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IN THE FOREGROUND

“Planning a sustainable city. A critical anthology”, by Ester Zazzero

Sustainability. A multi-dimensioned stratified notion

A rapid review of recent debate on urban sustainability shows the importance of accepting the essentially environmental approach of sustainability, which, as we know, adapts the desirable level of life to the burden this will place on available natural resources. Not less important, however, are positions maintaining a different perspective, in particular, one which considers the objectives of social justice and appropriate economic development. This interpretation is acquiring a salience which is as significant as that traditionally given to the environment, and works together with this latter to reach “total sustainability”, more and more often the base of Community objectives. The notion of sustainable development thus understood appears much more inclusive than one which is only environmental, as, aside from the need for long term conservation of the environment (to transmit it to future generations), it also takes into consideration quality of life (not depending exclusively on an increasing income), equality among citizens (including the prevention of poverty), intergenerational equity (the inhabitants of the future deserve an environment which is of a quality which is at least equal to today’s) and the social and ethical dimensions of wellbeing.

Perspectives within the discipline

Considering the environmental dimension of sustainability, we should note that conservation of natural resources is not an invention of our times. Though formulated differently it is at the root of modern urban planning and architecture. The rediscovery of natural conditions, used by Le Corbusier at Villa Radieuse, can, in fact, be reread as a way that new architecture should aspire to principles that respect the environment. A project such as Chandigarh testifies pragmatically to the importance attributed (even then) to vegetation, the sun, the climate, to saving local resources, with an approach that still today stupefies us for its far-sightedness.

Nevertheless, construction practices in modern cities have generally made a distorted use of the principles of modernity, creating urban configurations which are largely unsustainable, founded on the unlimited exploitation of irreplaceable raw materials look specially how the soil is used, mobility systems and ways of living that impact the environment strongly. Only recently has urban planning started again to question itself on the possibilities of improving the environment performance of cities, developing a more complex awareness of the several dimensions in play when seeking sustainable development.

Many experimental new urban development projects with high levels of sustainability have been produced in countries traditionally sensitivity to environmental issues, but also to quality in architecture, such as the Netherlands, Denmark, Sweden, Austria and France. These experiences are contributing to redefine the themes and languages of contemporary projects, in the perspective of a “global quality” sensitive to the environment that should inform itself on architectonic and urban planning research.

At the moment, however, there is an evident gap between the progress made in the planning culture applied to a building, oriented toward new technologies, for which a rich array of operative instruments to support the architect in evaluating the eco-efficiency of a structure has been developed, using advanced software to simulate its bio-climatic and energy performance and the delay in planning on an urban scale of neighbourhoods with a high level, of environmental sustainability, where experience, models and operative tools are lacking. This asymmetric of knowledge and experience increases the risk, which already exists, of relying on “relative sustainability” devolved exclusively on technological tools installed in buildings and on

environmental devices for new settlements, without significant in depth studies of the quality of the architecture and urban planning.

Moving on from these considerations, below we outline some influential positions that are orienting research in the field of sustainable development. These positions were identified during research for a recent doctoral thesis, which aimed to define new models of urban planning related to Sustainability Sensitive Urban Design (E. Zazzero, Progettare Green Cities, 2010). From the writings of authoritative experts and planners, I have tried to identify the specific contribution they have brought to the construction of a new philosophy of planning cities.

Ove Arup

The sustainable city is a circular system...

“The starting point is to consider the city not as linear systems of production and demand of goods, culture, resources, but rather as circular systems. We must see cities as organic systems. Up till now the West has looked at cities as consumers of raw materials, that they use in great quantities, producing large quantities of waste. Thinking about cities as circular systems means thinking how to reuse the large flows of material and waste within the urban system itself, creating value and efficiency for the economy and environment. One example comes from Lombardy, where, in a car factory, an entrepreneur has decided to recycle all the metallic waste of the old machinery by selling it to other companies that will use it in different ways. One way to give waste new value. In terms of constructive development, this way of thinking involves all aspects: sewer systems and the waste from power plants, building materials that reduce energy consumption with a low CO2 content. So there is no need to plan for linear systems, on the one hand sewers and on the other power plants, here landscaping projects and there transportation. All the elements are developed as an integrated whole to generate efficiency”.

... with an integrated use of different resources.

