

POLITECNICO DI TORINO
SECOND SCHOOL OF ARCHITECTURE
Master of Science in Architecture Heritage Preservation and Enhancement
Honors theses

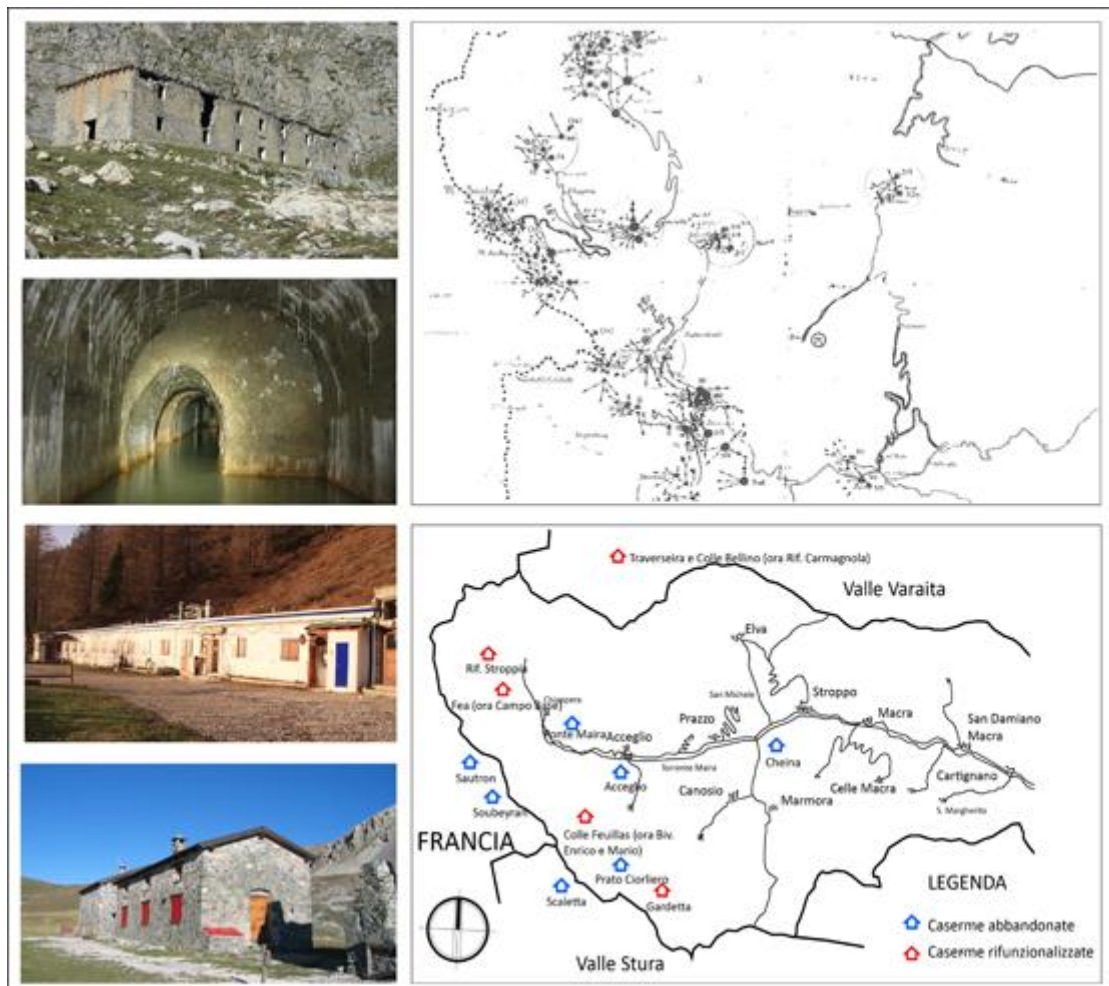
The Maira Valley and the Campo Base's shelter: scenarios of use and retrofit technologies

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The Italian law (Codice dei Beni Culturali e del Paesaggio) recognizes the rural and alpine architecture as part of our heritage and "historical and cultural baggage" as much as the great architectural works of the cities; and for this reason they should be preserved and exploited.



