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 exchanges leads to the space of flows 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 consequences of these transformations are only starting to appear, and yet they have already changed the way we work, we consume, and we 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. Megacities emerge as constellations of territorial sprawl, concentrating both the energy and the dereliction of countries and societies. Environmental sustainability becomes the cornerstone of all new development strategies. Cities and societies, become increasingly multiethnic and 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, increasingly dependent upon their membership in multilateral institutions and international agreements, together with a rise of local and regional governments as more dynamic agents of negotiation, representation, and strategic initiative. The nation state has become too big for the management of everyday life and too small to control global flows of capital, trade, production, and information. The crisis of political legitimacy associated with 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 counterbalance the undesirable effects of unchallenged market forces and financial turbulence.

New Paradigms In City Planning

Confronted by this whirlwind of social and spatial transformation, the intellectual categories that constituted 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 the academic institutions, are absolutely precious. What is at issue is the ability of city 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 centered on the welfare state, on rigid zoning, on the belief in models of metropolitan growth, on the predictability of social patterns, on the legitimacy of national governments, on the long term benefits of economic growth without social and environmental constraints and on the view of the world from patriarchalism as a way of life.

The danger for the profession, and for the planning schools, is to face this transformation defensively. 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 refining old concepts, or by embarking in a process of self-reflection in which planning itself becomes the goal, rather than the means. While in the professional world, the harsh reality of bureaucracies, politics, and markets will leave little room for intellectual escapism, in the academic planning field the building of fantasy worlds made of
abstract categories, or the attempt to justify planning by inventing a new academic discipline around an ad hoc theoretical foundation, could substitute for the harsh task of reinventing what to do out there, in an increasingly complex world. It must not be.

City and regional planning is more than ever a necessary tool to tackle the explosive spatial, economic, 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 apt to the task, city and regional planning must reconstruct its analytical tools (but not to produce a new "theory") focusing its endeavor on its specific object: cities, regions, spatial forms and processes, territories. City and regional planning is above all about spatial transformation. All other matters (economic, technological, political, cultural, and social factors) have to be specified in relationship to a given territory, and to the communities built or threatened in the territory. This should be the anchor to not lose track of the field in a time of mind boggling change.

Planning is a profession, not an academic discipline. A tradition of professional work, not a meta-ideology of rationality. It has always drawn from a variety of academic disciplines: geography, history, economics, architecture, design, sociology, anthropology, engineering, biology, psychology, mathematics, philosophy, and even literature. Its strength was, and is, in its interdisciplinary character that allows for breathing space in dealing with new issues, that makes it possible to build tools from whichever materials are available, without having to surrender to the normative approach on which academic disciplines are bound. Planning moves freely across borders to think, design, and act. But in order not to lose the direction, it needs a purpose. The purpose is provided by a strong empirical definition of its 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 fundamental split between low-level technical operations in the profession and useless free-floating speculation in a shrinking academia.

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 environmental sustainability. We now are aware, both through social activism and scientific knowledge, of the lasting damage of some processes of growth. The strategy of solidarity between generations, that is between you and the children of your children, requires an extraordinary effort of integrating the environmental dimension, which is always territorially specific, in everything we do.

2. A second fundamental issue is the planning of urban and metropolitan infrastructure that will have to go with the mega-process of urbanization in much of the planet, as well as in the upgrading, retrofitting, and environmental softening of the largely irrational infrastructure 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 and the capture of experience in real virtuality, the marking of spaces, the new monumentality, the new centralities, the attribution of identifiable meaning to the places where we live, work, travel, dream, enjoy, and suffer, are fundamental tasks in reconstructing the unity between function and meaning. Without this, our societies disintegrate in the juxtaposition between outer tasks and inner experiences.

4. Fourthly, the shift towards local and regional governments as decisive instances of governance, management, participation, and representation requires a serious re-thinking of these local/state institutions, more often than not 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, are many Washington D.C.’s, many Mexicos, and many Berkeleys. Which kind of local institutions could fit in the Information Age, how could they become electronically connected to be both local and global, and how city planning and strategic metropolitan planning could be renewed in this perspective, is a major field of thinking and organizational design that must relate to the
characteristics of the territories where these institutions are rooted, that is it must be spatially specified. This is something that I have tried to elaborate, together with Jordi Borja, Chris Benner, and Mireia Belil, in our recent book *Local and Global* (London: Earthscan, 1997).

With all this in mind, my practical suggestions for the education of city planners may seem to be less arbitrary than they sound in the following summary presentation.

