapes, different natural and transport conditions, changing economic, social and political structures. These are undoubtedly oriented towards market structures: Europe as a large common market without frontiers. An exchange of commerce, people and capital is taking place across traditional frontiers.

Today's apparently "chaotic" settlements pattern in the Slovenian suburbia and countryside is a consequence of political, social and economic conditions and changes that have been taking place in the last forty years in the republic that was under the influence of the federal state with a socialist regime. The ideological orientation of the communist movement gave absolute priority to collective society and common interests. In the forefront was the tendency towards collectivism, which was to be achieved more by restriction rather than considering particular and individual interests. In this context a restrictive-repressive policy was predominant in physical planning and management as well.<sup>16</sup> Social housing construction was favoured. Uniform models and standards were predominant both for large urban agglomerations as well as for rural areas and small villages (exp. the notion of the acceptable size of a plot). An individual ran into obstacles everywhere. Only with particular effort, and after x-years did the individual get all the required permits. Restrictions, directed building and planning were supposed to give a complete overview of everything that was taking place in space. However, the effect was quite the opposite.

Disinclination of politics for detached housing is also one of the reasons why organised and planned forms of housing co-operatives were not developed. At the same time it could have been a good instrument for achieving quality on the aesthetic quality of organised settlement models. In Slovenia there are very few examples of planned detached housing and even these are included in city spaces.

In spite of nationalisation, the social structure and ways of living changed anyway. Public construction (apartment blocks) stimulated the individual even more to close into his own world and also influenced his desire for "his own house in nature". Man's closing into his own individual world became more and



more pronounced. Detached housing is a demonstration. It first appeared as a necessity of living and the only solution to lack of housing provision, and only in the last ten years as a way of social living as well. Most of the people decided on building in local surroundings. Building construction was more directed along principal communication routes and outskirts of cities owing to connections to larger centres, working places, i.e. to the periphery. These factors have and still effect daily migration to and from the city. The infrastructure network was the decisive factor for dispersed or dense development. Today individuality is becoming the criterion of the system, from which the pluralistic cultural model stems, founded by ecological ethics as the universal norm, as well as by equality of all possibilities and forms of expression.<sup>17</sup>

Spatial transformation of the suburbs in the settlements network is based on changes in the system of values between the city and the countryside. It is characterised by ever increasing growth into the hinterland and intertwining with rural space. Means of transport and communications have definitely influenced on the dispersion of population around cities, which could be called "landscape of disappearing settlements". All of these economic and social factors have affected decentralisation in the settlements model of Slovenia, where the dispersion of urban systems is prevalent today.

## 6. Continuation ...

"Cyber-space" will take care that there will not be only one way to "screenland". Special effects will be brought to an individual's table. The future is already here, it has only to be arranged as such.<sup>18</sup>

The presentation of the contemporary city is no longer determined by the ceremony of open doors, rituals of processes or parades, nor by types of roads and avenues. As of now urban architecture should take into consideration activities in space-time. Data banks are predominant with new rituals of technical culture that is masked by its immaterial components: its networks, systems of highways and different reticulations, whose fibres are no longer intertwined within built space, but in sequences of time in which the internal image changes the man/machine facade of the object and the surrounding area on which it stands.<sup>19</sup>

Does the development of national and international structure in cyber-space, and consequently the way of social and economic activities, mean that the existing cities will simply disintegrate into fragments and collapse? Or does Paris have something that tele-presence cannot reach? Or does Rome have the answer to *Neuromancer*?<sup>20</sup>

We are living in the age of the information-technological society that will continue to develop in this direction. Where is the limit of this "highly developed" society that is being threatened by the supremacy of the information machine?

Previously it was important that man visited certain locations, i.e. bar, market, beach, sports centre, working place, so as to pursue certain social activities. His private, domestic space was closed to the outside world and to intruders. In the future, which is already here, in the so called cyber-space this does not exist. The computer net subverts, radically redefines our way of perceiving space, society and urban living. The net has a different physical structure and works according to different

principles. It negates geometry. It is ambience: nowhere strictly defined, yet simultaneously everywhere. The computer net is becoming the basis of urban living, as the roads once were.

