WE ARE LIVING IN A MOMENT OF historical transformation, characterized by the bipolar opposition between techno-economic globalization and socio-cultural identity. As in all major processes of social change, the new paradigm is characterized by new forms of time and space. The compression of time in electronic circuits leads to the emergence of timeless time, in a relentless effort to annihilate time in human practice.

The de-localization of communication and exchange leads to the space of flow as the spatial dimension of instrumentality in the Information Age. However, against the logic of the space of flows and of timeless time, the roots of culture and the search for meaning continue to emphasize the space of places, biological time, and clock time as the lasting categories of most human experience.

Cities and regions in the Information Age

The spatial and social conse- quences of these transformations are only starting to appear, and yet they have already changed the way we work, consume, and live. Cities and regions are fundamentally affected in their reality and in their representation by these processes, across cultures and across levels of development. A gigantic process of urbanization, albeit under new forms, is taking place all over the world, particularly in Asia and in Latin America. Mega-cities emerge as constellations of territorial sprawl, concentrating both the energy and the death of countries and societies. Environmental sus- tainability becomes the cornerstone of all new development strategies. Cities and societies are becoming increasingly multicultural, thus enriching the cultural patchwork of our lives, yet requiring - increasingly - the ability to translate codes and share meaning from diverse origins.

Paradoxically, local and regional governments seem more adept than national governments to navigate in these flows of information, capital, and power; while connecting with the cultural diversity of their constituencies, and representing the interests of their citizens. All over the world, there is a decline in the power of national governments, increasing- ly dependent upon their mem- bership in multilateral institutions and international agreements, together with a rise of local and regional governments as more dynamic agents of negotiation, representation, and strategic in- itiative. Particularly, cities have become too big for the manage- ment of everyday life and too small to control global flows of capital, trade, production, and information. The crisis of political legitimacy and in the bypassing of nation states by the globalization of economy and technology, includes a growing distance between people and institutions at the very moment when the public sector must be active and supported to counter- balance the undesirable effects of unchallenged market forces and financial turbulence.

New planning paradigms

Confronted by this whirlwind of social and spatial transformation, the intellectual categories that constitute the foundation of planning in general, and of city planning in particular, have been made obsolete. Yet, the issues treated by city and regional planners are more important than ever, and the stock of skills accumulated in the field, both in the profession and in academic insti- tutions, are absolutely precious. What is at issue is the ability of planners - and of their teachers - to renew their thinking, their framework, and their method, while departing from the world that is left behind: a world centred on the welfare state, rigid zoning, on the belief in models of metropolitan growth, on the predic- dictability of social patterns, on the legitimacy of national govern- ment, and on the long-term benef- its of economic growth without social and environmental con- straints.

The danger for the profession, and for the planning schools, is to face this transformation defen- sively. As in all major processes of social change, there are extraordinary opportunities to be seized, but also serious costs for those institutions and individuals unable or unwilling to adapt. Thus, there is an obvious danger of digging the trenches of cultural resistance and resisting change by simply refining old concepts, or by embarking on a questionable process of self-reflection in which planning itself becomes the goal, rather than the means. In the pro- fessional world, the harsh reality of bureaucracies, politics, and markets will leave little room for intellectual escapism. And in the academic planning field, the building of an easy victory of abstract categories could danger- ously substitute for the hard work of actually reinventing what to do out there, in an increasingly complex world. Resistance is not a tenable course. It must be.

City and regional planning is more than ever a necessary tool to tackle the explosive spatial, eco- nomic, and social problems emerging in cities and regions around the world under the shock waves of the Information Age. But to be able to be up to the task, city and regional planning must reconstruct its analytical tools, focusing its endeavor on its specific object: cities, regions, spa- tial forms and processes, and/or territories. City and regional plan- ning is above all about spatial transformation. All other matters (economic, technological, politi- cal, cultural, and social factors) have to be specified in relation- ship to a given territory, and to the communities built or threat- ened in the territory. This should be the anchor for our field - and given not to lose track of in a time of mind-bending change.

