ALPTER

Co-funded by the European Union

ALPTER PROJECT NEWSLETTER
ISSUE N. 6 - WINTER 2008

Interreg IIB Alpine Space
ALPTER Project
'Terraced landscapes of the alpine arc'

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New and events:

ALPTER Project final conference

The final conference of the ALPTER project will be held on 14th and 15th of February 2008 in Ljubljana (Slo).
For further information see inside or visit
www. alpter.net/final_conference

Forest and wood - green business opportunities

The conference, organized by the Slovenian Institute for biodiversity, will be held on 11th and 12th of February 2008 in Ljubljana (Slo).
www.itr.si

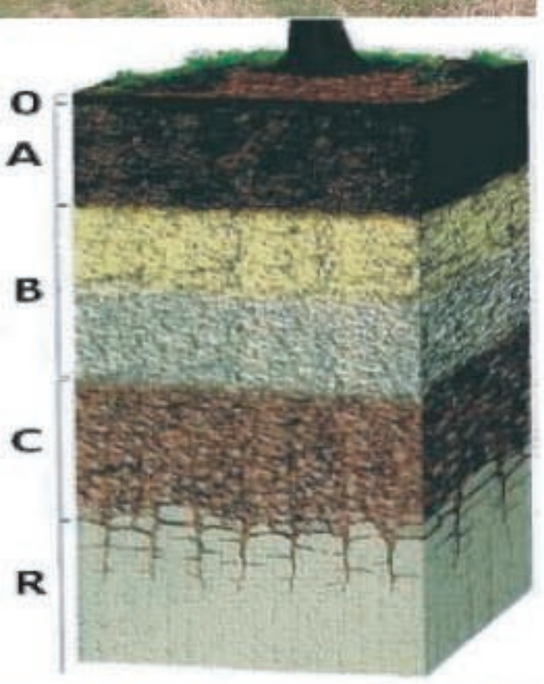
Second international congress of mountain viticulture

The 2nd congress about mountain and steep slopes viticulture, organized by CERVIM, will be held from 13th to 15th of march 2008 in Monforte de Lemos, Ribiera Sacra, Spain.
www.versalcomunicacion.com /cervim

The ALPTER Project web-site is always up-to-date: visit it!
www.alpter.net

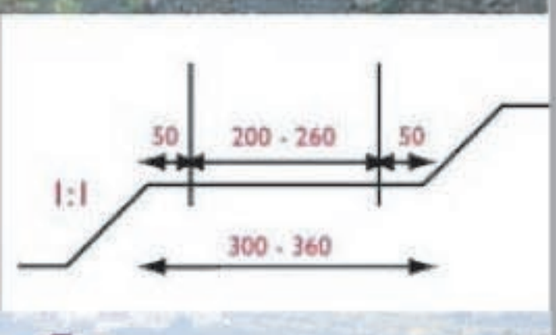
Open questions about agronomic production in terraced landscapes

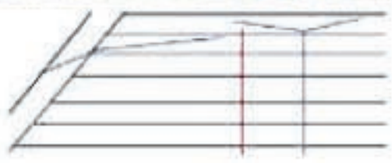
Terraced Landscapes were born from agricultural land management, to enable cultivation of the steeper slopes and reduce the soil erosion: it was therefore a lack of this newsletter not to have an issue with agronomic subjects up to today. This gap is filled with the present issue, that host some thematic studies and a review of successful agricultural productions the Interreg Project ALPTER met during its work in the last three years.
On the other hand, this lack is to be seen as a significant symptom of the crisis of agricultural production in terraced areas in the last half century. A breakdown that brought these landscapes to be considered in some areas of the Alps no longer connected to production, but as mere perceptive and landscape elements.
At the present moment a slow recovery from this crisis is taking place in terraced areas, but very unequally in different region, conditioned by geographic position and production conditions. Some sites have seen the appearance of productions able to supply revenues for landowners and to support the creation of a durable activity, in this way ensuring the maintenance of architectures and landscape too. It is important therefore to analyse the factors that allowed these areas to develop a self-sufficient agriculture, in comparison with those where the abandonment persists, with the related advance of wooded areas. Between these two ultimate situations, in fact, many cases exist that are still evolving and seeking solutions for supporting and agronomic production, before complete decay and abandonment occur.
It is a multi-faced problem, which runs as a fil-rouge through all the contributions of these pages. There are several factors which can be crucial for the sustainability of agriculture today, from the soil characters to the grown varieties, from the production management to the marketing strategy. Under this perspective should be seen the materials gathered in this newsletter and the others found in the ALPTER project web-site (www.alpter.net); they can be useful to offer ideas and data to the stakeholders involved in developing the productive conditions able to ensure a territorial sustainability, in accordance with the reality of each area.



