P2P-URBANISM: BACKED BY EVIDENCE

By Nikos A. Salingaros & Federico Mena-Quintero

After decades of central planning that ignored local conditions and the complex needs of final users, and then tried to do away with the commons for monetary reasons, people have forgotten the principal geometrical, human-scaled patterns that generated our most successful urban spaces throughout history. There has been an important loss of the shared knowledge that once let people build humane environments without much in the way of formal planning.

The general form of urbanism implemented during the 20th century and the beginning of our own 21st century was large-scale, centrally planned development. Different methods of design came into vogue during this time, each explicitly trying to avoid traditional building forms and techniques that have been used for hundreds, if not thousands of years. This was done just for the sake of “not doing the same that we did in the past.” The most prominent “moral leaders” of architecture and urbanism have been the “starchitects”: widely known designers whose buildings have notorious visual characteristics, and which are heavily marketed for the sake of novelty alone.

Beyond the architecture of buildings, post-World War II planners implemented formalist ideas regarding the “city as a machine,” setting a legal foundation in urban codes that guaranteed the modernist transformation of cities. Mass industrialization during the 20th century led to car-centric development, making it impractical to walk from one place to another. Money-oriented development produced building forms whose disadvantages have been widely discussed: skyscrapers with plenty of sellable floor space but whose form destroys the urban fabric, cookie-cutter housing that does not really fit anyone’s needs, office parks that are not close to where the workers actually live.

The New Urbanist movement began as a human-scaled alternative to modernist city planning, which was based upon distances, spaces and speeds that cater to machines and the needs of industry. Among other things, New Urbanism promotes walkable communities where people can live, work and socialize without being totally dependent on cars. It also promotes non-rigid zoning that allows a mixture of work, industry and housing, all done with well-proportioned buildings that borrow heavily from traditional forms and techniques. In Europe a similar movement is known simply as “traditional urbanism.” Both groups of urban practitioners share a willingness to involve the community in the planning of their neighborhoods – in contrast to centrally-planned development that creates large complexes of buildings with little to no input from the final dwellers or users.

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Nevertheless, New/Traditional Urbanism is still centrally planned and done on a large scale, instead of allowing the initiative for design and construction to be taken by the final users themselves. This is an accident of the times, since existing practices for how construction is financed tend to favor large-scale development. A bias towards top-down implementation is also due to the very pragmatic wish of New Urbanists to “plug into” the existing system rather than to start everything from scratch. New Urbanists have tried to promote decentralized development with the publication of the Duany-Plater-Zyberk (DPZ) planning and zoning document, Smart Code, for free on the Internet in 2003.1 Smart Code is a repository of measurements and detailed design guidelines for generating a human-scale city, very different from the Modernist urban codes now imposed by law.

There is evidence that people in numerous places in the world want to end the domination of Modernist thinking in urban planning. Political movements in Europe have finally stepped in to play an active role in urban renewal. Monstrous tower blocks have been demolished, replaced by human-scaled urban fabric designed by local groups. And we have such examples occurring all over the world, each seeking a sharp break from the power base and mindset that still clings to a top-down bureaucratic (and authoritarian) worldview. In many places, however, the law has been used to classify inhuman buildings as “monuments” and thus to indefinitely prolong the symbols so beloved by professional architects and planners.

THE COMBINATION OF PEER-TO-PEER AND URBANISM

That is precisely where the recent P2P-Urbanism comes into play. The P2P-Urbanism movement is drawing in urban designers and planners who have been working independently for years. People who join P2P-Urbanism represent a heterogeneous group consisting of individuals championing collaborative design and user participation in planning: New Urbanists tied to the commercial US movement building neotraditional urban fabric; followers of the father of pattern theory and architect Christopher Alexander, author of A Pattern Language; urban activists; and others. Gradually, practitioners in other fields bring in their knowledge where appropriate. These include permaculturists (who design productive ecosystems that let humans live in harmony with plants and animals) with a deep practical understanding of biophilia; advocates of vernacular and low-energy construction; and various independent or resilient communities that wish to sustain themselves “from the ground up.”

P2P-Urbanism is all about letting people design and build their own environments, using information and techniques that are shared freely. In parallel to the free/open source software movement, designing a city and one’s own dwelling and working environment should be based upon freely available design rules rather than some “secret” code decided upon by an appointed authority. Furthermore, open source urban code must be open to modification and adaptation to local conditions and individual needs, which is the whole point of opensource. For example, the DPZ “Smart Code” not only allows but requires calibration to local conditions, and for this reason, in our view, it pertains to P2P-Urbanism despite the corporate parentage of many New Urbanist projects.

