## POLITECNICO DI TORINO SECOND SCHOOL OF ARCHITECTURE Master of Science in Architecture (Rehabilitation and Revaluation) <u>Honors theses</u>

## Architectures and defense structures in the Land of Arne: a GIS application as a tool of analysis and knowledge support for the preservation

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This thesis is based on a draft spatial knowledge of the settlement system to the north - west of Salento known as the Land of Arne.

An area in the past marked by different historical events, by the repeated incursions of enemy ships by sea by Turkish pirates and Saracens, in the many coves Neritina, was an easy port on the Ionian coast and then inland to penetrate looting the houses, a subject of considerable economic and trade development.

I chose this area of investigation because, in fact, represents in many ways a part of the Salento territory where the rural landscape is the expression of human events that followed over time and which have left deep marks in terms of cultural and artistic.

These signs are also architectural remains a defensive character represented by the coastal towers, built mostly during the sixteenth century along the Ionian coast, from Santa Maria al Bagno with the Tower of the river to the Tower Colimena with the same name, and Salento inland fortified towers, which betray the insecurity of living in the country for that long period from the fifteenth to the eighteenth century. The latter is placed in a complex household, will be sited close to major transport routes: one is the very ancient road of Via Sallentina axis connecting the center of Taranto to that of Santa Maria di Leuca, on the tip of the heel of Italy.

A defensive system, this result, it created a link to view not only between the tower and watch tower on the waterfront, but also between the latter and those located within the precincts of complex household.



Sopralluogo stato di fatto 1978 (nota 2)

Sopralluogo stato di fatto maggio 2009

<sup>1</sup>,<sup>2</sup> High tower farm, the lower coastal tower

One goal of this documentary-historical approach is to insert these architectural information within a tool of representation "space" as the GIS, which thanks to its ability to produce thematic maps to the various themes chosen, allows an improved conservation and enhancement of this architectural heritage in an advanced state of neglect.

The thematic maps representing one or more specific subjects. Differs markedly from the geographical or topographical maps as the subjects covered by the thematic maps do not have as its objective the geographic representation of land surface, but other issues that still have a precise spatial or geometric relationship with the various geographical entities. The important thing is that all information is georeferite through the cartographic position relative to the entities present in the study.

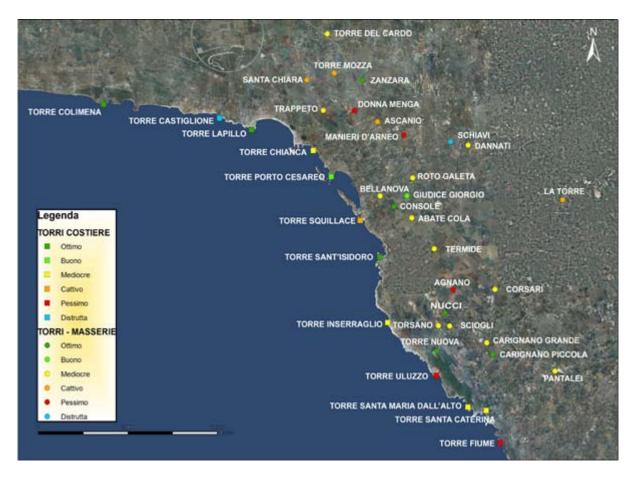
<sup>&</sup>lt;sup>1</sup> Photo of 1980, taken from: COSTANTINO Antonio, NOVEMBRE Domenico, *Le masserie fortificate del Salento meridionale*, Adriatica editrice Salentina, Lecce, 1984, p. 322.

<sup>&</sup>lt;sup>2</sup> Photo of 1978. FAGLIA Vittorio, *Censimento delle torri costiere nella provincia di Terra d'Otranto. Indagine per il recupero nel territorio. Il restauro di Torre Sabea a Gallipoli,* Ed. Pubblicazioni dell'Istituto Italiano dei Castelli di Roma, Roma, 1978, p. 146.

Using the database object has been possible to create various maps of the area affected by the different architectures defensive filing through the town - the buildings structural taken into question.



Thematic map: period of construction



Thematic map: the conservation status

The main objective of the study was to raise the matter in hand even with a census date of the statement of fact, with data collection, hoping that the use of documentary great potential of GIS can be used for any action to safeguard this architectural heritage.

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