About pedological analysis on terraced areas

The determination of physical and chemical proprieties as well as mineralogical characteristics of agricultural soils is important in order to assure a correct management of this resource. The knowledge about soil proprieties is important in order to guarantee and improve production in the primary sector.
Within the ALPTER project, the Region Valle D'Aosta and the University of Turin carried out several studies about soil proprieties on terraced vineyard plantation. The study area is situated in the lower Aosta valley, a territory traditionally dedicated to winegrowing activities and characterized by extreme slopes which reach up to 100%. In these conditions, terraced slopes represent one of the few solutions for agricultural activities.
The pedological analysis consists in a first description of the soil horizons following the international guidelines and the preparation of soil samples for the laboratory analysis. Therefore it is necessary to excavate a dig to make all horizons reachable during the field survey. The laboratory analysis are necessary to define physical and chemical proprieties. Soil physical properties include texture, water retention and infiltration capacity, as well as mineralogical composition, which is determined by X-ray analysis. This parameters influence the soil characteristics in guaranteeing the stability of the terraced slopes.
The chemical analysis of the soil horizons, necessary to evaluate the soil productivity and fertility, consist in the determination of the pH, the organic carbon, the available phosphorous and other parameters (for more information visit www.alpter.net, section documents).
The survey provides not just information about soil characteristics and conditions, but allows the taxonomic classification of the soil. The soil classification is based mainly on the pedogenetical conditions and mineralogical characteristics. Concerning soil classification, the FAO World Reference Base (WRB) , an internationally recognized classification system, has introduced a new term.
A soil can be identified by a worldwide accepted codified name , e.g. in the case of the study areas, the name of the soil is Technic Cambisol, Escalic.
The first term, Technic, defines a soil shaped by antropic activities. The suffix "Escalic", which has been introduced in 2006 in the WRB, defines more specifically how the soil has been originated. The term Escalic identifies in an unambiguous way soils which are developed on 'human made terraces'. The introduction of this term recognize the importance and the increasing interest in the studies of terraced areas.





Handbooks for building terraces: an example

Realizing manuals and handbooks for agronomic practices in terraced areas offers a support to those who want to recover their properties or improve their production. One example is the manual produced by the Rural development Agency of Nova Gorica and the University of Ljubljana for the area of Goriska Brda (SLO), from which is taken the following text and the images here beside.

Traditionally agricultural recommendations for terrace arrangements for vineyards and orchards are considered when constructing terraces. In everyday practice the construction of terraces does not follow a pre-made plan, but rather the experience of winegrowers, agricultural experts and builders.
According to the recommendations the vines in a vineyard can be arranged in single-row terraces, double-row terraces, double-row terraces with a passage for tractor between the row and the slope, or multi-row terraces. Orchards can be arranged in a single row, with fruit trees at the edge or on the slope of the terrace.
Different inclinations of the hill slope (calculated as having a 15%, 30% or 50% inclination) and the width of the terrace plain influence the total width of the terrace, as well as the height and length of the terrace slope. In Slovenia a building permit is required if the height of the terrace exceeds 1.5 m.
When constructing a terrace it is important to make the inclinations of terrace slope in such a way that the slopes remain stable without landslides. The cheapest and fastest way of mowing or mulching the slopes has to be chosen.
The steepness of the field roads is also important. It should not exceed 15% for the use of single-drive tractors. Field roads with 20 to 22% inclination are only suitable for the transportation of heavy loads downhill, and field roads steeper than 25% can be very dangerous in bad weather conditions.
Excess rainwater should be led away from the terrace plain via the road to the drainage system. Drainage should be prepared also to carry off underground water and other sources of water.
Winegrowers, fruit growers, owners or renters of the land property must obtain appropriate permits and information before the construction of the terraces starts. In Slovenia the legal basis is the Agriculture Act and Agricultural Land Act. All regulations from the agricultural sector and spatial planning sector must be respected.