THE VALLO ALPINO OF LITTORIO IN THE MAIRA VALLEY, Historical Map (in FABIO AMORETTI, Defensive situation of the Maira Valley, Campo Base Acceglio), Location and cataloging of the still existing barracks (personal computing), images (from the top) Ricovero Escalon, Opera B of Ponte Maira, Campo Base's shelter and Rifugio Gardetta

The main objective of this thesis is the identification of scenarios of use, compatible with the alpine landscape, the Maira Valley, in order to develop the theme of eco-retrofit and the project of expansion of the Campo Base's shelter.

The work is divided into three different parts.

The first part was focused on the study, analysis and on the historical evolution of the Maira Valley (studying the sources of the historical maps) then focusing on the "Vallo Alpino del Littorio", the system of fortifications built from 1931 onwards in order to defend the Italian border.

From 1936 began the fortification of the Maira Valley through the construction of three defensive lines (the first located on the border and the other two progressively further downstream) and a network of military roads to connect the various barracks. The acquisition of this knowledge was preparatory to the development of several hypotheses of new function related to the recovery of the barracks being part of the Vallo Alpino.

The second part was focused on the application of evaluation tools of strategic guidelines to the phases of identification of scenarios to enhance the Valle Maira and, specifically, the Campo Base's shelter. The SWOT (strength, weakness, opportunities and threats) analysis, structured through economic parameters (demography, economy, tourism, education, infrastructure and transport) was useful to outline a proper socio-economic profile of the area. The analysis led to the sensitive issues that, in their reconfiguration as "strategic objectives" made it possible to identify both the target application, and use scenarios associated with them. Finally a datasheet has been prepared for each of the 24 shelters (the competitive framework of the case study) divided into three parts: 1) presentation of the object 2) services 3) tourism.

1 - RIFUGIO CAMPO BASE		
	VALLE:	MAIRA
	COMUNE:	ACCEGLIO
	LOCALITA':	CHIAPPERA
	ALTITUDINE:	1650
	CATEGORIA:	A
	PROPRIETA':	COMUNE DI ACCEGLIO
TIPOLOGIA COSTRUTTIVA:	Struttura originale in muratura portante, ampliamento in C.A.	
ACCESSO:	<p>Auto: da Acceglio si raggiunge Chiappera. Il rifugio si trova circa un chilometro dopo l'abitato</p> <p>A piedi: da Chiappera, loc. Grange Collet, 15'. Da Chialvetta attraverso il colle Ciarbonet, 5h. Da Ussolo per il colle Sarasin 5h 30'. Da Bellino attraverso il colle di Bellino 6h 30'</p>	
PERIODO D'APERTURA:	26/12 - 31/10	
ACCESSO DISABILI:	Si	
SERVIZIO BAR/RISTORAZIONE:	Si	
RISCALDAMENTO:	Si	
N. LETTI/ N. CAMERE:	32	
BAGNI/DOCCE:	Comuni	
APPROVVIGIONAMENTO ACQUA:	Acquedotto	
TIPOLOGIA RISCALDAMENTO:	Caldaia a gas	
COPERTURA SEGNALE TELEFONIA MOBILE:	Si	
AFFITTO ATTREZZATURA:	Si	
SPORT PRATICABILI NELLE VICINANZE:	Escursionismo, scialpinismo, arrampicata, ciaspole, mtb	
ITINERARIO STRUTTURATO:	Gran Traversata delle Alpi - Via Alpina - Percorsi Occitani	
STRUTTURA SU SENTIERO SEGNALATO:	Tour dello Chambeyron - Sentiero Dino Icardi - Sentiero Roberto Cavallero	
TIPOLOGIA DELLA DOMANDA (FRUITORI):	escursionisti in traversata, corsi, escursionisti giornalieri	
INDICE DI VACANCY:	periodo estivo 100% periodo invernale 80%	

DATASHEET, example (Rifugio Campo Base) personal computed by authors

The Campo Base's shelter (1650m above sea level) is obtained from the restructuring, which took place at the end of the 70s, a military barrack, "The Barrack Vivalda", inserted in the works of the "Ponte delle Fie". Between 2000 and 2004 the shelter was expanded with a new area in which were placed the sleeping area, instead in the historic barrack now houses the living area.

