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Planning Re-Mixed: Conceptual Framework of New Planning Ideas

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1 ABSTRACT

Modern planning as an autonomous research discipline, practice and education is celebrating its centenary. In 1909 the first modern legal act – Housing and Town Planning Act came into force in the UK. In the same year the first courses in planning began at the University of Liverpool and Harvard University. For the first time in history the concepts of and for the cities as the spatial response for urgent social needs emerged (garden city, ciudad linear, ville sociale). Royal axes and theoretical geometrical solution were no more relevant to the social and economic problems generated by urban growth. Interesting is that all these new complex concepts were proposed not by architects (traditionally involved in the process of urban design) but by social activists, enlightened philanthropists, progressive politicians, new professionals or even more farsighted industrialists. Inter- and multidisciplinarity of planning as well as planning as a new profession have come into existence.

One hundred years on, cities again have to face challenges that in a number of fundamental ways are not dissimilar to when planning was first established – the liveability of cities, the quality of life, social cohesion in neighbourhoods, functional and green public spaces, healthy cities, affordable housing. The nature of the problems and the specific issues and challenges are, however, vaster, more complicated and essentially different due to not only size and complexity of the cities but also social demand for better life in the cities.

Society has become complex, is changing fast and unpredictably. Technology is speeding up. The economic and financial crisis is dominating thinking and policies. Cities have to adapt; planning has to adapt. The realisation of this major challenge amongst planners and city governments is now quite widespread. We see a variety of slogans: healthy cities, green cities, sustainable cities, intelligent cities, smart cities, resilient cities, eco-cities, low-carbon cities... Are these planning policy visions, urban concepts, diagnostics, socio-political statements, implementation strategies? Do they provide a real frame of reference to actually tackle the problems? Are they being proved useful or do we have to knuckle down and actually ask ourselves what we as planners need to do to adapt our discipline to face the challenges that face our cities.

Today planners cannot offer prêt-à-porter urban concepts – like garden city; today planners have to place the debate about new ideas in the wide cultural - social and economic - and institutional context. The crisis is evident. But the solution must be different.

How can we channel and structure this debate? How do we avoid having far-reaching intellectual debates and not reaching any particular and implementable conclusions? How do we identify and collect the good new, innovative ideas?

This paper offers an integrated conceptual framework that actually identifies the areas of new thinking necessary to adapt planning to its present-day challenges. It offers a structure, a matrix in which a number of phenomena and processes which have become so influential and omni-present in modern-day society are set against three frames of reference fundamental to the professional world of planning.

The present-day phenomena and processes are: time, knowledge, information and education, the paradigm shift, complexity, uncertainty, networks and others.

The three frames of reference are:

- the independent cultural and social background context that influences cities by the very norms and values it produces,
- space/territory itself and processes which we can observe using that space/territory,
- planning itself and planners.

If we represent the frames of reference as the columns of the table and the phenomena and processes affecting and shaping them as the rows of this matrix, we can identify the areas in which new planning ideas need to be developed and also initiate a description and analysis of such new planning ideas in the context of processes that shape them.

The paper offers an integrated conceptual framework that actually identifies the areas of new thinking necessary to adapt planning to its present-day challenges.

There are three frames of reference we would like to consider:

- independent cultural and social background context that influence cities by the values it produces,
- space itself and processes which we can observe in the space,
- planning and planners.

Each of these frames of references is intersected by the phenomena and processes affecting and shaping them. These phenomena and processes determine cutural and social background, space itself and planning. These phenomena/processes are i.e.: time, knowledge, information and education, paradigm shift, complexity, uncertainty, networks and others. If we represent frames of reference as the columns of the table and phenomena and processes as the rows of this table we could locate planning ideas and their wider context in the matrix. This matrix would allow us to describe and analyse planning ideas in the context of processes that shape them.

2 INTRODUCTION

It is worth noting that it has been one hundred years since modern planning has been considered an autonomous discipline of knowledge, practice and education. The world saw its first coherent, modern act of law concerning planning in 1909, when the Housing and Planning Act was passed by the British parliament. In the same year, the first teaching programmes in planning were started at Harvard University in North America and the University of Liverpool in Europe.

The industrial revolution, the abrupt urbanisation and the development of transport, which all happened in the 19th and 20th centuries, gave birth to social problems unheard of before. Obviously, the problems were rooted in space, where axes of the changes crossed. The issues implied here required interventions in a scale that had never taken place earlier – interventions which were necessary and urgent. In other words, someone had to start managing the spatial processes with social and economic factors in mind, not only as "royal grand axis" designs, but with tens of thousands of people in regard.

That need became visible not only in legislation or education; it also produced a number of professional organisations, especially in Europe: Town and Country Planning Association (TCPA, 1899), Société Française des Urbanistes (SFU, 1911), International Federation for Housing and Planning (IFHP, 1913), Royal Town Planning Institute (RTPI, 1914), Towarzystwo Urbanistów Polskich (Society Of Polish Town Planners, TUP, 1923).