Short review of agricultural production in terraced areas

Several examples of successful production activities can be found in the terraced areas encountered by the ALPTER project, where terraces play different roles in the local economy. Here below the growing experiences in four alpine regions are briefly described. From these case-studies appear, for example, the natural vocation of terraced areas for hosting in particular wine- and olive-growing. The farms that grow on terraces are generally of small dimensions and in such a setting emerge the importance of cooperatives to create synergies among the producers. Relevant for the maintenance of these reality is also the strategy of quality production.

Liguria - Arnasco

Given its particular morphology, the exploitation of agricultural terraces in Liguria has an age-old tradition. The Olive-growing Cooperative of Arnasco is among the small Ligurian producers that rely on the cultivation of terraced areas. This association was founded in 1984 in the Province of Savona. The morphology of its area is characterised by terraced hills planted with olive trees, where are grown the cultivar 'Taggiasca' and the native variety 'Pignola' (also known as 'Arnasca'). Through the Cooperative were recovered 35 hectares of the 50 still in state of abandonment in the '90s; the recovery was done implanting organic farming. Currently 20 hectares are cultivated with organic farming, including 10 by the Cooperative and the other 10 directly by its members. The production totals 500 quintals of oil a year, including PDO and other qualities. The Cooperative launched also local retailing and marketing activities, with a training course for recovery of terraces open to the landowners.

Valle d'Aosta - Arnad

The Aosta Valley is a region with a strong mountain setting (only 1/5 of its surface is below 1500 m) and since Roman times wine production was diffused in this area. An example of the cooperatives that in the last 50 years developed to support the cultivation on terraces is "La Kiuva". Founded in 1975, this association involves seven municipalities of the Lower Aosta Valley, including Arnad, Verrès and Montjovet. The Cooperative, originally committed to different forms of production (i.e. meat and grapes), today, after the butchery closed, runs only wine-making, counting 50 members and a production of about 600 ql a year. The cooperative works on an area of ten hectares, but the potential of its territory is higher. The annual wine production currently reaches 70.000 bottles. The final product is sold directly in the cooperative's venue. The plant is also open to visitors, with guided tours and the possibility of wine- and food-tasting.

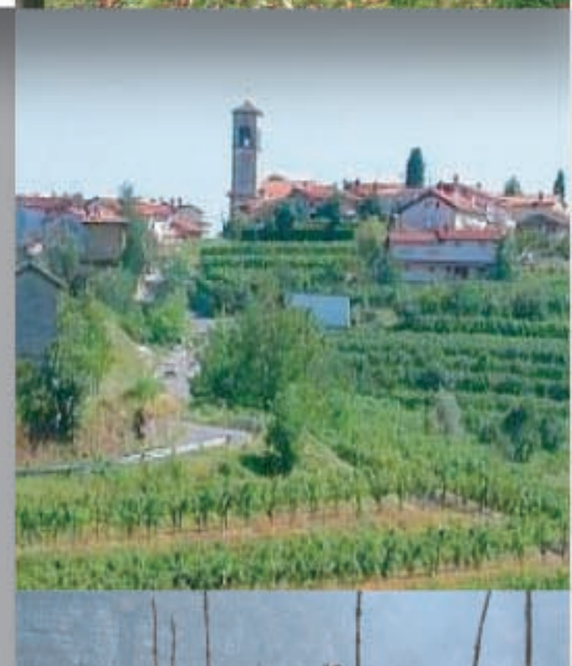
Slovenia - Goriska Brda

The area of Goriška Brda, in the region of Primorska, is one of the most important districts for wine-growing in Slovenia. The main agricultural producer is the Cooperative Winery Goriška Brda, based in Dobrovo. This cooperative, the largest at Slovenian national level, was founded in 1957, with an initial wine production already of 4 million liters. Through revitalization of abandoned vineyards, from 60 to 100 ha per year, the total area of the cooperative has now reached a size of approx. 1,400 ha, with a production of 8 million litres a year. Goriška Brda is a hilly area naturally vocated for wine-growing; 75% of its surface is covered by terraces and the slope reach 50%. In addition to increasing the cultivated surface, terraces rise the solar exposition, important to ensure the quality of wine.

