ments urban networks are based on project orientation, bottom-up approaches and dialogue. They reformulate the common regional interest from a municipal perspective and therefore they may contribute to the countercurrent principle of spatial planning. Moreover, through their action orientation they may support the implementation of regional and local physical plans and make planning in general terms more effective.

Taking these aspects into consideration it becomes clear that the promotion of urban networks by spatial planning is a paying investment. This will, however, require some adjustments of planning in the future:

1. Spatial planning should more intensively create a framework for the establishing of urban networks or initiate co-operation where it is desirable from an overall development perspective. In this regard regional planning plays an important role in identifying problems that could be solved by a more intensive co-operation between municipalities.
2. Spatial planning should restrict itself to an initiatory role and it should withdraw from the networking process as early as possible. One very imortant task, however, is to encourage the establishment of functioning and open feed-back and monitoring systems regarding the success and failure of co-operation as well as ist consequences. This may help to prevent aging of networks that may become obstacles to regional development.
3. Regional planning should be prepared to accompany the urban networking process and to give positive impulses to co-operation where necessary. Thus, the fostering of inter-municipal co-operation becomes a vital task of regional planning. In this respect, regional planners are becoming more and more moderators, mediators and »co-operation brokers« of a region.
4. The new functions of spatial planners regarding urban networking and fostering inter-municipal co-operation requires them to work together with municipal managers even closer than before because also in this context trust and confidence built on personal relations is a major success factor.

At the same time, this requires openess towards learning processes. Just like urban networking has to be understood as a learning process (Vartiainen 1998), the raising the effectiveness of spatial planning and its transformation into a spatial development policy can only be accomplished through a transnational learning process in the sense of an evolving formation of systems (Beck 1997).

In this sense, urban networks may become attractive fields of joint action and pilars of a harmonized common planning and development approach within Europe. Moreover, they are a background experience for the transformation of the European planning systems. Urban networks therefore have a pilot function for transnational spatial development strategies in Europe.

Prof. Dr. Bernhard Mueller, Institute of Ecological and Regional Development (IOER) Dresden, Germany

Figures:
Map 1: Pilot Projects of Urban Networks in Germany
Map 2: Urban Co-operative Central Places in the Free State of Saxony

Vesna PETREŠIN

European Transformations Between the Real and Virtual

1. Europe – the reality of change

Political, economic and social changes in the Eastern European territory echoed even in the West and caused the establishment of new vectors and power centres. Regions and fronts erased by former block divisions are re-emerging, former metropolis are being revitalised. De-industrialisation and the information revolution are stimulating economic and cultural transformation. The heart of the city is stronger and gaining in gravity.

The old hearts of Europe are not experiencing general renewal, but rather particular operative interventions: transplants, bypasses, insertions of magnets and implants, imported by the planning and architectural terminology from clinical medicine, as well as body art of the nineties. The rhythm of new urban structures and communication bypasses revitalises and redirects the frail pulse and creates quality habitats within city spaces. New motives are stimulating flows, animating users and directing attention to the hearts of cities, also increasing their economic and architectural attraction. For European cities, similar to European history, continuity is of utmost importance. If the nineteenth century city boasted palaces, opera houses and theatres, boulevards, railway stations, parks and army barracks, for the modern city the challenges are the architecture of hotels, museums, cinemas, clubs, offices, banks, subway stations and parking lots.

Revitalisation of city parts and new definition of industrial and military zones within city centres is creating power stations, emphasising urban energy. In the sense of dense capillary growth the city is expanding inwards.

2. Urban transformations in European cities

Several years ago Wim Wenders was talking to the architect Kolhoff about the gap between the past and the future, and poetically stated his belief: »*Every city lives also from contradiction, from the remains of surfaces – not only the planned – they preserve memory. Without memory, there is no future*«.

It seems that this quotation could serve Barcelona as a motto, after all, it became the ideal of successful urbanisation with solutions to infrastructure issues and the over congested tight old part. The urban organism received fresh air, especially because of well thought out political moves. The new circumferential highway acts as a bypass, new public buildings, such as the Museum of modern arts create revitalising implants in urban limbs. The Olympic harbour with terraces by the water acts as a magnet for visitors. It is also satisfying to note, that the average income in the city is increasing and unemployment diminishing. Beneficial effects of the environment and raised living standard have placed the region in the position of an »European California«.

Until recently Bilbao was a centre of heavy industry, in the post-industrial era it changed into a rusting ruin, whose dilapidated buildings attracted only terrorist groups. During hi-

story ruins were often the discourse of new beginnings. For the former city with no prospects salvation appeared with the new Guggenheim museum by architect Frank Gehry. If we push aside problems of organisation and economy, we can speak about the concept of city as an experiment, where architecture functions as *deus ex machina*.