Holistic concepts of cities also began to appear, much removed from the ideal geometric designs of earlier times, looking for a spatial answer for various social problems (garden city, ciudad linear, ville sociale). Very interestingly, these concepts did not come from architects, but from social activists, business people or philanthropists. Inter- and multidisciplinarity of planning, and the new profession, became a fact.

A century later, our urban problems are not fewer, on the contrary: they seem larger and even more urgent. The reason for that is not only the size of cities, in which (as we are constantly being reminded) already more than half of the population of the Earth lives, but also from the complexity of the issues we are facing. That complexity is not only due to technological changes, but also social ones, ones we tend to dismiss as unimportant because we perceive them as natural and obvious. Let us remember, however, that a hundred years ago, in 1912, women had the right to vote only in five countries: the USA, New Zealand, Australia, Finland and Norway. In many European countries, which today claim to be cornerstones of democracy, such a fundamental element of citizenship was introduced as late as after World War II (e.g. France – 1944, Italy – 1945, Belgium – 1948, Greece – 1952, Switzerland 1971, Portugal – 1976). Poland, by the way, does not stand badly in this ranking, having granted women the right to vote in 1918, directly after regaining independence, a year later that it had been introduced in the Netherlands. Moreover, rights to such basic amenities as health care, education or social security, in the form that seems unquestionable to the modern, rich (despite the crisis) citizens of Europe, were reserved to the sphere of imagination. A hundred years ago, the challenge for Europe was to provide shelter and elementary level of hygiene.

Today, in spite of incredible technological progress, even in the advanced and civilized Europe illiterate and homeless people can still be found. It is not them, however, who pose the biggest challenge. Just as a hundred years ago the situation arose due to changes in quantity (population, transport modes etc), now the urgent need for intervention is caused by the changes in quality of the many facets of life.

Nowadays, people demand healthy cities, which offer opportunities for personal development and a good life. Are we – as planners – able to provide them with that? Are we able to see both the perspectives and threats in front of our profession and its public mission? Are we able to cure the disease, which troubles modern planning? And most of all – are we able to diagnose it in the first place?

We discuss many ideas for cities. Such terms as "low-carbon cities" or "resilient cities" are attempts to find solutions to some of the burning problems of modern urban reality. At the same time, a number of bottom-up ideas, such as the "slow cities", not inspired by planners, but by the citizens themselves in the drive to define their own lifestyle and their expectations for cities.

Parallel to that discussion, we are going through an institutional crisis of planning. On the one hand, politicians (and politics is a crucial component of planning) tend to reveal at present the FROG syndrome ("First Restore Our Growth"), treating planning as an obstacle on the way to grow economies and fight the crisis. They fail to ask the question, however, whether growth is identical with progress/development, or, to be more precise – with improving the quality of life. On the other hand, urban communities see little sense in heavily bureaucratic procedures in planning and tend to see it as a large set of rules, which limits their freedom to operate in space. In a way, planners lost their credibility. No one remembers that the very goal of planning is to raise the quality of life by a rational management of space; that planning concerns the spatial dimension of civilization and therefore culture. Everybody sees technocratic procedures and limitations, a façade of consultations which no one cares about and a dismissive and paternalistic (patronizing?) approach to "unprofessional ideas". Nowadays planners act frequently as surgeons do, operating on a patient regardless of whether the patient wants that or not, all while he or she is still quite conscious.

It is obvious that it is today impossible to come up with a ready-made product, like Ebenezer Howard did with the garden city a century ago. We now must locate the discussion on planning ideas in a wider territorial, civilizational, cultural and institutional context. What we have in common with the situation from a hundred years ago is the apparent crisis; its sources and character are vastly different though. Thus, the solution must be different as well.

3 THE MATRIX

In order to discuss ideas for cities today, one needs to keep in mind three frameworks of reference.

Firstly, one must consider the civilisational and cultural background, which produces values that influence our perception of cities and our "making" (or "creating"?) the cities. These values are not absolute, they are a product of our social development, and that, in turn, is obviously conditioned by our cultural, technical and economic development. If Jacqueline Beaujeau-Garnier and George Chabot can be agreed with (and we tend to do so) when they claimed the city to be an image of the civilisational system and its representation, then there is little doubt left that planners ought to not only recognize, but also anticipate civilisational trends. Without them the city is nothing but a body of buildings and infrastructure. If culture and, more broadly speaking, life as such is not behind them, then it is not a city that is in question, but some other spatial entity. An example of such phenomena are the abandoned ancient cities in South America, which can now be labelled as a sort of "witnesses of history". By the way, it may be worth noting that perhaps due to the lack of the civilisational background the functioning of the ideal cities – all the way from the Renaissance to the New Towns – is burdened with some hard to define, but easy to see, disability.

Secondly, we must describe and understand the state of the city as it is. In many modern ideas of urban studies/planning, it is difficult to tell whether they are a description of facts or a scenario of development. A diagnosis is an important element in searching the solution for the future, even if we understand that it had happened in history that good solutions were found without a deep understanding of the functioning of a city (but always with good anticipation of the trends). Unfortunately, taking into account the complexity of modern urban systems, we should not be counting on such luck. We should also not be discouraged by the fact that in the future cities will be different than today. If there is one stable feature of cities, it is their constant changing, the transformation. We should rather build knowledge and search for tools to help us

create possible scenarios for the future. These, in turn, require understanding not only the physical from, but especially the processes and phenomena, which shape them. Additionally, we should take into account the fact that it is not easy to conduct an experiment – we have no choice but to work the living body of the city and touch on the everyday lives of its residents and all kinds of "users". Our responsibility is great. We cannot return the lost time or life to anybody, nor can we return the worsened quality someone experienced due to a bad urban decision. In other words, we do not have the comfort to be wrong very often.

