

Environmental risk prevention, post-seismic interventions and the reconstruction of the public space as a planning challenge.

An introduction.

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This issue of the Italian Journal of Planning Practices tackles the topic of 'natural' risks, focusing particularly on seismic risk, and on policies and actions addressed to prevention¹.

There are two main reasons for considering environmental risk as a primary issue in Italy. The first is because the geomorphology of the country and the physical and spatial configuration of its territory cause a particular risk

¹ This work represents a further outcome of the Seminar on Urban risk and the Public Space within the 'First Biennial on the Public Space' which was held in Rome on 12-14 May 2011. The proceedings have been published in *Urbanistica Informazioni* 239-240

exposure; in fact, it is among countries with higher seismic and hydro-geological risk levels in Europe). The second reason is related to spatial transformation processes, and to the urban development of the country in particular, which happened mostly without considering these risks. The combination of these two conditions leads Italy, unfortunately, to be well-known for its weak capacity to govern territorial changes, and for its almost constant recourse to emergency policies.

Even if we cannot talk yet about an actual concern for territory in the national political agenda², a new trend is emerging, more sensitive to environmental urban risks. It is in fact the question of environmental risk which is the driving force of what can be defined as a cultural change. From an in-depth analysis of recent practices of re-construction after catastrophes, a different approach to our heritage and built environment is emerging at regional level particularly, despite the continuing conflictual relationship between conservation and development. There are important regional differentiations with respect to the efficacy and the efficiency of actions, but in general we can observe an increasing attention for the topic of risk prevention and conservation of the built environment starting from the huge patrimony of historical town centres and fabrics. This change is sustained by a disciplinary development in the related fields of planning, law, architecture, engineering, and environmental science, and by an increase in multidisciplinary approaches, in both theory and practice.

This development is rooted in a long history of ‘natural’ disasters, which is accompanied by a similarly long history of national-level laws related to emergency and post-emergency interventions. Part of this story is synthesized in the Box 1: *The policy of reconstruction and of reduction of seismic risk in Italy: a brief history of recent earthquakes* (Di Salvo). From this story, and more specifically from a direct involvement of the authors in some field experiences related to recent seismic events, derive most of the issues presented in the following papers. These issues are introduced here under four main themes.

2 Regarding territories considered in their complexities, the few existing protection policies are implemented mainly through landscape conservation policies, addressed to historical, archeological and cultural values (as stated through the Law 42/2004, “Codice dei Beni Culturali”).

The first issue is the relationship between ordinary and extra-ordinary or emergency interventions. The way of approaching the topic of urban risk was mostly an ex-post intervention on the effects of natural disasters, often limited to a one-by-one restoration of damage, instead of being addressed to the reconstruction of the fundamental urban conditions which permit to a town to re-start living. The importance of these conditions are at the core of the first contributions by Pizzo, Di Salvo, Giuffré and Pellegrino.

A comparison, also in terms of costs, between the advantages that have been actually reached through emergency policies and actions, and those that could be reached through the ordinary policies addressed to prevention, determined the need to seriously consider new approaches for dealing with catastrophes. A long-term perspective allows the opportunity to grade and prioritize interventions addressed to risk mitigation and the protection of urban settlements from an earthquake, not only as emergencies. The position has been clearly stated: “By its nature, urban planning is long term. Master plans have to encompass decades of expected growth, and it is evident that earthquake protection is necessarily a long-term process” (Coburn and Spence, 2002). This change toward a longer-term perspective is difficult to be actually achieved, since the political-administrative system has been not able to support continuity of political or technical decisions addressed to prevention.

The second question is the role of knowledge. Knowledge related to territory is a fundamental instrument of prevention, not just for technicians and decision-makers, but also for the general public. A multidisciplinary and multi-scale approach is needed both for the analyses and for the construction and implementation of prevention policies. Miccadei’s contribution examines this role, and the relationship between sectoral studies, such as seismic micro-zoning and planning, based on evidence from the recent earthquake of Abruzzo region. There is a preliminary study conducted by the Civil Protection Service aimed at treating this relationship systematically, but its capacity to actually affect planning decisions is still limited³.