**New Directions for Planning Education**

Planning education should be based on flexibility, providing to the students building blocks from various disciplines, with as few requirements as possible (in fact, except for methods, I would argue for no requirements at all, letting departments navigate intelligently in constant interaction with their students, trusting intelligence, common sense, and collegiality). These building blocks, by issues rather than by disciplines, should have a strong internal coherence, but also a great deal of openness in their design, so that they could be assembled, de-assembled, and modified, by practice, and according to specific interests of specific individuals. Yes, it is more work, particularly for the faculty, but the quality of the product (that is the trained professional) would be much higher.

I would, however, emphasize methods as a common ground, and as a quality control device. But by methods I would include a wide range of tools. First of all, and for everybody, I would emphasize writing and speaking skills, something that is totally overlooked in graduate departments, and that in fact is decisive in the Information Age. I would establish Rhetoric Seminars, very much in the classic Greek tradition (close to the Paris Sorbonne, I must confess), as a way to enable people to link their knowledge to their communication abilities. This includes also speaking languages, in plural, since city planners will increasingly operate in an international scene. But, first of all, I would emphasize English speaking and writing ability, particularly for non-native speakers of English, since English is the Latin (or Mandarin) of our time, and its in-depth knowledge will be an essential tool for everybody.

Together with writing/speaking skills, city planning schools should emphasize training in the use and manipulation of information systems, increasingly shifting to obtain information and software from the web. Graphic representation, design by
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computer, and quantitative analysis by on-line programs should be common tools that will break the unnecessary distinction between designers and number crunchers. In the Information Age, the use of information systems provides multiple skills on the condition of knowing what you want and where to find it.

If some additional shared skills are wanted, in order to deal with the main four issues I mentioned above, I would include emphasis on three fields of knowledge and professional expertise: economic analysis, history of architecture and urban design, and political sociology of city and regional institutions. Around this common core of skills and basic knowledge, building blocks by issues, always changing with the winds of change, should provide a training that is both flexible and specialized. We should ensure that in all disciplines and in all issue oriented courses there is an approach that is sensitive enough to human diversity, in terms of gender, ethnicity, class, age, culture, and country. However, I think city and regional planning should not form specialized areas of study along these categories, e.g. women studies, or ethnic studies, or planning for developing countries. Major issues of diversity should be integrated in the mainstream of the training, not relegated to symbolic recognition in ghettoized areas of study.

It is quite obvious in these suggestions that the academic training of city planners should be concentrated on the graduate level, and I would argue, essentially in the Masters degree. We should be training (as we have been doing at Berkeley) first-class professionals, on the basis of college graduates that have already been exposed to solid education in one or several disciplines. In some departments of city planning, but not in most, a small Ph.D. program should be continued, and strengthened, mainly to provide the faculty for City Planning departments around the world, a growing need in the years to come. I would however avoid the excessive broadening of City and Regional Planning dissertations to all kind of topics and issues, regardless of the title ‘City and Regional Planning’ in the Ph.D. degree. First, this would devalue most of these degrees as second-class social science dissertations. Second, it is probably to ask too much of City Planning faculty to be able to advise doctoral research on a whole range of themes and disciplines. And third, the indeterminacy of City Planning dissertations will reproduce its vagueness in future planning academics, building up a stock of intelligent but fundamentally uncertain scholars. With all due flexibility, I would require that city and regional planning dissertations deal explicitly with cities and regions, and
not with prolegomena or corollaries of whatever happens in time and space. Which, by the way, means that dissertations should all be empirically grounded, be it qualitative or quantitative.

To link up with the extraordinary transformations currently taking place, city planning students should be required to spend some time in professional internships, both local and international, depending upon their interests, and this program should be a major systematic undertaking of the department. Maybe a new way of linking up to the real world would be for city and regional planning departments to run — sometimes for profit — extension programs in city and regional planning around the country and around the world, lending faculty and students to governments, institutions, NGOs, and firms, to provide them for a while with much needed skills, including the training of the personnel in the contracting firm or institution. The equivalent of the old Agricultural Extension Service in the U.S. should be a service of training in environmental sustainability, management of urbanization, regional development strategy, and flexible local governance in the Information Age.

If we are able to seize the opportunity of renewing city and regional planning to confront the challenges of the Information Age, maybe we could contribute to link up science, technology, culture, and politics, thus enabling the local to control the global, so that function and meaning, productivity and social justice are integrated and reconciled.

Let it be.