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The enhancement of knowledge, preservation and valorisation of historical settlements in the alpine area: an interdisciplinary approach by Luisa Pedrazzini\* and Giulia Pesaro\*\*

#### **Abstract**

The paper aims to present the methodological approach used for the development of the Interreg IIIB Alpine Space project "CulturALP - Knowledge and Enhancement of Historical Centres and Cultural Landscape". The project promoted by Lombardy Region, involves seven European regions from four different countries. The goal is to improve the knowledge of alpine historical settlements and to develop innovative operating policies to protect and enhance this distinctive cultural heritage.

The paper will focus on the SWOT analysis methodology, here applied to cultural heritage and aiming to describe, understand and valorise the peculiarities and the values of historical settlements and cultural landscapes in the alpine territory.

SWOT analysis indicators have been selected in order to internalise the interdisciplinary approach chosen in the project. The intervention strategy that normally characterises the government and management of historic settlements is sectoral and looks at the settlement itself as an ensemble of valuable buildings to be preserved from depletion. Here this point of view is overtaken in favour of a "systemic" analysis, where historical settlements can be viewed as cultural capital, closely integrated to all the other territorial resources. This to achieve a sustainable and durable territorial development, based on the preservation and valorisation of cultural, historical, artistic, social, economic and environmental identities, according to the peculiar spatial and socioeconomic context of the Alps arch. This implies the contribution of different disciplinary approaches and tool boxes, that have to be understood and shared by different knowledge systems (approach, strategies, methodologies, tools..). The real challenge of the project is therefore the use of the interdisciplinary approach in

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developing integrated policies for the preservation and valorisation of historical settlements and cultural landscapes, pushing architects and historians of art as well as planners, economists, sociologists, administrative professionals and other territorial analysts to work together in a mutual learning process.

# 1. The CulturALP project

According to Interreg III Alpine Space program (CEC,2001) the Alps are an area of economic growth and regional disparities. The great diversity of the European territories is particularly evident in the context of the Alpine Space, where 70 millions inhabitants live on 450.000 km<sup>2</sup>, (of which at least 13 million living in 191.000 km<sup>2</sup> of mountain territory). The alpine region feature is characterised by great diversity and unbalance due to the presence of large cities in the area (Munich, Milan, Zurich and Lyon) and the unique environmental configuration, together with the natural and cultural landscapes

A main objective of the Alpine Space programme is to establish "a powerful area in the European network of development areas: This would make it necessary to develop a common understanding of the role of the Alpine Space in terms of sustainable spatial development and to actively promote this by various activities and measures (CEC, 2001, p.53)".

The general aim of the programme is articulated in the following three project priorities:

- Promotion of the Alpine Space as a competitive and attractive living and economic space in the scope of a polycentric spatial development in the EU. It has 2 measures: mutual knowledge and common perspectives; competitiveness and sustainable development;
- 2. Development of sustainable transport systems with particular consideration of efficiency, inter-modality and better accessibility. It has 2 measures: perspectives and analyses; improvement of existing and promotion of future transport systems by large scale and small scale intelligent solutions such as intermodality;
- 3. Wise management of nature, landscapes and cultural heritage, promotion of the environment and the prevention of natural disasters. It has 3 sub measures: nature

and resources, in particular water; good management and promotion of landscapes and cultural heritage; co-operation in the field of natural risks.

The project "CulturALP - Knowledge and Enhancement of Historical Centres and Cultural Landscape", approved under Alpine Space programme, fits in the priority 3.2 "Good management and promotion of landscape and cultural heritage".

The focal points of CulturALP project are historical settlements and cultural landscape, where, among others, "due to farm abandonment and depopulation in several valleys of the southern Alps, settlements structures as an important feature of landscape and cultural heritage, slowly disappear. Traditional types of architecture, especially those with a close link to traditional farming techniques, as well as rural and historic buildings as centre of social life in small villages are threatened [...] CEC, 2001, pag. 39)". The project, promoted by Lombardy Region, involves seven European regions from four different countries. The goal is to improve the knowledge of alpine historical settlements and to develop innovative operating policies to protect and enhance this distinctive cultural heritage.