“When planning a new city, it is necessary to provide for the planning of the resources and economic strategies, evaluating all the energy, water implications but above all those of context. We speak of holistic planning. We must also plan the local production of food, including in the urban fabric the rural population. Also the system for the water cycle has within it several components to be integrated into a closed circuit. Among these are the energy for creating potable water, for treating it and then its reuse. Another fundamental theme is the efficient use of resources. By using renewable sources lavishly we should reduce energy use by two-thirds as compared to traditional cities. An important challenge that originates, for example, from the reuse of the waste from rice, from which one can produce energy equal to 65% of our needs, to leave the rest to the sun and the wind, exploited thanks to the study of optimal placement”.

(Ecopolis 2009, Rome)

The role of the city

People who live in cities are generally more well-to-do, and they are occupied every day in a multiplicity of activities, travelling from home to work, consuming food and energy resources and producing waste. So, on the one hand, cities are guilty, but on the other they present a great opportunity to modify the functioning of the economy and climate change. First of all because they are relatively simple entities from an administrative point of view. It is easier to effect a nation by taking the correct decisions in its most important cities, than by acting on a central and overall level. This seems the ideal path, but we must act fast”.

(Ecopolis 2009, Rome)

James Corner

Corner is the owner of the firm Field Operations, the study undertook to establish new relationships between the different disciplines of the project, and 'professor and director of the School of Landscape Architecture of the' University of Pennsylvania. Corner has made much of his thinking on the landscape and the city 'in the nineties. Particularly well known are two conferences, "Constructing Landscape" held at the University of Pennsylvania in 1993 and "The recovery of Landscape" at the Architectural Association in 1994. The texts of lectures are given in the anthology of writings Corner "Recovering Landscape, James Corner, (ed. New York: Princeton Architectural Press, 1999).

Corner argues that only a reorganization of the synthetic and creative categories with which we interpret the built environment can lead us out of our current state of cul de sac of modern post-industrial and "uninspired and bureaucratic failure" of the professional urban trails. Corner's work is very critical of what the landscaping has become professional practice in recent years, especially with regard to its tendency to built environments and providing sets for other structured discipline. Per The defense program that many ecological landscape architects profess is not nothin 'but a rearguard defense of a "nature" conceived and designed as autonomous but an existing a priori, that is, out of human by human or cultural construction. From this point of view, today's environmentalism and ideas appear in Corner bucolic landscape, as irrelevant or naive ideas compare with the problems of global urbanization.

The landscape as a possible model for the city

The landscape is a tool, the only one able to respond to weather changes, transformation, adaptation and inheritance. These qualities suggest not think the landscape as an analogue of the contemporary processes of urbanization, the only appropriate means of opening endless indeterminacy and change that characterize the contemporary urban condition. As Allen points out, "the landscape is not 'just a formal model for the city of today, but perhaps more significantly, is a model for the process".

It is no coincidence that the first projects that have revealed the potential of the landscape to act as a model for urban development have not been made in North America but in Europe. Among the first projects to prepare a program based on the urban landscape was changing in 1982 was the competition for the Parc de la Villette. La Villette invited to sign the competition for a "Park Urban Ventunesi th century" on a plot of 125 acres, once the site of the largest abattoir in Paris. The demolition of the slaughterhouse replacing it with highly public activities planned is the type of project more widespread globally in the post-industrial cities. Not unlike the latest competitions in North America (as Downsvie and Fresh Kills), la Villette brought the landscape as a crucial element for the transformation of that part of the urban working-class town, abandoned for the following changes in the economy of production and consumption . The competition has given rise to the Villette Park postmodern era, in which the landscape is conceived as a com plexus instrument capable of articulating the relationship between urban infrastructure, public events and characters of indeterminate large urban post-industrial spaces, rather than as a salutary exception to the town unsaturated lubrication that generally surrounds them. " (Recovering Landscape: Essays in contemporary landscape architecture, 1999)

The lens of the landscape

The tendency to interpret the contemporary city through the lens of the landscape is more evident in the projets and lyrics that steal the terms of the conceptual categories and their operational methods of the field of ecology, in particular studies related to the way which species are put in relation with their natural environments. All this reveals one of the advantages of implicit landscape urbanism: the merger, integration, and the fluid exchange between the environment (natural) and infrastructure systems (designed). Corner de writes poetry and creative potential of this mixture of categories, this intersection of ecology and artificiality in the following way: "The game between the opera's true nectar and a package of Nutrasweet, including the singing of birds and the Beastie Boys, between a source of water in spring and a drop of tap water, between the heat of the moss and the hot surfaces of 'asphalt, the spaces between regulated and uncontrolled wild stocks.