Planning is a profession, not an academic discipline; a tradition of professional work, not a meta- ideology of rationality. It has always known from a variety of academic disciplines: geography, history economics, architecture, design, culture, anthropology, engineering, biology, psychology, mathematics, and even sociology. Its strength was, and is, in its interdisciplinary charac- ter that allows for breathing space in dealing with new issues, that makes it possible to build tools from whicheve materials are available, without having to surrender to the normative approach by which academic dis- ciplines are bound. Planning moves freely across borders to support thinking, designing and action. But, in order not to lose its direction, it needs a purpose. The purpose is provided by a strong and necessary definition of object: dealing with the issues concerning spatial forms and process, as they manifest themselves in cities and regions around the world. Any attempt to extend the reach of city and regional planning to all issues taking place in a fully urbanized world will de-legitimize it, and will introduce a fundamen- tally split between low-level techni- cal operations in the profession, and useless free-floating specula- tion in a shrinking academia.

The challenges for planning in the Information Age

City and regional planning will still have to deal with a wide range of issues. But some of them appear at the forefront of people's lives and governments' concerns, around the world:

1. The overarching issue is envi- ronmental sustainability. We now are aware, both through social activism and scientific knowledge, of the lasting dam- age of some processes of growth. The strategy of solidar- ity between generations—that is, between you and the chil- dren of your children—requires an extraordinary effort of integra- tion and reframing the object dimension, which is always territo- rially specific, in everything we do.

2. A second fundamental issue is the planning of the urban and metropolitan infrastructure that will have to accompany the mega-process of urbanization in much of the planet, as well as the upgrading, retrofitting, and environmental softening of the largely infrastructural space on which many of our cities are built today.

3. Thirdly, the reconstruction of cultural meaning in spatial forms and processes is, at the same time, the oldest profession in this business, and the new frontier of planning. In a world marked by abstract flows of information (and characterized by the uprooting of culture, the capture of experience in real vir- tuality, the marking of spaces, the new monumentality, and the new centralities) the attribu- tion of identifiable meaning to the places where we live, work, travel, dream, enjoy, and suffer, represents the fundamental task in an age of deep uncertainty between function and meaning. Without this, our societies will disintegrate in the juxtaposition between outer tasks and inner experiences.

4. Fourthly, the shift towards local and regional governments as decisive instances of govern- ance, management, participa- tion, and representation requires a serious re-thinking of the role of local/ regional institutions, which more often than not are prone to parochialism, corruption and petty politics. The chance of a "city-state" in a world economy is simply this, a chance, favored by the winds of the new history, but this does not mean that local governments, and even less local politics, are ready for it. For each Barcelona, each Curitiba, and each Portland, there are many Washington D.C.'s and many Mexico City's (and many Berkeley's). Which kind of local institutions could fit in the Information Age, how they could become electrically connected to both local and global, and how city plan- ning and strategic metropolitan planning could be renewed in such a context, are major issues for re-thinking, and for organi- zational re-design — that must relate to the characteristics of the territories where these institu- tions are rooted (i.e., they must be spatially specified).

If we are able to seize the opportu- nity of renewing city and regional planning to confront these four challenges of the Information Age, then perhaps we could contribute to link up sci- ence, technology, culture, and politics, thus enabling the local to control the global, so that func- tion and meaning, productivity and social justice are integrated and reconciled.

Let it be, Or, in the spirit of this special issue of Plan Canada — seeking out millennium-scale messages for planning and plan- ner — let it be resolved.
Note:
This article is based on Professor Castells' previous article, "The Education of City Planners in the Information Age," originally published in the Berkeley Planning Journal, volume 12 (1998), pp. 25-31. It has been adapted and reproduced by permission. Manuel Castells has published and taught extensively on issues related to urbanization, social movements, the economy, and the rise of information technology. His most recent major work, The Information Age: Economy, Society and Culture (published by Blackwell) is a three-volume set analyzing the transformation of society in the information age (Vol. 1: The Rise of the Network Society, 1996; Vol. 2: The Power of Identity, 1997; Vol. 3: End of Millennium, 1998).