Due to the peculiar natural and built environments of the alpine area and the variety of institutional frameworks and policy goals by the different involved regions, CulturALP adopts a problem solving approach in transnational cooperation. Specific goals are therefore to protect and enhance alpine historical centres through the cooperative approach, directly involving all the partners in the whole of the work phases, promoting integrated and sustainable policies and developing analysis and action tools where cultural, socio-economic and environmental dynamics are integrated.

# 2. Cultural heritage in the Alpine area: the historical settlements protection and valorisation

In the field of the cultural heritage, we make reference to UNESCO's perspective, as one of the most wide meaning and reliable ones.

UNESCO's definitions and base concepts focus on the identification, protection and preservation of the cultural and natural tangible heritage considered to be outstanding value to humanity. This is embodied in the international treaty *Convention Concerning the Protection of the World Cultural and Natural Heritage*, adopted by UNESCO in

1972<sup>1</sup>. Intangible values have been better introduced in 1982's *World Conference on Cultural Policies*, where intangible values include "[...] the whole complex of distinctive spiritual, material, intellectual and emotional features that characterize a society or social group. It includes not only arts and letters, but also modes of life, the fundamental rights of the human being, value systems, traditions and beliefs."<sup>2</sup>

The transfer from official statements to the operating field can however been considered a challenge, especially when historical settlements are the analysis and action object. At present most of the knowledge actions, regulation and intervention policies at central, regional and local level regard singular buildings or pieces of art. Some exceptions can be found, like in Lombardy Region where *Cultural Integrated Systems* have been recognised<sup>3</sup> but applied quite exclusively to museums and libraries systems at regional and local levels<sup>4</sup>. Moreover, the protection and enhancement of heritage cultural and artistic values in historical settlement is made more difficult by the risk of transforming the settlements in open-air-museums or, worst, in amusement parks "Disneyland style".

To avoid such a risk it is thus important to look at historical settlements (the whole of buildings, pieces of art, traditions, etc.) from two perspectives:

- an essential part of the territorial heritage, object of important investments in classification, conservation and depletion prevention
- important productive assets (i.e production of tourism attractions): investments in cultural heritage conservation become therefore territorial development resources.

From a sustainable development point of view, cultural heritage enhancement (protection and valorisation), especially referring to historical settlements, produces long term positive externalities. These can be found in the preservation of artistic and historical territorial elements, which are values to the community, but also arise from the more efficient use of built environment. The restoration and reuse of buildings as well as their maintenance can represent a saving in land and natural environment exploitation<sup>5</sup>.

<sup>2</sup> See www.unesco.org/culture/development/

<sup>&</sup>lt;sup>1</sup> See www.unesco.org/culture/development/

<sup>&</sup>lt;sup>3</sup> See publications produced by the Observatory of DG Cultura of Lombardy Region, website: http://lombardiacultura.it/osservatorio/

<sup>&</sup>lt;sup>4</sup> See for instance the "Programma regionale pluriennale 2001-2003" regarding the regional libraries network or Bagdadli et. Al, 2001 where quite only museum system are analysed.

<sup>&</sup>lt;sup>5</sup> A lot of historical centres are for example abandoned by residents in favour of new building in the close by surroundings, causing cultural landscape weakening and land over use.

Historical settlements can finally represent territorial cultural capital as Throsby says, "[...] many cultural phenomena such as heritage buildings and works of art do indeed have all the characteristics of capital assets (Throsby, 1999, pag. 3)". Tangible cultural heritage assets can be considered as stock capital, which have to give rise to a flow of goods and services over time. The cultural stock have to be used in a sustainable way, in order to preserve its revenue production capability in the long period.

Historical settlements are usually perceived at local scales and any harmonisation of heritage conservation procedures is thus constrained by the objective to protect and promote cultural diversity of the different Regions. But Alps can be regarded as a particular area. It is a transnational territory from the institutional and administrative points of view (it belongs to seven different countries) but it has to be considered a single and unique environment from the ecosystem and biodiversity resources points of view. Moreover it shows important similarities in terms of history, culture, architecture and traditions, characteristics remarked by UNESCO in proposing Alps as "World human heritage" in 2001.

Following the same concepts, one of the CulturALP's main goals is the sharing and the enhancement of knowledge, both from the analysis and the action tools points of view. The perspective is the maintaining of high flexibility in possible action paths by regions and local institutions, in the light of the variety in institutional and administrative frameworks, assets characteristics and action priorities.