One implication of this new way of thinking about the city is to encourage reclaiming common
urban space. A significant phenomenon in 20th century urbanism has been the deliberate elimination of shared public space. The open space surrounding standalone Modernist buildings tends to be amorphous and hostile, and therefore useless for common purposes. Attractive public space was recreated in privately controlled spaces within commercial centers. In this way, common space that is essential for citizen interactions (and thus for generating shared societal values) has been privatized, re-packaged and then sold back to the people. P2P-Urbanism reverses this tendency.

**PARTICIPATION SCHEMES FOR URBANISM AND ARCHITECTURE**

Centrally planned environments are often designed strictly “on paper” and subsequently built to that specification, without any room for adaptation or for input from the final users. The worst examples are the results of speculative or megalomaniac building with no adaptive purpose in mind, like Brasilia and Pruitt-Igoe (Saint Louis). A top-down way of thinking and urban implementation determines accessibility to public housing and facilities built by government, and has fixed the division of power in the urban arena. However, there has always been a small corps of P2P thinkers and urbanists/planners promoting participatory events outside the official planning system. Those interventions have tended to be temporary rather than permanent, however, because of the difficulty of implementing changes in the built fabric.

Successful urban design has everything to do with real quality of life and sustainability. People’s instinctive preferences can be driven either by biophilia (a preference for organic, natural environments) or fashion (with sometimes disastrous consequences). With the Modernist or post-Modernist architectural status quo, the main consideration for construction has been the visual impact of the finished product. P2P-Urbanism, by contrast, is as concerned about the process of planning as with the final, adaptive, human-scale outcome. It represents a set of qualities and goals that go far beyond architecture and urban design. The principles of good urbanism and architecture may be widely shareable and acceptable by “everyday people,” but they are not entirely obvious. For example, it takes careful explaining to convince people that a pedestrian network can be woven into car-centric cities, and that rather than making traffic chaotic, this will in fact reduce traffic, which is something that everyone would appreciate. In terms of evolutionary design, a step-by-step design process that takes account of real-time constraints and human needs leads to the desired final result, something impossible to achieve from a pre-conceived design.

An architect familiar with the needs of a certain region may know, for example, that an 80-centimeter eave is enough to protect three-meter tall stories from rainfall in a particular region with a certain average of wind and rain. A builder well-versed in the actual craft of construction, however, knows that to build this kind of eave, with the traditional forms used in this region, requires such and such materials and techniques. The final dweller of a house will be interested in protecting windows and walls from rainfall, and may want to have a say in what kind of window to build: if he wants it to open to the outside, then it must not bump against the wide eave. Thus it is important to establish communication between users, builders, designers and everyone who is involved with a particular environment.
Our hypothetical rainy region will doubtless have other problems that people in similar regions of the world have encountered. P2P-Urbanism lets these geographically separated people connect together to learn from each other’s experiences. Trial-and-error can be reduced by being able to ask, “Who knows how to build windows and eaves that will stand this kind of rainfall?” – and to get an answer backed by evidence.

Bigger problems can be attacked in a similar way. Instead of abstract, philosophical-sounding talk like “the shape of the city must reflect the spirit of the age,” and “windows must be designed to mimic a curtain wall” (why?), we can look for evidence of cities that are humane and livable. We can then adapt their good ideas to local conditions, drawing upon the knowledge of all the people who participate in the P2P-Urbanism community.

Construction firms that embrace P2P-Urbanism may end up being well-liked in the communities where they work, for they will actually be in constant communication with the users of their “products.” They won’t just be doing hit-and-run construction that is not loved or cared for by anyone. Up to now, residents have not been able to make any changes on “signature” architecture projects, nor alter the unattractive housing blocks they happen to reside in for economic reasons. P2P-Urbanism instead advocates that people be allowed to modify their environment to suit their needs, and not be forced to rely exclusively on a designer who does not even live there.

P2P-Urbanism is like an informally scientific way of building: take someone’s published knowledge, improve it, and publish it again so that other people can do the same. Evidence-based design relies upon a growing stock of scientific experiments that document and interpret the positive or negative effects that the built environment has on human psychology and well-being.