Thirdly and finally, there is the context of planning as such. What does our profession and we planners, see as opportunities and limitations? What role do we see for ourselves in the changing world? How do we react to reality and what tools do we have to influence it?

Each of the three frameworks of reference is crossed by the axes of phenomena or processes, which influence and/or shape it in a way. These processes and phenomena are an important determining factor and a background for the broad civilizational/cultural context, for the cities, and for planning itself.

If we imagine that framework of reference (civilisation, cities, planners) as columns in a table, and processes and phenomena as rows, we will get a matrix, in which planning ideas and its broader context are included. The described backbone will also allow us to trace the context and the meaning of planning ideas more easily against the background of more general phenomena, which in fact shape them.

3.1 Axis 1: Time

On the civilizational/cultural level we can see the clash of two opposite trends. On one side there is the everpresent in the second half of the 20th century tendency of "do it faster", "make it better", "earn more", "reach a higher level". For example, with the life expectancy extending we try to get to subsequent thresholds of education and career earlier than ever in history (PhD for 26 years old researchers). Meanwhile, a bottom-up movement of "live slower, enjoy life", concentrated on quality, not quantity, is growing and gaining strength. Some cultures have that incorporated in their model of life.

The first of these tendencies has obvious repercussions in cities. The process of transformation of cities has accelerated. City structures are changing dynamically; the model of a city as a whole is changing. That latter process is slower, but still has a dynamic never present before in history.

At the same time, the means of managing cities is focused on quick results. The authorities try to satisfy investors and to present as soon as possible (preferably before the next election) to the citizens the spectacular outcomes of their activity. In other words, the pressure of time creates in cities very unstable and often questionable values - nevertheless, ones that are "shiny" and "easy to sell". One can say, that a symptom of this race against time is a sort of pop-urbanism, concentrated on awing the audience, and not on the search for an optimal or – more modestly – rational solution.

The second of the aforementioned trends is manifested – so far in a not very popular, but already making its presence known – in a movement focused on searching for quality, and not only quantity. In many cities independently, alternative initiatives demand actions concerning the quality - such as changes in transportation, social or residential policies. The citizens themselves take up initiatives of a new kind – banks of free time, "days of neighbours" or common pro-social actions like "guerrilla gardening". People sacrifice their time, effort and financial means to work for their communities, without expecting a financial profit, but an improvement in the quality of life. More and more movements supporting the "slow cities" idea are created; that concept of city which rejects the race for profit and ever higher career positions, and celebrates tasting the everyday joy of life and the inner development of a person. That movement definitely reaps what it had sown and will reap the change in the perception of space – instead of isolation and the manifestations of differences, integration and cooperation. That, obviously, will translate onto the structure of cities. The movement also seems important because it is not "planned" - it was not "designed" by planners and "implemented" as a strategy, but is a symptom of the vitality of cities, a proof that cities have not yet lost their nature and still reflect the culture that creates them.

For planning, all of these processes mean that we are constantly one step behind the reality, that planning in institutional forms as we know it has a reactive character and thus has to always be somewhat late. Modern plans do not anticipate the civilisational trends, trying to find a spatial dimension for them. Modern plans answer current demands, concerning spatial development here and now. The investors can hardly be blamed, by the way – be it companies, institutions or private persons – that they are driven by particular interests; it is a planner's job to see further and predict consequences. It seems, then, that strategic planning is bound to play a bigger role, as it anticipates the directions of development and setting a distant perspective, rather than concentrating on very local decision about land use. It seems more probable as we continue to observe how far removed from reality these decision prove to be after a couple of years, sometimes months. It is also important to be able to find tools that will not react to such changes in a hysterical way, but ones that would have the dynamics of the changes somehow implemented in its mechanism. The concept of dynamic planning has many references, but it seems that its most important determinant is time.

3.2 Axis 2: Knowledge, information and education

Nowadays the availability of information is remarkable. Anything can be found out in no time. The availability of information, however, does not always mean expanding of knowledge; more often it causes "information noise" – the gained information has no value, but only serves to kill time. That is the situation with much of the pop-cultural or pseudo-scientific information. An additional element of that process is the fact that virtually anyone can produce and spread information, which results in much of them being unreliable or quite simply false. As a source of knowledge, this information is not only useless, but even counter-productive, wrong, leading to a misrepresentation of reality.

Therefore, education is absolutely crucial, providing everyone with a chance to acquire a backbone of knowledge, which then allows to filter out the useful information from the useless and to segregate information due to their correctness, as sources of knowing and understanding reality.