## 3. SWOT analysis in CulturALP project

SWOT is an analysis and interpretation methodology used in strategic planning processes. The goal being the enhancement of competitive performance, it has been developed in the business environment as a tool able to make it emerge the weak and strength elements in a firm's activity and to underline opportunities and threats incorporated in possible action strategies.

A possible general definition for SWOT analysis can be "commonly used tool for analysing internal and external environments in order to attain a systematic approach and support for a decision situation (Kurttila et.al, 2000)". The final goal of strategic

<sup>&</sup>lt;sup>6</sup> See Camanni, 2002 and United Nations Educational Scientific and Cultural Organisation, 2000

planning process, of which SWOT is an early stage, is to develop and adopt a strategy resulting in a decision making process between action alternatives.

One important characteristic of this instrument is its flexibility and adaptability. It can be used in a variety of ways in a large number of fields and can be integrated in different analysis approaches, in order to create an interpretation framework of the characteristics and evolutionary trends of a certain actor or territory or scenario.

Therefore, although the methodology name is always SWOT, there are different approaches in order to apply it. SWOT analysis can be viewed as a formal framework for auditing the situation and the overall strategic options of a certain analysis object. Here SWOT analysis is applied to a territorial assessment process aiming to underline the characteristics, dimensions and qualities of historical settlements in alpine area.

This means to modify the original meanings of SWOT elements to adapt them to territorial analysis, policy making processes and planning regarding possible governance and intervention tools to enhance and valorise cultural heritage.

Potentials and criticalities in heritage substance, conservation and use models emerging from the analysis represent essential knowledge for the selection of appropriate strategies and interventions, according to the settled goals. Using this instrument, it is also possible to systematically examine the gathered information and frame it in a "hierarchical" order, useful and relevant for planning and decision-making purposes.

The definition of SWOT elements is referred to historical settlements in Alps arch area, analysed from the historical and cultural heritage points of view. Cultural heritage quality and consistency are evaluated, together with other more general territorial phenomena. Demographic, economic, social and environmental indicators are also considered and organised in the SWOT analysis as they can to a certain extent explain present state of the art of cultural heritage. For instance the abandonment of historical settlements by residents means greater depletion now and an increase of depletion risks in the future. Moreover this can deeply influence the success of future interventions and development results: the absence of traditional crafts knowledge and abilities can, for instance, negatively affect the restoration activities.

Like Teller and Bond say "it is crucial that new socio-economic uses are found for heritage buildings, areas or networks, in order to maintaining them in sustainable activity cycles. The aim of present active conservation strategies is to achieve a better integration of urban heritage within the rest of the town (Teller and Bond, 2002, pag.

612)", here the historical settlement within the rest of the municipal territory or, better, within the alpine area peculiar environment. This integration will therefore represent a base to attract investments needed in the long period to sustain local development and local community involvement in maintenance and sustainable use of settlements.

The meanings of SWOT elements become:

- ❖ Strengths: territorial specificities, subjects and elements both regarding the historical settlements qualities and the whole territorial framework. These represent resources for the local development processes and an advantage with reference to other territories (activities and people attraction, territorial competitiveness). Strategic planning should be based on their conservation, enhancement and valorisation;
- ❖ Weaknesses: feeble territorial specificities, subjects and elements both regarding the historical settlements qualities and the whole territorial framework. These represent disadvantages for the local development processes as well as compared to other territories: high dilapidated state of historical buildings is a weakness not only from the settlement quality point of view but also regarding people attraction capabilities and territorial competitiveness. The lack for an important element to the development, such as good accessibility or tourism services, can also represent a weakness. Strategic planning should be based on their reduction and minimisation of their effects;
- ❖ Opportunities: positive evolutionary dynamics and perspectives, based on the strengths enhancement and valorisation. Opportunities relate to options (existing or to be developed) that should be embraced in order to improve the cultural heritage and territorial quality and to enhance their functions as development resources. Such options can be found in the intrinsic positive dynamics of territorial elements or arise from links and interactions with other territories. As an example, an increase in tourists arrivals can be produced by the restoration of a part of an historical settlement financed by external private or public capitals;
- ❖ Threats: the potential dangers originating in the project implementation. Threats refer to dynamics which can negatively influence the conservation and valorisation of cultural heritage, also as a negative side effect of the project itself (in a long period sustainability perspective). In the previews example, for instance, if the increase of tourists presence develops out of control and beyond the carrying capacity of the area, it becomes a threat, negatively modifying the existing