Even before the Expo 1998 Lisbon expected solutions to structural problems, also tackled by other European capitals. In the urban planning sense this mega project tried to improve mobility, build transport and communication networks, new railroads, new harbour functions and to establish economic and architectural balance between particular urban zones. Contrary to Seville, where they were forced to reconsider new functions for the fairgrounds buildings immediately after the doors of the Expo closed, in Lisbon they are trying to attract public attention with stars (Santiago Calatrava, Alvaro Siza, SOM...) even after the event, and we hope for fundamental and long-term revitalisation of the city with implants and bypasses.

Lyon, the second largest city in France, a forgotten place for many years, started to re-establish its identity. The biggest problem was definitely the central North-South traffic axis, running right through the town centre. This was the main place of massive traffic jams, especially during the Summer vacation season. The new by-pass road solved the problem and the town enriched its image with magnets (projects by major architects), such as the opera house by Jean Nouvel, the railway station by Santaigo Calatrava, as well as small, but densely seeded design endeavours. The aim of the city authorities was to preserve old materials in the city, restore the urban substance and introduce pedestrian zones and the leisure industry. Within the framework of these operations, numerous high-rise buildings from the 60s were lowered by several floors and colour studies of the city facades were commissioned. Lyon however lacks urban planning interventions within the scope of a comprehensive strategy.

If we disregard the monuments built in the Mitterand era, Paris has used the Louvre museum complex as an implant for revitalising the city and an implant for creating identity. Besides the record number of tourists, attracted by the glass pyramid by architect Pei, masses of inhabitants of the Parisian banlieus visit the place, thus promoting integration of citizens with their own city, also increasing motivation for work and residence in the Paris region. However the model cannot be easily transplanted into other European cities, above all because of the key role the Louvre played in the historical formation of the French national identity.

Urban theoreticians in London complain about the lack of theoretical knowledge and vision. The arena is ruled by two major architectural firms – sir Norman Foster and Richard Rogers, whose pragmatic hi-tech architecture tries to compete with increasingly aggressive similar implants from the American-Japanese connection. The image of a state of wild growth implies the need for creating ties of the city with itself. The compromise between development and preservation adopted by the planners in London in the 80s still prevails. Enormous hermetic buildings with electronic communication system are permitted in old quarters, but they have to be hidden behind renovated facades within the medieval street network.

Florence is an example in its own right: the architecture of the 20th century has since the Bauhaus demanded buildings as independent organisms, functioning outwards from the interior. Since the city core of Florence is a masterpiece of architectural history, often, despite conservationism, uniform utilitarian surfaces remain hidden behind thin, banal scaffolding or even more often, behind decaying historical facades.

Berlin awoke in 1990, into the post-urban era of reunification. Additions to comprehensive urban planning can be traced to the national-socialist times, whose result was the never finished gigantic North-South axis. In the former, divided times, West Berlin designed the city and built new residential estates, cultural centres. After regaining the status of capital other tasks followed: renewal of the Reichstag, Potsdamer Platz, the Borse (stock exchange) and Kreuzberg, all of which were substantial investments. The new electronic information environment is increasingly taking over functions that had previously filled the urban space. However the key problems are urban places and public buildings, that were symbols of socialism and today without real value. Although the strategy in Berlin was traditionally to demolish the past and build the new, the Planwerkstadt historisches Zentrum (PhZ) headed by Dieter Hoffman-Axthelm proposes the integration of the socialist past with the city. Nevertheless, the main characteristic of modern urban development in Berlin is largely post-structuralistic revolt against the centre, fear by the West and ambivalence of the Eastern centre. This is the rationale behind the idea proposed by PhZ to create a new heart, i.e. the centre, gradually emerging into one. Contrary to the present treatment of real estate as investment, the named institution is trying to strengthen strategy and in reality create the city centre.

Contemporary urban realities define the term city marketing, that introduces the city as a complex product (object) and services, that can be marketed. Harsh competitive battles between European cities are best illustrated by the example of Eurylille. In the economic context of urban development, synergy of private investment and non-bureaucratic moves subject to economic interest, foster successful architectural solutions, that are never definite and have to adapt to market demands. One of the side effects of harsh competition between cities and dictate of market logic is the total sell out of cities (even within EU competitions).

Architecture is therefore the mode motivating co-operation and activity in cities. Animation in European city centres fills in the void space of emotional shortage and is the counterpoint of alienation and poor motivation, thus strengthening the cities identity. Creating difference and particularities is the condition behind the creation of a city image.