While the renewed importance of the landscape in reconsidering the terms of the urban question is manifested is primarily through research and architectural production, the importance of the landscape has rapidly strengthened mind the same profession related to landscape architecture. This research is still largely

marginalized by the dominant culture of landscape architecture more traditional, but is increasingly seen as a vital aspect for the future in many universities and a multiplicity 'of innovative professional practices. 'S interest in this perspective is linked in part to the reorganization that the critical landscape architecture is undergoing, and that in many respects is similar to the transformations occurring within the in architectural culture following the spread of post-modernism. Indeed, it is reasonable to interpret the recent rebirth of the landscape as a talk on the impact of postmodernism on the field." (Recovering Landscape: Essays in contemporary landscape architecture, 1999).

Meanwhile, the discipline of landscape architecture is reflecting critically on its theoretical and historical foundations, the general public is increasingly sensitive to environmental issues, and at the same time more and more aware of the landscape as a cultural category. In this context, many studies of landscape architecture wise in North America have qualified in the activities' that were once the preserve professional planners. This has allowed the architects and landscape professional to fill a void, because 'urban planning has generally refused the responsibility to propose projects that can explain the incidence of physical design choices. The landscape architects have always been more' faces involved in research for the reuse of post-industrial sites and to mitigate the environmental effects of various infrastructure systems, such as' electricity, water, and highways.

Charles Waldheim

He coined the successful definition of "landscape urbanism" in 1996, based on some conversations with James Corner on the concept of "landscape urbanism as" (the landscape as a model for the city '). This neologism was the basis for a lecture at the Graham Foundation in Chicago (1997), and new academic programs in the School of Architecture at the University 'of Chicago and the Architectural Association in London. This term has seen since its widespread deployment, a descriptive model of an emerging professional practice of landscape architecture and urban design.

Landscape as Urbanism

The ability to produce urban environments historically obtained with the construction of buildings, looking back through the manipulation of horizontal surfaces, suggests the use of the landscape, especially in contemporary urban conditions with, increasingly characterized by strong horizontal diffusion and rapid evolution. In the context of these decentralization processes and decrease the density, the "heavy equipment" of the traditional tools of urban design proves to be costly, slow and hard, especially in relation to the speed of current processing conditions of the urban form. These considerations are reflected in the emerging concept of landscape urbanism.

"Landscape urbanism benefits from the canonical texts of regional environmental planning from the work of Patrick Geddes and Benton MacKaye, through Lewis Mumford to Ian McHarg, yet remains distinct from that tradition. Corner acknowledges the historical importance of McHarg's influential Design with Nature. Yet Corner, himself a student and faculty colleague of McHarg's at the University of Pennsylvania, rejects the opposition of nature and city implied in McHarg's regionally scaled environmental planning practice.

The origins of landscape urbanism can be traced to postmodern critiques of modernist architecture and planning. These critiques, put forth by Charles Jencks and other proponents of postmodern architectural culture, indicted modernism for its inability to produce a "meaningful" or "livable" public realm, for its failure come to terms with the city as an historical construction of collective consciousness, and for its inability to communicate with multiple audiences.

In fact, the "death of modern architecture" as proclaimed by Jencks in 1977 coincided with a crisis of industrial economy in the US, marking a shift toward the diversification of consumer markets. What post-modern architecture's scenographic approach did not, in fact could not, address were the structural conditions of industrialized modernity that tended toward the decentralization of urban form. This decentralization continues apace today in North America remarkably indifferent to the superficial stylistic oscillations of architectural culture.

In the wake of the social and environmental disasters of industrialization, postmodern architecture retreated to the comforting forms of nostalgia and seemingly stable, secure, and more permanent forms of urban arrangement. Citing European precedents for traditional city form, postmodern architects practiced a kind of preemptive cultural regression, designing individual buildings to invoke an absent context, as if neighborly architectural character could contravene a century of industrial economy. The rise of the urban design discipline in the 70's and 80s extended interest in the aggregation of architectural elements into ensembles of nostalgic urban consumption. During this same time, the discipline of city planning abdicated altogether, seeking refuge in the relatively ineffectual enclaves of policy, procedure, and public therapy.