equilibrium and producing severe impacts on natural environment, public services demand and the conservation of the cultural heritage itself. This because of the risk for an extra exploitation. These aspects have therefore to be carefully taken into account in order to minimise negative effects rising from action (especially social costs caused by such dynamics). This is why it is important not only to characterize, as accurate as possible, the various aspects of the analysed elements, but also to monitor their dynamics and try to define thresholds over which the indicator must be worked out as a threat.

SWOT analysis appears particularly powerful as a base for public policy decision making processes, since the final matrix seems to be effective in pointing out in a clear and simple way what are the resources and the criticalities, the present positive and negative dynamics, the possible interventions and the risks raising because of the negative influences and impacts coming from the outside of the considered territorial system.

It is therefore possible to design future strategies in a perspective of maximisation of opportunities arising from the sustainable exploitation of positive elements – resources – and of minimisation of potential negative impacts produced by the intervention programs. In sustainable historical settlements planning SWOT analysis supports focusing key issues and interactions among cultural capital and other territorial resources, cooperating in achieving the most possible effectiveness and efficiency in the whole territorial resources use. These are the basis for a stable development, where welfare is the long-term one and not only an immediate but short lasting benefit (coming from a non-sustainable exploitation of resources).

The development of SWOT methodology involves the following steps<sup>7</sup>:

- ❖ Scan of analysis field identification of phenomena to be analysed, selection of relevant indicators, identification of data sources, data collection activity;
- ❖ SWOT Analysis building of knowledge by the elaboration, cross-reading and organisation of collected data indicators –, to identify strengths, weaknesses, opportunities and threats;
- ❖ SWOT Matrix presentation of analysis results by a matrix which allows for the most possible clear and concise reading and interpretation of information and knowledge and represents a strong tool for policy making purposes.

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<sup>&</sup>lt;sup>7</sup> See, among others, Belcher, 1999 and OSSA, 2003

The three steps are developed by experts and researchers in the different needed disciplines. The final matrix will be used by territorial decision makers (public and private). The main advantage of the SWOT analysis is the "simple to read and use" final matrix resulting from a "complex", strongly scientifically based<sup>8</sup>, analysis and elaboration process. At present in CulturALP project only the *scan of analysis field* phase has been developed.

# 3.1 Scan of analysis field

The choose for quantitative and qualitative indicators is based on their significance and capability in describing and representing the specific analysis field and the territorial system it belongs to. This from both static and dynamic points of view. The analysis will therefore be based on the recognition and description of:

- main phenomena able to describe the analysis objects;
- main indicators able to describe phenomena characteristics, qualities and criticalities;
- main complex indicators and cross reading elements able to describe positive and negative outcomes of interaction between territorial elements and subjects.
   In developing this phases analysts have:
  - to choose for a limited relevant indicators to describe phenomena, their dynamics and characteristics: the information collection action must be well organised, in order to minimise the number of indicators and needed data from the one hand and, on the other hand, not to reduce it too much, on pain of an insufficient knowledge result (building of a really usable decision support system);
  - to identify existing data sources;
  - to organise and implement the data collection activity, both through the acquisition of existing data and the direct collection on the field;
  - to build an adequate database as storage and elaboration tool.

In a territorial perspective, the development of adequate strategic planning options demands for the selection of territorial indicators which must be representative of both the specific observed field and the whole territory characteristics and qualities. It is therefore clear the interest for an interdisciplinary approach.

CulturALP's SWOT analysis is based on indicators chosen as relevant to describe phenomena regarding the project's elements: historical settlements characteristics from

<sup>&</sup>lt;sup>8</sup> Of course if it is adequately designed and developed.

the cultural, architectural and artistic points of view, together with socio-economic, environmental, cultural and traditional elements in the analysed area. The indicators building activity is therefore related to a considerable data collection process, followed by the data organisation into usable categories. An organisation model for indicators is therefore proposed.