Another civilisational aspect of that axis is the fact that the technological progress has made even the educated people ignorant. The very advanced specialization of knowledge and technology has excluded us from the possibility of understanding and interpreting all phenomena that happen. Each of us, on a daily basis, uses devices, the functioning of which we do not know and most probably would not understand, just like many of us owe their life or health to medicine, which is far beyond the intellectual grasp of nearly all patients.

There is also the concept of the "learning society", which is true, too. Without doubt, as a society, the level of our knowledge, especially in Europe, is at its highest in history. Institutional education has allowed us to reach a very high level of understanding and interpreting reality. That, however, causes a raised (compared to the past) level of expectations towards the quality of life. Modern communities in the rich world want not only to live long, but also live pleasantly. Not only the basic demands concerning work have to be met, but also expectations of our health, cultural life, recreation, entertainment and perspectives for children.

When the term "learning society" is used, one thinks of a combination of all these phenomena, amplified by the dynamics of changes.

That has huge consequences for cities. Firstly, the expectations of the quality of life directly translate to the expected spatial developments. For example, a whole new sector of services for retirees has emerged. These people cease to be "toothless, ill old people" and become people in great shape, expecting entertainment and attractions for the next 20-30 years of life. They are interested in self-development, they have a lot of free time; they are a growing group of city users. Secondly, a well-educated society can no longer be treated as a "component" of planning; it demands to be the real subject of processes and of the influence on the future. We observe how the sun sets over some half-a-decade old concepts of cooperation with and within the society, such as public participation or collaborative planning, as no longer reflecting the modern needs, which have advanced and require new institutional solutions.

At the same time, from the point of view of an individual wanting to satisfy their growing quality of life needs, rational spatial behaviour does not always translate to rational and valuable spatial development, also for that individual. In other words, there is a great need of urban education of the society. Just like everybody understands smoking is bad for your health, everyone should be aware that certain spatial behaviour has its consequences. Here a frequently discussed notion is the self-organisation of cities, which has other aspects, too. Without an understanding of that process one cannot, it seems, seek reasonable tools for planning, or in a broader sense – of managing the future.

All the mentioned phenomena pose new challenges for planning.

The knowledge of planning, as any other discipline of knowledge, is gradually more complex and acquires new internal specialisations. Some elements of that science are so complicated – prognostic models or some

issues of city infrastructure are good examples – that they invoke distrust even among planners. On the one hand, there is a natural limit of competence for the professionals, and on the other it is hard to communicate with the subject of planning – the society – using complicated mathematical formulas describing processes and phenomena that happen in urban structures. The means of communication are urgently needed though, because in planning, like in medicine, the patient must be aware of the procedures run on him or her, otherwise the probability of failing grows.

There is also the other aspect of that new urban knowledge. For example, much is spoken about "new urbanism", a movement especially active in the United States, promoting breathtaking and revolutionary discoveries of rules absolutely basic – if not classic – for urban design, which in Europe are taught to students around the second year of studies in planning. Additionally, the famous ten rules of that concept constitutes a fantastic mixture of very locally implemented elements of urban design with much broader ideas of nearly civilizational/cultural character. It produces a funny blend of knowledge and fashions, which claims to be a discovery of an innovative way of urban designing. That is an example of pop-urban knowledge, an attempt to find simple – if not trivial – rules, which would shape very complex phenomena. Rephrasing, it is an example of anti-knowledge in planning.

Unfortunately, there is one more great problem from the professional point of view. The huge amount of data available for planners does not necessarily influence the quality of decisions made - sometimes it is responsible for not making any decision at all. To put it differently, planning has its own "information noise". For example, there are amazing methods of organizing, segregating and analysing data thanks to the GIS technology; things are done to connect and use the various existing databases (e.g. Plan4All in Europe); institutional actions are taken to present these information (such as INSPIRE). All that is happening while planning is paralyzed with institutional crisis and has little more to offer than reactions. Information sometimes initiate actions that require a vision and new tools; they may also encourage - not always with a positive effect – to sustain some existing methods. Another aspect of that process is the fact that modern tools (like all advanced technologies) are very complex. This means that specialists who deal with these state-of-the-art technologies tend to focus on the advancement of only these tools and planners are left without understanding the possibilities of uses of what is new. The technological gap within the profession is widening. Modern, advanced tools, which let us describe parts of reality in a more detailed way, not necessarily bring us closer to the ability to make long-term decisions; neither do they guarantee the proper and true understanding of these long-term phenomena, which, at the end of the day, will have the most important influence on our future. This is so because the most influential processes happen in the social and cultural sphere, which is the most difficult one to fit into any measurements or frameworks.

3.3 The paradigm shift

On the one hand, every human activity has a tendency to continue its current trend or direction as far as to the level of absurdity. On the other hand, when the absurd is reached, mostly a revolution comes along, which, however, had grown in a minority movement of contestation. This rule applies to both social and scientific trends. Archives are full of foresights (totally false) of the future, based on an estimation of current trends. For example, many serious works on demographics predicted critical overpopulation of the Earth, based on phenomena that happened after WWII. Some of these prognostics assumed that some time by now we would be suffocating with our own breaths due to the amount of carbon dioxide produced by people. The revolution in the birth control has mightily changed the course of things and made that forecast only a historical fun fact. Perhaps, however, the "alarm scenarios" influence reality by intensifying human activity in threatened areas.

