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## Natural Stone Portals of the Town of Udine (Italy)

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The paper relates about the research "Natural Stone Portals in Civil Buildings of Udine: formal, material and technological aspects", carried on by the author during the PhD studies, just ended, at Naples University Federico II, Italy.

The research focuses its attention on the main features of the natural stone portals realized between the XV and the XX century in Udine, a quite important town of Friuli region, located in the north eastern part of Italy.

The old town preserves more then three hundred portals, different in style and building materials, constituting a wide sample of the taste and of the capabilities of the artists and the craftsmen in the area, mainly related, in the historical period considered, to the Venetian leading cultural role.

As starting point, a reference data base was set up, in order to permit an easy access to the basic information regarding 250 portal of the old town. For each portal the card indicates the data regarding the location, the kind of stone used, the realization period, the main formal characteristics (the presence of an arch or an architrave, the shape of component stone element, the surface carving features) and it contains, as well, a small image of it.

At the same time, with the aim to define a proper wide sample of comparison, a parallel database was realized for the most significant portals of five towns of the area (Cividale del Friuli, Gradisca d'Isonzo, Palmanova, Tolmezzo and Trieste).

The analysis of the data collected, together with a wide references investigation concerning the history of Italian architecture, from the Renaissance to the Neoclassic period, brought to the definition of the most important formal connections and differences with contemporary works in the area and all over the country, and permitted to put in evidence interesting relations existing among the use of different kinds of stone, the historical period, the location.

The research was then addressed to the analysis of 172 portals of the town, chosen for their importance or for representing a recurrent type, by implementing an inventory, organized in four parts, describing in deep their main formal, material and technological features, with the help of checking lists and detail images. For twenty portals the inventory was integrated by precise geometrical and technological surveys.

The four parts of the inventory respectively concern in deep written references, relationships existing with the town and the built site, the composition system, the presence of finishing elements, the features of possibly existing lateral or upper openings connected to the portal, the essential description of its parts (base, threshold stone, pier, arch or architrave, pier-arch linking element, decorative elements), together with the indication, for each of them, of the stone carving technique and of the type of stone employed.

The research was completed by a wide reference and on site study concerning the stone material employed, the supply areas, the carving techniques, the building site, the time of carving, the units of the project, the molding and decorative elements realization.

The setting up of the databases, the implementation of the inventory, the reference study carried on, all contributed in defining the frame of the analysis paying attention to the portals as related to the quarries, to the stone-cutters, to the artists, to the cultural relationships with close and far realities, to the building, to the town.