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A new applied research project: Urban blocks in central protected area in multiple hazard approach assessment: mapping and strategies for risk mitigation. Case study: Bucharest - Destructured zone by razing occuring in communist period

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In the context of our cohabitation with the hazard, and the mythical roots of its interpretation, the efforts of the specialists and central administrative authorities are focused on the implementation of a risk reduction management regarding hazards, by direct methods – consolidation, as well as by indirect methods – of legal type, for developing architectural urban strategy. The case study area will located in central protected zone with a lot of patrimony habitat adjacent to the major axis E-W of Bucharest , in proximity of the City Hall, and area which is also adjacent to the Dambovita river which crosses the town. The area selected for the field study is one destructured by the intervention during communist dictatorship, with razing of the old urban tissue and construction of building blocks which break with the traditional texture. At the same time it is endangered by multiple hazards, seismic hazard and flood hazard being some of the most important natural ones, but also heavy snowfall and man-made hazards such as demolition mark the site.
Study components:
a. Connection between the subject theory and history of architecture and urbanism and the management of risk reduction, by implementing the concept of secure habitual patrimony.
b. Investigation of the risk specific components – scientific terminology
c. Hazard assessment
- to identify all major hazards prevailing in the city and surrounding
- to build plausible event scenarios for relevant hazards
- to map out the geographical distribution of hazard event intensity
- local mapping to supraposed hazard
d. Exposure assessment
- exposed elements or risk elements represent the material or spiritual values that can be negatively affected
- identifing the exposure of specific exposed elements to hazard events
e. Vulnerability assessment
- the vulnerability of exposed elements is defined as the possibility of such elements to be negatively affected
- to develop vulnerability functions for exposed elements to different hazard events
- Vulnerability mapping of exposed elements to one specific local hazard. The specific hazard considered is again earthquake, but also secondary events, such as, for example, fire or inundation.
f. Local and global risk assessments
- to build realistic damage or impact scenarios in terms of hazard event scenarios
- to consult with relevant stakeholders to validate the damage scenarios developed
- Global risk mapping to superpose local hazards
g. Disaster risk management planning
- To assess the current level of risk management and disaster preparedness
- To formulate risk management activities, implementation strategy, and institutional arrangement
- To develop urban disaster risk reduction action plan and contingency plans for relevant risk and disaster scenarios
- To consult and communicate with relevant authorities for decision making and effecting actions and with the public to raise awareness.
h. Architectural and urban planning for risk management
The research is proposing the scientific substantiation of some management operations for the reduction of disaster risk of the built space and the space under post-disaster reconstruction with keeping the continuity and specificity of the urban habitat, in order for the feeling of civic affiliation to be preserved.