3 Gruppo di lavoro MS, 2008. *Indirizzi e criteri per la microzonazione sismica: Conferenza delle Regioni e delle Province autonome* - Dipartimento della protezione civile.

Other sectors of primary importance within this field of practice are those related to the built environment and to building techniques, particularly those concerned with historical or traditional origins. The problems of heritage restoration, and particularly of that part of the heritage which is not listed as a monument, is the topic of the paper by Andreani and Carocci. Their contribution is also addressed to clarifying a particular problem related to this non-monumental patrimony, which has to do also with a scale problem: that of the 'minimal unit of intervention'. In a planning perspective, the 'minimal unit' of intervention often is not the single building but rather the 'building aggregates', a complex of buildings with structural coherence, which is a common case in ancient settlements. This question is presented also in Box 3: *The analysis of building aggregate: a brief survey on technical regulations and their possible effects on urban planning* (Giuffr ).

Knowledge is important for the general public, in particular if it brings a deeper understanding of the environmental processes related to risks (e.g. the phases of an event, its potential side-effects, etc.), and to a more conscious behaviour, not just in case of an emergency. This question leads to a specific way of looking at participation, which considers its fundamental role in constructing a common or shared knowledge. Actual experiences related to environmental risk prevention, emergency and post-emergency, particularly those including civil society as an active and primary agency, are rather rare in Italy, and not fully developed. This is why we are presenting an international case-study as a good practice, that of New Orleans and the implementation of its post-hurricane re-construction policy (see Branciaroli's article). The role of local communities and their capacity for self- organization became more central to public attention, starting from the case of L'Aquila after the earthquake of 2009, where spontaneous committees of inhabitants and civil society movements entered the scene of the post-seismic debate about reconstruction⁴.

Knowledge needs time; it has to be built up gradually, it is not possible to

4 We have to say that this last experience of public participation and involvement in the reconstruction process is very different from other cases that we experienced, for example in the Friuli earthquake of 1976, since in the case of Abruzzo public mobilization assumed mostly the form of a protest.

obtain all information together, and certainly not during an emergency. Knowledge and information cost, and many public administrations, particularly the smaller ones, often cannot pay for it. So it is essential to make a wise use of what is already available, to articulate the questions that need investigation and to organize these, distinguishing basic knowledge and information from that which could be deepened later.

In a recent work promoted by the 'Consiglio Superiore dei Lavori Pubblici' (the High Office of the Ministry of Public Work), this issue has been thematized. Knowledge has been articulated into fields and types, and then sub-articulated into different levels of detail which can be reached according to needs and to available resources (human and financial) of a public administration.

The third issue is related to the forms which intervention assume. In recent seismic events (L'Aquila and the Abruzzo region in 2009 and in the Emilia Romagna region in 2012), we can see that the State is developing a re-centralization process, assuming a growing role in defining and managing interventions, also through the national Civil Protection Service. In this, we see a sort of inconsistency in public policy at national level⁵. Firstly, because it is happening in contrast to claims of policy devolution. Secondly because the State is attributing an increasing role and power to the Civil Protection Service, which acts mostly in the emergency phase and with an emergency perspective, while asserting the need to shift policies and resources towards prevention. A similar reflection and a similar inconsistency can be derived by comparing the public discourse on the necessity of prevention from environmental risks, and actual reconstruction practices, which in most cases failed to become an occasion for promoting prevention. Moreover, there is a lack of relationship between the Civil Protection plans and planning instruments (urban plans, specifically). The Strategic Urban Structure – SUM (*Struttura urbana minima in Italian*), is summarised in Box 2 by

5 To be more precise, a certain difference must be highlighted between the case of L'Aquila and Abruzzo region, and that of Emilia Romagna region, in terms of the emergency and post-emergency national policy. In fact, while in the first case, the re-centralization process reached its higher level, in the second case, the post-seismic policy at national level stated a new form of cooperation among the different institutions and public administrations involved (e.g. regarding the planning decision about where temporary housing would be settled, which could not be turned into a building area).