The model has been developed as a variation of the PSR model used in environmental analysis<sup>9</sup>. Cultural heritage has here the nature of cultural capital (see paragraph 2). Its characteristics and dynamics, starting from being *public goods*<sup>10</sup>, seem similar to natural environmental capital. A State-Trend-Response (STR) model has therefore been developed:

- ❖ State indicators describe the present state of investigated variables and offer a view of the general territorial framework concerning historical settlements and cultural heritage in particular, connected to other socio-economic, cultural and historical variables:
- ❖ Trend indicators describe the present evolutionary paths of some indicators, in order to underline dynamics and possible future scenarios without action. This to overcome the negative meaning of pressure in favour of an idea of dynamics, trends, where the same element is positive or negative whit reference to the dimension of the phenomena (positive within a certain threshold and negative over it;
- \* Response indicators describe the results of the local intervention and development path changes as the result of territorial action.

The multidisciplinary approach chosen in the project has lead to long and complex discussions between experts and researchers from different disciplinary fields in order to identify an indicators' list and the data collection activity. The decision process has been developed by planners, architects, arts historians, economists, public administrators (at regional level) and it has been difficult to establish what is relevant and how to investigate it. Moreover, the requirement of policy relevance - enhancement of knowledge as a decision making tool - should also be answered, which means that

<sup>&</sup>lt;sup>9</sup> The PSR Model is the first environmental indicators organisation model elaborated by the OECD (OECD, 1999). The model has afterwards been developed in the more recent DPSIR model by EEA and other environmental institutions but the original PSR model seemed better to attempt a first classification for cultural heritage assessment indicators.

<sup>&</sup>lt;sup>10</sup> See, among others, Sable and Kling, 2001, pag.78: "We define historic built resources as tangible construction embodying value that is both historically and socially determined"; id. pag. 80 "[...] the proliferation of historic knowledge and experience leads to common heritage values, social identity and cultural continuity and, hence, community value"

the found set of indicators should be representative of the reality they intend to explain and, at the same time, be useful and functional for territorial governance and administration decision making processes: clear enough to allow for easy comprehension by a non scientific community. Finally, the proposed indicators list has been thought as a proposal for a new tool for cultural heritage assessment, easily applicable in different Regions in different European countries (Austria, France, Italy and Switzerland in the project).

In CulturALP project some very specific indicators have therefore been proposed regarding the cultural heritage's assets. Tangible and intangible heritage characteristics and qualities will also be related to other territorial elements, as these contribute to determine cultural heritage's characteristics and, at the same time, the cultural heritage consistency plays an important role as a territorial development resource. Due to the innovative application field (knowledge of historical settlements characteristics and qualities), a lot of the needed data will have to be directly collected on the field because:

- the local area involved is quite every time a part of a municipal territory: also very general data like demographic statistics have therefore to be produced;
- cultural heritage consistency and quality have not yet been assessed at the settlement level<sup>11</sup>.

This phase will allow for the experimentation of both the indicators list and the collection scheme.

Table 1 shows the SWOT analysis indicators system developed in CulturALP project. State, Trend and Response indicators are organised by phenomenon they should allow to investigate. Knowledge goals have also been identified for each indicator.

Such a model should simplify the interpretation of elaborated information (obtained by cross queries) and facilitate the organisation of knowledge in SWOT elements and the building of the final SWOT matrix.

<sup>&</sup>lt;sup>11</sup> Official classifications and listing activities at national, regional or local level (at least in the countries involved in the project) concern singular historical buildings or pieces of art. Nothing seems done yet about historical settlements studied as a whole.