That paradigm shift has great importance for cities. We have a tendency to understand or, more frequently, unjustified glorification of past models of cities and to attempt to copy the solutions of the past to modern reality. A good example is the affection to medieval urban structures, which are inadequate to the modern lifestyle. It is enough to compare one factor: life expectancy in medieval Europe was, depending on the source, around 25 years (or less, especially for women). The vast majority of people lived and worked in conditions that would today be deemed as horrifying. At the same time, for unknown reasons, we believe we should have as a ideal urban concept the model of cities from the times when, as Jacques Le Goff reminds, the biggest civilisational challenge was to fend off the constant fear of hunger. That is not to mention that we

are trying to apply a model of cities inhabited by a maximum of a several dozen thousands of people to structures of multiple hundreds of thousands residents.

Sometimes the difficulties concerning the paradigm shift seem to come from the inertia of functioning. Let us consider, as an example, the growing needs of infrastructure. The growing cities require more and more complicated networks, including ones delivering the most basic amenities, such as water or energy. Answering those needs we create not the most efficient system, but the one meeting the current demand. If a specialist was presented with a plan of a city district with a request to design a network of infrastructure of any kind, it would surely be different from the one existing at that moment. There are only a few examples of radical, abrupt reorganisations of urban fabric and structure of functioning cities. Probably the best known large-scale project was the reconstruction of Paris by Georges-Eugene Hausmann. Smaller scale project, however, are still being implemented, such as the Spina in Turin or the famous (for the social protests) Stuttgart 21. To sum it up, the change in the way of thinking about reality and the redefining of our own approach to it are very difficult, but at the same time – which may seem paradoxical – unavoidable. It is not certain if we understand the happening changes correctly or if we describe the phenomena in a proper way, because our perception is distorted by a set of beliefs concerning the structure of cities. It is for certain, however, that the model of cities, which has been developing for the last two hundred years is different from all that had come before, and that our understanding of it is not full. Moreover, we are limited by our perception paradigm; and to make things even more complicated, we do not have very effective tools that would control these changes. Our influence on the human urban environment is, in fact, very limited. Putting it in an even more concise way, it is rather certain that the current transformations in the model of the city, relying heavily on spatial self-organization, are still very elusive to us, but that in no way changes their dynamics and scale.

An unbelievable challenge for planning appears here – how to include that dynamic into planning processes? How to distinguish the trends and anticipate the future? How the planning system should take these phenomena into account? How to manage changes rather than plan them, as we do it today? What tools may serve that purpose?

Perhaps this element of the paradigm shift presents the most important challenge for 21st century planners. Conversations about that happen on numerous meetings, conferences and seminars. On the one hand, the sectoral model of thinking is still in force – the division between architects, urban designers, landscape architects, transportation engineers – who are responsible for (and sometimes fight for) various elements of the city structure; that set also gradually grows with new specialists. On the other hand, more and more professionals understand the need to revaluate the models that have been dominant and to look for an integrated approach and tools to apply it. One of the proposed answers is the so-called integrated planning, operating with a wide set of tools and aiming at many aspects. The change, however, must include the new model of planning as such, and must not mean only enlargement and integration of tools existing today. The analogy to aforementioned infrastructure systems is all too obvious here. A new framework for planning is not only necessary, but also unavoidable, but its outline is still unclear.

That new intellectual paradigm may even include the conditions of spatial planning. As an example, should we not – in the context of environmental and economic threats – start considering a decrease in the number of the Earth's population as a scenario creating positive, interesting possibilities and not threats? A consequence of adopting such assumption would be the creation of a model different to the one we are building around now. Perhaps we should redefine the very notion of development, which has so far been focused on quantity.

What is certain is the fact that models from the past have very limited application today and general rules need to be revised, instead of only updating the planning inventory.

3.4 Axis 4: Complexity

In every discipline, at some point the quantity transforms into quality. In social life, however, apart from the quantitative measurement, there are also great cultural and technical changes. The former are caused by both social and economic changes, while the latter derive from the development of knowledge and technology.

We observe not only cultural transplantations and adaptations, but also demonstrations of cultural difference. In any way, we see how global trends influence local lifestyles, and while simultaneously how these global trends accept and adapt local values. For many communities that process is extremely difficult to familiarize with and to accept. On the other hand, there is a big and growing group of "world nomads", who use every coming opportunity to expand their style of thinking and to get to know other cultures.

The idea of "cultural purity", understood as a set of firm values, have always been a myth to some extent, and is definitely a thing of the past from the perspective of today.

No one has tools to control or shape these phenomena, and their intensity and quantity make the available terms to describe it insufficient, let alone predicting and influencing them.

The unbelievable technological progress has contributed quite a lot to that situation.

In relation to city structures, the growth of the last two centuries itself would have caused changes in quality in an unprecedented scale and generated an unprecedented complexity. If we are able to talk about megacities, metropolisation, region-cities or global cities, then it is only an aspect of that complex reality. More processes and phenomena have appeared, however, the same as it happened with the general civilisational background.

