

SPATIAL AND URBAN PLANNING AND DEVELOPMENT  
IN EARTHQUAKE-PRONE AREAS

Vladimir Braco Mušič

Introduction

In man's coping with natural and other environmental hazards, modern urban planning and design can be seen as a major preventive instrument. At least on one side, while on the other side these activities seem to influence only a minor portion of environmental change. Leaving aside some of its historical aspects, e.g., the tradition of the fortified city or the recommendations of Vitruvius and others for selection of safe and healthy sites on which cities ought to be built, one is inclined to observe the history of modern urbanism as an account of activities aimed primarily at the concentration of internal urban functions, e.g., resident, production and consumption, transportation and recreation. Even the great methodological turning point initiated by Sir Patrick Geddes with his dictum "survey before plan" has meant more for the consideration of general physical, social, and economic conditions of the site, the population and its activities, than the considerations of the problematique with which we try to deal in such specific areas as earthquake engineering, or the mitigation of earthquake impacts in human settlements, for that matter.

A number of major earthquakes and other natural disasters, as well as the awareness of the fragile state of international peace and security, have--in my view--only during the last decade or so brought about a more organized and systematic specialization in urban planning and development. Therefore, it seems natural and necessary that a series of international professional deliberations on earthquake engineering end up with a link to the broad field of social and economic aspects of earthquakes and of planning to mitigate their impacts.

This being said, one must mention that the planning and development criteria introduced to increase the resistance and the resilience of both human settlements and their component parts have been appropriately formulated to cope with a variety of risks or catastrophic impacts. It is definitely very difficult, or even inappropriate, to differentiate too strictly among the requirements imposed on urban planning and development for reasons of safety against natural or other disasters. Such complexities become particularly relevant when we start to deal with various aspects of disaster-relief actions, e.g., immediate help to the affected, evacuation, temporary housing. etc.