*The postmodern *rappelle à l'ordre* indicted modernism for devaluing the traditional urban values of pedestrian scale, street grid continuity, and contextual architectural character. As has been well documented, the postmodern impulse can be equally understood as a desire to communicate with multiple audiences or to commodify architectural images for diversifying consumer markets. But this dependence upon sympathetically styled and spatially sequenced architectural objects could not be sustained, given the rise of mobile markets, automobile culture, and decentralization. And yet the very indeterminacy and flux of the contemporary city, the bane of traditional European city making are precisely those qualities explored in emergent works of landscape urbanism. This point is perhaps best exemplified in Barcelona's program of public space and building projects in the 1980s and early 90s, which focused primarily on the traditional center of the Catalan capital. Today the push in Barcelona to redevelop the airport, logistical zone, industrial waterfront, metropolitan riverways, and water treatment facilities, has less to do with buildings and plazas, than with large-scale infrastructural landscapes. These examples, along with recent work in the Netherlands reveal the role of large scale landscape as an element of urban infrastructure. Of course many traditional examples of 19th century urban landscape architecture integrate landscape with infrastructure, Olmsted's Central Park in New York and Back Bay Fens in Boston offer canonical examples. Contrasting this tradition, contemporary practices of landscape urbanism reject the camouflaging of ecological systems within pastoral images of "nature." Rather, contemporary landscape urbanism practices recommend the use of infrastructural systems and the public landscapes they engender as the very ordering mechanisms of the urban field itself, shaping and shifting the organization of urban settlement, and its inevitably indeterminate economic, political, and social futures". (The Landscape Urbanism Reader, 2006)*

Cyria Emelianoff

Beyond the ecologic vision

"The notion of sustainable (durable) city is more extensive than that of an ecologic city. In fact it addresses the social impact of the processes of the deterioration of the environment, and works to transform means of production, consumption and life. It refers to the construction of a life together on the earth. We know for example that it is not sufficient to substitute more polluting means of transportation with cleaner ones to reduce CO2 emissions, if a concomitant will to reduce mobility, which became one of the values of society during the 19th century, is absent. In the same way, without more global evolution in planning the territory and ways of living, starting sustainable development policies on a local scale can have only a very limited impact." (Diagonal, No. 178, 2008)

Understanding 'sustainable city'

Sustainable city can be defined on three levels. First of all it is a city that maintains its identity, a sense of collective and long-term dynamism. Sustainable is to time as global is to space, an opening of our visual field, beyond the short term.

Then a city that offers differing qualities of life that are not that accentuated, within the relative urban area. This necessitates an environmental requalification of local spaces, but at the same time a mixture of social and functional, the availability of alternatives for the need of mobility, whose cost – social, economic and health – has long been underestimated. We need to favour the new proximity of commercial activities and services, and to make the close-in periphery denser limiting the growth of centrifugal forces.

So a sustainable city reappropriates the political and collective project laid out in Agenda 21, counting on a set of synergies as extensive as possible among the various players in the game. One must invent a development that reduces social inequalities and requalify the environment, but remembering the impacts on the various scales of urban development.” (Diagonal, No. 178, 2008)

The virtues and the limits of eco-neighbourhoods

Sustainable neighbourhoods represent a preliminary step along the road to sustainable urbanism which represents an operative reduction of the notion of sustainable city. These neighbourhoods will respond to both global problems (climate, biodiversity, ecological footprint) and local ones (re-compacting of the cities, environmental wellbeing of the city, new forms of mobility and proximity and, most of the time, social mixing). They have undeniably acquired an important symbolic role. They create the will to do something, they arouse desires, dreams, ideals, significances: a better life, live less in contradiction with the ideas that one has regarding the state of the world, to put it in more simply.

From this point of view, these areas can be considered at the origin of the process of spreading sustainable urbanism. Concretely, they pave the way for works rich in potential as regards decentralization and energy efficiency, reducing polluting emissions and the greenhouse effect by factors of from 2 to 4, intensifying relations with nature in the city in many forms, harmonizing urban density with environmental well-being, and, for those forms conceived by the inhabitants themselves, of change, sharing and cooperation.