To create acceptable climates for investment, European city centres have to increase their attractiveness: other than qualities from geographic features, such as climate or possibility for functional land use, the culmination of education, cultural, scientific and recreational facilities (institutions) is important.

3. Digital decentralisation

The tendency for decay and decentralisation of cities is mirrored in the sprawling process, at least superficially appearing chaotic; cities are expanding across former city limits ever deeper into the countryside, forming urban regions and sub-centres. These urban regions combine both urban, as well as rural functions and ways of life; we may call them ag-

glomerations, urban regions, Edge cities, metropolitan areas. The global city is no longer homogenous, in metropolitan regions processes of stratification are occurring with functional support from suburban back offices. Sub-centres are still tied to old city centres, although they are also separating and gaining in economic and financial power. The existence of centres and sub-centres is possible because of ties to the traditional, existing transport network, but its character is changing, a consequence of constant flow of information and products. Processes of chaos, sprawl, and decentralisation are only continuing the urbanisation of the countryside and transformation of European urban space.

However, also the urbanisation trend is running in two directions: trans-national urban regions with local densening, are the cores of power in a global information society; old town centres are either protected and renovated historical parks or concentrations of the poorest population, not adapted to the information society.

Decentralisation enabled by new telecommunication possibilities has caused the migration of economy to the periphery, near to highways, railways and airports. Globally operative international finance and economy are expanding their activities into information space, thus relieving city centres from economy. The balanced network of cities and regions in Europe is demolished. In the geographic space of cities, nevertheless, international economic space is still dense, but its organisation and tax system are positioned in cyber space, where there are no territorial state control. Thus even in the new capital, Berlin, it is only a matter of time, when the city building central functions will decentralise – head offices, museums, universities, shopping and leisure centres. According to Joel Garreau, Edge city is an American phenomena, but it could also describe the present Munich and Berlin. Central Business District is still the clearest expression of the global importance of cities, where infrastructure and real production meet. However according to McLuhans Global Village the phenomena is a mass of electronic cottages, connected across the World with information highways and fast transport systems. Mobility exists in real and information space.

Cities that have adapted to the information society are increasing their political and economic power.

But the question is repeatedly raised, does digital urbanism mean death or rebirth of cities?. New media and information and communication technology are changing existing structures – even the architecture itself, as well as the structure and image of cities. From the historical viewpoint this phenomena is for the city as a complex organism, changed to unrecognition, almost a rule. Let us think about the radical modernisation of Paris in the mid 19th century under Hausmann. European cities have been growing continuously from the middle ages, during the industrial revolution they formally exploded and spread across the planet as gigantic metropolis.

The reality of European cities is in the state of their organisms. They will become extinct if they continue to use their own resources. Nahrada states that 2 % of rural land is occupied by cities, in which lives 45 % of the population, that spend 75 % of all available material resources. London or Paris spend as much water, food, oxygen and wood as all of England or France. An ecologically sensible city should have a population of 50.000 – 150.000 inhabitants. Cities of this size are even today pleasant residential areas, they have the advantages of cities, but lack most of their weaknesses.

Since the seventies continental Europe, from London to southern Italy has been joining into an economic countryside. Market places have been replaced by shopping malls: only in England, onehundred were built between 1985–1989, more than half have more 100.000 m² of retail space, nine of which lie along the M25 around London. It is the reality of new media, urbanity from a non-urban consumers network, not placed in an historical context, without documentation and largely ignored by the professional public. Centrality seems unnecessary, urbanity of old centres something from the past.

Changes in traditional urban structures mean that the city is losing its traditional junction functions in transport, economy, politics and culture. The future role of the city lying in the cross-section between real and virtual, can be contested, because it is increasingly seen as the space of data networks and visualised services and transport. Development should be towards intelligent cities with efficient use of resources, energy and refuse management. Ecologists argue that new technologies will not foster destruction, but the renaissance of cities. A combination of progress in construction biology and modified structural demands create urban architecture, whose visions are continuity and sustainable development.

4. Cyber City

Human fascination with illusions and cheating the senses was already clear in Plato's example of the cave, where prisoners consider the shadows of people, animals and things real, although they will never have the chance to know the real World. The sensual World is termed as actual, although according to Plato, the real World is in fact identical to the World of ideas, to which we connect only by archtypes.

Modern science has described the position of things with their placement in the co-ordinate system of space and time. At the beginning of the new millennium the World is growing more complex and hard to grasp, alongside the physical reality and real World of ideas, there is virtuality.