The multitude alone of models and styles of life of people living in a city would be complex enough to grasp and understand, and if we add to that the economic factors and complicated technological transformations, we get an image which poses a great challenge to even describe. Additionally, the complexity has different dimensions, which create another level for it. Well, and it changes constantly.

For a planner the problem is not only in perceiving that whole complexity, but also in the obvious lack of tools for diagnosis or for foresights, which means for planning. Let us add that even if we create simplified models describing chosen aspects of reality, and we do that knowing we are simplifying, then we are still in the stage of searching for means of describing reality. Things get worse when we have the impression that we have found a wonderful, simple model of "everything" and we are able to describe and plan reality without a problem. It seems that the worst thing that can happen to a planner is to be sure they are in the know what is the "right" model of the city and how cities should look now and in the future. In other words, the main challenge would be to constantly see the complexity and to include it in visions, strategies and plans. There is no more use for the approach of simplifying reality, as it is prone to lead to very serious distortions in the functioning of societies. That is why all tools that allow to estimate the outcomes of actions are becoming so valuable. They should become one of the most important components of the new inventory of planning tools. A separate question is how new plans could include that complexity; what sort of plan in general would be able to give justice to it? For sure not the traditional one, focused on physical aspects of urban structures, and most probably not the lately popular "policies", which only reflect the approach of authorities to various fields. We are searching for a model that would not only integrate specialist knowledge, but also the various subjects and aspects of reality.

The model of the "smart city", discussed recently, is perhaps one of the first attempts to find a framework to include the complexity of urban structures into the future planning scheme.

3.5 Axis 5: Uncertainty

Theoretically, it is clear to everyone that future was never certain. However, the social peace and welfare that has been installed in the decades after WWII have given birth to an impression that every future generation will live longer, safer and better than the previous ones. The lack of logic in such assumption seems to be clear as day, but logic has little to do with social expectations. The unavoidable result, therefore, is that a fast growth of "everything" cannot be kept up: demographic growth which would support comfortably both the leaving and the coming generations, economic growth, the quality of the environment or of employment... What is not known is whether one of these will collapse permanently or if a new model will appear.

Social security, the mirage of which we have experienced for the last half a century, ceases to be; no one can be ensured of economic or political stability. We can no longer "buy things we don't need for money we don't have". The unpredictability of natural disasters or social trends is indisputable. The political protests of the year 2011 all over the world are good proof of that.

We cannot even know if we are heading towards growth or decline in any possible understanding of these words.

In cities, this unpredictability manifests itself in thousand, hundreds of thousands and millions of independent, and often opposing or contradicting spatial decisions which people, institutions and businesses make. They produce not only surprising, but also unpredictable effects in space. That is the spatial self-organization referred when speaking of "spontaneous cities" or "resilient cities". These last words are, too, a planning concept of sorts of how to construct cities in the future.

Planners have a growing difficulty in finding accurate tools of diagnosing what the "urban quality" would be all about; there is more to it, as it is increasingly difficult to reach a consensus what the spatial quality was in general, especially in the larger scale.

On top of that there are doubts whether planners have the tools to influence growth or decline, even if they have anything to say about that. And even if we optimistically assume we have an inventory to create that spatial quality, which would even at the same time contribute to growth, then there is always the issue of changes left. In other words, we are not able to construct anything perfect, applicable always and in every place; we can only search for accurate tools at a certain stage, keeping in mind their temporariness and the need to constantly look for newer ones. Which brings us again to the dynamic planning model.

A very realistic suspicion emerges that the model of managing cities as we have known it is ceases to be valid, and urban designers and politicians should work hard to devise a new mode of operation. The ideas of flexible planning or even soft planning begin to find their way into the minds of planners, who more frequently see their work as a continuous process and not a delivery of a ready-made product set for implementation; as defining the framework of operation for many stakeholders and not a restrictive struggle to define one final layout.

In comparison to our predecessors from a century ago (who were very quick to offer a new "perfect" city model) we need to be much more modest, we cannot be arrogant to the extent of offering a new model of life; we really need to focus on discovering as accurate and effective frameworks for civilization as possible. Whatever that might come to mean.

3.6 Axis 6: Networks

Human life has always been playing out in many parallel "worlds". We belong to multiple networks and connections – family, professional, friendship, hobby, accidental. Our life is multidimensional in many ways. The last years, which brought the technological shift, have multiplied the opportunities to experience the many levels of our existence. Technology has also allowed the existence of new dimensions of imagined worlds, created by each of us. If we add the fact that there are various frameworks of reference for these networks, we will not only return to the aforementioned issue of complexity, but also generate a completely new vision of reality.

In relation to cities, these multi-level networks manifest in more and more complicated matrixes of connections, which in reality shape the structure of the city. They decide about the city's blood flow – movements, intensity and dynamics – they are to a large extent responsible for whether we see an urban structure as functioning well or not. For example, the models describing city flows that were in force only fifty years ago have no longer any validity, because they no longer fit to reality. There are less clear rush hours, all movement is in general more fuzzy, new categories of connections appear very often, a growing number of work connections does not have a "from-to", but a "between" character. It is much more difficult to extract "pure" spheres of our routine activities, because they exist simultaneously in many networks.