Communication between spaces and people existing in these spaces has the central place... today the city is a terminal at the intersection of time, exp. the airport as a new kind of city; in reality today it is already kind of tele-city... the city of the future is increasingly becoming polluted with the logic of the net and the supranational, linked to activity that is increasingly occurring live on the world's screens, and a kind of a fluid that is interactively accessible. We are therefore talking about a kind of a field of creative concentration, a place of data and information.<sup>21</sup>

The relation between the city and the consumer is increasingly becoming similar to Alice in Wonderland. Via Internet we move across the world from page to page with WWW (World Wide Web). Each page represents space, our space is the homepage. We create our own connections between spaces with hyperlinks thus creating our "own highway map". This walk through so called virtual reality increasingly steps up the private-public hierarchy, where the password is not an obstacle. Technology both designs and grades privacy, as well as accessibility. Is the homepage in this way becoming our private castle that might protect us from the outer space?

Cities do not exist in cyber-space, in virtual reality. At least not the city in our vision, thoughts, desires for the future. The city is a presentation of information and technology. It has a strictly determined hierarchy that enables quick actions and accesses. Therefore, there is no urbanism whatsoever. Only an architectural fragment exists, that should be subordinate to technology and take into account technological rules. What is happening to real physical space is actually irrelevant. These visions negate contemporary society where individuality, spontaneity and dispersion prevails in contrast to hierarchy, strict conformity. Technology will serve information, the superstructure of science. The city, environment and space will still be the essential elements of a man's life. The traditional old city will increasingly become the vision of the "city as an individual" while the remaining structure will serve its purpose and organise itself by forces in space, with a new way of living in cyber-space being one of its elements.

Nevertheless, in spite of everything... will man accept these rules of the game – hierarchy –, where his role would be determined already at his birth and he would not be required to move from his computer at all?

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*For literature and sources see page 26.*

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## Ecological Quality in Cities: The Organisation and Co-ordination of Environmental Policy and Urban Planning at the Local Level

### 1. Introduction

#### 1.1 Aim and structure of the paper

The quality of living in cities depends crucially on environmental quality, which depends inversely on pollution in the urban regions of this world. As the majority of the world population, particularly in the industrialised and the post-industrial countries lives in urban regions, global environmental problems are frequently made in the cities. Rapid urbanisation is thus seen

as one of the major engines behind the deterioration of environmental quality world-wide. The way these problems are handled in these urban places, the way policies are organised and implemented hence have an important bearing upon the further development of cities, their ability to maintain the quality of living and to make a contribution to the fate of global environmental quality. Despite the fact that cities are the main producers and consumers of environmental pollution, their role in environmental policy (EP) differs widely in different parts of this world. Often they are only involved in the implementation of programs designed and decided at different levels of government, in some cases they are in full control, from defining and deciding goals to implementation and monitoring. (Neddens 1986, Hahn 1991).

Another motive for the study reported on here is the fact that the framework of EP is reconsidered and discussed. Policy activities can be organised in many different ways, vertically as well as horizontally. The question as to which options are worth considering against the backdrop of a new decision making framework in Europe (e.g. Maastricht Treaty; Agenda 21 on a global scale), in which among others responsibilities need to be allocated to different tiers of government, is investigated in this contribution, particularly with respect to the new role of regional and local entities (see e.g. Huckenstein 1993, Bongaerts et al. 1992).

Emissions depend among other important factors on urban/regional development policies and planning. Frequently, however, EP and these activities are not harmonised, neither in fact nor in terms of the organisation of the processes leading to relevant decisions. This is particularly noteworthy as land-use patterns are to a certain extent also influenced by the spatial pattern of residuals' concentration over an urban region, with all the effects known on planning decisions (see e.g. Fürst 1986).

This paper attempts to make a contribution to this area of EP by reporting selected tentative results of some exploratory pilot studies, based on interviews with experts and practitioners in 10 case-study urban regions in Europe and America. As most experts interviewed agreed that problems of air-pollution were of particular significance in their urban regions and noise presented a major factor in a decreasing quality of urban living, most of the topics pursued deal with these areas of environmental policy. These case-studies were carried out by several persons in the course of their studies as university students or faculty members within the framework of specific contracts dealing with problems of environmental policy. As the data base for this report is still rather narrow, honest generalisations cannot be made, the results are very tentative indeed. The authors feel, however, that some of the findings could serve as interesting points of further discussions and research work in this field.

The paper very briefly mentions some of the underlying hypotheses discussed in the field in section 2. The report continues by a discussion of the alternative ways to organise environmental policy. Within such a policy framework the definition of necessary elements of a consistent system, such as setting goals, implementation, etc. need to be assigned to specific governmental institutions, working at various tiers of government (federal/national, regional, local, ...). An evaluation of such organisational schemes by the interviewed experts is summarised. Furthermore the agenda of EP needs to be allocated within the local administrative body. Several alternatives, applied in practice in the case-study areas, were evaluated by