Austria - Wachau

The area of Wachau, in the Lower Austria, is a river valley which stretches for 30 km along the Danube. Although relatively small in terms of size, the terraced slopes of this region has the most valuable wine production of Austria. The Free Wine-growers Cooperative of Wachau is therefore one of the most important Austrian wine producers. The 650 members cultivate a total of 470 hectares, that constitutes one third of the total agronomic surface of Wachau. Each year 2.5 million bottles of wine are produced. The Cooperative is member of the Protection syndicate 'Vinea Wachau', which was founded in 1983 adopting a production standard higher than the law prescribes, to ensure the quality of products marketed under its brand.

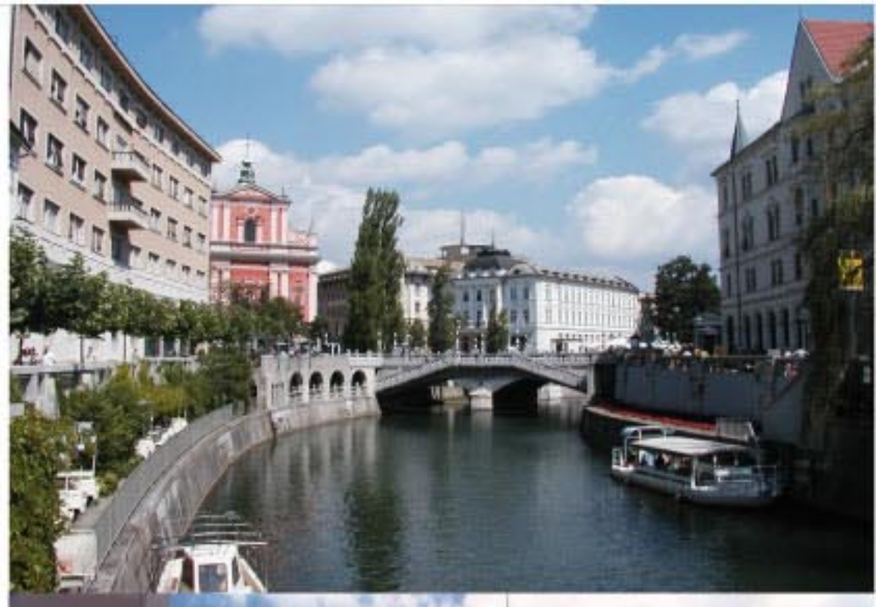



The final conference of the ALPTER Project

The final event of the ALPTER project will take place on February 14th and 15th 2008 in Ljubljana (Slovenia). An international congress has been organized on this occasion, entitled *"Living terraced landscapes - Perspectives and strategies to revitalize abandoned regions."*
The convention will present the efforts made in recent years to raise the public awareness about terraced landscapes and the scientific researches undertaken to define methods for recovery and management of these areas.
The conference is arranged in thematic sessions, aiming at sharing perspectives, studies and best-practices among the subjects involved in managing terraced areas. In particular, the 4 sessions will deal with hydrogeological risk, with agricultural production, with tourism activities and territorial policies. Great attention will be paid also to cooperation activities and Interreg projects focused on these topics. The conference will hosts, beside the project partners, contributions from experts of international profile in the field of cultural landscapes.
The event will conclude the activities of the ALPTER Project, presenting the main results of the studies carried out by the partners. During the conference will be presented the project final publications: *Atlas of terraced landscapes of the alpine arc* and *Manual for recovery of terraced areas*.

Further information can be found on the web-site:
www.alpter.net / final_conference



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INFORMATION & CONTACTS

web site: **www.alpter.net**

e-mail: **info@alpter.net**

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PROJECT PARTNERS

- Regione Veneto
  Urban Planning Department (IT)
- Regione Liguria
  Spatial, Landscape and Environment Planning Dept. (IT)
- I.R.E.A.L.P.
  Institute for Research on Ecology and Economy of the Alpine area (IT)
- BOKU University
  Inst. of Landscape Development, Recreation and Conservation Planning (A)
- University of Ljubljana
  Faculty of Architecture (SLO)
- A.D.I.
  Association for Informatic Geographical Development (FR)
- Regione Valle d'Aosta
  Agriculture and Land Prot. Department (IT)
- Regione Bregaglia (CH)

Observer partner:

- U.N.E.S.C.O. - Regional Bureau for Science in Europe (ROSTE)

Other partners:

- Slow Food - Foundation for Biodiversity

Texts by: Luca Lodatti, Daniela Ceccon. Design: Luca Lodatti, Daniela Ceccon, Andrea Bonato, Andrea Mancuso - Region of Veneto, Planning Dept.