Table 1 – CulturALP's indicators set<sup>12</sup> and knowledge goals

	Phenomenon	Indicator	Knowledge goals
		Territorial and cultural frameworks	<u> </u>
		Number and typology of historical settlements	■general characterization of the main historical settlements features
		Local distinctive territorial and cultural landscape frameworks	heritage values assessment
		■Parks and gardens	
		Dimensions of the historical settlement	<ul> <li>heritage significance at the local and territorial system levels</li> </ul>
		Quality of buildings	
	Tangible heritage	■Level of authenticity <sup>a)</sup>	
	assessment	Number of listed cultural heritage elements	heritage significance
		■Number of catalogued cultural heritage elements	■preservation degree
		■Presence of distinctive architectural elements	
6		Uses of the architectural heritage  • Present use of the historical settlement	<ul><li>present functions of the heritage (value added)</li></ul>
cators		<ul> <li>Present typologies of functions and their percentage</li> </ul>	integration of the historical qualities in
State Indicators	Intangible heritage assessment	Local traditions and cultural and historical features	■characterization of habits and living traditions
Sta		<ul> <li>Festivals, local ceremonies and historical anniversaries</li> </ul>	•uniqueness of the cultural heritage
		■Museums	<ul> <li>presence of elements which can enhance the settlement vitality and</li> </ul>
		Linguistic minorities	attraction power
			uniqueness of the cultural heritage
		Local products	■enhancement of traditional maintenance abilities (presence of
		■Typical food and gastronomical activities	
		Local crafting activities	<ul> <li>presence of elements which can enhance the settlement vitality and attraction power</li> </ul>
	Demography and other social	Accessibility	
		Distance to main center (km)	<ul><li>mobility system: private and public transportation availability</li></ul>
		<ul> <li>Distance to main center - time on foot and by car</li> </ul>	
		■Presence of bus or railway stations	■characterization of inner and inter
		Road – distance of the settlement from the nearest main road: time on foot and by car	mobility

 $<sup>^{12}</sup>$  The development of the indicators' set is the result of the common work of all the partners in the project, leaded by Regione Piemonte – IRES Piemonte.

	Demographic elements	
	■Number of inhabitants	-characterization of the local community
	■Age pyramid	<ul> <li>vitality of local community as an enhancement element to local</li> </ul>
	■Dependency index <sup>b)</sup>	development
	School education levels	<ul> <li>approach to people's behaviours and priorities</li> </ul>
	■Employment	prioritide
	Quality of life elements – public facilities presence	■basic infrastructure networks as quality of life dimension variable
		carrying capacity of public facilities compared to residents and hosts
	Economic welfare elements	<ul> <li>characterization of average economic status and power</li> </ul>
	Average per capita income	<ul><li>assessment of economic values produced at local level</li></ul>
	■Average per capita product	■assessment of local attraction capability
	Average per capita consumption	regarding inhabitants and resident people (reduction of migration dynamics)
	Structure and characteristics of the economic framework	determination of major economic areas
	economic activities presence	<ul> <li>characteristics of the work territorial system</li> </ul>
	employees per activity sector	<ul> <li>determination of tourism significance to community's economy</li> </ul>
	•role of tourism activities	
	Tourism attraction capability	■assessment of tourism rates and
	arrivals of tourist and nights spent	available services
	<ul><li>accommodation availability</li><li>tourism services</li></ul>	<ul><li>accordance of tourism rates with area's carrying capacity</li></ul>
Economy	<ul> <li>distinctive territorial elements, tourism attractions</li> </ul>	■attraction capability assessment
Leonomy		■assessment of real estate market as vitality and attraction capability element
	Prices of land and buildings per square meter in the historical settlement	<ul> <li>assessment of real estate market as an indirect value of cultural heritage (quality of buildings and of landscape)</li> </ul>
		<ul> <li>possible presence of unsustainable real estate development activities and connected demographic dynamics and land exploitation</li> </ul>
	Land and building property fragmentation	<ul> <li>assessment of heritage use and usability - high fragmentation can imply low maintenance, low use rates, high depletion of cultural heritage, difficult change in property and uses</li> </ul>

