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URBAN TRIGGERS IN POST-EARTHQUAKE RECONSTRUCTION

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LIMA / PERU

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The reconstruction strategy in Lima, Peru, a city that is periodically involved in extreme earthquakes, starts by giving priority to repair over reconstruction and by determining the limit beyond which this should not be pursued. From this it is possible to structure a process that, setting out from the preservation of the urban fabric through the restoration of street layouts, applies principles of urban restoration for historical cores and an approach toward suburban areas that tends to align them to the morphological character of the consolidated urban fabric. Backgrounding each intervention is the constant dialogue with the local population, who are directly involved in the reconstruction choices. The restoration of damage to urban fabrics and individual buildings responds to the combined need to recover the affected heritage and rebuild the lost community identity. Post-earthquake reconstruction must also be structured rapidly in order to contain the economic impact of the catastrophe.

Among the succession of models proposed for post-earthquake reconstruction in Italy, the Friulian experience

after the 1976 earthquakes offers suggestions and useful starting points for structuring a functional process to meet the immediate needs of the population and to facilitate long-term economic recovery and social development of the damaged territory. Breaking with centralized management models, Friuli's reconstruction was structured as a horizontal process in both governance and physical implementation. Alongside a bottom-up system, interventions are standardized and applicable at the scale of the building. Through the individual interventions, the damaged urban fabric is confirmed and reconstructed according to the pre-earthquake volumetric proportions.

The intervention strategy distinguishes between inside and outside historical cores. In the historical cores, the post-earthquake reconstruction process starts with the cataloging of the on-site rubble, indispensable for the reconstruction of the damaged heritage. This is followed by a fundamental phase of damage analysis and the collection of available documentation that leads first to the repair of the damaged buildings and then to the reconstruction of the destroyed ones. In the areas outside of the historic fabric, reconstruction also becomes a corrective to existing criticalities, triggering an urban transformation that aims at densifying and concentrating the urban fabric toward the characteristics of the historical core and safeguarding the territory from uncontrolled urban sprawl. In areas with high seismic or hydrogeological risk, reconstruction is to be replaced by demolition and displacement to areas in denser urban fabrics.

Once the founding features of the damaged fabric have been identified, the project develops a diffuse structural grid as a trigger for the implementation of individual interventions. The same structural principle may be used to repair works, a process that is to be started immediately after the damage has been assessed. In the areas to be reconstructed and densified, the buildings will be developed according to high-quality standards given by the new structural grid that permits the setting up of an innovative and technological infrastructure.