A central feature of New Urbanist projects is a pre-project “charette” that involves user input in a one- or two-day presentation open to public participation. Although sometimes applied in only a superficial manner, a charette process in the best cases is not just an opinion poll; it is also a nondogmatic educational process, a dialogue among stakeholders leading to a final agreement. The result reaches a higher level of understanding compared to where the individual participants started from.

**CONSEQUENCES FOR MARGINALIZED PEOPLE**

Some proponents of the movement view P2P-Urbanism as a way to give power to marginalized people to help them create the environment in which they live. This is true, but it is not the whole story. A P2P process will have to somehow channel and amalgamate pure individualist, spontaneous preferences and cravings within a practical common goal. There is a vast distinction between good and bad urban form: only the first type encourages sociocultural relations to flourish; bad urban form leads, among other things, to neighbors who never even interact with each other.

Marginalized people or minorities will find tremendous power in being able to build their own environments inexpensively, and in knowing that they are building something good. There are
precedents for this approach in the various ecovillages in Mexico that do their own construction, with local materials, and where everything is hand-built. We can expect consequences similar to what has happened with the use of free/open-source software in Third-World nations: local expertise is formed, a local economy follows and the whole country is enriched by being able to take care of its own problems. We want to facilitate integration of people now separated by differences of social status, using the built environment to help accomplish that.

Thus, P2P-Urbanism provides the key to successfully integrating large-scale planning with informal self-built settlements. Large-scale planning acting with local adaptation is best capable of providing the necessary infrastructure for a healthy city; yet informal, self-built settlements (which are usually illegal) are growing uncontrolled in the developing world.

**POTENTIAL DETRACTORS OF P2P-URBANISM**

P2P-Urbanism is meant to transfer power and knowledge from established architectural practice to common people. This may not be in line with the short-term monetary interests of the current power holders. Developing countries who start doing their own design and construction could save an enormous amount of money by refusing to commission signature architects to design their cities.

We cannot overemphasize that P2P-Urbanism is a radical departure from the generic industrial style known as the “International Style” widely adopted in the 20th century, to one that is essentially a local, shareable knowledge base about adaptive design and building. The former approach to building promotes centralized heavy industry at the expense of local construction groups and community self-help; it ignores local adaptation and traditional techniques, and dismisses P2P-Urbanism as a practical alternative.

Nevertheless, since P2P itself is founded upon sharing and collaboration via the Internet, it can finally bypass the severe existing informational roadblocks (as established by architecture magazines, for instance) through techniques developed for information and software sharing. More than being just a set of ideas, P2P-Urbanism depends critically upon a universal means of free dissemination and transmission, and ties into educational and informational channels that bypass those controlled by the champions of the global consumerist society. The important point, which delimits the private/business focus of the New Urbanists and the commons-oriented alternative approach of the P2P activists, is the commonality of design methods: opensource rules for human-centered architecture and urban design that are freely accessible to all.

Despite a lot of self-serving propaganda, the threat from nonadaptive and energy-wasting urban forms and typologies is just as strong today as it was immediately after World War II. In that period, historic city centers were gutted and people were forced into prison-like high-rises, following a psychotic planning vision of “geometrical fundamentalism” (an ideology that aims to impose simple geometrical solids such as cubes, pyramids, and rectangular slabs on the built environment). This event more than anything else defined urban alienation. Fashionable architectural and urban projects, i.e., those that win commissions and prizes, completely avoid
or destroy human-scale urbanism by imposing giant forms built in an extremely expensive, high-tech style. Such outrageously costly projects are routinely celebrated by centralized power without any genuine citizen participation.

Movements like “Landscape Urbanism” have even tried to redress the current practice with the addition of beautiful “green space,” which unfortunately only serves to mask the fundamentally anti-nature qualities of those high-tech buildings, as betrayed by their geometry. The surrounding gardens are wonderful and the buildings blend very nicely with the gardens in magazine renderings and pictures, but the actual buildings follow the same anti-urban industrial shapes. Moreover, by inserting huge but inaccessible wild gardens in the middle of cities, the common urban space that people can actually use is in fact severely restricted.

Realigning urbanism to involve the real city dwellers has profound socio-political implications. Not only may fundamental societal changes eventually drive a revision in thinking about world urbanism, the built environment may drive fundamental societal changes. In any case, the physical outcome for the city, which is a picture of the harmonious, partially pedestrian and humanized community, must be the product of a deep sociocultural process. Otherwise it is a fake.