Another symptom of existence of that multi-level networks is the metropolisation. Cities have been connecting "overhead" regions in which they lie for a long time now, perhaps always, but nowadays, thanks to the accessibility of means of transport that phenomenon has grown to a huge scale, becoming a major support factor, or maybe even the basis for globalization.

In planning, the lack of understanding for these multi-dimensional networks may result in preserving sectoral planning, which by the natural course of things needs to be limited as it does not reflect the needs derived from the network functioning, both within cities and between them. The search for an efficient model of integrated planning is one of the obvious challenges of the future. That does not mean, though, that it is an easy notion to define.

3.7 Axis 7: Resources, infrastructure and technology

The limitation of the resources requires us to cut down on the use of them; at least because some of them are non-renewable. This does not have to mean "rationing" or other restrictions – this may mean innovations or education.

It seems to be clear to everyone, that cities, constituting only a very small part of the Earth's surface, use a very large part of its resources, especially energetic resources. These, including the climate, which is also "used" by us in a way (some claim it is actually abused), are an essential fuel for the functioning of cities. The use of resources requires infrastructure, and that in an obvious way conditions the development of not only city, but also regional structures. The notion of infrastructure-led development is a good description of city structures which rely completely on supplies.

The recently popular, and - in our opinion - fitting the category of pop-urban, concepts of "low-carbon cities" belong to the sphere of dangerous simplifications (mentioned earlier inside the talk about complexity), similarly to its basis, i.e. the widely discussed issue of climate change. Basically, every human being is aware of the fact that climate changes constantly and that mankind - despite its great powers - does not influence to a really crucial extent. It is enough to mention the natural disasters that people would have avoided if they had been able to do that. The problem of climate change touches upon us because it concerns economies (damages) and threats it poses for us personally. That is way it is more responsible to discuss environmental limitations for man - as there undoubtedly are many - than to get excited over slogans concerning the climate. The matter is much more complex, and fragmentary actions deprived of the understanding of the ins and outs of the issue are more likely to harm than to do good. The climate is an important, but not the only component of the environment, which determines spatial development. Emissions are important, but not to the extent to cut them down by priority, without regard to the costs and detached from other factors. For example, fully natural volcano eruptions emit enormous amounts of carbon dioxide, let alone other dangerous substances. That is why the term "environmental limitations of development" seems to me more responsible and more accurate; it includes the whole of the issue of "using" the planet, without which our species will quite probably not survive.

From the perspective of planning everybody uses (and again probably abuses) the concept of sustainable growth, the understanding of which relies on the awareness of the limitations rooted in the environment. The next step is to understand that the free market, which regulates economic relationships (including the use of the environment) requires control, especially in that aspect. Otherwise it will not be possible to solve the riddle between the nature conditioning our lives and the economy regulating them. The answer – or at least one of the possible answers – may be the technical and technological progress, which will not release planners, though, from the responsibility for strategic decisions. The answer may also lie in a change of the model of life coming from changes in values. It is impossible to change millions of people, but it is possible to use the fact they want to change.

3.8 Axis 8: Concentration and intensity

The notion of concentration, or of density of phenomena, and their intensity does not only apply only to space, although is manifested the strongest in it. We could also locate it in ideologies, religions or preferred lifestyles. The growing professionalization is also one of its symptoms.

In cities, however, the juxtaposition of the compact city vs. urban sprawl is not only a technical question about their spatial structure. It also touches on the intensity of city life and the processes that happen in it – cultural, economic and technical ones.

Does the question whether planning today should be directed towards creating frameworks for the rising intensity of city life and development possibilities stay a valid one?

3.9 Axis 9: Mobility and accessibility

Mankind has achieved progress, i.e. cultural and technical advancement, together with gaining "transport freedom". With each push for more such freedom the scope of possibilities enlarged in every thinkable aspect. It does not seem possible that the ability to travel individually could be reverted; the means of transport, which allow for that freedom, may change, though.

Cities have always been magnets which attracted those freer movements, but they were also places where mobility manifested itself in inner movements. It should be remembered that mobility and accessibility is closely connected to the need to ensure contacts, dictated by our set of needs. Therefore both mobility and accessibility belong in a way to fundamental city freedoms. However, dark sides of that issue can easily be seen: traffic congestion, air pollution, growing difficulties, all leading to a negation of the very notion of mobility due to excessive mobility (or rather to the means that provide for it).

Perhaps the crucial task for planners is not to plan transport, but to plan contacts, which would manifest not only in physical structures providing flows, but also in an influence and the structure itself, in which the contacts are realized. That leads us once more to the search for tools allowing for integration and coherence of the process of planning.

3.10 Axis 10: Locality and globality

Perhaps the opposition of locality and globality in the civilisational dimension relies more on our paradigm, not necessarily in the planning aspect, but the civilisational one. It would be wrong to ascribe values to these notions; the important thing is to see their overlapping on various levels.