Eco-neighbourhoods have become victims of their own success. Their attractiveness soon makes them segregated, if cities are not able to control land and real estate dynamics. Works of public voluntarism, which are in some way exceptional, have shown the way and increasingly brought in promoters, who have not been slow in understanding the added value they could realize thanks to ecology and quality of life, at least for those who can afford the costs.

Ecological dualism is already evident in our metropolises, and the scenario is becoming murkier. Instead, in the spirit of sustainable development, it is exactly the situations of augmented vulnerability, of social and ecological obstacles, which should be tackled as a priority. Paradoxically the most impoverished sectors tend to remain the poorer relative for ecological investment. In reality, ecology represents a powerful lever to develop an area and to free it socially.

We realize that reducing sustainable city policy to eco-neighbourhood policy is nonsense. Rather it would seem better to multiply procedures, with the prospective, at the same time, to transform the architectural heritage and the pre-existent neighbourhoods, above all in Europe, and to improve social accessibility for this new urbanism which is particularly difficult. Several initiatives promoted by the inhabitants themselves have shown that this type of construction and planning can be done at constant costs, or better at lower cost, if only one does not get too taken up by “hi-tech” ecology (repeating the words of Dominique Gauzin-Muller) and one manages to create appropriate and facilitated access to the real estate market. Cost reduction can be obtained by reducing the size of spaces or by offering of common spaces. Social access to eco-neighbourhoods or more in general the right to sustainable cities must be widely accepted, beyond the courageous initiatives that are being developing in France, above all within concentrated settlements.”

Divergent perceptions between urban planners and inhabitants

Sustainable neighbourhoods prove that green cities and dense cities are not incompatible, except for some representations and practices of some ways to understand modern urbanism. In sustainable urbanism, the interpenetration of the city, water and vegetation is a game that is played on multiple scales. Certainly density is a notion commensurate to different cultures, but nature is too, think about Japanese gardens. Nature need not occupy the entire space (roofs, facades, small private gardens, linear). Further, it is easily substituted by mineral infrastructure connected to road mobility, a devourer of spaces (road beds, parking lots, garages...).

I see no contradiction between nature and density, nothing worse than that of those authors of sustainable urbanism who call for the invention of a new compromise. On the other hand there are rates of density – the Asian cities, the Mediterranean world, the centre of Europe and finally that of Scandinavian countries.

... Sustainable urbanism is a cultural expression, appropriate in different contexts. Density like compactness can assume multiple forms. The prevention of processes of future satellite suburbs as well as the adaptation of what exists represent one of the most difficult challenges in the undertaking of making a city sustainable, because they presuppose a series of preventive arbitrages. Satellite suburbs are the result of policy choices and economic mechanisms. I maintain that the majority of their inhabitants would not refuse to live in relatively dense eco-neighbourhoods, if they were offered the possibility.

In any case, there are many reasons (energy, climate, biodiversity, water resource management, landscape quality and touristic, agricultural development and metropolitan ecological services) that push us to reconsider the forms of urbanization in the suburbs. In fact the environmental and so also social impact of cities are closely connected not only to the ways they occupy space, but also to patterns of living and consuming. So it is important to redefine the question of the urban morphologies from a wider perspective, that of ways of living that are sustainable. So far this has barely been studied.” (Urbanisme, No. 363, 2008)

Divergent perceptions between urban planners and environmentalists

Unfortunately the process of integration between urban planning and ecology, which began with some very interesting experiences in the early 1990s, has come to a brusque halt because of the technical and cultural corporatism of the two competences, but also for their respective operative instruments, on the one hand urban plans and on the other the evaluation of the processes of Agenda 21. There is also a sort of ambiguity in the environmental camp as regards urban planning, whose main strategies, not only those concerned with conservation, but, on the contrary and above all those of transformation, of the future project of the city and the territory. This ambiguity reached a peak when, at the end of the last legislature, urban planning reforms were not approved, because of a evident dissent by those political forces that most directly represented environmental positions. There was also a important disciplinary weakness of the urban planners, who did not want or know how to generalize the experiences of integration, making do with general and only barely operative formulations in regional laws, but also in their plans.

In short, there now exists a sort of political face off between urban planners and environmentalists, the only objective of which seems to be to guarantee identities and positions. It comes to the fore on occasions when important choices are made, like the missed the opportunity for an urban planning reform at the end of the last legislature.”

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