Urbanistica n. 142
April-June 2010

Distribution by www.planum.net

Index
and english translation
of the articles

Problems, policies and research

Projects and implementation

Profiles and practices

Methods and tools

U

Simple, complex or fractal?

Paolo Avarello

Galileo is regarded as the unwitting father of modern science, and since Galileo nothing has been the same as before (E. Benvenuto): a building is no longer an ensemble of stones, but a system of weights and forces. And 'modern man' recognizes as true only that which he can manage to 'rationalize', to reduce to formulae that are understandable, computable and usable.

The break-up of paradigms in modern times today makes us look with dissatisfaction at the formalizations of plans, but renouncing what is modern poses other problems and leaves us even more alone facing our daily activities. Fractals appear to provide an answer: a simple process, whose infinite iteration produces complex forms, whose evolution can perhaps be foreseen, enabling us to be modern but a bit less stupid, and to deal with complexity with fewer fears.

The city is by definition the place of maximum complexity: physical complexity, added to its ways of behaving and its relations, which determine, with high densities and frequencies, new configurations, even when these are not translated into physical forms.

The rationality of the modern has invented the great utopia of the plan, reducing the complexity to simple geometries: the image of order, rather than effective functional rationality. And perhaps for this reason modern town planning has taken on the task of 'pre-figuring' the form of the future city, in which to identify the cardinal values of efficiency, social equity and even beauty.

Against this form the city has however opposed its inertias and its dynamics; the inertia of what exists, but also that of cultures and traditions: centrality, spaces, monuments, and behaviours, also to safeguard social balances otherwise convulsed by 'progress'. And the dynamics of a society in rapid evolution, which in just a few decades has overwhelmed its very foundations, redesigning functions, hierarchies and the social contract itself. The necessity of abandoning the 'traditional plan' and its rigidities seems by now to be taken for granted, and not just in the Italian version, overburdened with constraints, regulations and procedures, in the hands of lawyers and tribunals, instead of technicians and elected administrations.

We can no longer agree with the utopia of the 'grand project of the future city', perhaps because this is in large part already built. But it is not easy to emerge from the modern: to accept complexity and learn to handle it; to renounce a regulative principle and its image. To strive to conceive a plan that is not abstractly superimposed on urban society, but which is its expression; which is 'within' things, not 'above' them, interacting with their evolution and orienting this towards socially shared objectives. The theoreticians of the 'mature democracies' warn about the difficulty of asserting these general interests: defence of the environment, social security, a less unjust income distribution, etc. Precisely in the mature democracies, in fact, particular, specific, organized, localized, short-term interests seem to prevail. But the sum of these does not lead necessarily to the 'common good', according to a weary re-proposition of the laissez-faire paradigm, this too brought by 'modernity'.

Nevertheless we have to move from these conditions, which are those of our work. The urban development plan should again be an expression of a social contract, and an instrument for achieving its objectives. For this it is essential to learn to look at society, and the city, for what they can really produce. And finding new principles, if necessary envisaging them and verifying them.

It is hard to say what contribution a 'fractal' interpretation could give to this work, not so much for reaching a possible synthesis, as because we are in desperate need of new instruments of interpreting the reality in which, in spite of everything, we move filled with good intentions.