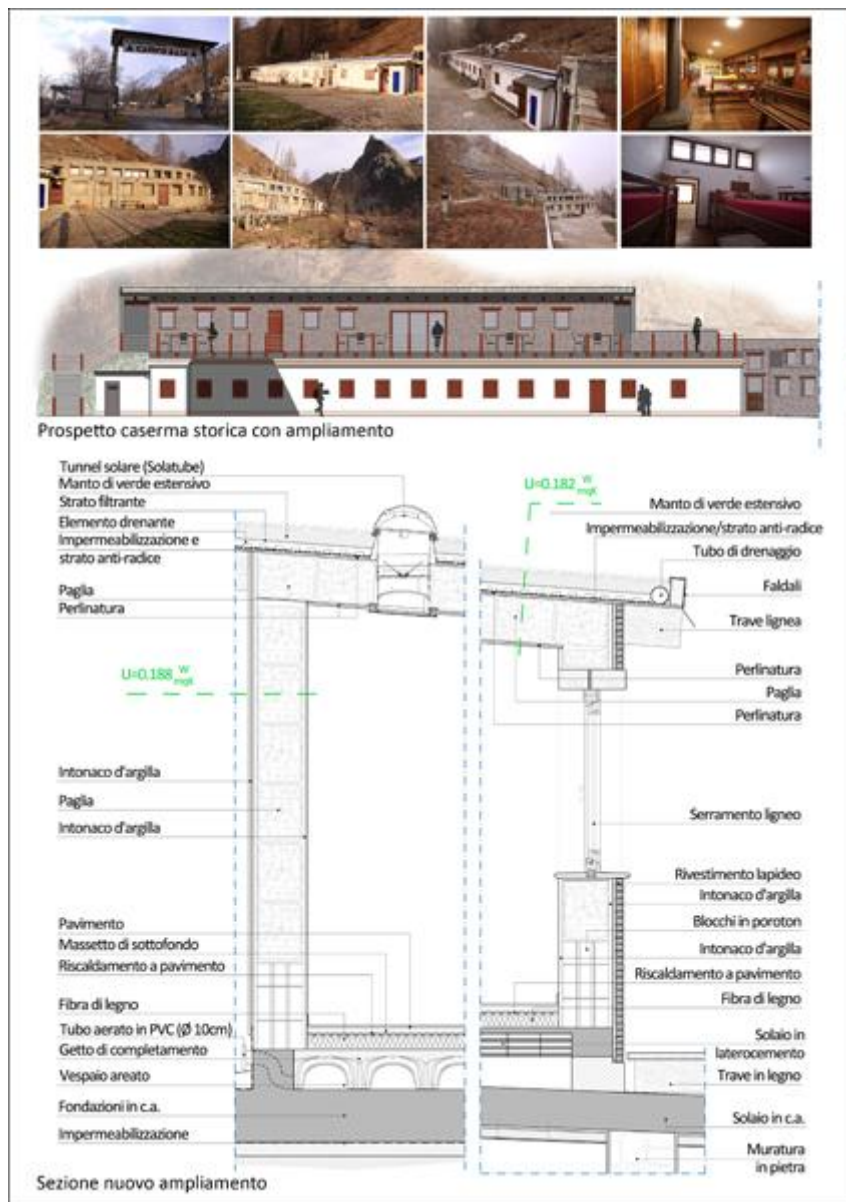
It's been carried out a survey of all the buildings of the current state supported by a plano-altimetric survey of an area of about 4000 square meters around the area of the project in order to develop a wooden model. The model made it possible to conduct a climate analysis (especially the condition of sunshine) in order to define what the most suitable area for an expansion project. The analysis was made with the Heliodon Experimental System.

The project includes an expansion and reorganization of the interior spaces, supplemented by measures to reduce energy consumption for heating, humidity problems and water infiltration.

Both traditional and innovative technologies were chosen, such as solid wood frame or infill straw, resulted from a careful analysis of the existing buildings in the valley. These technologies are designed to integrate the project with the existing heritage, capturing and preserving the distinctive details, but at the same time, following the principles of eco-friendly materials.

The work led to a complete picture of the military heritage in the Maira Valley, providing possible scenarios of development. Noteworthy is the development of the datasheet of the shelters useful to public, private or individual users for proper localization, presentation and study of shelters in the province of Cuneo.

Finally, the project fits into a design eco-friendly through the use of locally available materials and environmentally friendly.



THE PROJECT: pictures of the current state, facade and particular

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