The duality of existence of the built and information environment is enabled by information highways, virtual reality and cyber space. The real body of a person is included in the physical present, while in fiction created by information. The growing presence of the fictitious body doesn't demand physical space, nevertheless in cities, in the field of intimate communication, the phenomena alienation and de-socialisation are increasing.

If the city is just a fictitious structure it cannot realise the real needs of its inhabitants, only the real city offers sensual experience. With the information technology a new sphere of virtual is emerging: the media scenery is merging with the built environment and creating so called hypersurfaces. These are constructs that contain phenomenal and perceived experiences of space-time information. Hypersurfaces are not in a binary relationship with space, after all they exceed the categories of real and virtual by joining them. The dynamics of hypersurfaces creates a media scenery, a combination of electronic perception and built architecture.

Instead of static architecture Coop Himmelblau creates liquid architecture with media that react to its users actions. The feelings are transferred to the facade, reacting with colour and light. Urban spaces have to be redefined as fluid, connected into the media network, today already experienced in urban design and architectural projects in European cities.

The new concept for cities implies densening, intertwinement, layering and is managed. Dense, compact cities, sparing space and solving communication and transport problems are becoming the urban planning ideal.

European cities will develop a joint information space, even by EU estimates. This year more than 60 % of employment will be oriented towards information and telecommunication. The new division of labour, international and inter-regional, will affect the following processes:
– Strengthened metropolis – central junctions;
– Information power and new communication techniques deepen the global influence of declining industrial regions, that haven't adapted to the information revolution;
– The rise of new regions as dynamic economic junctions in the new economic geography.

European cities are junctions, magnets of the new global economy. In global cities the market rules above local and regional structures.

The information city is not a form, it is the social matrix of information society. Processes that create shapes and the dynamics of new urban systems, are disclosed from social and economic trends, structuring its territory. The information city is also a global city, that in the networks of exchanges for processing data has the leading role in global economy. Globalisation of urban shapes and functions exceeds the functional and political and influences consumption patterns, ways of life and design symbolics. Crisis and destabilisation could occur because of poor communication between leading economic factors and inadequate access to information by the local population.

The cybercity is a mnemontechnical tool for orientation, a concept that by using a virtual image of a city's spatial reality (e.g. Berlin) offers possibilities for orientation and navigation t gain information. The metaphor of the city acts as an individual depiction of memories of spaces and experiences.

Space of flows is the layer above geographic space and creates virtual spaces of interactive communication. They can be described as telepolis, digital city, infocity. Digital metaphors of cities are on one hand distancing oneself from the real space and body, but on the other hand, they animate private life. New, artificial spaces of experience follow the shape of cities. In 1994 for example the doors of the *Digitale Stad Amsterdam*, were opened, thus enthroning the unknown internet as the media for unlimited possibilities for connections. At first an experiment, it changed into a permanent form of arrangement.

Classical experiences of scale and dimension have no meaning in a simulated environment. Place, shape and content are defined differently in virtual space. The cyber World is developing into a parallel digital World, a result of the hypermedia environment, where independent factors exist alongside digital images of the user – avatars.

5. Social processes in European cities

Urban quality acts as a programme of urban growth and renewal and indicates the frequency and intensity of human relations, as well as structure and mesh of activities.

Cities are being given new assignments, especially because of the recognition of working from home, thus merging the gap between work and dwelling.

It is interesting that users of communication networks all over the World represent their relationships with the city, also a metaphor of the end of the real World, vanishing in economic and cultural globalisation processes. Development of telematic media brought the culture of the 20th century to its peak. New media deurbanise culture, real urban issues are replaced with media space and time. It causes processes of social and cultural individualism, destruction of social groups, layers and classes and pertaining cultures of living and communicating.

In the information society and global economy European cities are becoming so complex, that connections between space and society, city and history are their forms of expression. The social matrix presses itself into space with a dialectics of exchange and social conflicts. Information is a resource for social processes and organisation. Processing information has the advantage over production of products and services. After the fall of the Soviet Union, Europe is confronted with the emergence of new regions trying to attach themselves to the global economic flow.

Densely populated Europe is trying to become trans-national, without losing any particular national identity. The process of European integration should enable political unity, common market, joint technical and economic policies. In European cities changes are causing crisis of identity, stretched across historical, national values and the reality of a heterogenous society. The information society does however gather wealth and power, but it also polarises social groups. These structural tendencies and social processes shape the framework of spatial consequences of the new dynamics of European cities.

Social and spatial processes in European cities are reflected in spatial phenomena:
– the business centre is the economic driver in a global information society, the core of telecommunication forms and services infrastructure;
– new residential quarters act as centres with all cultural and dwelling habits of the elite;
– suburbs are a socially differentiated space, also the space of industrial production;
– ghettos or marginal residential forms are established in centres;
– the European metropolis differs according to structure of urban space – urban dynamics are important in urban and business quarters; the greater the power of a city in the new global economic hierarchy, the greater the influence of business quarters and services and consequentially on restructuring of urban space.