	Phenomenon	Indicator	Knowledge goals
		Recent demographic trends	
	Demography	■'81-'91-'01 trend active population/total population	<ul> <li>assessment of local dynamics in community composition</li> </ul>
		■81-'91-'01 trend Dependency index	■construction of future scenarios
		■81-'91-'01 trend Age pyramid	
		81-'91-'01 trend of the number of families	■vitality of the settlement
			■availability of local development powers
			■pressure for new construction (uncharacteristic development, landscape depletion)
		§81-'91-'01 Demographic index	<ul> <li>assessment of local community enhancement or land abandonment phenomena</li> </ul>
	Tourism	10 yearsTrend of holiday houses	<ul> <li>pressure for new construction (uncharacteristic development, landscape depletion)</li> </ul>
			<ul> <li>land exploitation for new tourism residential settlements</li> </ul>
ors			<ul><li>seasonal abandonment and assessment of maintenance capabilities and intervention</li></ul>
Trend Indicators		10 years Trend of tourist visits	■territorial public facilities carrying capacity
ㅁ			■environment and landscape depletion
Tren		Rate winter/summer visits (indirect indicator to be chosen – i.e. monthly waste production)	<ul><li>seasonality of tourism and territory exploitation</li></ul>
•			<ul><li>absence/presence of continuous work opportunities for resident inhabitants</li></ul>
		10 yearsTrend of the rate between big and small trade business	change in commercial activities
			■loss of diversity
			■different land exploitation models
	Economy		<ul> <li>pressure by low cost activities to local traditional activities</li> </ul>
			■assessment of job opportunities
		10 years trend of employee and/or business units	■assessment of job models
			■potential loss in work offer and diversity
			change on typical habits
			■assessment of local work system
		10 years Trend of principal economic activities by percentage	assessment of job models
			<ul><li>potential loss in work offer and diversity</li><li>change on typical habits</li></ul>
			-change on typical habits -assessment of local work system
		10 years Trend of bank services	assessment of local economy dynamics
			■public services availability

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		■assessment of real estate market as vitality and attraction capability element
	10 years Trend of price of land and square meter in the historical settlement	<ul> <li>assessment of real estate market as an indirect value of cultural heritage (quality of buildings and of landscape)</li> </ul>
		<ul> <li>possible presence of unsustainable real estate development activities and connected demographic dynamics and land exploitation</li> </ul>
	10 years Trend of new building	<ul> <li>uncharacteristic real estate development and landscape depletion</li> </ul>
		■land exploitation and depletion
		<ul> <li>loss of building traditions and local traditional features</li> </ul>
Environment	Trend of car numbers (<2000cc)	<ul><li>landscape depletion</li><li>quality of life</li></ul>
consumption models and territorial networks	Public service networks improvement	<ul><li>landscape preservation</li><li>quality of life</li><li>environmental quality</li></ul>
	Internet points and/or node location	<ul> <li>innovative technological and telecommunication services for the local economic system availability</li> </ul>
		■offer of technology networks to hosts ■quality of life

	Phenomenon	Indicator	Knowledge goals
Response Indicators	Local Community	Local organizations and/or voluntary	<ul> <li>local involvement and vitality</li> <li>presence /absence of potential local subjects for the development of new activities and services</li> </ul>
		Local planning	<ul> <li>local involvement and care for heritage's preservation</li> <li>presence/absence of local territorial government and regulation towards cultural heritage and landscape presevation</li> </ul>
		Participation to local elections	■local involvement
		Local press	<ul><li>information availability on local issues</li><li>communication and information diffusion capabilities</li></ul>
	Project ability	Slowfood Presidia	<ul><li>local gastronomy preservation</li><li>valorisation of local heritage</li></ul>
		Typical restaurants	■local gastronomy preservation ■valorisation of local heritage
		Over municipality projects  Participation in EU programs	■preservation and valorisation of local heritage
		■Participation in Regional laws	■local ability to attract financial means

	Demography	Age pyramid	■presence/absence of significant development in local population due to past and present development interventions
		Demographic index	<ul> <li>presence/absence of significant development in local population due to past and present development interventions</li> </ul>

a) Authenticity definition has been developed in another phase of the CulturALP project. Authenticity of buildings: related to material integrity of the buildings that composed the historical settlement. It is to be evaluated at the individual building spatial level and then summarized, weighing up a average value for each historical settlement.

Authenticity of cultural landscape: related to distinctive and visual features of the historical settlement and of its context. It is to be evaluated at the urban level by the evaluation of the overall characters of the historical settlement.

b) non active population/active population. active population: >15 and <65 years old; non active population: <=15 and >=65

# 3.2 SWOT analysis and SWOT matrix<sup>13</sup>

The classification of collected data and information in SWOT elements and in SWOT matrix much depends on the researcher's (or reader) interpretation. An economist can for instance regard tourism as an opportunity, while an environmentalist sees much more the threat it represents to the natural ecosystems. From the territorial sustainable development point of view both interpretations have to be considered. The achievement of positive (expected) outcomes from the development projects appears strictly related to the knowledge of the effects of links and interaction dynamics between the different territorial elements and subjects. It is therefore very important to promote an interdisciplinary approach while developing SWOT.