On the one hand there is a very clear global trend which shapes local behaviors; we tend to complain about that trend, seeing the same stores all around the world while forgetting freedom movements that lead to the improvement of the quality of lives of many people and which have started precisely thanks to the global trends.

It is impossible to say that the quality of life depends only on global or local trends, but it is possible to say for sure that the local context will have key meaning in reinterpreting and adapting these global trends. Nothing here can be decreed or implemented – just like with any other cultural phenomena. It is even impossible to predict the final success or failure of these trends.

The "prêt-à-porter" policy, which pastes solutions into structures without considering that context, can be seen in cities with growing frequency. Sometimes such policy is successful, and sometimes it is an utter failure. The same urban solutions, delivered by global design companies and implemented in Hong Kong and Mexico, in Southern Africa and Poland, in Australia and Greenland, on the one hand terrify professionals, and on the other sometimes happen to be desired by local communities as a sign of their prestige and globality. In other words, the description of the phenomenon is simple, but a diagnosis not so much.

For a planner, the danger of using the "copy and paste" procedure is made worse by the illusion of the importance of physical planning, and not the planning of processes and policies. Still many of us is certain that a good drawing creates a good space, and then a good life. That does happen, but not always, though.

At the same time there are many concepts which we, as planners, not only support, but which we have generated ourselves, and which are a kind of attempt to bring locality and globality closer together. The concepts of spatial cohesion and social cohesion definitely belong in that category. The word "cohesion" means that there are insignificant differences in a set of elements, but the concept of cohesion does imply important local aspects, such as relying on local resources. That shows, again, that ascribing value naively ("I am against globalism" – as if it was at all possible!) does not bring us any closer to the understanding of reality or to effective solutions.

3.11 Axis 11: Political systems and power

In Poland, a country which regained autonomy only twenty years ago, half of the citizens does not participate in elections. It may seem that something is fundamentally wrong about the citizens or about the system of power which a modern democracy offers. If that critical situation troubles only Poland, one could assume that the first hypothesis could be correct, but because that problem touches all countries of the world to a varying extent, and the free Western democracies to a large extent, the second hypothesis needs to be seriously considered.

The system of political representation seems to drastically stand away from the social reality. Political parties look like dinosaurs among primates. Social and economic concepts expressed by parties do not match the aspirations of the citizens and do not reflect values represented by them. Many citizens vote "out of despair" (or for the "lesser evil") or refuse to cast their vote, which all too often offer them nothing they would wish to have.

Politicians who fall for seducing the voters with empty promises lose not only their own credibility, but also the credibility of the democratic system as a whole. The crisis of power and of political systems is becoming clear.

On the other hand, the citizens are becoming active in demanding a more direct influence on the decision-making process and on the solutions that concern their lives, both in the short and the long term.

These two opposing trends demand some proposal of solution, which does not seem to be there yet.

In cities – in which power and politics came to be – we observe a strongly technocratic tendency. Managing is an activity for professionals who know very well what is "right" and what is "wrong". They know, for example, that a private car is "wrong", and a bicycle is "right"; they know the old town is "lovely" and new business centres are "repulsive", or "pretentious" at best; they know the compact city is "ok" and that urban sprawl is not, etc. Such beliefs are very often quite rational, but planners and local authorities have a tendency to ignore social needs while telling their citizens what is best for them. That technocratic-paternalistic approach, unsurprisingly, does not meet much enthusiasm. The search for new ways of cooperation is again shown in a light of urgency. Traditional planning tools, such as law, are too often tools of neglect, control and corruption, and of development and quality improvement.

New forms of managing cities are at the gates. What we do not know is whether they resemble sweet dreams of freedom or the nightmares of slavery.

4 CONCLUSIONS AND ACKNOWLEDGMENTS

By presenting chosen planning ideas in the form of a matrix we intended to somehow organize the variety of descriptions, concepts and reference frameworks of urban issues that are discussed in the literature of the discipline and at professional meetings. We do not claim it to be a perfect format, or even a good one, but it allows us to achieve intellectual order. On the one side there are many people dedicated to planning, who see the complexity of the situation, while on the other side there are many who still conform to the "fashions" in planning. That is also supported by the fact that it is still much easier to receive funding if the research is about "climate change" or "smart cities" than when we are trying to describe the complexity of a phenomenon which does not have one clear, measurable dimension. For us, building that matrix meant a significant step in search of at least a description of the state of knowledge in which planning is at the moment and of its relation to our planning skills and chances to intervene.

The first outline of this construct was conceptualised in August 2011 and then discussed with many persons.

Most probably, we have failed to present in this paper all planning ideas, but we tried to show what many people in Europe, interested in the state of cities, have been talking about in the recent years. They comment reality using their own experience, but remain open to new ideas and new trends which hang in the air.

That is why we owe words of gratitude to many of them for many hours of conversations and the exchange of experiences. We will not be able to name all of them, but we will mention those whose thoughts are reflected in this text (and the shortcomings of which are only our responsibility). They are: Pedro Gadanho, Jan Gehl, Anna Geppert, Nikos Karadimitriou, Stephen Marshall, Diogo Mateus, Gustavo Ribeiro, Modjtaba Sadria, Ulysses Sengupta, Tadeusz Zipser.