European cities have rich history and culture, a fact that can be used as a weapon against alienation. Consciousness about historical and national values of cities is more impor-

tant than global economy or hi-tech complexes for creating identity. This is the way for creating a link between the power cult and culture, the next step of developing the European urban civilisation.

Asist. Vesna Petrešin, architect, Faculty of architecture, University in Ljubljana
e-mail: vesna.petresin@arh.uni-lj.si

Figures:
Figure 1: Batty, M., Longley, P.: Fractal metropolis. In: The Fractal City, New Science = New Architecture, Architectural Design, Academy Editions, London 1997.
Figure 2: Davidson, P., Bates, D., Kipnis, J.: Information structures and built forms. In: Future Generations University, Architecture Alter Geometry, Architectural Design, Academy Editions, London 1997.

Maja SIMONETI

Children and adolescents in the physical space[1]

From a playground for children to a child friendly city or from measures to networks

1. Defining the problem[2]

Children playing is understood as a spatially defined function, which can be organised or designed according to standards, just as car parking for example. However today children are being left without playgrounds, most of the planned playing areas represent the dominant aesthetics of adults on the needs of children and on nature (Boching in dr. 1989) or, as ironically put by Moore, existing children's playgrounds are attempts by adults to control the behaviour of children (Moore 1989).

Children's playgrounds, the predecessors of contemporary ones, appeared in the industrial society. Under conditions of social differentiation and mass migration to cities, the home and family, formerly relatively successful providers of space for play and children, were affected. Streets, squares and other urban spaces became ever more cluttered with dangers. Such changes, especially with increased traffic density, brought about the formation of special spaces intended for children.

The right of children to play is a basic human right, also pointed out in the Convention of children's rights (UNICEF, UN, 1989). Without the right to vote or possibilities for decision making, children and adolescents are a dependent po-

pulation group, that cannot represent their interests in decision making processes by themselves. Responsibilities for the living conditions of children and adolescents is completely in the domain of adults.

Children and adolescents are population groups with needs that correspond to spatial organisation and adaptations. Typically, from the viewpoint of the individual, these needs are transitory, while in conjunction with the needs of other population groups, they are the starting points of spatial arrangements. Today we are witness to discussions on new types of enforcement of these needs. The necessity for respecting these needs everywhere, not only in designated spaces, as was the case in the past. Generally spatial organisation that takes into consideration the needs of children and adolescents is friendly to other users as well.

Part of the population, during the transition to adulthood, even because of inadequate spatial design, transgresses into vandalism and other socially less acceptable types of behaviour. In this transition particular individuals are completely dependent on their parents while a larger part is capable of articulating their spatial design wishes and directly participating in spatial development. It seems that one of the main problems of growing up in urban environments is the programme void that emerges in the leisure time, beginning in the senior years of primary school and above all, on completion of primary education (Ule, Rener, 1998). Classical child's play becomes uninteresting, as do school courtyards and playgrounds. Dedicated concern by adults, monitoring a child's programme and socialisation, is usually given to smaller children, while with older children, concern narrows down to intervention when problems arise. New social roles during transition to adulthood have to be learned by children, and it is inadmissible to leave them alone during this time or to their piers.

In the field of public children's playgrounds there was notable deterioration of conditions in the early nineties. The circumstances were tightly connected to the housing privatisation, whose consequence was the still ongoing debate on functional spaces of privatised buildings. First the quantity of publicly maintained surfaces shrunk. Several years of poor maintenance, whatever the type of property, have been replaced by renewed public care, amongst other for children's playgrounds[3]. The discussion on the meaning of maintenance will, in the final consequence, be redirected into design and functions of particular surfaces, whatever their ownership. Within its competence in spatial management the local authority will have to claim their stake, thus enforcing public interest against the private. At that point the definition of spatial needs of children and adolescents will be necessary. Thus this article presents the case of Ljubljana and the corresponding discussion.

In spatial planning of the recent past enforcement of spatial needs of children was done in by negotiated-normative planning. Although urban planning norms and standards were never formally adopted, they were used in practice on all levels of planning. The consequence of such an approach is the fairly large quantity of public children's playgrounds in Slovenian towns, now however largely endangered, under pragmatic urban development conditions. Moreover, the analysis of conditions in Ljubljana shows, that the specific field is exceptionally disregarded, especially adolescents – older children. The lack of planning and statutory solutions