The analysis phase refers to the organisation of information into the four SWOT categories: Strengths and Opportunities (positive state and dynamic aspects of the observed object), Weaknesses and Threats (negative state and dynamic aspects of the observed object).

Table 2 - SWOT Matrix

	Strengths	Weaknesses
Opportunities	S-O strategies	W-O strategies
Threats	S-T strategies	T-W strategies

Swot analysis results are therefore elaborated into a SWOT matrix (table 2), in order to read present situation and evolutionary paths and implement a possible action strategy.

1.3

<sup>&</sup>lt;sup>13</sup> CulturALP project is still in progress. The experimentation of SWOT analysis is being now organised in selected pilot areas and results will be available by the starting of 2005.

Even if the indicators list is the product of a selection process, to obtain an adequate knowledge tool it could result in a complex scheme (see, for instance, the previous table 1). The matrix will anyway be quite simple and "user friendly" (Beeho and Prentice, 1997) and offers a simple structured approach to identifying weak and strong elements regarding the analysis subject and comparing this to opportunities and threats facing action. This is why it is more and more used in strategic planning.

S-O strategies pursue opportunities based on the project's strengths. W-O strategies overcome weaknesses to pursue opportunities. S-T strategies use strengths to reduce vulnerability to threats. W-T strategies establish a defensive plan to prevent the project's weaknesses from making it highly susceptible to threats.

In order to obtain a successful SWOT Analysis and Matrix, it is very important to clearly identify project's objectives and characteristics, action framework, intervention priorities, etc. This in order to achieve a clear view of the analysis needs and priorities. Moreover there should be an effort to involve all stakeholders (collectively and individually) and institutions considered relevant to the area, in order to include all involved interests.

### 4. Conclusions

In the project the interdisciplinary approach has been tried in particular in the design and development of a SWOT analysis applied to cultural heritage in alpine area. The contribution of the socio-economic and land planning approaches has been underlined, besides the more traditional historical, artistic, architectural and restoration points of view and tools.

The project is still in progress but the development of he analysis tool itself can be regarded as a first important result. The proposal for the list and the organisation of the indicators in the STR model represent innovative elements, both because of the effort in developing an instrument designed for historical settlements as a whole and because of the interdisciplinary approach. The tool will be tested by all the partners, looking for its real usability and repeatability in different regions and in different environmental as well as institutional frameworks.

The next step of the working program will therefore be the implementation of the SWOT methodology on the field. Lombardy Region has selected 4 pilot areas, where to

test all the project's work packages. Each case-study has a different goal with reference to SWOT analysis:

- 1. ten municipalities in Valcamonica Valley (Brescia province). Here the goal will be the experimentation of the indicators list and, on the basis of the results, the identification of a cultural integrated system for which integrated policies and intervention can be developed;
- 2. a settlement in a municipality in Valtellina (Sondrio province). The settlement is abandoned and SWOT analysis will be applied to the already existing local development program and to the choose for the possible existing alternatives;
- 3. a group of municipalities in the Isola Comacina area (Como province). The goal of the project is to verify how the existing projects reflect the SWOT analysis already developed by local institutions;
- 4. a settlement which is the historical centre of a municipality in Valchiavenna (Sondrio province). The goal is to identify SWOT elements concerning a quite huge and lively municipality compared to the medium average dimension and state of municipalities and historical settlement in the alpine area.

In doing this, a warning must be underlined. "SWOT analysis includes no means of analytically determining the importance of factors or of assessing the fit between SWOT factors and decision alternatives. The further utilisation of SWOT is thus mainly based on qualitative analysis, capabilities and expertise of the persons participating [in the decision making process] (Kruttila et al. 2000)". It is therefore important to try to make it clearly emerge the weight and judgment systems, both by the experts groups and the local stakeholders, in order to make the analysis reliable and, much important, repeatable in time and in different territories. Moreover the selection of indicators, especially in an innovative application field like historical settlements, must be carefully tested, to avoid the risks of unfocus results and of excessive subjectivity in building the SWOT matrix.

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