Pellegrino and is discussed in the paper by B. Pizzo et al., can play this role of ‘merging’ civil protection imperatives with planning goals, related to prevention and also to the maintenance of basic urban conditions in case of a natural disaster. In fact, a good functioning of the SUM, which is defined through a structural approach to the physical and functional characteristics, can assure a good response to a catastrophic event for the whole settlement, both during the emergency and the re-start of urban activities. Case studies show the complexities which are related to seismic prevention and the related possible problems of the SUM, solvable through alternatives, and specifically through redundancy. The relationship between the definition of the SUM and the possible solution of its problems in order to improve the overall resilience of the town is briefly described in the case-study boxes, edited by M.S. Benigni, F. De Girolamo, and A. De Rosa).

Planning tools which were introduced for the post-seismic reconstruction after the Emilia Romagna earthquake, are considered as being in between the more ‘traditional’ plans (which means regulatory, in the Italian planning tradition), and a more strategic approach, in that they are addressed to socio-economic development, and this new orientation resulted from recent deliberations at National level⁶.

This could mean that the State aims at using the occasion, given by the need for reconstructing the physical environment of a town, for re-thinking its economic and functional structure and for promoting redevelopment. At the same time, these tools must be consistent with the existing planning discipline and instruments. This generates a ‘double expectation’, and more generally, ambiguity and potential conflicts in the planning system.

6 In the law 83/2012, concerning the socio-economic development of the Country (namely, ‘Decreto Sviluppo’ – see art. 10, comma 11), it is stated that territories (towns), struck by the earthquake should propose a strategic re-development plan whose aim is to assure the socio-economic re-start together with the rehabilitation of the settlement. The governance of this process foresees a formal agreement among the City Council, the delegates of the Ministry of Economy, and the Province. The Emilia Romagna region is preparing its own law responding to what is established at national level. (see: Progetto di legge Regionale ‘Norme per la ricostruzione nei territori interessati dal sisma del 20 e 29 maggio 2012’, <http://www.ediltecnico.it/12289/emilia-romagna-pronta-per-la-legge-per-la-ricostruzione-dopo-il-sisma/>, and also: <http://www.ediltecnico.it/12495/piano-di-ricostruzione-post-sisma-emilia-romagna>).

The fourth question is that of the role of industrial buildings and productive districts in the reconstruction. A particular sensitivity for this problem emerged after the earthquake in Emilia Romagna region in 2012 which struck a very important industrial district. The article by M. Scamporrino is devoted to this case, which can be interpreted as the evidence of the progressive and experience-based understanding of the seismic event, seen as a phenomenon with complex effects and implications. The case of Emilia Romagna region highlights the loss of functionality as a twofold problem: on one side, there is the physical damage of warehouses and sheds which need to be restored, and the direct economic loss, meaning the suspension of production; on the other side there is the indirect economic damage, meaning that those who are not able to maintain their commitments, lose their position and role in the market. There is no evidence about the chance to re-establish somehow the previous market organization, after the rapid change ‘imposed’ by the event.

These four sets of issues have a common ground, which is that of the (re)construction of public space after ‘natural’ catastrophes. It is precisely these spaces which, in our view, should be a top-priority in the public agenda dedicated to environmental risks prevention and to post-emergency reconstruction, where it plays a fundamental and strategic role.

This is physical space, but also relational space and functional space. It is the place where identity is constructed and re-constructed, developing collaborative capacity (also and particularly in case of an emergency), where social and community bonds are re-built. This space is constructed also through the deep and diffuse knowledge of the ‘life environment’, which has to be considered as a primary form of risk prevention. It is also the space of material production of goods and services, whose reconstruction should become an occasion for the local community to re-think their socio-spatial and socio-economic organization. This change of perspective should be pursued despite the ‘politics of fear’, fed by the constant recourse to emergency policies (which lead to an almost constant ‘state of emergency’), which weakens democratic deliberation and create the attitude of “hold on to what we have” (Swyngedouw, 2007, 2011), and despite on-going processes which tend to the de-politization of Nature, taking environmental questions out of the public arena.

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